

**Thirty Years of  
USAID Efforts in  
Population and Health  
Data Collection**

**June 3-4, 2002  
Washington, DC**

**National Press Club**

**PROGRAM**

## OBJECTIVES

USAID has supported the collection, analysis and use of international population and health data for thirty years. This symposium celebrates the excellent work of USAID's cooperating agencies and offers a forum to address technical challenges, opportunities and future initiatives.

The specific objectives of this symposium are to reflect on how much we have achieved since 1972; review policy impact and program change; and assess potential new directions.

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The following served on the organizing committee for the Symposium: Jacob Adetunji, Robert Bush, Siân Curtis, Joanne Jeffers, Kiersten Johnson, Susan McInturff, Melody Moore, Leo Morris, Carol Newton, Rhonda Smith, Paul Stupp, Martin Vaessen, and Norma Wilson.

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Appended by the USAID Development Experience Clearinghouse:

Backgrounder: Addressing Threats to Global Health and Stability — USAID

Transcript of Plenary Session II: The Impact of Data on Policies and Programs, June 3, 2002

Transcript of HIV/AIDS Session, June 3, 2002

Transcript of Press Briefing, June 3, 2002

## GENERAL INFORMATION

Hotel: The designated conference hotel is the J.W. Marriott, located at 1331 Pennsylvania Avenue (phone: 202-393-2000). The hotel is located next door to the National Press Building, and will be the venue for the reception on Monday evening, hosted by The David and Lucile Packard Foundation. See below for details on the reception.

Catering: A continental breakfast will be served beginning at 8:00 am on both days of the Symposium. Coffee breaks will be held between sessions on both days. Please see the accompanying list of local eateries for your lunch hour.

Reception: A reception sponsored by The David and Lucile Packard Foundation will take place on Monday, June 3, from 5:45 to 7:15 at the J.W. Marriott, located next door to the National Press Building, at 1331 Pennsylvania Avenue. Once you enter the hotel from its 14<sup>th</sup> Street entrance, bear right and enter the Garden Terrace. **Please be sure to wear your name badge for admittance to the reception.**

Conference Office: The conference office is available in the Fourth Estate Winner's Room, located behind The Fourth Estate Dining Room on the 13th floor. Any travel or financial needs will be administered from this office during the Symposium.

Press Room: A press room is available at this event. On Monday, June 3, the designated press room is the John Peter Zenger Room. If needed, the First Amendment Lounge will be available for the press on Tuesday, June 4.

Exhibits: There are two concurrent exhibit and demonstration sessions being held by MEASURE partners. All computer demonstrations are located in the alcove outside the Ballroom, whereas other exhibits and demonstrations take place in the Peter Lisagor Room:

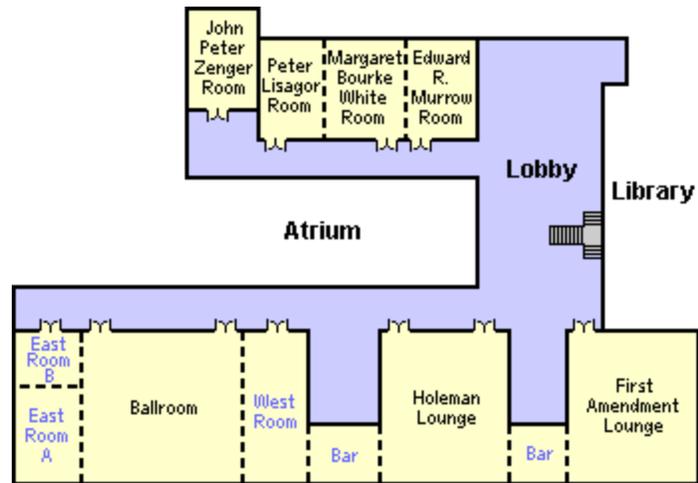
### *Alcove*

MEASURE DHS+	STATcompiler
MEASURE DHS+	HIV/AIDS Survey Indicators Database
MEASURE DHS+ and U.S. Census Bureau	CSPo
U.S. Census Bureau	International Data Base
U.S. Census Bureau	HIV/AIDS Surveillance Database

### *Lisagor*

Centers for Disease Control and Prevention  
MEASURE *Communication*  
MEASURE DHS+  
MEASURE DHS+ Biomarkers Demonstration  
MEASURE *Evaluation*

# FLOOR PLAN



## PROGRAM SUMMARY

Thirty Years of USAID Efforts in Population and Health Data Collection

June 3-4, 2002

National Press Club \* Washington, DC

	Monday, June 3	Tuesday, June 4	Demonstrations and exhibits are open both days
8:00 am-9:00 am	Registration Continental Breakfast <i>West wing of Ballroom</i>	Registration Continental Breakfast <i>West wing of Ballroom</i>	Computer-based demonstrations <i>Alcove facing Ballroom</i>
9:00 am-10:30 am	<b>Plenary I</b> History and use of USAID data collection efforts <i>Ballroom</i>	<b>Plenary III</b> Approaches to data collection: Responding to differing needs <i>Ballroom</i>	
10:30 am-11:00 am	Break	Break	Computer-based demonstrations <i>Alcove facing Ballroom</i>
11:00 am-12:30 pm	<b>Concurrent Sessions I</b> A: Fertility and family planning <i>White and Murrow Room</i> B: Global health <i>Ballroom</i> C: Adolescents <i>First Amendment Room</i>	<b>Concurrent Sessions III</b> A: Facilities surveys <i>Holeman Lounge</i> B: Measuring poverty and equity <i>Ballroom</i>	MEASURE Partners exhibits: <ul style="list-style-type: none"><li>• Centers for Disease Control and Prevention</li><li>• MEASURE <i>Communication</i></li><li>• MEASURE <i>DHS+</i></li><li>• MEASURE <i>Evaluation</i></li><li>• U.S. Census Bureau</li></ul> <i>Peter Lisagor Room</i>
12:30 pm-1:45 pm	Lunch Break	Lunch Break	
1:45 pm-3:15 pm	<b>Concurrent Sessions II</b> A: HIV/AIDS <i>Ballroom</i> B: Maternal and child health <i>First Amendment Lounge</i> C: From data to decisionmaking: Bridging the gap <i>White and Murrow Room</i>	<b>Concurrent Sessions IV</b> A: Evaluating programs using surveys <i>Holeman Lounge</i> B: Gender <i>Ballroom</i>	
3:15 pm-3:45 pm	Break	Break	
3:45 pm-5:30 pm	<b>Plenary II</b> The impact of data on policies and programs <i>Ballroom</i>	<b>Plenary IV</b> Future directions in meeting global health and population information needs <i>Ballroom</i>	

## PROGRAM

**Monday, June 3, 9:00 – 10:30 AM:**

### **Plenary I: History and use of USAID data collection efforts**

*Location: Ballroom*

Part I:

**Welcome:**

**Martin Vaessen**  
*ORC Macro*

**Opening Statements:**

**Duff Gillespie**  
Senior Deputy Assistant Administrator  
*U.S. Agency for International Development*

Part II:

**Chair:**

**Duff Gillespie**  
Senior Deputy Assistant Administrator  
*U.S. Agency for International Development*

**Topics:**

World Fertility Survey: Roots and early development of the WFS.

**Reimert T. “Ray” Ravenholt, M.D.**  
*President, Population Health Imperatives  
(Former Director, Office of Population, USAID, 1966-1979)*

A retrospective on USAID data collection efforts.

**Richard Cornelius**  
*U.S. Agency for International Development*

Use of USAID-generated data.

**Kourtoum Nacro**  
*United Nations Population Fund*

**Gareth Jones**  
*United Nations Children’s Fund*

**Sarah Clark**  
*The David and Lucile Packard Foundation*

**Adam Wagstaff**  
*The World Bank*

**Monday, June 3, 11:00 – 12:30 PM :**

**Concurrent sessions I**

**A.**

**Topic: *Fertility and family planning***

*Location: White and Murrow Room*

**Chair: Margaret Neuse, U.S. Agency for International Development**

**Co-Chair: Julie DaVanzo, RAND**

1. Country Study: Peru – Trends in fertility and family planning. **Martin Vaessen, ORC Macro**
2. Discontinuation of contraception. **Siân Curtis, ORC Macro**
3. The substitution of family planning for abortion. **Charles Westoff, Princeton University**

30 minutes of discussion

**B.**

**Topic: *Global health***

*Location: Ballroom*

**Chair: Paul Ehmer, U.S. Agency for International Development**

**Co-Chair: Henry Mosley, Johns Hopkins University**

1. The utility of survey data on health. **Tessa Wardlaw, United Nations Children's Fund**
2. Emerging health issues. **Gulnara Semenov, ORC Macro**
3. Measurement and evaluation of malaria programs. **Richard Steketee, Centers for Disease Control and Prevention**

30 minutes of discussion

**C.**

**Topic: *Adolescents***

*Location: First Amendment Lounge*

**Chair: Shanti Conly, U.S. Agency for International Development**

**Co-Chair: Nancy Williamson, Family Health International**

1. History of Young Adult Surveys. **Leo Morris, Centers for Disease Control and Prevention**
2. Country Study: Romania. **Florina Serbanescu, Centers for Disease Control and Prevention**
3. Integration of HIV/AIDS behavioral content into Young Adult Surveys. **Joan Herold, Emory University**
4. Adolescents in Asia. **Minja Choe, East-West Center**

30 minutes of discussion

**Monday, June 3, 1:45 – 3:15 PM :**

**Concurrent sessions II**

**A.**

**Topic:** *HIV/AIDS*

*Location: Ballroom*

Chair: **Paul Delay**, *U.S. Agency for International Development*

Co-Chair: **David Stanton**, *U.S. Agency for International Development*

1. Evolution of HIV/AIDS data availability. **Karen Stanecki**, *U.S. Census Bureau*
2. General population surveys and measuring trends in sexual behavior. **Shelah Bloom**, *University of North Carolina at Chapel Hill*
3. Monitoring the impact of AIDS on adult and child mortality and orphanhood through surveys. **George Bicego**, *Centers for Disease Control and Prevention*
4. The contribution of survey-based prevalence data in the era of surveillance. **Greg Pappas**, *ORC Macro*

Discussant: **David Stanton**, *U.S. Agency for International Development*

30 minutes of discussion

**B.**

**Topic:** *Maternal and child health*

*Location: First Amendment Lounge*

Chair: **Richard Greene**, *U.S. Agency for International Development*

Co-Chair: **Ciro Franco**, *The MOST Project*

1. Country Study: Kenya. **Annie Cross** and **Ann Way**, *ORC Macro*
2. Maternal and child nutrition: Progress in data collection. **Altrena Mukuria**, *ORC Macro*
3. Trials and surveys: Partnering to improve micronutrient health. **Keith West**, *Johns Hopkins University*

30 minutes of discussion

**C.**

**Topic:** *From data to decisionmaking: Bridging the gap*

*Location: White and Murrow Room*

Chair: **Howard Goldberg**, *Centers for Disease Control and Prevention*

Co-Chair: **Elizabeth Schoenecker**, *U.S. Agency for International Development*

1. Dissemination practices: Increasing accessibility to data. **Daniel Vadnais**, *ORC Macro*
2. Policy communications: Evolution and best practices framework. **Nancy Yinger**, *Population Reference Bureau*
3. Examples of data use globally: The Futures Group. **Harry Cross**, *The Futures Group International*
4. Capacity building for bridging the gap. **Rhonda Smith**, *Population Reference Bureau*

30 minutes of discussion

**Monday, June 3, 3:45 – 5:30 PM:**

**Plenary II: The impact of data on policies and programs**

*Location: Ballroom*

Chair: **Ellen Starbird**, *U.S. Agency for International Development*

Co-Chair: **Jotham Musinguzi**, *Uganda Ministry of Finance, Planning, and Economic Development*

**Margaret Neuse**                      *U.S. Agency for International Development,  
Office of Population and Reproductive Health*

**Vasanthia Kandiah**                *United Nations,  
Population Division*

**A. R. Nanda**                         *India*

**Michel Caraël**                    *Joint United Nations Programme on HIV/AIDS*

**Elizabeth Lule**                    *The World Bank*

30 minutes of discussion

**Tuesday, June 4, 9:00 – 10:30 AM:**

**Plenary III: Approaches to data collection: Responding to differing needs**

*Location: Ballroom*

Chair: **Scott Radloff**, *U.S. Agency for International Development*

Co-Chair: **Randy Bulatao**, *National Academies*

1. Information needs. **Joyce Holfeld**, *U.S. Agency for International Development*
2. The pros and cons of various data collection methods. **Allan Hill**, *Harvard University*
3. Evolving data needs: A case study of Ghana. **Pav Govindasamy** and **Rebecca Henry**, *ORC Macro*

30 minutes of discussion

**Tuesday, June 4, 11:00 – 12:30 PM:**

**Concurrent sessions III**

**A.**

**Topic: Facility surveys**

*Location: Holeman Lounge*

Chair: **James Shelton**, *U.S. Agency for International Development*

Co-Chair: **Gloria Quaasah**, *Ghana Ministry of Health, Maternal and Child Health/Family Planning Unit*

1. Overview: History of service provider data collection efforts and lessons learned. **Robert Miller**, *The Population Council*
2. Service Provision Assessment (SPA) and Quick Investigation of Quality (QIQ) methods. **Nancy Fronczak**, *ORC Macro* and **Jane Bertrand**, *Johns Hopkins University*
3. The potential of service and other record linkage to individual survey data. **Amy Tsui**, *Johns Hopkins University*

30 minutes of discussion

**B.**

**Topic: Measuring poverty and equity**

*Location: Ballroom*

Chair: **Norma Wilson**, *U.S. Agency for International Development*

Co-Chair: **Adam Wagstaff**, *The World Bank*

1. Overview. **Deon Filmer**, *The World Bank*
2. Construction of the wealth index and its relationship to DHS data. **Shea Rutstein**, *ORC Macro*
3. Gender equity in education. **Kristi Fair**, *ORC Macro*

30 minutes of discussion

**Tuesday, June 4, 1:45 – 3:15 PM :**

**Concurrent sessions IV**

**A.**

**Topic: *Evaluating programs using surveys***

*Location: Holeman Lounge*

**Chair: Amy Tsui, Johns Hopkins University**

**Co-Chair: Sarah Clark, The David and Lucile Packard Foundation**

1. Tanzania. **David Guilkey** and **Susan Chen**, *University of North Carolina at Chapel Hill*
2. Uganda DISH Project. **Ruth Bessinger**, *ORC Macro*
3. Nicaragua. **Gustavo Angeles**, *University of North Carolina at Chapel Hill*

30 minutes of discussion

**B.**

**Topic: *Gender***

*Location: Ballroom*

**Chair: Karen O. Mason, The World Bank**

**Co-Chair: Michal Avni, U.S. Agency for International Development**

1. Overview. **Sunita Kishor**, *ORC Macro*
2. Gender preferences for children. **Fred Arnold**, *ORC Macro*
3. Domestic violence: DHS and CDC data. **Kiersten Johnson**, *ORC Macro* and **Mary Goodwin**, *Centers for Disease Control and Prevention*

30 minutes of discussion

**Tuesday, June 4, 3:45 – 5:30 PM :**

**Plenary IV:  
Future directions in meeting global health and population information needs**

*Location: Ballroom*

Chair: **Duff Gillespie**, *U.S. Agency for International Development*

Speaker:

**Hon. Tom Sawyer**, *United States Congressman, Ohio's 14<sup>th</sup> Congressional District*

Presenters:

**Ian Diamond**, *University of Southampton, United Kingdom*

**Ties Boerma**, *University of North Carolina at Chapel Hill*

45 minutes of discussion

Closing remarks: **Duff Gillespie**, *U.S. Agency for International Development*

## **Backgrounder**

### **Addressing Threats to Global Health and Stability—USAID**

Increasingly, experts are recognizing that global health issues have global consequences that not only affect the people of developing nations but also directly affect the interests of American citizens:

- ❑ Healthy, productive citizens are essential for global economic growth and regional security.
- ❑ Stable populations reduce pressures on economies and the environment and reduce the risk of humanitarian crises.
- ❑ Programs to control the spread of infectious diseases reduce the threat of epidemics that could directly affect U.S. citizens.

In the face of these immense challenges, the United States is better prepared today than ever before to take action. Since 1965, USAID has invested approximately \$7.8 billion in collecting data and information in developing countries to help keep the world informed on changing needs and trends. As a result, today researchers know much more about population growth, contraceptive use, infectious diseases, adolescents' needs, HIV/AIDS, and maternal and child survival than one generation ago.

The last 30 years has seen a world of change:

- ❑ Global life expectancy has increased from 58 in the early 1970s to 66 in 2002.
- ❑ Deaths among children under five have declined from 15 million a year in 1980 to 11 million in 2000.
- ❑ Only 2,400 polio cases were reported in 2000, compared to approximately 350,000 per year in the 1980s.
- ❑ Oral rehydration therapy has reduced child deaths from diarrheal disease from 4.6 million in 1980 to 1.5 million in 1999.
- ❑ Since the 1970s, the percentage of couples in developing countries using contraception has risen from about 20 percent to 60 percent.
- ❑ Over the same period, the average number of children born to couples in developing countries has dropped by about 2 children (5.4 to 3.2 children). These families are better able to feed, clothe, educate, and provide healthcare for their children.

A steady stream of reliable data is essential as an early warning to deteriorating trends or emerging threats. Some highlights from the last 30 years include:

### ***Census data was used to help save lives***

When floods ravaged Mozambique in March, leaving hundreds of people hanging from trees waiting for rescue helicopters, government officials and international aid organizations needed to find out how many people were affected so that they could accurately plan relief efforts. For that, they turned to the 1997 Mozambique Population and Housing Census, whose results had been published a few months before. The census, supported in part by the U.S. Census Bureau and the U.S. Agency for International Development, was the only source of cartographic and population data that existed at the village level. Without it, local officials would not have been able to accurately assess the impact of the floods and to see exactly which villages were affected.

### ***As the HIV/AIDS pandemic spreads, data collection efforts lead the way to new prevention strategies***

When data showed that the rate of new HIV infections was rising faster for women than men, USAID piloted interventions to improve women's access to sex education, challenge social norms that limit women's role in sexual decision making, mobilize women's participation in program planning, and support research and advocacy for the female condom - the only women-initiated tool with dual protection against HIV or other sexually transmitted diseases and pregnancy. In Uganda, the use of behavior change communication methods -- ranging from radio spots to voluntary counseling and testing - - encouraged young women ages 15 to 24 to delay the onset of sexual activity and practice safer sex. As a result, their HIV prevalence declined by 35 percent.

### ***Surveys help countries recognize worsening trends in child survival***

After years of progress with immunization programs, national health surveys conducted in 1999 and 2000 found declining and stagnating coverage rates in a range of countries, including Haiti, Nigeria, Senegal, and Uganda. In response, the Boost Immunization Initiative was developed to refocus attention on the critical role of vaccinations in child survival. The Initiative provided support to countries to solve the operational and management problems associated with sustaining and expanding immunization programs

### ***Research helps direct resource allocation to save women's lives***

In safe motherhood programs, conventional wisdom once held that training traditional birth attendants and identifying high-risk women during antenatal care visits could reduce maternal mortality. Yet neither of these approaches proved effective. Research highlighted the need to shift from risk-screening investments to effective efforts such as emergency obstetric care, skilled delivery care, and emergency transport systems.

### ***Contraceptive security***

When USAID announced to the Government of Turkey that it would phase out donated condoms earlier than expected, the Ministry of Health relied on commodity monitoring

data to learn that existing stocks would only last one year. To avoid shortfalls, the Ministry financed condoms from its own emergency reserves and requested the Ministry of Finance to provide funds to purchase condoms and other contraceptives. DHS analysis also provided information needed to target subsidized condoms to those in greatest need of subsidized products.

### **From key punch to palm-top computers – advances in gathering information and how we use it.**

Population scientists have refined survey methodologies, introduced new technologies that speed data collection and use, and developed new markers for measuring progress.

#### *Measuring biomarkers expands our knowledge about serious diseases*

Population and health surveys have been expanding their scope to incorporate new technology for measuring biomarkers for diseases. Recent surveys have included biomarkers to measure the prevalence of HIV, iron-deficiency anemia, syphilis, high blood pressure and vitamin A deficiency. The high levels of anemia found by these tests in many developing countries have spurred governments to intensify programs to provide iron supplements to children and pregnant women.

#### *New online database provides instant access to survey findings*

Quick and easy access to population and health information is critical to the utilization of survey data. A new and innovative online database called the STATcompiler allows policymakers and researchers from around the world to get instant access to hundreds of population, health and nutrition indicators from the Demographic and Health Surveys. This online resource is constantly being expanded with new data and is being translated into French and Spanish to provide greater access to international users.

**UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT**

**THIRTY YEARS OF USAID EFFORTS IN POPULATION AND HEALTH DATA  
COLLECTION**

**PLENARY SESSION II**

**THE IMPACT OF DATA ON POLICIES AND PROGRAMS**

**JUNE 3, 2002**

**WASHINGTON, DC**

**MS. ELLEN STARBIRD:** Good afternoon, everybody. Welcome to the second and final plenary of today. The topic this afternoon is The Impact of Data on Policies and Programs. I'm Ellen Starbird from the Office of Population at USAID and I'm the chair of this session. I will introduce the panelists as we go along.

For this session, which is donor representatives and country representatives, we asked each presenter to address to questions. And so you will hear the responses to the following two questions over the course of the session. And we'll allow some time at the end for questions from you all.

The two questions that we asked people to address were: How have data positively influenced programs and policies and how did this happen? And looking into the future, what are you going to have to cope with five years from now? What data do you anticipate will be needed to adequately address policies and programs?

And just one thing before we get started, I'd like to thank Rhonda Smith who was the organizer for this session and was a great help to me in putting it together. And she did a super job of getting in touch with everybody and making sure that they knew what the rules of the game for this session were and helping with people's presentations. So thank you very much.

Our first speaker this afternoon is Margaret Neuse. Margaret is the director of the office of population in The Bureau for Global Health at USAID. She has over 20 years of experience in international health and family planning programming. She's been the director of the Office of Population since January of 2000. And from 1993 to '97, was the deputy director of the Office. She's also served in Bangladesh and in Nairobi, Niger and Somalia. Before joining USAID in 1984, she developed health and family planning training for service providers and managers with other donor and USAID funded organizations in Nepal, Egypt, and other developing countries. And as a Peace Corps volunteer in El Salvador, she conducted grass roots health education and promoted health related community projects. She has a Masters in public health from Tulane University and a Masters in Latin American studies from Stanford. Margaret.

**MS. MARGARET NEUSE:** Good afternoon. I'm very pleased to start off this afternoon's session. I was a little bit worried because in the session I attended previous to this, which was called Bridging the Gap Data -- From Data Collection to Decision Making, they seemed to cover a lot of the things that we will be dealing with this afternoon in looking at how data has influenced policies and decision making, both in the past and in the future.

However, when I came away and came into this session, I noticed a lot of people were listening to HIV/AIDS. So for some of you, this will be a little bit of repetition, but hopefully, it will be a slightly different take from the very rich and interesting session on data From Data Collection to Decision Making that I attended earlier.

The impact of demographic and health data on population and health policy and programs in developing countries is often assumed, but less frequently documented, analyzed, or even celebrated, which I think we're doing here today. The 30th anniversary of the DHS provides an occasion to reflect on how data have affected policies and programs and to think ahead about needs for the future.

When we look at the past 30 years or more, there have been many very important ways in which data and research have influenced population and policy decision making in the developing world. In this presentation, I can only highlight a few and emphasize a few that have affected USAID in particular.

First, I'd like to just talk a little bit about how demographic and health data have led to the challenging of a number of very firmly held beliefs about reproductive behavior. I can only give a few examples, beginning one that's fairly old yet still quite remarkable. And this is one of the most dramatic examples coming from the 1953 China census that showed China to have a population that was 100 million people greater than the highest population estimates at that time. The release of the census data, which coincided more or less with wide recognition of the failure of the great leap forward led the Marxist government to shift its policies dramatically, and we all know how dramatic that was when we look at China today, from a strongly pronatalist one to one that viewed its large population size as a major social and development problem.

Another example, for many years, the possibilities for substantial fertility declines in sub-Saharan Africa were the subject of considerable debate. Surveys revealed that over the decade from the late 1970's to the late 1980's, fertility fell in Kenya by nearly 20 percent. And this fertility decline was experienced throughout Kenya, not just in urban areas, but throughout Kenya.

Both the fertility decrease and the very important role that contraceptive use played in the decrease, surprised those who had argued that fertility in sub-Saharan Africa was qualitatively different than in other parts of the world, and therefore would remain high. Further analysis found that the number of family planning service delivery points in a district was the factor most strongly related to individual contraceptive use. Even voluntary sterilization, a method that some anthropologists argued would not be accepted in countries that prize fecundity because the importance of lineage in African systems of kinship, is now accepted by tens of thousands of Kenyan women. And I suspect maybe not tens of

thousands, but certainly thousands of Kenyan men, even more dramatic perhaps than the Kenyan women.

Survey data have also affected conventional wisdom, and this is not part of the slide, but was a piece of information that I discussed with a colleague late last week, survey data have affected conventional wisdom about another area of health, specifically breast feeding.

Breast-feeding was considered to be almost universal in the developing world and exclusive breast-feeding was assumed to be the breast-feeding practice. Now we know that it is neither. Breast-feeding is neither exclusive nor universal. And this knowledge has led to much more improved programming and more dramatic programming and more inclusive programming to strengthen breast-feeding practices in the developing world.

Final examples, surveillance data has signaled alerts that HIV is not isolated among high risk groups, something that's not new news to many of us, but it was news about 10 or 15 years ago. As CO prevalence rates among pregnant women rise into the double digits in more and more African countries, policy makers are forced to address a plague like none other, including confronting head on norm -- head on norms of values concerning gender, sexual practices, stigma and discrimination.

Second, data -- demographic and health data have influenced key decisions about national population and health policy and programs. Again, just a look at a few examples, some of which have been alluded to in some of the other presentations this afternoon and this morning.

When USAID announced to the government of Turkey that it would phase out donated condoms and other contraceptives earlier than expected, the Ministry of Health relied on commodity monitoring data to learn that existing stocks would last only one year. To avoid shortfalls, the Ministry financed condoms from its own emergency reserves and requested the Ministry of Finance to provide funds to purchase condoms and other contraceptives. DHS analysis also provided information needed to target subsidized condoms and other contraceptives to those in greatest need of subsidized product.

I can't resist providing an example from operations research, and more importantly, operations research from Bangladesh, my most recent posting. I think this is an example many of you are very familiar with. Operations research led to a model of doorstep delivery that helped bring about a contraceptive revolution in Bangladesh. Research on patterns of contraceptive use and the experience of government and NGO services using female community based distribution workers, showed that female field workers could be acceptable in rural communities in Bangladesh. The data helped persuade government officials to expand this cadre of workers and to convince donors to pay for this expansion.

Final example, and as I said, these are only a few examples in the many, many possibilities. Many religious groups in Kenya treated HIV/AIDS as a concern that did not affect the communities that they served. After all, HIV/AIDS was associated with immoral behavior, promiscuity and premarital sex. Surveys and focus group discussions about sexual risk taking behaviors conducted with parishioners revealed that sexual risk taking behaviors were widespread among churchgoers. Half of the surveyed

churchgoers reported that they'd had premarital. And one-third of pastors admitted that they knew other pastors, at least, who had been unfaithful to their spouses. These results catalyzed religious leaders to address HIV/AIDS, both from the pulpit and through church programs and policy.

Let's look at the future. And I think the session this afternoon has caused me to make a couple of notes on my pages here, so I hope I can follow them. But there are, I think, some really interesting issues that were raised in the afternoon session I attended earlier that I want to make sure I blend in a bit here.

To insure that good data are available to influence policy and program decision making in the future, we need to consider our continuing need for better measures and new or different samples that will help inform decision making for new kinds of health and development initiatives. And I think it all boils down to a much more complex world and a more complex service delivery environment than we have had in the past.

We thought it was complicated before, but all you need to do is look at the sessions and look at the topics to understand that there is a growing complexity in the world in which we live and the world in which we work.

One important area is just looking at better measures. While we can make assessments at the aggregate level, our current measures do not permit us to see how well we are doing in insuring that men and women are able to satisfy their individual reproductive health needs.

As we saw this morning in the session on fertility and family planning, in the aggregate, we can track how Peru, for example, is doing in meeting unmet need. But how to do that on the individual basis and to aggregate up is a much greater challenge.

The HIV/AIDS epidemic has moved the population community to attempt to measure complex social behaviors including sexual behavior and sexual networks. These measurement challenges show us that much of what we want to know is going to require different kinds of approaches than those that we have relied upon in the past.

Increasing interest is focused on equity issues related to health care. Growing evidence indicates that improvements in health in well being are unevenly distributed, with the poor being left behind. And that was also noted this morning in the fertility and family planning session, where family planning seems to have started, at least in Peru, to bridge that gap between the poorest and the richest, but not access to trained medical care for delivery. Very interesting point that we've managed to do some things in family planning we still are not doing in other areas of health care.

Gender issues related to the roles of men and women and gender based violence are attracting growing attention. The call for the measurement of more bio markers using simple tests that can be done on large scale to establish baseline data is also growing louder. A strong consensus has emerged that we need better proxy measures of maternal mortality, itself very difficult to measure.

And finally, especially in AIDS afflicted areas, our concepts of household structure will need to be revised to reflect households where there is no identifiable head. Kind of scary thought, but true.

We continue to be challenged to find measures that capture such complex interrelations as those linking population and biodiversity. Satisfactory measures of programmatic complexities that would allow us to identify the relative contributions and interactions between a wide range of program interventions continue to elude us. These are only but some of the new information needs that we are trying to address.

Today and in the near future, I anticipate that we will want to know more about sub-populations that fall through the cracks. Those that live in peri-urban zones, sub-regions, youth, the very poor and otherwise vulnerable sub-population. And this again was something that came out at some of the discussions earlier today. And I'm feeling like we're getting some recurring themes. Looking at subgroups and sub-populations is one of them.

To know more about these groups, we may need to design special instruments and samples to measure their behavior, an allusion that was made here in this session in terms of younger, younger or young adolescents, for example, in terms of their sexual behavior.

Very likely we will find that we cannot use a single instrument to measure key behaviors across such a varied set of sub-populations. As we desire nationally representative reproductive information about youth or other special subgroups, we may need to augment the omnibus approach of the DHS, which has served us so well with other complimentary approaches.

And just quickly, we have new purposes for data collection. As many of you are aware, the President recently announced the launch of the Millennium Challenge Account that will be -- that will provide financing and additional resources for development assistance. This is a pledge he made in March at the Monterey Conference on Financing Development.

Our administrator has said that the Millennium Challenge Account will not represent businesses as usual, but rather focus resources in countries that have demonstrated commitment to policy reform.

Now, how to figure out how to measure policy reform. And we are now working on defining indicators for assessing a country's not only policy reform but commitment to policy reform.

Another new consideration is the Global Fund to fight AIDS, tuberculosis and malaria. To date, the fund has raised over \$2 billion from industrialized and developing country governments, businesses, foundations, and individuals. These resources are being awarded through a competitive, fast track grants process and supplement but do not replace assisting national bilateral and multilateral donor programs.

The fund has plans to put in place strong monitoring and evaluation procedures to insure that grants are used properly and have measurable impact. USAID will play a vital role in developing these

procedures and in providing the data necessary to assess the impact of many of the awards provided through the fund.

So perhaps based on my remarks, we can conclude that all we really need is more data to overcome policy and program challenges. Right? No. Quite obviously, particularly in the complex world in which we live and work. And this again was something that was highlighted by the folks, particularly from PRB and the policy project this afternoon.

The demographic data and research attract the attention of policy makers only where they're relevance to central problems of government and programs is obvious. The impact of the 1953 China census on Mao's government's position on population would no doubt have been much less had the results not come available at the time of the famine that followed the failure of the great leap forward. Similarly, without the decision of USAID to end condom and other contraceptive commodity donations, the government of Turkey would have been unlikely to take the steps that it did.

The social historian, Lawrence Stone, introduced the notion that history should be thought of in terms of triggering events. Demographic data and research take on special significance in light of certain triggering events, but rarely are they the triggers. And Nancy Yinger mentioned this afternoon a concept of a window of opportunity where politics, problems and solutions linked with data come together and offer an opportunity to use those data to apply to policy making.

In the area of operations research, 30 years of experience has shown repeatedly that policy or program recommendations based on research that require disrupting long standing relationships are unlikely to be implemented in the absence of other forces for change.

Research recommendations that are consonant with existing power structures tend to have the greatest success in being implemented. In looking toward our future data priorities, we should not only focus on the kinds of data that need to be collected, but also make availability of those data in assessable formats so that they may drawn upon at the time of the triggering event or the occurrence of that window of opportunity.

And finally, and I'd like to reiterate this because I think it's particularly important, we should always remember that no matter how persuasive the data, they can never substitute for leadership and someone using and applying the data in a way that makes change. Thank you very much.

**MS. STARBIRD:** Thank you, Margaret. Our next speaker is Dr. Vasantha Kandiah. Dr. Kandiah is the Chief of Fertility in the Family Planning Section in the Population Division of the United Nations Secretariat. She's been in the division for the past 20 years and has also worked in the areas of mortality and estimates and projections of population. She has a Ph.D. from the University of Michigan in Sociology, although she considers herself more of a demographer. Before going to Michigan, she worked in the Department of Statistics in Malaysia and was associated with the World Fertility Survey conducted there.

**DR. VASANTHA KANDIAH:** I don't have any PowerPoint presentation. Thank you for inviting me to participate in this panel. And it's really an honor for me to be here. I would like to talk about the impact of data on policies from the perspective of the UN Population Division. I would first like to say a little bit about the Division as this provides a context for my remarks. Then I'll turn to the impact of data on policies. And in this case, I'll just focus on population policies.

The UN Population Division provides support and servicing of intergovernmental bodies such as the Commission on Population and Development, the General Assembly, and the Economic and Social Council of the United Nations. The Division also supports the implementation of the recommendations in the program of action adopted by the International Conference on Population and Development, the ICPD, and the ICPD+5.

Its mandate includes the monitoring of progress towards achievement of the goals set out in the program of action. One of the main functions of the Population Division is to identify, analyze and investigate policy issues and global trends in the field of population and development. They also facilitate access by governments to information on population trends and the interrelationships with social and economic development, information that serves as an input to the formulation of government, policies, and programs.

How do we do this? We monitor population trends at the global, regional, and country level. We undertake analytical reports on selected issues. These are presented annually to intergovernmental bodies. We distribute databases, wall charts, and other analytical reports to governments and other stakeholders.

The aim is to increase awareness of what population trends and policy and program options. Dissemination of policy relevant information is also undertaken through a different forum, such as expert group meetings and other intergovernmental meetings.

One central activity of the Population Division is the production of estimates and projections of population. The official UN Demographic Estimates and Projections are prepared for all countries and areas of the world. It serves as the standard and consistent set of population figures for use throughout the UN system.

When the division first started this activity, there was no data for a large majority of countries. A variety of indirect estimates were resorted to in order estimate fertility and mortality indicators. Since the mid 1970's, with data from survey programs such as the WSS (?), we could make estimations of populations statistics at the national level for many more countries. Since then, the DHS and CDC surveys have become an important source for estimates of the main demographic indicators. For example, in the 2000 revision of estimates prepared by the Population Division, estimates of fertility and infant mortality for the majority of developing countries were obtained from DHS and CDC surveys.

All of the Population Division's work is policy relevant. We monitor government's policies in the area of population periodically through inquiries or questionnaires to governments. In most countries, the formulation of the policy has been based on available demographic information for that country.

Let me now turn to the question I've been asked to address: How do population data impact on policies? There are three points I wish to make. One, we need data on the size of the population, how it's growing, and what we can anticipate about its size and structure in the future. Two, we need information about the factors that influence population size and growth. And three, we need to get this information out to people who make policy or influence policy.

On the first point, realistic population policy cannot be formulated and carried out without information about levels and trends of demographic variables. For example, when the world's population was growing at the rate of 2 percent in the -- 2 percent per year in the 1960's, implying a doubling of the population in 30 years, the reaction was to have a policy to bring down growth rates. Data also enable us to anticipate future trends such as the aging of population and the size of workforce.

On the second point, survey data can and has been used to study in greater depth the influence of social and economic sectors on demographic variables. This information is needed not only to formulate and implement population policies, but also to enable governments to judge if a policy is needed.

At the international level, comparative analysis of the relationships between social and economic sectors and the demographic variables serve as a valuable input in the crafting of intergovernmental agreements on policies and programs.

The program of action from the ICPD, for example, was a result of a series of expert group meetings and preparatory commissions. Studies on how education of women, urbanization, age at marriage, and other development variables are related to fertility, studies on adolescent fertility and sexuality, all topics that have been discussed at the expert group meetings and written up in the Population Division reports. All of these studies are based on survey data.

My third point, getting information out to policy makers. The DHS data can be easily accessed through the Internet. This medium reaches millions of people compared to the old fashioned way of published reports. This means that not only governments and donors have the use of the data, but also non-governmental organizations. Therefore, influences on policy come not only from the donors but also from NGO's who all have access to the same information. This was evident at the ICPD in 1994 and also at the follow up ICPD Plus Five in 1999.

I don't have -- did not have PowerPoint, but I brought something to show and tell. Another example of the use of survey data is this wall chart. I know those of you who do in-depth analysis will cringe at this. But this wall chart shows world contraceptive use. It just came out, that we have just released.

The chart is based on data from DHS and CDC and other surveys. And this is the press release on the wall chart that we issued. And the chart and the press release are on the Population Division's website.

And this is a news report in Africa that has picked up on the press release. And it's available now all over the world. So this is an example of how the data is going out to people.

Now finally, I was also asked to address the question of data requirements in the future. There are many areas that people will tell you they need more research but there are two from my perspective that I think are important. One is about mortality. Many countries do not have any information at all on adult mortality. Life expectancy of males and females is often cited as one of the basic indicators of health and of development. Yet, for a large number of countries, no reliable life table exists. Despite that, to date there's no been serious effort to systematically include in surveys questions that could enable the measurement of mortality in adult men and women.

And the second one concerns the end of the fertility transition. An important question with strong policy implications is whether countries nearing the end of the fertility transition will follow the trends of developed countries to levels far below replacement. What is currently known about reproductive behavior in low fertility settings is based on the experience of developed countries. Analysis of appropriate data should shed some light on future fertility trends in those countries.

I have another two suggestions. One is the comparative analysis. The series on comparative analysis of DHS data on special topics was very useful for monitoring of reproductive trends. This series should be continued with greater periodicity.

And finally, capacity building for research. Training workshops should be organized and further analysis of survey data, analysis that is policy relevant. This should involve policy makers in the dissemination of findings and highlight the policy relevance of the research.

In conclusion, I would like to repeat my three points. One, that data on population trends and structures are important for policy formulation. Two, research on interrelationships between demographic and social and economic variables are important to determine the kind of policies needed. And three, data and policy relevant findings should be accessible to all sectors. Thank you.

**MS. STARBIRD:** Thank you. Our third speaker today is Mr. A.R. Nanda. Mr. Nanda has served until recently as the secretary of the Department of Family Welfare for the government of India. Prior to that position, he was the national census commissioner in Delhi. He holds a post graduate degree in population studies from the University College in Cardiff, Wales. Mr. Nanda.

**MR. A. R. NANDA:** Chairperson and gentle persons, to use a word which is more gender sensitive. Well, I had the privilege to be associated both with the data producing organizations like the Census India from 1969 onward, and with the policy formulation for population and health policies and also the program implementation.

The 30 years of USAID's support from the Indian government's viewpoint has been extremely crucial and useful. The Census of India have, even before 30 years, almost from '64, '65, if I recollect, had

got the technical and other support through the USAID's programs in respect of the entire computerization which came up in the '61 census, '71, '81 and '91, to tap (?) resourcing and analysis.

The population research centers, including the International Institute of Population Sciences in India, have been strengthened in respect to the survey and research capabilities and for monitoring and evaluation of population programs, including the Indian version of what is known -- the DHS, which was known as the National Family Health Surveys, which have been conducted twice - in '92-'93, and again in '98-'99.

We have a very innovative family planning services project in the most populous state in India with a (inaudible), with a very high total fertility rate and the very low contraceptive prevalence. And all other indicators, I'm very happy to say over the last eight years of implementation of this project, we have the latest reports to show that in the districts and areas where this project has come up, the situation of the demographic and other indicators as reflected in the latest National Family Health survey of '98-'99 has also in the latest census of 2001 and other independent surveys have shown a remarkable difference in terms of the various indicators.

Well, I'm now reflecting on the data that are generated from the DHS which is the National Family Health survey, one in '92-'93 and the second one was in '98-'99. We have seen clear evidence of the impact on policy making. We have a very good system of dissemination, not only to the service providers, the managers at the central and state government and district level, but also to the policy makers at various levels. And it has been very rewarding. We could formulate the national population policy 2000 based on the data that we got from the '92-'93 as well as '98-'99, from the demographic health survey, the National Family Welfare survey. Of course, there are other data from the census which also we took into account in making projections.

But the type of -- the way that we could formulate -- re-formulate the thinking of the political policy makers and others through use of this data has really made a difference. We could go in for a holistic converging approach to health, nutrition, education and other aspects of population change. We could go for area specific approach, taking into account the various stages of demographic and epidemiological transition that has been taking place in different parts of India. And could get into issues of equity, poverty elevation, and better quality of life into these policies, both the population policies and the health policy which is the latest 2002.

The national five year plans, particularly starting from 1997 which was the ninth plan, and the plan which has just started from April this year have a clear reflection of the data used based on these two national family health surveys.

So as far as the program changes are concerned, I will speak a little later, we have said that how the programs of reproductive and child health which was initiated in 1997, from the earlier program of the maternal child health or step-motherhood and child survival program underwent further changes in course of this implementation, particularly starting from the year 2000 thanks to certain revelations that we got in the second national family health survey of '98-'99.

I will come to some of those things which have been written here, the reproductive child health camps, the training of traditional (inaudible) attendants. Mind you, this is something which we had given up earlier. I think the advice that was coming about not going for traditional (inaudible) attendance training which was considered a waste earlier to go for self delivery and for essential obstetric care, we found that this is something which we cannot let go. And we have to go for introducing these, in addition to the other things on the first referral and other institutional delivery, improvement of (inaudible). And then like the other programs.

While this of course, I have already said, I needn't have to tell you the type of assistance that has come and made a lot of difference to the technical quality improvement of the census data position as well as the expediting this processes, we could get the large volume of data that in India we get because we have to get data for over 600,000 rural locations, the villages, and almost more than 6,000 (inaudible) centers. And also the data for large number of language -- linguistic groups of 110 languages and the religious groups and things like that.

For over ten years, through training, workshops, and seminars which were conducted in partnership with the US Bureau of Census and East-West Center. And of course, ORC Macro was very much part of our partner for (inaudible), both (inaudible). And we had very good partnership with them in terms of improving the quality of the data, the methodology, the sampling strategy, and also the dissemination.

This, I have already mentioned about the population research centers. They have been involved in the National Family Health survey and they have been given the necessary equipment, (inaudible) and training.

This is about the content of both the national family health surveys. In fact, the first one was more on the demographic and health -- this was the first comprehensive demographic and health database for India. We didn't have -- we were not part of the DHS or the World fertility survey first time. Apart from census and of course, we had dual registration system retrospective, better which is known as a sample registration system, except that we didn't have this type of comprehensive demographic health database. We had it first time in '92-'93 at the national and state level estimates on fertility.

Although these estimates, when compared to the annual estimates based on the SRS, sample registration system, there is a general feeling that these are underestimates for various reasons. But it gives us a trend over these few years. But in respect of family planning, maternal, child health care, infant/child mortality, we get -- of course even infant mortality also, is more or less close to what we get through the annual SRS estimates. But these are slightly less than the other ones. And these have generated further studies about the methodology that is being adopted here, whether these are really this could be reliable estimates on state level of estimates or whether one could think of regional level estimates or even national estimates only.

But the (inaudible) really expanded the database. And we've included information on quality of health care and family planning services, reproductive health issues, postpartum care, women's nutrition, anemia, (inaudible), women's autonomy, domestic violence and knowledge about HIV/AIDS of course. First time also we had taken on knowledge about HIV/AIDS. But this gives more comprehensively on some of these issues. So it was more -- broader than the earlier survey.

These also provided estimates of (inaudible) rate and contraceptive matters by age and parity and unmet need. And it expanded and systematized knowledge about maternal health and child health, identified inadequate access to anti-natal care and self delivery, gaps in immunizations, gaps in iron supplementation.

And for every state of India, this was a lot revelations on this. Of course, part of it could confirm what we had got earlier based on the survey statistics. But in many areas, we found a difference.

It provided of course, the policy makers (inaudible) of demographic health status. And it was used as benchmarks in setting goals in the two national policies and also the other policies we had on nutrition and on other aspects. It helped program managers to monitor progress towards achievement of goals, identifying problem areas, planning and implementing strategies to improve existing programs.

Some of these programs which have been taken in hand included operational (inaudible) of new world care in districts, (inaudible) many activities, home based and community based units of care, and outreach services, remote and comparatively weaker communities and districts and urban slums, cluster district strategy which we (inaudible) to prevent infant and maternal mortality and reducing them in a time frame of three to five years, integrated management of childhood (inaudible) and diseases, setting up of adolescent health care counseling centers, and other things of (inaudible) contraceptives and the various introductions of emergency contraceptives, and community based social marketing of contraceptives.

We could also go in for enhanced public/private partnerships an innovative initiatives on various issues including an issue of very high magnitude, which is the imbalance in sex ratio leading -- because of the female feticide which is prevalent not only in India but in some other countries because of very high son preference.

And one of the things which the government has taken very seriously and going for not only social awareness to change this, but also effective legislation to curb this menace, issues of technology to curb this menace.

We have also thought of various other initiatives which I told have also been taken. The innovative project of (inaudible) which have taken into account these various things like quality services, capacity building, sensitizing of advocacy groups, and the (inaudible) camps which are outreach camps and the (inaudible) isolated strategy and various other partnerships. All this is result of the data that we got in '98, in fact has helped us to get in to some of these new programs.

Now, before I end, let me give some suggestions about what type of future challenges we have and the opportunities. You see, we have in India, as I told you, we have more -- over 600,000 rural settlements. And if you take the hamlets, it could go into more than 1 million settlements. So we have to have regional estimates within each state. We tried that in '98-'99 national family health survey for two states and also for some slum areas. But we intend to do it in the next survey which hopefully the government will do in 2005, around that time. And they have taken it as something of a priority, these estimates for these slums and regional estimates.

But for that, you need I think, a slightly different maybe approach, more of respondents, it might increase the cost but that is something which is imperative. (inaudible) area specific studies with a focus on social demographically disadvantaged states and communities, which means more questions have to be asked in some of the areas. Subject specific studies on the life cycle approach and also on other aspects like aging, organization, migration and sex ratios.

Of course, one could say that this could be undertaken in different ways through in-depth studies and other type of research, but I think it's necessary not overburdening the demographic health studies but some of these aspects be part of this and (inaudible) studies of course, the entire -- this is burden you can't do within this. But maybe some part of the adult health issues, some part of -- most of the reproductive phase, particularly of women is something which needs to be taken up in some of the states, particularly in those states which have undergone the epidemiological and demographic transition fairly at once like (inaudible).

Monitoring and evaluation of health and population programs, I think one has to consider this as part of -- and other indicators like nutrition and -- which we have -- trying to do with either assisted projects. We are trying to do it over the last -- '98-'99 onward. Every year (inaudible) are doing for rapid household surveys for each district of India. And also a facilities survey for completing entry of the facilities that are available on the health all over India.

This is of course, the data, you can't have estimates based on that, on vital indicators, but you can really have programs based on this type of data which are more I think reliable than these other statistics. But we would also give equal emphasis to improving the vital statistic registration of births and deaths and that's some of our priorities. Thank you very much.

**MS. STARBIRD:** Thank you, Mr. Nanda for that country perspective on the impact of data on policies and programs. We'll turn next to Professor Michel Caraël. He's an anthropologist currently serving as the Chief of Evaluation at UNAIDS in Geneva. He's also a professor of sociology of health at the Free University of Brussels. For the last 15 years, he's worked in the field of HIV/AIDS in WHO and UNAIDS and has published more than 100 articles on epidemiology and determinants of the HIV epidemic. Dr. Caraël.

**DR. MICHEL CARAËL:** Thank you, Ellen. And thank you for inviting me to participate in this symposium and celebration. As Frank Sinatra said in his famous song, "When I was 30 years, it was a beautiful year". And I wish you all the same. And --. But now, before the 40 years, I mean, the

demand is increasing. And the challenge is there and in particular with HIV/AIDS, a global epidemic. There is an increasing need to test fears and hopes against reliable data and to measure success by tangible outcomes. I will come back to this later.

Let me start with the obvious. For no other disease has epidemiological and social science played such an important role in describing key characteristics for HIV and its resulting disease, AIDS. Since the (inaudible) of the epidemic 15 years ago, regular updates such as this one have been largely disseminated with standard estimated distribution of HIV in various regions and countries of the world, according to age, sex, and mode of transmission. These figure is based on estimates of HIV prevalence or sometimes reported AIDS cases have contributed to demonstrate the epidemics, actually many different growing epidemics and that it requires different responses.

HIV (inaudible) surveillance has also been particularly useful for developing an epidemiological strategy to monitor the epidemic and serve as an early warning system for many countries.

So there is no doubt that HIV prevalence data and projections were vital to raise awareness. AIDS mortality estimates such as life expectancy at birth with or without AIDS or mortality studies were probably less straightforward to policy makers because they are based on many assumptions and modeling. And also we should say that it took quite a long time for demographers to jump into the HIV epidemic.

Data on risk behaviors collected through population survey or (inaudible) behavior surveys were also questioned for many years because they are based on reported behavior. And many policy makers greeted the idea of sex survey or drug survey with incredulity and derision and sarcasm. It took many years to show that survey data are usually plausible, consistent, and reasonably reliable, at least for monitoring and evaluation.

Altogether, these data have been pivotal to the creation and development of national AIDS commission and national strategic plans. Indeed, in fact, all plans use these data for policy and program development in most countries in the world.

Again, the role of WHO, US Census Bureau, CDC, (inaudible) has been highlighted this afternoon in the excellent session on HIV. And this slide was also shown and this is, I think, an example of powerful demographic data in the most HIV affected countries showing graphically the long term here, 20 years, demographic impact of AIDS to last for many generations. So more data like this are still needed as highlighted by (inaudible) this afternoon.

With the increasing demonstration that AIDS was more than an epidemic and that HIV/AIDS has the potential to reverse human and economic development in many countries, came the time of increased political mobilization. In the last few years, these data have been referenced in many high level inter-government and summits such as the Security Council on HIV, the G7, the UNGAS, the United General Assembly on AIDS and on children and also the Millennium Conference.

All these conferences placed HIV/AIDS into, in fact, the international agenda. And thus, increased financial resources followed for prevention and care. Drug prices have also fallen as a result of this political mobilization. And clearly, HIV now is perceived as a development issue.

The famous example of decreased HIV prevalence in Uganda and in Thailand, but also in Australia and Switzerland and other high income countries documented by HIV surveillance data, STD data, and behavior data were key to demonstrate to policy makers that HIV is a problem with a solution that social super policy can indeed contain the HIV epidemic.

Limitations, the relationships among scientific research and data, the knowledge and understanding it produces and policy implications are complex. This is especially so in the context of social tensions generated by a disease with epidemic proportions.

With AIDS prevention policy, the relationship has been a troubled one. Some have viewed it with AIDS politics as dominant, others rather state that its politics is being not informed by scientific knowledge and urban data. And it remains true that after 15 years, the challenge of insuring that national policy facilitate HIV prevention and protect the most vulnerable still faces many opposition. Hostility to data collection related to needle exchange and sexuality, including condom promotion is still very strong among policy makers. As exemplified by the case of President Mbeki, misbeliefs about the modes of transmission of the HIV virus and resistance to face the AIDS strategy are still prevalent despite the accumulation of data based evidence.

In some countries, poor governments explained the lack of response and not the lack of data. In those countries, government leaders do not have to face the consequences of non-action. The less respect for civil and political rights, the less likely government leaders will speak out and act on AIDS.

So activists must be used to keep continuously in the political front HIV/AIDS because, use that window of opportunities because we know that the political commitment has proven to be inconsistent over time. Changes in the world economy or in domestic political climates can lead to rapid reversals.

In addition, policies and resources for public health are often not determined by data. It has already been emphasized here. The traditional political science framework distinguishes three categories of influences on the policy making process: ID's, interest, and institution. And only the first category, ID's, include research and data.

We should also recognize that many data collected in the field of HIV/AIDS are often of poor quality, not properly analyzed, and that no particular attention is often given to produce a product that meets the need of a particular audience such as policy makers.

So new opportunities, with the rapid expansion of new resources available to fight AIDS globally, commensurate scaling up of programs and research needs, and expanded demands for effective monitoring and evaluation, emerged as new needs. And the pressure on countries to use and report outcome data and data on impact is increasing tremendously.

So these are real opportunities to strengthen data collection and analysis, but it may also result in overwhelming demands and flurry of indicators, expectations and consultants. So that may threaten monitoring and evaluation units and actually hindering their ability to effectively monitor and evaluate what is and what is not working. And this could lead to a backlash in donor willingness to support national program implementation.

Challenges, the need for collaborative and coordinated action to provide technical assistance and capacity building in (inaudible) has never been greater. And a unified approach to (inaudible) and coordinated global strategy is critical to respond to increased demand by policy makers, donors, and implementers.

The classical DHS is probably too widely spaced in time with no great emphasis on HIV/AIDS and too limited focus. That's why the concept of a national or sub-national AIDS survey, population (inaudible) facility based that would fulfill requirements of government in the evaluation of their national strategy may be the best response to improve data quality and consistency over time.

So this is an example of data requirements following the United Nations General Assembly Special Session on HIV/AIDS, during India's declaration. Data are needed at global levels but this is easy to collect but the bulk of the data collection is in fact on countries. In terms of national action, there is the idea of policy cumulative index that wouldn't require too much work. But still there are 13 indicators and national program and global burden that are to be measured at country level and reported regularly in prevention, in mother-to-child transmission, in treatment and care, impact mitigation, and finally, reduction in HIV prevalence and in (inaudible).

So the country most affected by HIV will function in a context of limited monitoring and evaluation capacities will be especially challenged. Certainly, they must be supported in undertaking this household based, school based and sometimes, and quite often, health facility based surveys that are needed to measure their progress towards the UNGAS and Millennium development goals. Here, USAID historical role is challenged by this new development.

More and new data needs for increased understanding of the dynamics of special HIV epidemics, it has been mentioned by many speakers today. It's probably necessary to associate more closely HIV data with behavioral data.

The monitoring aspects of program implementation, data routinely collected at point of process so the delivery or commodity distribution must also be reinforced. And so also must be monitoring of financial mechanism and flow in light of the Global Fund and the map project of the World Bank.

Policy will also benefit from more knowledge about the social, demographic and economic impact of the epidemic in countries most affected by HIV/AIDS. We expect the Census Bureau and the World Bank to play an increasing role in this regard.

So finally, in conclusion, HIV/AIDS has shown that one key for data to be effectively used by government and policy makers is community and public health activities. It has been seen in high income countries and shown as well recently in South Africa, where prevention of mother-to-child transmission was literally imposed on the (inaudible) government.

Many of the most significant advances in HIV policy, prevention, and care can be made only in the context of a political debate. And this debate should be consistently supported by demonologists, social scientists, people who are living with HIV, and community leaders.

This promotion of results and data can only be done if there is a national ownership of data. Too often the production of good data on HIV is done (inaudible). Reports and their publication are done outside of developing countries meeting the information needs of foreign agenda. It does not produce data local or central governments need to become slated into their policy.

So we can blame government for not acting or blame science for having failed to perform research that affects public health policy. But the link between research and policy must be strengthened and not dissolved. More researchers must be willing to bring their findings to the arena of national and international public debate in a clear and simple way. Thank you very much.

**MS. STARBIRD:** Thank you. The final speaker on our program, Elizabeth Lule is unable to be with us this afternoon. However, we're very fortunate to have as a replacement Edward Bos, who is the senior population specialist in the human development network of the World Bank. He works on monitoring and evaluation issues in Bank projects, demographic estimates and projections, and on health, nutrition and population indicators. Mr. Bos.

**MR. EDWARD BOS:** Thanks. Thanks, Ellen. Elizabeth really regrets not being able to be here this afternoon, but she will try to make it to the reception.

When we were asked to say a few words on the impact of data on policy and programs, we had no difficulty coming up with some general examples. After all, it's evident that data from surveys such as DHS help identify needs, assist in the preparation of projects, provide information on trends for strategies in the health and education sectors, and supply data for economic and sectoral research, as well as for evaluation of projects and programs and policies.

But finding specific examples of specific surveys that can be linked directly to policy changes or to new strategies is a lot more difficult. In this presentation, I will limit the examples to one particular area to which DHS has contributed to the Bank strategies and operational work in healthy patient population.

I will be showing some examples of the analyses carried out by Shea Rutstein of DHS and of Dave Gwatkin of the Bank of the construction of an asset index using DHS data which has been used to categorize households by poverty status. This methodology I believe will be discussed in great detail in a session tomorrow, so I won't dwell on the methodological aspects here.

The results of the analysis have been to produce tabulations of DHS indicators by poverty quintiles, as was shown in this slide for proportion of births that were attended by skilled health personnel. Whether these actually were skilled deliveries, it's not known as the slide says. The three letter codes at the bottom, at the horizontal axis are the World Bank regions: East Asia, Europe and Central Asia, Latin America, Middle East, South Asia, sub-Saharan Africa, and all regions.

The slide shows a (inaudible) variation among regions and the access of the poor to reproductive health services, but also that the differences between the poor and the rich are very substantial. And that a national average that one may find directly in a DHS report would not give a good indication of the actual situation for a large proportion of population.

The next slide shows another set of results from the Rutstein-Gwatkin work on access to basic services by the poor and the non-poor. This slide compares a number of DHS indicators, showing that some services reached the poor much better than other services. In particular, ORT interventions reached poor almost as well as they reached the rich, but inequities and attended deliveries are much greater. When targeting interventions, there's clearly a lot to be learned from the approaches used to treat childhood diarrhea.

This slide shows an example of policy relevant information gathered from the DHS for the poverty quintiles. The slide shows the use of public and private health facilities for deliveries in Yemen. What is most remarkable here is that the rich use public facilities which are often intended for those who cannot afford private care to be much greater than for the poor. This clearly demonstrates the need for programs to better target their services and interventions.

This next slide shows a number of areas where DHS and similar efforts have contributed to changes in policies and strategies. In these cases, data were not the only factor, but one that helped making the case. And in the end, other countries in which there was a shift from a target driven family planning program to one in which contraceptive choice played a more important role, the documentation provided by DHS on unmet need was one factor that helped accomplish the shift. DHS also provided data for much of the Cairo agenda, including a need for greater attention to health concerns and contraceptive choices.

DHS also plays an important role in providing data for the Bank's poverty reduction strategies, mostly using the poverty, this aggregated quintile analysis that we looked at earlier. And one area where the reported data have caused us to change our views were the findings of a number of DHS's in countries such as Kyrgyzstan, Turkmenistan, Uzbekistan, Kazakhstan, where DHS as well as UNICEF makes -- produced convincing evidence that childhood mortality is much higher than what the vital registration data had been telling us.

These are very large differences shown in these two graphs between the survey based estimates and the vital registration based estimates, clear implications for child health programs. Azerbaijan is mixed UNICEF survey. Kazakhstan are to DHS's compared to vital registration.

Future challenges and needs for better (inaudible) in health. The Bank has made progress towards achieving the Millennium Development goals which were a set of international goals coming out of the UN conferences in the 1990's a central part of its work.

In order to know whether we are achieving the goals or whether we are on track towards achieving the goals, we will need access to data such as those from DHS. There will be a continued and increased need for monitoring from the surveys to monitor the goals.

We will also have a continued need for information on key determinants of the goals in order to know whether our projects and programs are focused on the right interventions that (inaudible) towards achieving the Millennium Development goals.

While surveys such as DHS can fulfill part of our needs, there's an increasing need for routine data such as vital registration, which will be needed for better information at the district level. And this aggregated indicators such as those produced by Rutstein and Gwatkin of the current DHS will remain one of our key needs.

The next slide illustrates the need for having frequent and timely measurements. Here, using data from WHO, we plot the results of a large number of surveys: DHS, PAPCHILD, CPS, OWS, all the census data for Morocco showing that the results of each survey is likely subject to various errors and biases. But taken together, a clear pattern emerges. Frequent measurements are clearly needed.

Finally, some other areas where we see challenges and further needs. There clearly is a need for more data on adolescence, an important and vulnerable group that we need to understand better. We also need more information on aspects of interventions that can be used for costing. Data that can help evaluate the impact of multi-sectoral interventions such as improved water and sanitation, education, and health interventions simultaneously are of increasing importance as programs shift to multi-sectoral interventions. And of course, we need to build national ownership and capacity for collection, analysis and use of data. Thank you.

**MS. STARBIRD:** Thank you very much. I would now like to invite my co-chair for this session to come make some remarks and introduce the discussion. He is Jotham Musinguzi from the Uganda Ministry of Finance, Planning, and Economic Development.

**MR. JOTHAM MUSINGUZI:** Thank you. Ladies and gentlemen, my work is also supposed to mean that I should do some the group summarization of the presentations, but I think I will spare you that. I think we have heard that these sessions are interfacing in many ways. So I'll just make like two or three points and then we'll open the discussion.

One real (inaudible) that obviously SID has the vision (inaudible) because I think we have come a long way. Some of us who work in the sub-Saharan and African countries will realize that we really have come a long way. If I may use Uganda, about ten years ago, maybe 12 years ago in 1990, we really didn't have any DHS. We carried out our first DHS about 1990. And since then, we have had two

more and they have realized a bit of trends of where we are going. And I think to that extent, this becomes a very useful. And I think in that regard, we can tell where we have been, where we seem to be going. And I think some of you here in the audience that work with us in sub-Saharan and Africa. This has been a tremendous help and I think we appreciate that. So I think data has been extremely useful in that case.

And I think the speakers have also said that policies have also been influenced, revised, and put in place because of aggregate of data. I want to share with you, some of you have heard that in Uganda, HIV/AIDS has been tackled and there has been some degree of success. Of course, in Uganda, we are not happy, entirely happy with the work we have done so far. We think we could do more. But I just want you to know that it was the result of, and that's a fact, USAID, which brought attention, the future impact of HIV/AIDS to the president of Uganda, that he then realized the impact was going to travel in his own people. But also more special about the command structure of his military, that he decided to act and no doubt, he acted so defensively. And so I think data and the good data, reliable data has grown and I think there we have a very good example.

That reminds me about the role of good data, good and reliable data, but also presented very well and we package it very well. And I can give you an example that in Uganda, whenever I write to the president and tell him about the new trends of statistics, if I write one page with some -- one table there, he replies that he has (inaudible). He has understood what is going on. Whenever I write ten pages, I never hear from him at all. And I guess that tells me a lot about (inaudible) by work of ten pages.

So we need to really repackage this data and it is particularly so easy how we're targeting leaders who probably don't have so much time, but sometimes we intimidate them with very, very complicated graphs and things which are not very easy to comprehend. And so the packaging I think becomes very important.

The other point is that I think we have a challenge in the future. The way we are going to deal with the de-centralized governance in most of the developing countries. I know in most of sub-Saharan and Africa, the countries, almost all of them are implementing centralization to a different degree. Some of them almost complete, others not.

And for some of us who go in the field out there and we found that these elected leaders are all right, but some of these elected leaders didn't go very much school, so you need to help them. But they also have the responsibility to (inaudible). So with that, you have all these educated doctors and populations out there in the field, but their responsibility is the chairman who has been elected, but he doesn't do things very well. So you need the package again, but also give them information that they can be able to use to plan because they have resources out there and we need to help them do that.

When we do dissemination and I think this kept coming up, especially in the session which was dealing with data and decision making, the question of disseminating data but also to the right groups and they involve everybody, all the stakeholders including the media, including civil society. We find that in some of these countries of ours with the fragile governors, the civil society is so important and I'm glad that

we are working with USAID and the Futures Group and the (inaudible). And also give them a bit of capacity. Give them information. But also build capacity for them to deal with, to help these governments to know their responsibilities. And even where governments would -- somewhere I think we heard that in some countries work has just been going for like three years and things are changing. Civil society can impact this government in a very tremendous way. And I think we need to help them.

Lastly, I want to touch of the issue of ownership. Ownership is only going to come if we can also build capacities for those people including at the local level, at the lower levels including the districts or regions. Let us give them capacity to analyze and utilize this information but also to disseminate it to those people who are there. And I think that way, we shall be able to sustain the root of our program. And I'll stop here and I think the chair will now open the meeting for discussion. Thank you very much.

**MS. STARBIRD:** We have about 15 minutes for questions if anyone from the floor would like to address anything to anyone on the panel. The drinks aren't ready yet. No? Okay. Fine. I want to thank the panel very much and all of you. We look forward to seeing you at the reception next door and back here again tomorrow morning. Thank you very much.

END

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**UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT**  
**THIRTY YEARS OF USAID EFFORTS IN POPULATION AND HEALTH DATA**  
**COLLECTION**

**HIV/AIDS**

**JUNE 3, 2002**

**WASHINGTON, DC**

**MR. PAUL DELAY:** I want to welcome all of you. For those of you who don't know, I'm Paul Delay. I'm the Acting Director of the new newly formed office of HIV/AIDS at USAID, formerly a division. And, it's a pleasure for me to be here and I certainly want to welcome all of you. This is an area of extreme interest in the area where we work. And, I'm looking forward to the presentations.

Since the discovery of the virus about 20 years ago, we've been faced with a number of challenges, not the least being monitoring and evaluation. And, today's speakers will try to be addressing some of those challenges.

I want to talk about three major areas. The first is the use of biologic data. We are dealing with an infectious disease, an epidemic. So clearly, the goal standard is likely to be incidence of new infections. And, for quite a while, we've had the ability to test far more easily than we have with other infectious diseases: TB, malaria, other sexually transmitted diseases.

AIDS is unique in that there's a huge production of essentially useless non-protective antibody that allows testing to be done quite simply, quite cheaply and is fairly pervasive and quite rapidly.

We are now get -- moving into second generation biologic surveillance to get a better idea of where the epidemics are going and ultimately the impact of our interventions. But, we've discovered a huge flaw in the reliance on biologic data. It doesn't tell us what's really happening. What's actually going on in a country that's resulting in those changes in prevalence. And, the instruments that we've previously had, be it their DA tests or a number of others, have not adequately addressed our need to get that data. Populations are not necessarily appropriate. The types of questions were not necessarily appropriate.

What has happened is we've seen an evolution of these instruments to allow us to grapple with information that we clearly need as we design and implement our programs. I think the best example, and I'm sure will be touched on here is the data coming out of Uganda, what really happened? Was it condom use? Was it sexual debut? Was it a reduction in partners? What was happening within each target group? We really have to have that.

So, that's been the second challenge, trying to get to understand the complex mix of behaviors that change. The third challenge with HIV/AIDS is our response has continued to expand. We're not just doing prevention. Now we're doing orphan support. We're doing care, treatment, and we're doing mother-to-child prevention, each of which requires it's own set of either to be developed or has recently been developed indicators. And, these have not necessarily been validated and we don't know how useful they'll be. But, it has added to just the general challenge of monitoring our systems.

Now, the charge I have to the speakers and to all of you who are working in this is that we have to develop systems now that we can live with for the next 10 to 20 years. If things were complex now, they're going to get far worse. We need systems that are going to tell us the biologics, the behavior and the health seeking behavior, particularly with the introduction of microbicides and vaccines.

And, if we don't have those systems now we are not going to figure out whether we're going to be seeing this inhibition or we're actually seeing positive impacts from some of these new technologies.

So, with that, I'd like to introduce our first speaker, Karen Stanecki comes to us from the U.S. Bureau of Census. She's in charge of the health studies branch, international health studies branch and has been doing HIV/AIDS work as long as I can remember, and is one of the world authorities on seroprevalence sentinel data.

Karen?

**MS. KAREN STANECKI:** Good afternoon. I'm going to talk about the availability and the evolution of the availability of HIV/AIDS data, the biological part, and the -- it sets the background for the other presentations that are gonna be coming up.

AIDS deaths among children under five are resulting in higher child mortality rates. This chart looks at the impact of the HIV/AIDS mortality in terms of child mortality. The blue indicates what we might have expected had there not been AIDS, the AIDS epidemic, and the red gives you an indication of the impact of the current levels the prevalence are going to have on child mortality.

I just want to go through these first few slides quickly to give you a sort of a feeling of what we've been doing at the U.S. Census Bureau. This shows that by 2010 Botswana, South Africa and Zimbabwe will be experiencing negative population growth. In fact, we estimate that that negative population growth is probably going to be -- yes?

**UNIDENTIFIED SPEAKER:** The video light here, is there anyway to kill that, or can somebody just knock it over?

**MS. STANECKI:** Okay. This chart shows the impact of AIDS mortality on population growth where we might have seen continuing positive population growth in all countries, we're now

seeing negative population growth in these three countries, as well as a reduction in population growth in other countries, and this will be by 2010.

This looks at the impact -- this chart shows the impact of AIDS mortality on life expectancies. For example, in Botswana and Zimbabwe by the year 2010, where we might have expected life expectancies to be greater than 70 years, we are now estimating that life expectancies will be reduced to about 30 years of age.

And, this just looks at the population structure, what AIDS mortality is -- what we estimate AIDS mortality is going to be doing to population structures. This is probably the most significant one, being Botswana, by the year 2020, Botswana with the highest levels of HIV prevalence, we see that the adults are going to be reduced, the numbers of adults around -- who will be around to help raise the children. Who will be around to take care of the orphans? Who will pass on the knowledge that is needed to govern, to lead, to educate, to train, to bring up the next generation?

We've been incorporating AIDS mortality into our population estimates and projections since 1994. And, that was based on seven years previously of working and looking at the HIV epidemic, trying to figure out what was happening in terms of prevalence, trying to get as much information as possible to look at our population estimates and projections. We've been doing country-specific population estimates and projections for over 30 years funded by USAID. But, there really is not 30 years of data on HIV, there is about 17 years of data. The virus -- the first cases were just detected in 1981. The virus itself was only identified in 1984 and it's only been since 1985 where we've had tests available so that we can do the actual screening to determine what prevalence levels are in different populations and different subgroups.

And, it was at that point that we started looking for all this information and when -- -and the -- in 1987 the Africa Bureau and the Office of HIV/AIDS at USAID started funding us to collect this information and we put out our first database, the first HIV/AIDS surveillance database in 1988.

The reason why we did this because the only data that was available at that time was coming out of the WHO weekly epidemiological review. And, that was specifically AIDS cases. And, what we knew at that time and what we still know, is that AIDS case reporting is severely underreported. There's very little information regarding age, sex and the mode of transmission. And, it only -- and probably most important than any other thing, it only represents the latest stage of the epidemic. So, the AIDS cases are people who are infected seven, eight, nine, on average nine years ago. Now, it doesn't give you the current understanding of what's happening in a country of -- in terms of the epidemic.

When we started investigating the availability of HIV prevalence, what we found is that there was a wealth of information presented at regional and international HIV/AIDS conferences. Peter White (sp), who's the chief for the International Program Center has been attending these conferences from nearly the beginning. In fact, I think he went to the second AIDS conference there ever was. Steve missed the first one. When -- then by the time he got to Tanzania, there was -- it was at that point that we knew that there was a lot of data being presented, but it wasn't

getting any further than the conferences. So, this has turned out to be just a major source of information on HIV prevalence.

We've developed a mechanism by which we go around and photograph presentations, oral presentations, as well as poster presentations and bring that information back, code it, and put it into the database. And, then this database is distributed around the world. It's a compilation of all available studies that are conducted around in Asia, Africa, Latin America, Central and Eastern Europe. In fact, probably the only areas that we don't cover is the United States, Canada and Western Europe.

We also now go into countries surveillance reports, but those weren't available early on, as they have become more and more structured and more available. We use -- we incorporate the data from those reports. We also look at the journal articles. But, what we've discovered is that, again, the data that's presented at conferences, 80 percent of that never even gets into published journal articles. So, we, once again, still rely heavily on the conferences.

And, when there's nothing available we resort to newspaper articles because sometimes some countries there's been nothing and the only things that come out have other things that have been in newspaper articles.

The type of information that we are able to do -- learn from these various studies. The sex and age distribution of HIV prevalence, as you can tell from this chart, young women have much higher levels of HIV prevalence than young men and HIV prevalence tends to peak among young women in the ages of 20 to 24 whereas for men it peaks much -- a bit later, 25 to 34. And, we saw this pattern over and over again in the various studies that we were able to collect and to incorporate into the database.

Blank slide. There have only been two cohort studies where we've been able to actually see levels of mortality due to AIDS. The one in Lusaka has been going on now for 10 years. And, this gave us information in terms of doing our estimating of our AIDS mortality. It validated the AIDS mortality estimates that we were getting from our modeling work. We were very much involved in the interagency working group on AIDS within the late 1980s we developed the iwgAIDS model for which we were -- we based most of our estimates of AIDS mortality in our population estimates and projections. And, this data that was coming out of the cohorts was validating the information -- our estimates of AIDS mortality. Okay.

This shows for a particular country, this is South Africa, where the increase in mortality is due to the epidemic. As you see, it is much higher in those age groups where you normally have much lower levels of HIV mortality -- excuse me, of mortality in the middle adult years where you normally have very low levels of mortality, AIDS increases that mortality very high. And, also you have in the child who -- the incidence of child mortalities increase because of the transmission from mother to child. We estimate about 30 percent of children who are born to HIV infected mothers are, themselves, HIV positive and will eventually die in their early years. And, also you see the sex -- the female's mortality peaking earlier than the males.

The data that we were collecting also gave us a clear indication that HIV prevalence varies quite dramatically within a country. This is just from one region, this is Mwanza, Tanzania, where you can see HIV prevalence's are much higher in the urban centers, lower in the roadside centers, and even much, much lower in just the villages. And, this is repeated time and time again in various areas in various countries. So, that when we do our estimates for a country, we have to take into account that what you see in the urban areas is not reflective of the entire country. And, that even that the levels of prevalence in villages can be much lower.

Now, if the epidemic has been developing that's not necessarily true in all countries. What we're seeing in Zimbabwe, for example, now is that HIV prevalence levels outside the urban centers are, in fact, higher than the urban centers. So, this evolves over time and we have to continue to monitor the age at the epidemics in all settings.

We are now considered -- we have been named the collaborating center for UNAIDS and we work very closely with them in terms of the national estimates. The HIV/AIDS surveillance base is now a source of data for those estimate making.

Whoops, this chart came out a little -- this -- it gives you an indication of how we can look at the data over time. In the very beginning a lot of data was being collected only in the urban centers and there were various studies going on and we were able to put all these different pieces of information together to look at the trends over time. And, if you see from the early stages the epidemic grows dramatically and quickly in Kampala and Uganda and in Ustocka (sp) and in Malawi. In other countries the epidemic took off a little bit slower, say, for example, in Nairobi and Kenya and Obushon (sp), it was a slower growing epidemic and in some countries the epidemic didn't start until much later.

So, you see Francistown, the blue line that's now the highest level, actually started much later than some of the epidemic in the HIV prevalence was much lower earlier on and it only started rising rather quickly in 1991 and similarly in South Africa, the KwaZulu-Natal line indicates that in the early 90s there was very little evidence of HIV infection and that epidemic has taken off quite dramatically.

So, there's very different types of epidemics going on and by collecting all the data that we've been able to find, we've been able to put together these different trend lines over time to look at prevalence. And, one of the major sub-population groups that we do follow is the pregnant women, because they come in routinely, at least they'll come in once for -- into a antenatal clinic and have blood drawn for syphilis testing. And, we have found that based on some studies that have been done with general population and comparing it to the pregnant women, is that it's still a very robust indicator of what's happening in the general adult population.

This is another way of looking at the data from the database. We can look at the geographical distribution of HIV prevalence. This shows that in some countries you can have very high levels like say, for example, in Kampala, but just outside the levels are lower again. Same thing in, say, in Kenya where we have very high levels in Nairobi and in western Kenya, but in eastern Kenya HIV prevalence is lower.

So, by pulling together all these different pieces of information we can actually get a picture of what's happening nationally in terms of HIV prevalence.

Also, for -- we don't only just follow the data among antenatal clinic women, we also look at various other sub-populations, such as IV drug users, sex workers, TB patients, the military, prisoners, and particularly for countries where HIV prevalence hasn't quite reached very high levels, that you have what's determined as concentrated epidemics where HIV prevalence is now located or found mostly in those groups with highest risk behaviors, such as those using IV drugs.

And, this slide shows the data that was available for India. And, this, again, is a variety of different studies conducted by a number of different researchers. By pulling together this information you can look at see what's been happening over time and which areas of India have had high levels of HIV prevalence among IV drug users. And, we can -- we have data for very many other countries in terms of this sub-population.

As I started out, with our -- in the beginning is that we've been incorporating AIDS mortality in - - to our population estimates and projections since 1994. We started out with 16 countries that -- by 1994 we determined that HIV prevalence had reached a level where it was going to be -- have a measurable impact. And, those included 16 countries, 13 of which were in Africa.

As we continue to monitor the epidemic and look at HIV prevalence. We incorporate AIDS mortality into those countries that have had at least one percent HIV prevalence nationwide. And, that number of countries continues to increase over time.

In 2000, we had incorporated HIV/AIDS mortality into 34 countries, 26 of which were in sub-Saharan African, five in Latin America and three in Asia and then our current round that we're working on now will have been incorporating AIDS mortality into 51 countries.

Those new estimates will become available at the Barcelona Conference, which is the big international AIDS conference. We'll have our new population estimates and projections presented at that time. I'd like to let you know that just outside this room Peter Johnson, a colleague of mine from the Census Bureau, has brought the HIV/AIDS surveillance database available for you to look at, but also our international database, which includes all of our population estimates and projections. So, if you want to take a more detailed look at all this data that we have available it's right outside that door.

Thank you.

**MR. DELAY:** We're going to move now from the biologic data into the sticky world of behavioral data. And, Shelah Bloom comes to us from the University of North Carolina at Chapel Hill and I bid her well with the next presentation.

**MS. SHELAH BLOOM:** Okay. Today I'm going to be talking about what we found using generalized surveys to track trends in sexual behavior, showing you examples from seven African countries that you see here.

Okay, so, what do we get from repeating national surveys over time? It gives us the ability to monitor trends in HIV related knowledge and behavior, to assess national or a more generalized progress of response to ongoing programs and interventions within a country? We can make cross-country comparisons and use time cohorts to model data. For example, I'll show you a few slides on methods used to calculate the age at first sex that was developed by Vasha Usaba (sp) and Teas Burma (sp).

Measures approach to monitoring to trends. We would choose countries with multiple surveys coming from a variety of sources. The global programs on -- program on AIDS had conducted surveys in the early 90s and the late 80s and we tried to develop comparable indicators with that going to DHS cap and sexual behavior surveys that were conducted by measure. Then we tried to develop comparable indicators across these sources of behavior, which is sometimes a -- a source of data, which is sometimes a challenge, and including the UNAIDS indicators when at all possible.

And, also we can augment this survey data with the results from other studies to make a fuller assessment of what's going on, which is what we're doing in our AIDS of the 90s series. We're taking trends in prevalence and the incidents of HIV from the data kept by the U.S. Census and we augment that with community based studies from within the country. We look at national response and any refuge we can find there, condom distribution and then we look at the trends in knowledge and such knowledge and sexual behavior using both the survey data that I've just introduced, as well as, community-based studies. And, now we're at the point where we can do comparisons across countries over time to evaluate the overall impact of the programs.

Okay, there's two major challenges creating comparable indicators created by both data availability and the content of the surveys. The first thing is that in general, with the exception of GPA surveys, data for men is available later than women, so you can't track men as long as you can track women. Age criteria is not always the same across surveys. There's differences in the geographic representations sometimes. And, the data are not always well documented, particularly with the GPA, there's very little documentation on those surveys, so those data are quite difficult to work with.

And, then the goals of the surveys differ over time in between countries, which effects the content. So, within the content, AIDS modules were only added on to DHS surveys in the early 90s, and in some countries from the mid-90s on. Time references for the sexual behavior questions are different and you see three basic patterns. Sexual behavior is asked about during the past year, past six months, or the past four weeks. And, then the wording or sequence of questions differs and methods become refined over time and we'll see a pretty prime example of this where we found a very dramatic rise in risky sexual behavior in Tanzania, which is it real or is it a matter of the data actually being collected in a better manner in the late 90s?

Okay, these are the countries for which we had at least three waves of data. And, the way I'm going to be presenting the data is the early 90s, which could be the late 80s, mid-90s and then the late 90s. Okay, first we'll look at sexual behavior. All right, as you can see, this is abstinence among women with no sex during the past month and what you'll see is in the pink underneath

these indicators this is how they were calculated so you have a numerator and the denominator there.

So, you can see that in some countries there's been a decrease since the early 90s, but in most of the countries there's not much going on there. And, among men in Guyana we actually see in -- sorry, I meant a decrease -- an increase in abstinence. You see an increase in abstinence in Guyana, but again, there isn't a lot going on there. Tanzania is an inconsistent to fact.

Okay, higher risk among women in the past year. Just I want to draw your attention to the redline Kenya, the early 90s, that's actually from the GPA, and you can see this dramatic decrease in people who -- women who reported one more -- one or more non-regular partners. And, again, we are not -- we're pretty concerned about the comparability of the GPA data to the later DHS's. So, you can see, again, what I was talking about in Tanzania there's a rise, a pretty significant rise among women who report that they've had one or more non-regular partners compared to the early 90s and the mid-90s. And, the rest of the data -- the rest of the country's not that much is happening.

Again, with men we see a dramatic drop in Kenya, again, between the GPA survey and the DHS surveys. And in Zambia we see a significant drop and we'll find this consistent through high-risk sexual behavior.

Okay, these are women who reported two or more non-regular partners. The reason for the dotted line in Kenya is because we didn't have a mid-90s point for this indicator. So, it's not a real three-point trend. And, again, you see this dramatic rise in Tanzania and not much happening in the other countries.

And, among men, you see a very dramatic rise in Tanzania. In Tanzania in the early 90s and mid-90s what was asked was just a cross sectional question just came up, do you have any non-regular partners? How many non-regular partners do you have? Where this actually did a partner history in the late 90s and we think that this a better way of actually capturing this data and we think that this rise that we see is actually better reporting.

In Zambia you can see a marked decrease in men who report two or more non-regular partners. Uganda not much happening and in Zimbabwe there's an increase.

Okay, in terms of extramarital sex among women in the past year, in Tanzania, again, you're seeing that dramatic rise. In Kenya, a consistent decrease, Uganda not much happening among women, and neither for the rest of the countries.

And, we see this among men an inconsistent effect in Kenya, in Tanzania, again, this dramatic rise that we don't think is a real rise. In Zambia we see a consistent decrease, Uganda a slight decrease, but really not much happening, it's only a few percentage points. In Zimbabwe a significant increase.

Okay, turning to condom use. Here the condom slide is just showing you the relationship from knowledge to use among men in the latest data for all the countries for which this data were --

data was available. Men who have heard of a condom almost all men in all the countries have heard of a condom, most of them know a source, ever used, we really slipped and then at last sex, we slipped significantly.

Every use of a condom among women, we can see that there really -- there has been an increase, a consistent increase in Uganda, in Guyana, in Kenya and not that much happening in other countries expect for the very early 90s. Among men, we can see a dramatic increase in Uganda, ever use of condom and a consistent increase in Malawi and in Kenya.

But, what we're more concerned with is condoms used at the last sex with the non-regular partner, that's a non-marital, non-cohabiting partner for all these slides. And, we see a significant increase in Uganda, an increase in Malawi, somewhat of an increase in Zambia and less of an increase -- sorry, this is among women.

And, then among men we see practically the same thing, an increase in condom use everywhere, dramatic in Uganda, in Tanzania a slight decrease.

Okay, just to turn to young people's indicators and this is sexual behavior among those who are 15 to 24. This is the life table analysis of pooled data from three surveys, which is -- it's a cohort analysis, which can also control for inconsistencies in cross sectional data such as bias and age reporting.

So, we can see here that from the -- the reason it goes back to the early 70s is the data that was taken in the 90s is because, again, it is the cohorts that are going back is that age at sexual debut is going down in most countries. In Zambia it's going up among women to the 80s. And, then among men there's, again, less data. We only have the late 70s and the early 80s and we do find an increase in the countries that we can observe except for Tanzania. So, it's an increase in the median age at first sex.

This is the actual change that is adjusted for changes in reporting age and education and residence. It's those controlling for those factors and you can see that there's been a significant increase in the median age at first sex among women in all countries except Tanzania, which is up and down. And, Zimbabwe seems to have decreased over time.

And, again, with men in the countries that we have estimates for, in Kenya, Uganda, and in Zambia we see an increase and in Tanzania, again, it's sort of an up and down effect.

Okay, premarital sex during the last year. This is, again, women who have not had sex during the last year among single women. We can see that more women have not had sex in Zambia, consistently it's been rising over time. Uganda, not much happening, it does go up and down, in Guyana it seems to have risen lately.

And, among men, we can see a pretty marked increase in Guyana and in Zambia, those men who are reporting having not had sex and also in Kenya from the mid-90s to the late 90s.

In terms of multiple partners, the data were limited so we only have three countries. Among women who report two or more non-regular partners. We find in Tanzania, again, there's an increase. In Uganda, a slight increase, really not much happening. And, in Zambia a decrease. And, we find the same thing among men, a dramatic decrease among young men, young single men with two or more non-regular partners during the last year and Uganda a slight increase.

Condom use among young people for these -- for this indicator we have data from Tanzania, Uganda and Zimbabwe and we can see an increase everywhere among young women, as well as among young men.

Okay, these last two slides, to just conclude what we saw in the trends, the columns, the A, B and C is abstinence, being faithful and condom use. So, we do want to see rises in all these -- in these three areas. The column on the left of each of the contained columns is women and the column on the right is men. So, you can just glance across countries. This is, again, the total population. I do a different table for young people.

So, Guyana, we can see an increase in abstinence and we couldn't look at the other indicators. In Kenya, an increase in abstinence, an increase in being faithful. In Malawi, an increase in condom use, but otherwise not much happening. Tanzania we see, again, the data seem to indicate that there are decreases in both abstinence and being faithful. Uganda, it doesn't seem from the mid-90s that much is going on in terms of abstinence and behavior change, but a marked increase in condom use. Zambia, we see a decrease in abstinence, but an increase in being faithful and in condom use and in Zimbabwe we see a decline in being faithful and an increase in condom use.

Among young people the data are little bit more scattered, so I'm just gonna draw your attention to where we have the A, B and C. In Tanzania, again, it's pretty inconsistent of fact, although condom use definitely seems to be going up. In Uganda, we have an increase in abstinence. It seems like we have a decrease in being faithful, or not much happening among women and an increase in condom use.

In Zambia, we have a definite increase in the being faithful indicators and then you can see what's going on Zimbabwe, which is not doing well among young people.

Okay, so what do we get from multiple surveys besides controversy? It's possible to develop like indicators, but we have to be careful, you know, there is a general concern with developing like indicators between -- especially between the GPA surveys and the DHS surveys and even the DHS surveys are difficult sometimes, which is why we don't show all indicators.

These kinds of repeat surveys gives us a great picture of where populations are when we can develop the indicators in their progress towards HIV prevention. So, they're very important. It's hard to talk about the specific effectiveness of campaigns and programs. You generally can't. But, you can sort of track -- trace the overall effects over time, which is what I've tried to show.

And, that's that.

**MR. DELAY:** Again, save your questions.

Shelah, thank you very much.

And, our next speaker is George Bicego from CDC. Formerly he was at DHS Macro for almost 12 years. So, many of the Macro people know George.

**MR. GEORGE BICEGO:** As Paul mentioned, I have just completed a very rewarding 11-year run at DHS in measure. So, I'm very pleased to have the opportunity to participate in this data symposium. The area of HIV/AIDS is somewhat new to me, having spent much of my career studying the demographic impacts of child survival programs especially in sub-Saharan Africa.

We had, with cause and solid evidence, felt optimistic about prospects for a continuation of improvements in child survival that had been documented up through the late 1980s. It was around that time that people were becoming more aware of the devastating scope of the AIDS pandemic in sub-Saharan Africa and the potential for a huge demographic impacts.

We are now faced with playing catch-up regarding collection and analysis of mortality impact data in severely AIDS affected areas. I begin, and I'll return to the point later in the presentation, that both the scope and the quality of population based mortality and mortality related data remain to this day very limited in that part of the world where it's most needed.

I'll first present some findings on what ought to be considered the single most important indicator of demographic impact, age-specific rates of adult mortality. In addition to being a health end point or impact indicator, trends in adult mortality reflect, especially in high fertility settings, the creation or incidents or orphans. DHS data's will be shown does help us to understand the scope of the orphan crisis unfolding in parts of the world.

The AIDS pandemic is also effecting survival rates of young children through both direct and indirect mechanisms directly through vertical transmission of the virus from mom to child and indirectly through a myriad of mechanisms, one of which I alluded to above regarding parental loss, but also through disruptions and dislocations that are occurring in communities and in formal and public and private institutional settings.

These changes profoundly affect children. Whether these various impacts are collectively reflected in survey based child mortality estimates will be examined.

Lastly, I'll try to tie things together and make some recommendations for the direction that the DHS and other survey projects might take over the next five years or so regarding demographic data for assessment of AIDS impact.

Because of the enormously high HIV prevalence rates and associated impacts now occurring in sub-Saharan Africa I'll focus on this region. For a good number of years and continuing in many African settings to this day estimates of mortality after childhood have most often been based on modeling methods using child mortality levels for instance to characterize adult mortality levels.

Indirect or brass methods using census data, typically poor quality, have also been used with generally unsatisfactory results.

It became clear that these data could not be relied upon to monitor shifts in the mortality dynamics of populations undergoing potentially dramatic short-term changes related to an epidemic. In the early 1990s DHS began fielding a maternal mortality module intended to allow baseline and follow-up measurement of safe motherhood program effects.

However, it became clear that the size of samples required to measure incremental changes in maternal death risk was too large to warrant use of the method for routine monitoring. This discussion has recently heated up, but over the years, users of these same data come to increasingly appreciate the value of an unplanned for byproduct of the data.

All calls mortality rates could be rather easily produced from the DHS sibling histories, as their called, for both sexes with much smaller relative standard errors than maternal mortality, per se, and in the context of AIDS provide for robust impact evaluation. Also, unlike indirect methods, some detail on the age pattern of changes could be examined, and here are a couple of examples.

This is in Zimbabwe, adult mortality during the late 1980s, early 1990s was fairly low as estimated with the 1994 Zimbabwe DHS. (Inaudible), yes, it did. It's moving along. It was probably declining at that time. These directly estimated mortality rates focus on men in five-year age groups between 15 and 50.

In the second application of the method, some five years later, in 1999, identical data collection and analytical methods produced this frankly shocking picture of a tripling of mortality in some age groups. Notice that the largest changes occurred starting at age 20. Did a switch again -- I think that's where we want it. Right.

In looking at women background or pre-AIDS mortality in the same age groups was, again, very low. As expected, lower than for males during the early 1990s and in 1999 data, again, demonstrates the tripling of mortality risk in some age groups. But, the age pattern of the increase is different than for men. It shifted to the left or to younger ages. Notice large proportionate increases in mortality beginning at ages around five years earlier than for men at about age 25.

This sex differential in age mortality impact is consistent with the sex differences in the age pattern of HIV infection, which is in turn consistent with the age pattern of sexual mixing, that is younger women with older men. Using the 1992 and year 2000 DHS's in Malawi you see the same general pattern, though starting from a higher pre-AIDS mortality level and rising less dramatically than in Zimbabwe the same age sex pattern is observed. The largest mortality rise is occurring at age 35 for men and for women the largest increases beginning really in the early 20's.

In summary, the DHS sibling history data in repeat application captures well trends in mortality useful for monitoring AIDS impact in sub-Saharan Africa. Whether these data are going to be collected in the future very much depends on whether HIV/AIDS data user constituencies out

there articulate the demand for it, a demand which so far has been very limited as evidenced by just two repeated applications.

Before AIDS certainly and in most developing countries still, during young adulthood, the most important mortality risk experienced by young women has been associated with pregnancy and childbearing. Little is known about the way in which HIV infection and AIDS will effect or interact with the risk of maternal morbidities and death in high prevalence settings.

In east and southern Africa, despite declining fertility rates, peak HIV risk occurs during ages of peak maternal mortality risk, which leads to the obvious question what's happened to maternal mortality risk during the period of rising all-cause mortality?

The answer is we don't know very much. The findings shown in this graph are drawn from a study recently completed with Teas Burma (sp) and Corinne Roundsman (sp) using sibling history data from the DHS. And the vertical axis you have the maternal mortality ratio that the maternal death per 100,000 live births. There are four lines, each representing the maternal mortality trend between the early and the late 1990s. From left to right, urban Malawi, rural Malawi, then urban and rural Zimbabwe. Each trend demonstrates rises in maternal mortality risks that, despite large sampling errors, shown in the vertical bars, are statistically significant.

In more detailed analysis, we've shown that maternal mortality rose as rapidly as the non-maternal component of all cause mortality. And, Malawi, at an only slightly slower rate than Zimbabwe. At face value this seems surprising, since one would expect most of the rise during the 1990s to be due to AIDS and this to be highly concentrated in the deaths not defined as maternity related.

In both countries urban risks, lower than rural risks in the early 1990s, rises rapidly to become higher than rural risks in the late 1990s. This is consistent with the pattern of early spread of HIV in these countries.

The data don't allow much in the way of explanations for the rise. In Malawi these findings were presented to the Ministry of Health and taken by them to represent, at least in part, a deterioration in the quality of services available to women delivering in public facilities. A problem felt throughout the health sector as very limited resources are spread more thinly due to the extra burden imposed by the flood of AIDS patients into the health system.

A full explanation of the sharp rise is probably much more complicated than that involving substantive, as well as, methodological issues. To better understand these trends and for purposes of safe motherhood program evaluation in the future, in AIDS affected countries we need to think about improving the general methodology for maternal mortality estimation so it's distinguished between maternal deaths involving direct obstetrical causes and those from other indirect causes.

Data -- the DHS data can also be used to describe other important aspects of the burden imposed on societies by AIDS. Based on data drawn from the household schedule, the percentage of children under age 15, whose parents are deceased, mother father, both parents can be estimated.

The orphan prevalence data have some shortcomings. The principle one being that children living outside of households are not captured in the data. These would include street kids and institutionalized children.

In Sub-Saharan Africa, however, the proportion of kids in these non-household populations is presumed to be quite small. For this and other reasons we expect the trends in orphan prevalence, based on DHS type data, to slightly understate the increases in the size of the orphan population.

Here you see the trend in Zimbabwe in maternal, paternal and double orphan prevalence during the 1990s. Notice that while some -- that while paternal and maternal prevalence rose by some 60 and 80 percent respectively, double orphan prevalence nearly tripled reflecting the underlying nature of the trend caused predominantly by a single infectious disease transmitted sexually between husbands and wives.

This shows double orphan prevalence trends over the same period in five hard hit countries: Uganda, Malawi, Zimbabwe, Tanzania and Kenya. The trend in Uganda is different and interesting in that even by the first DHS in 1995, and -- much of the upward trend in AIDS impact on orphan prevalence had been captured, which is consistent with the earlier spread of HIV in that country.

You see that in the remaining countries a much larger increase from initially lower orphan levels is observed.

Sometimes numbers express the picture in better more useful terms than the percentages. Here you see that the number of double orphans has soared in these settings to over a quarter of a million children under age 15 projected from 1995 to the year 2000 in Uganda. In Tanzania an additional 100,000 kids with no parents now need to be absorbed by other struggling households in their communities.

This does not include, of course, the many hundreds of thousands of children who have so far lost just one parent and, again, remember that these are almost certainly under estimates of the impact.

Some analysts have been trying to use these survey data to describe the social and public health risk to children associated with parental loss. One dimension of this vulnerability can be expressed in terms of lost opportunities for education. In a study with Shea Rutstein and Kiersten Johnson, we look at the relationship between orphanhood status and the probability that a child has of being at the right school level for their age. We pooled data from Kenya, Tanzania and Zimbabwe to implement this analysis -- this multi-varied analysis.

The summary of the results shows that orphans do, indeed, suffer diminished opportunities for schooling, especially double orphans. And, that if one parent is still alive, it's especially problematic for educational changes if it's the mother who has died. Surprisingly, this effect is stronger at younger ages, but this may reflect the data problem as your older orphans, especially

those in troubled circumstances are more likely to live outside of households or to have died and not be represented in the data.

Lastly, I want to briefly provide some estimates on trends in childhood mortality in AIDS affected settings. We used here direct estimates of under five mortality based on DHS full birth histories. As mentioned earlier, works published in the late 1980s and early 1990s by Ken Hill, Jerry Sullivan and others using largely DHS and WFS data, had demonstrated really outstanding gains in child survival throughout much of the developing world.

In Kenya and Zimbabwe, for instance, under five mortality had declined to well below 100 deaths per 1,000. You've seen something like this earlier in the morning in the presentation. I'll have a different spin on it. Here are recent under five mortality trends in six countries with current estimated HIV prevalence rates ranging from about 10 to 25 percent. The overall picture is not surprising, but still discouraging, given the previous pattern of mortality declines. All of the countries here have experienced either small increases or no change at all in under five mortality during the 1990s with the exception of Malawi, which had extremely high mortality to begin with and did show some decline.

The evidence is clear that Kenya, Zimbabwe and Zambia have seen child survival chances deteriorate in their countries during respective AIDS epidemics. Two facts make interpretation of these trends difficult. While no one will argue that -- no one will argue against the proposition the direct and indirect causal mechanisms related to AIDS are working against child health and survival in these countries. The difficulty is that so many other influential factors, like fertility levels and patterns, women's education and numerous susceptibility and exposure factors have also been changing fairly dramatically during the same timeframe.

In Malawi, for instance, the percentage of rural population with access to clean water sources has doubled during the 1990s. This is a huge public health advance and may have worked to effectively offset losses related to AIDS. This morning a presenter raised the issue of malaria control as a possible explanation, too. There are four or five other potential explanations for the decline.

So, causal interpretation of child mortality trends is just very tricky without more detailed information on changes in key underlying and proximate causes of death. It should also be borne in mind that when mortality among young women is rapidly rising, as it is in these settings, child mortality rates based on retrospective birth histories become increasingly underestimated or biased downwards. This based on the strong link between deaths of mothers and their children.

Coming from an applied demography it won't surprise you that much of my recommendation involves a plea for more and better data. Clear from our work is that the DHS sibling history data are highly valuable for understanding AIDS impact, especially in sub-Saharan Africa where mortality changes can, in fact, be tracked with surveys of fairly modest size, fielded every four to five years.

I want to acknowledge the work of Ian Tomaus (sp) who has nearly single handedly championed the collection and use of survey-base data on adult mortality over the past decade and more.

While Ian's quote is a few years old, it's still appropriately describes the situation and our puzzlement over why we've moved so slowly to address so obvious a gap in our basic understanding of a demographic impact of this epidemic, an epidemic towards which we have committed billions of dollars in program investments.

We have seen that data to produce reasonably reliable child mortality trends have been, and probably will be, continue to be available from the DHS and other survey data sources. It's also arguably true that these trends will probably be of limited utility in the context of AIDS impact evaluation. There's too many other factors, programmatic and contextual that are at play over the time window when we'd be looking for AIDS related effects and also the bias that I alluded to before.

Orphan prevalence estimates are useful, both as a good advocacy tool to underscore the plight of children without parental support, but especially as a fairly robust indicator of social impact. The problem we have now is a very incomplete understanding of the mechanisms, the influences which are involved in creating social and biological risks for children and other community members when parents and generally large numbers of young adults fall ill and succumb to AIDS. These questions are not going to be address with cross sectional survey data.

Certainly, we require more research, both qualitative and quantitative and documentation looking at the household and community response to HIV related illnesses and death. These would inform and focus, both by humanitarian response and our advance towards better instruments to measure and monitor important social demographic changes.

Thanks very much for your attention.

**MR. GREG PAPPAS:** The title of my presentation, slightly amended from what's printed in the program is Contributions of Survey Data to Surveillance of the HIV Epidemic in less developed countries. And, I'll say a little bit about why I amended it at the end of my presentation.

I'd like to thank a number of people who are in this room for their guidance in my thinking on this presentation and for help in preparation for the presentation. Thank you very much.

In the time allotted to me, I'd like to say something about the contribution of the DHS to the HIV/AIDS epidemic surveillance and then go on to say something about the potential role for seroprevalence data. I'd like to present some data -- a case study of Malawi where that seroprevalence data is now available. And, then discuss the potential or prospects for HIV/AIDS indicator surveys in the future.

Over the past 10 years, the DHS has been used as a tool for monitoring and evaluating the AIDS epidemic and you've heard some really outstanding presentations as part of this presentation. I'd also like to thank Tessa Wardlaw from UNICEF who gave an excellent presentation using the DHS this morning as part of her presentation.

The AIDS module has become a routinely used in most countries that are experiencing an endemic HIV/AIDS epidemic. These data have been used to provide USAID with indicators to monitor the epidemic and they're also being used to formulate policy at the regional and national level in Africa.

I want to draw your attention, in addition to what you've heard today, some work going on in eastern and the southern Africa red zones supported CRHCS, the Commonwealth Regional Health Community Secretariat, to use DHS data in formulating a regional plan and promoting the plans of the member countries. This is a -- just an example of that that analysis, from here to all the power of the regional profilings showing how neighbors line up against one another, here's the percentage of men and women who want to be tested for HIV, let me see, Zimbabwe kind of lagging somewhat behind its neighbors.

HIV/AIDS testing, that is testing for the presence of antibodies usually, has been suggested as a potential addition to population based surveys like the DHS. And, there's a number of ways this can be done. Modalities for testing include dried blood spots, oral specimens and venous blood. These surveys can be delinked or linked, that is the information on the HIV status can be linked or not linked to the person's identity. A whole host of ethical considerations are raised by these various approaches, and also the need for a service component. The ethical considerations are always a balance between risks and benefits and many people promote a service component as part of these considerations.

The dried blood spot is probably the most obvious one for DHS. It's easy to collect. We've been doing finger prick blood for anemia for a long time. We've been collecting -- we've collected venous blood on cotton filter paper, a finger prick blood on cotton-filtered paper for Vitamin A testing in Uganda. So, it's an easy step to test the blood for something else.

Another possibility, and actually this is the possibility that's being used in the Dominican Republic, is the collection of an oral specimen, Orshers (?) makes these toothbrushes that's a cotton swab on a nylon stick. It's put in the mouth for two to five minutes between the cheek and the gum, it soaks up the fluid and then it's put in the vial.

This test, while, obviously, logistically somewhat easier than the finger prick is much more expensive and also is kind of locked into a particular analytical machine and it's much less flexible to analyze.

Now, the role of seroprevalence data in surveillance is a very important issue. This is not data we just collect because we're interested in collecting blood. But it has to be -- you have to be considered about other -- we have to consider other alternatives and the utility of the data. I think that many people have said in various ways today in other settings that seroprevalence survey, you know, DHS, would not every be thought of as replacing a sentinel surveillance system, but helps that system by collaborating and complimenting the system.

The DHS use of serological test has a big advantage over a sentinel surveillance system because there's a high level of quality control of the laboratory data and all -- and the statistical data and standardization of the testing. These estimates, obviously, have a big advantage of being

unbiased based on a large representative sample and standard errors can be calculated for calculation of time trends over a period of decades or years.

Now, in Malawi, let me tell you about how we actually conducted such a survey. We collected dried blood spots on a sub sample and men and women in the DHS. These were department-linked samples. That is, only age, sex and the cluster number were connected with the specimens making it impossible for us to know who -- which individual tested for HIV. A free coupon was given to each person who wanted to participate -- actually anybody who wanted it was offered a free coupon. And, this allowed them to get a HIV test in a government clinic.

This survey was done in partnership with the CDC that actually helped us, they analyzed the blood and they conducted the Eliza test and the Western Blot for confirmatory diagnosis of a positive case of HIV. Here's the results, a brief look at the results of what we found in our Malawi survey.

First of all, overall, men were about 1.3 percent of the adult men were HIV positive, about 2 percent of women. Response rates were really quite good approaching 90 percent in both men and women. The highest rate were among urban men in their 40's, over 5 percent, urban women in their 40's -- in their 30's, I'm sorry, again, over 5 percent.

Here's another look at the data, here's the HIV prevalence displayed against age and we see this rise, this is men here, HIV prevalence, this rise among urban men in the 40's, low levels in the rural area. And, again, for women, the rise at an earlier age, and interestingly higher levels of HIV in urban -- rural women, as compared to rural men, the differences I noted in this presentation are sufficiently significant. We did standard errors and compared the confidence intervals for this analysis.

Now, what about possibilities for HIV/AIDS indicators and what would those look like? We're beginning to think about this and this obviously would be one way that USAID and other international agencies could be provided with the standardized indicators that have been discussed here and all the hard work of -- by many of the people in this room have made possible.

Obviously, this would enable us to have internationally standardized indicators and we've heard some of the problems about previous efforts. And, I also, obviously, while we're interested in monitoring at the international level, the comparison, these sorts of surveys would also provide crucial information for policy and programs at the country level. We may have an opportunity to do such a survey in Uganda and the purposes of such a survey, it's a DHS-like survey focusing on HIV, would be to provide the international community with those indicators, but also provide the Ministry of Health with information and uniquely, the unique opportunity is to provide the AIM Program, that's the AIDS/HIV Integrated Model Program an opportunity to develop some - - to have some baseline data.

The AIM Program is unique in that it's one of the largest scale-ups for HIV care and support in Africa and they're interested in some very unique indicators that will help them monitor their program. They are interested in linked data because they want to know the proportion of HIV

positive people who are -- the proportion of people who know their status, and, then the proportion of people who are positive who are sick. Also, they'd like to know the proportion of positives who are getting any care. And, this really pre-stages or predicts the potential future of indicators. These are the sorts of indicators that the U.S. Congress wanted when they realized that the CDC Sentinel Surveillance System was not able to give them the proportion of people who are HIV positive who are sick and getting care. And, they commissioned the special study at the Rand Corporation.

Here's a picture of Uganda, the 16 AIM indicators are colored here. The proposed survey would have about 9,000 households, over 340 clusters, men and women both, different from a DHS, we have equal numbers of men and women. Children would be -- questions about -- issue -- information about children would be obtained from their mothers. And, we're proposing biomarkers be collected in -- among adults and HIV testing in kids, 12 teams. We will be able to produce, based on this sample, national, regional estimates, estimates on groups of the AIM districts and also on the Kampala district.

The biomarkers that we're proposing are here in the slide. Children would get HIV testing. Men and women would be asked to provide us with -- or allow us to collect venous blood. We do rapid HIV testing in the field, rapid testing for syphilis in the field and then venous blood would be transported back to the capital for laboratory testing in a central facility for herpes and hepatitis, a qualitative RPR, and perhaps some QC on the HIV component. And, then some blood would be stored for future work.

Many ethical issues have to be sorted out and solved. And, I thank many of the people in the room for their careful thought on this issue. We are -- we would, of course, recommend full informed consent. That is, telling them that they're going to be HIV tested. Telling them that some of the blood will be taken to the capital and tested and they would not be able to have those results and telling them that some of the blood would be stored.

VCT, voluntary testing and counseling would be offered both for HIV and syphilis, post-test counseling for HIV and referrals would be done in the field. We would treat those people who are positive for syphilis, that is, if they have a positive RPR and a positive Abbott determinant test, we'd offer them a shot of penicillin or tetracycline or erythromycin. And then we'd refer all positives. People in the survey have the right to refuse any or all components and these protocols would be reviewed by the IRB (?) and the CDC in Uganda and at macro (?).

I'd like to close by reflecting on my title, the title included in the Era of Surveillance. I'm quoting here, Al-Hujwiri, the 11th Century Sufi saint who said, "Some say knowledge is superior to action. Others say action is superior to knowledge. Both are wrong, unless knowledge is tied to action, it is not deserving the recompense." And, I'd like to think that the DHS has used this kind of as its guiding tool over 30 years of providing data for decision making, data for policy and that the whole process has been in the era of surveillance.

Thank you.

**MR. DELAY:** Greg, thank you.

I'm now going to pass over the responsibility to handle the questions and answer to our -- to my co-chair and discussant, David Stanton, whose in the office of AIDS.

**MR. DAVID STANTON:** I have no PowerPoint. So, we'll leave the lights on. But leave that big bright one off, if we can. For the sake of time for discussions and questions, I'll try to be brief, but I wanted to first off, thank our presenters for the quality. I've been around some really good data here this morning, and I, as an epidemiologist, always love that.

We first heard about the history of the development of data collection and monitoring the epidemic, followed by a look at the development of behavioral measures, and followed, then, by a look at some tools for measuring mortality and then finally, some new emerging tools using survey methods to enhance our understanding of the trends of the epidemic.

I think I wanted to pull out three major themes and one final sort of piece of trend information that stood out in the presentations. Number one is that we are plagued by data quality issues and it has been that way from the outset. At the same time, I'm reminded often that HIV/AIDS is probably one of the best documented infectious diseases, which means -- which is minor solace when we look at the problems we have with data, but it's important to realize what a task it is out there to track an infectious disease.

The other trend that I heard discussed almost entirely -- almost by everyone of the presenters is problems with the comparability of data that instruments have evolved over time, that trends are hard to interpret sometimes because the instrument that measured something at certain points and time has changed and so we've run into some problems with deciding do we have a trend here or do we have an aberration of statistics?

The third theme that stood out was having findings that we trust, but don't have an explanation for them. Why did this happen? And, of course the biggest example of this is the decline in seroprevalence in Uganda and trying to sort out what happened there and it's not an academic exercises, it's one that has people engaged in controlling an epidemic desperately need to have a good sense for.

And then, finally, we've touched on a new and potentially helpful and exciting way to bring a lot of data together that, perhaps, will help us answer some of these questions about finding without explanations and that is using survey methodologies to bring together biological and demographic and, perhaps, and hopefully, behavior data at the same time. And, it's a new method and it needs to be tried and looked at closely.

I just wanted to point out that in Malawi had that survey not taken place, we wouldn't have up to date seroprevalence data for that country because sentinel surveillance hadn't taken place since 1993 or '94, as I recall. So, as a methodology to sort of -- to fill in the gaps where there isn't surveillance, it also is very useful.

But, I want to return to something that Paul Delay stared with, which is we need systems that can carry us for the next 10 to 20 years. We need systems that answer the right questions that are

cost effective and suitable for very low resource settings and systems that will, hopefully, stay the same over a period of time to help us provide that comparability of data to help us track and epidemic.

So, with that, I will conclude my remarks. Hopefully they were brief enough that we have now some time for some questions and some very useful and important answers from the discussants. Thank you.

And -- yes, there are two microphones flanking the stage and I invite you to come to the microphones for questions. And, if nobody stands up, I'm going to start making provocative statements. So, please, over here?

**UNIDENTIFIED WOMAN:** I just have a simple question, I think for George. We get asked often is AIDS the leading cause of mortality in Africa now? I believe UNAIDS, is anyone here from UNAIDS, says it is. Do we have data to support that?

**MS. STANECKI:** I know the WHO and the World Health Report have come out and said that it is the number one cause of death in Sub-Saharan Africa. In terms of the amount of data that we have, we don't have a great deal. But, there's currently in place now some rounds of censuses that might help us to understand that and to see better in terms of mortality, particularly in South Africa there's some good questions being asked in the census in order to tease that out.

But, it has -- it is -- there is very little data available on mortality in terms to answer that question. George, I don't know if you have anything more?

**MR. BICEGO:** Yes. I'm not sure if we're going to have that sort or, sort of very firm data in the near future. I mean AIDS is the cause death. Basically, kids for instance, they die -- when they're infected they die. They're still dying from the same diseases that they died from before, diarrheal disease, respiratory infection and so forth. And, that, to a certain extent, is true -- less true of adults. But, to get the sort of cause specific information that we would require to make those statements could be very, very difficult outside the context of small-scale studies. And, frankly, I don't know if that's a priority right now.

**MR. STANTON:** Can you come to the microphone?

**UNIDENTIFIED MAN:** (Inaudible).

**UNIDENTIFIED MAN:** They're trying to pick it up on the -- .

**MR. STANTON:** But this is -- yes, this is being broadcast elsewhere, so you do need to use the microphone. Sorry.

**UNIDENTIFIED MAN:** Now, just on that point there's evidence from about five or six community studies, which have HIV prevalence data and which collect cause of death data through verbal autopsies that HIV/AIDS is the leading cause of death among adults over 15 if prevalence is 5 percent or higher.

Already in quite early stages of the epidemic, and, then we're talking about one-third to half of adult death caused by AIDS. It fits very well with the models. But, there is an empirical evidence that in there lies the models.

**MS. STANECKI:** I've had doctor mention that that one cohort study that we have, the one in Rwanda has been going on for 10 years now shows that 80 percent of the mortality in the young adult years is due to AIDS and that's with the prevalence of about 8 percent.

**MR. STANTON:** Yes, please.

**UNIDENTIFIED MAN:** I just wanted to check in recent months, when I was analyzing something on this mortality in Africa, my recollection is that they were then crediting about 15 million deaths to AIDS until the present time. And, I wonder is that a figure that's generally used, or is there a better figure?

And, then calculating the impact on population growth, I can say that whereas we used to have, just before the AIDS epidemic we had about 3 percent per annum growth population in sub-Saharan Africa that, because of AIDS, the population growth is now about 2.4 percent. Those are just a couple -- .

**MS. STANECKI:** When I did an estimate of this, total deaths is a cumulative number that UNAIDS is -- has put out. And, then in terms of population growth, five years ago, seven years ago, 10 years ago, we would never have projected negative population growth because we never expected the prevalence levels in these countries to get so high. And, what we're seeing in places like Botswana and Zimbabwe where you have 35 percent HIV prevalence in the adults, we're having much higher levels of mortality than we ever expected. And, they also have the lowest fertility rates in those countries.

And, so you have -- you're see now -- that the estimate now is of negative population growth in those countries. But, in other counties, such as Uganda, you still see continued positive population growth.

**MR. STANTON:** Yes?

**UNIDENTIFIED MAN:** I was surprised by the report of so many people, a very large proportion, wanting to have voluntary counseling and testing. I think I saw figures of 55 to 60 percent, something like that, in three or four countries. And, then it was mentioned that a coupon was handed out for a free test. Has there been any tracking? Was there a giant wave overcoming the clinics, or has there not been any tracking of the effects of the coupon?

**MR. PAPPAS:** That was Malawi. The survey that we conducted to date is the Malawi. And, I can't recall what the interest in HIV testing is in Malawi, but the epidemic is very new there, relatively new, and awareness is less developed. So, actually, while I haven't looked at the final report, there was not an overwhelming, you know, running to the clinic for -- in that survey. But, again, Malawi is very different from many other parts of Africa.

**MR. STANTON:** Let me just add an addendum to that, which is that in countries with high prevalence where USAID is scaling up voluntary counseling testing, that the centers are often running at capacity and it is a tremendous demand even when there's a modicum of services being offered, there's a high demand to be tested.

**UNIDENTIFIED MAN:** I'd like to ask each of the speakers about how their DHS analysis compares with other sources of data. George, you know all about the survey's Tejan (sp) data from some of the (inaudible) cities of West Africa. We thought other small-scale studies, the in-depth sources, which are providing, at least to the rural areas, something about ongoing mortality trends where even verbal autopsy questions are routinely asked.

Shelah, in terms of sexual behavior and so on, there are other -- many other sources of information about sexual behavior. How did the DHS data line up with the more detailed smaller-scale studies that are not nationally represented and what's the generally feeling about that?

**MR. BICEGO:** Yes. I don't have the results on the tip of my tongue, but a few years ago we did look at this in a number of countries for our conference in Durban and they lined up pretty well. Obviously, the methodologies and the age ranges, which were included, differed, but we did look at the data that Michelle Garand (sp) had put together in Cote d'Ivoire and some of the work in Tanzania and Uganda as well. And, they matched up pretty well in terms of the levels of mortality that we found coming out of the -- that is, when we match the sibling history data, the mortality rates coming from the sibling history data and the mortality rates that were produced in these population laboratory settings.

The vital registration system is a very different methodology, I think. And, you really have to do a lot of adjustment with those data to make them at all comparable with this type of data.

The verbal autopsy information, I'm not familiar with other than where I do see the need to develop that further. We don't have anything to compare that with. That is adult verbal autopsies.

**MR. STANTON:** Anybody else?

**MS. BLOOM:** In terms of -- I don't know if I'm on the mike here or not, but in terms of the sexual behavior data, as I said, I mean, in terms of -- we looked at national data and so we have the GPA, DHS and sexual behavior surveys that have been carried out by measure. There are other more targeted surveys that have taken place in certain populations, like the SBS -- I mean the BSS. But, we didn't actually analyze these.

As far as the sexual behavior surveys go, it's very comparable between the DHS and the much bigger surveys even though the sexual behavior surveys are more centered on the topic, and so, we get more information from those surveys than we do from the DHS.

From the GPA data, as I said in my presentation, it's very difficult. Some of the indicators, even when they look like they're the same indicator, they might not be because the documentation is very poor. So, those are all the sources that we looked at.

**MR. STANTON:** Let me just antidotally about 10 years ago I spent a lot of time with about 2,000 Maryland state death certificates of people we knew were HIV positive and it was still hard to figure out the cause of death. It's a real huge challenge.

**MS. NANCY WILLIAMSON:** Yes, I'm Nancy Williamson, director of the new Youth Net Project, which deals with going through productive health and HIV.

I wanted to ask either of panelists or the audience about the statistic that's sometimes cited about youths being half of the new infections, youth between 10 and 24 being half of the new infections. I was just wondering whether anyone had any information about whether that's plausible.

**MS. STANECKI:** It's possible.

**MR. STANTON:** Can we amplify on that? Okay.

**UNIDENTIFIED MAN:** I'd like to pick up the point that David made during his discussion about the usefulness of biomarkers, or HIV data collection in population based surveys. You said the Malawi was useful because they didn't have surveillance data for eight years or so.

I would like to argue that it's also useful in many other countries, not all countries, but in many other countries because, first of all, the antenatal data have biases, as we know. And, we also know that there's no way we control for all those biases, especially as the epidemic evolves over time. We can have a pretty good handle on that by having small-scale population based studies and doing A and C in the same area, but there are many things we don't know. For instance, rural prevalence is one big problem in especially countries like Uganda where you have a small number of sites in the whole country.

So, I think of that reason those data are useful. Second, I think the DHS, and I was sort of disappointed by seeing how few variables were retained with the only AIDS and sex. There are a number of other variables that I think are important to know. For instance, education, how AIDS moves through the social classes is of tremendous importance for planning. And, there are a number of others that perhaps could be. And, only with survey you can get those data on -- in an appropriate way.

And, thirdly, I think we're underestimating the power of survey data as an advocacy tool. As antenatal data come out every year, but once you get a DHS or another type of survey, I think you have a very powerful advocacy tool for a national -- of scaling up national programs.

**MR. STANTON:** Yes?

**UNIDENTIFIED MAN:** After I left the USAID in 1980, for several years I worked for the Centers for Disease Control out of the Washington Office and so I was there as AIDS emerged in the spring of '81 with the first publication in MMWR on the 5th of June. And, of course, the report there the epidemic intelligence service had picked up the occurrence of AIDS in male homosexuals in Los Angeles and in New York. And, the thing was that in the first two years of the AIDS epidemic in America the average male -- the average AIDS case had had 1,100 sexual partners, which seems almost unbelievable. But, in Africa, of course, the transmission has been on the heterosexual way, but I've never quite understood, I've not studied deeply enough just -- so, the key to AIDS transmission is simply promiscuity, either homosexual or heterosexual. And, I've not understood just how this transmission occurs. Is this prostitution, or polygamy or just what is it? What's the latest view of the key propellants to transmission in most of Africa there?

**MS. STANECKI:** Yes, I mean, when you reach prevalence levels so high you have a far increased risk of becoming infected with just more than one partner. It doesn't have to take a whole lot of partners when you have a lot of infected people.

Certainly transmission occurs where you have high-risk behaviors and high risk behaviors are unprotected sex or having sex with a sex worker who -- and then if you have an STD that increases your risk of transmission and -- or sharing needles in an IV drug population, or -- but, if a person is newly infected then they can be very highly infectious and it doesn't take much to transmit that. It doesn't have to be for a high promiscuous society to have transmissions of HIV.

**MR. PAPPAS:** I'd like to add something to that. If it hadn't been for the good work of the CDC and other partners and communities, and aggressive testing and counseling, aggressive education, you might be that -- in that situation in the United States. In Africa recognition of the disease active programs came much, much later. And, the dynamics of an early epidemic within -- in high-risk groups and bridges into the general population were very different here compared to the United States. We never -- luckily we never got to that stage in it. So, the dynamics of it in a generalized epidemic are very different.

**MR. STANTON:** Yes, sir?

**UNIDENTIFIED MAN:** (Inaudible) Project.

The last speaker mentioned that the knowledge should be tied with action, and the presentations that we just had is, I think, one part of the equation. We do have programs which are being implemented by the USAID in all of these countries and right now the (inaudible) Project is walking on a problematic database, which I think does have the potential of beginning to look at the linkages between the interventions in these countries and what is being captured in the surveillance and surveillance databases.

So, I was just wondering from the speakers how they see that link in terms of looking at what's being done on the surveillance and (inaudible) and how some of what's happening in the problematic side could help to its efforts to define it.

**MR. PAPPAS:** I think that's an important challenge. While there's a lot of rich data, we don't know too much about what's going on in service delivery system. We don't know what's going on a population base, anyway, in terms of access to care, barriers to care and those sorts of things. And, that's an important challenge in front of us.

To be frank, previous to this time, there haven't been a lot of services available to the way to be positive on a national basis and it didn't warrant a national monitoring evaluation of those issues. We're right at the junction. I think Paul and David have given us excellent guidance and leadership in this area. And, I hope those of -- and those of us at DHS are trying to respond to that mandate and to respond to that call.

**MR. BICEGO:** I just wanted to add a little bit to that. I think what the questioner raised was the issue of intervention research or intervention studies that look at the effects, whether or not certain types of interventions work or don't work. At this stage, we need a lot more of those and those are not what DHS is about, just to make that distinction of looking at operations research, looking at small-scale studies that look at prevention and care programs and looking to see how successful those might be.

Those are probably done better at a smaller scale and are different, very different, than the larger scale surveys that are really used for monitoring and an evaluation of programs at a larger scale. I just wanted to make that distinction.

**UNIDENTIFIED WOMAN:** (Inaudible) from USAID.

I think it was you, George, who had a slide about the consequences of losing both your parents. It showed education by how many living parents you had. I wondered if people are looking at those orphan data just aggregating them by sex, because I would guess that those data look even worse for girls than they do for boys. Was it yours?

**MR. BICEGO:** Yes. And, I can't say right now whether we did do that or not. I think it's a worthwhile thing to look into. The numbers were rather small and that's why we did have to pool the data from a couple of countries. But, we did include sex in the model. I'm not sure what the co-efficients were, but I can check on that for you.

I feel that if they were important we would have noted them and we didn't. But, let me check on that for you.

**MR. STANTON:** (Inaudible) over here?

**UNIDENTIFIED MAN:** (Inaudible) by number a couple of years ago about introduction of treatment in the United States was that AIDS related deaths were reduced by nearly half, perhaps, let's say half in the matter of a year or two. Of course, it's a different epidemic in Sub-Saharan Africa, but, perhaps, not so different in some parts of Latin America and Asia. Will the DHS surveys be able to detect, are you getting ready to think about how treatment can make a difference about the expectations, about changes in life expectancy in the next decade or so?

**MS. STANECKI:** I know that it's clearly going to have an impact in terms of how we do estimates of mortality. And, we are currently working with UNAIDS and in the UNAIDS reference group on estimates and projections on that question itself. And, I'm not sure how the DHS is -- if they're -- but, I know that in terms of estimates and projections, we are already trying to discuss that in terms of what treat -- what kind of effects treatments are going to have.

I mean some of the assumptions that we're starting to see is that -- or talking about is that treatment will probably occur once somebody is -- becomes ill and that perhaps we might be able to extend their lives another three years without really, really aggressive treatment so that we might to see that that kind of impact, but we're going to be doing more research on that in terms of treatment impacts.

**UNIDENTIFIED MAN:** (Inaudible) from the UNAIDS.

I would like to come back to this important question of promiscuity that was raised. It's always best to come back to a debate, but I think this is an important one. And, it's true that HIV has the reputation to be a sexually transmitted disease with low infectivity. In studies in many high income countries have shown that the probability of transmission per sexual act is around one or two per thousands. So, the implication of this, generally, is that okay, you need to have a lot of partners of (inaudible) to be infected.

But, in fact, some studies, more and more studies are showing that this may be true in absence of any risk behavior. And, the other co-factor or let's say and in one multi-science study that we have conducted in UNAIDS with many other partners we have tried to compare two cities in Africa with low HIV prevalence and two cities with high prevalence. And, so you may assume that in a country with high HIV prevalence you would have very much higher risk behavior, sexual risk behavior than in the two cities with low prevalence. And, in fact, we couldn't find a (inaudible) indicator of higher risk behavior in those two cities, namely, Kisumu and Angola in eastern and southern Africa.

And, the factors that -- the major factors that we are feeling in multi-variant analysis would be ages for sex as one important factor, different age in partnership, the difference between male and female in terms of age of sexual partners. And, more evidently, let's say, two factors that are more linked with, in fact, probability of HIV transmission, namely as genital herpes, much higher in the high prevalence city and lack of male circumcision as an important factor linked probably with the STD prevalence.

So, this study seems to show that in fact it's not so much the factor linked to sexual behavior, for sure HIV's a sexually transmitted disease, but the main focus was more on the factors that highlight the probability of transmission with the suspicion that, in fact, it's not a probability of transmission of one or two per 1,000. But, more it's on the other of magnitude in the presence of growth factors such lack of male circumcision, and genital herpes, five to 10 percent of per sexual act. There's the explanation why you have these young women in Kisumu and Angola with two or three partners before first marriage and you will find 15 to 20 percent of them are indeed HIV infected.

**MR. STANTON:** Thank you, Musha (sp), that was a very good point. I think we have one last question here.

**UNIDENTIFIED MAN:** Thank you.

I think it's becoming increasingly clear that we start to get more if this office could include younger people, people less than 15 in the sample. In the recent visit to Uganda, many of the people there we spoke to thought of that we should include young (inaudible) up to age 10 and we've been struggling with that. It seems to me that DHS is catching that, at least from what you proposed to do in Uganda have the age 10 as the limit.

My question is what is really the position of DHS and (inaudible) does they also in this issue and if you proposed to go lower than 15, what determines the lowest age that you like to go? Thank you.

**MR. PAPPAS:** I'll give it a try. Good question. Those are active discussions. We are advised by USAID in Uganda and CDC in Uganda to lower the age below 15 and through a series of discussions we hit on 13. Looking at the data, it's true that some people -- looking at the data from the DHS, some people in Uganda start sexual activity much earlier, but our ability to measure anything on a very few number of people that is below 13, at age 13 where sexual activity really starts picking up. So, we kind of, for practical and logistical reasons, decided to start at age 13, at least provisionally at this point of the planning. So, it was a statistical numbers kind of calculations. But, the emphasis was there, everyone that wanted information on younger adolescents. So, your point was -- is quite on the mark.

**MR. STANTON:** Good. Well, thank you for a very interesting session. Thank you to our speakers, and to a great audience with a lot of participation. It made the time go quickly. Thank you.

END

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**UNITED STATES AGENCY FOR INTERNATIONAL DEVELOPMENT**  
**THIRTY YEARS OF USAID EFFORTS IN POPULATION AND HEALTH DATA**  
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**PRESS BRIEFING**

**JUNE 3, 2002**

**WASHINGTON, DC**

**MS. RHONDA SMITH:** We have two speakers for today's session. Our first speaker will be Dr. Duff Gillespie, who is the Senior Deputy Assistant Administrator of the Bureau for Global Health in the United States Aid for International Development. Dr. Gillespie has worked in the population and health field for 32 years. He's been with USAID for 28 years and was the Director of the Office of Population for seven years. Dr. Gillespie received the Arthur S. Flemming Award in 1977 for pioneering operation and research on community-based family planning and primary health care delivery system. He was the recipient of the Presidential Rank Awards in 1988 and 2001 Distinguished and in 1990 Meritorious. He received a Security Honor Award in 1995. Prior to joining USAID, Dr. Gillespie worked at the Office of Health -- Office of Economic Opportunity and the Center for Population Research and National Institutes of Health. He received his Ph.D. from Washington University, St. Louis.

And our second speaker will be Martin Vaessen, who started out in survey research in (inaudible) in 1967 working on the Latin American Comparative Fertility Survey. In 1973, he moved to the USA new sponsored World Fertility Survey where he was head of Survey Operations overseeing technical assistance to participating countries. He remained there until the end of the project in 1984 and then he joined the Demographic Health Survey project in 1988 and has been the Project Director since 1995. He has provided technical assistance to many countries, primarily in Latin America, but also in Africa and Asia.

Dr. Gillespie?

**DR. DUFF GILLESPIE:** Thank you, Rhonda, and thanks to all of you for inviting us. It's a -- it's actually heartening to see this many of the media interested in survey research, which suggests a slow day on -- on the news front, or you have an appreciation of how important information-based decisions are. And that's what I'm going to say a few words about. Martin will be able to tell you much more of the details about the actual surveys and what they do and some of the information that's been collected.

I'm going to be restricting my comments to why is it important for taxpayers, primarily U.S. taxpayers, to pay for basically a worldwide survey effort in the area of Health and Population for three decades. Why is that? Sure, there'll be lots of Ph.D. dissertations written. There will be lots of articles published, indeed, some of the graphs that you see in places in USA Today and even the Washington Post, sort of interesting to mention USA Today and the Washington Post in

the same breath. USA Today hasn't changed, but the Washington Post certainly is changing isn't it in terms of colors and graphics I was referring to.

Well, why -- why is it important? Well, one of the reasons it's important is that this is a resource that's quite unique in the development field. This is -- I was trying to think in waiting for Martin to get here, what would be comparable in the developed world? And the only thing I can think of would be the -- the U.S. Census that happens every 10 years and there's a whole series of decisions that are made as a result of this Census. At the country level where they have DHSs and they usually have them in five-year intervals or so, there's a whole series of policymakers, other donors -- USAID, other donors and multi (?) -- make in that country setting. That is, they look forward to and anticipate the results of these surveys on which to make adjustments to the program and to plan new programs.

Now, if they didn't have that, they would be making decisions based on ignorance. A decision based on facts, not necessarily a wise decision, but the probability that a decision based on information and facts being wise are much greater than if it's just based on ignorance. At the national level -- I mean at the international level, we too make decisions. We make decisions and Congress makes decisions based on our ability to track the results of investments, not just USAID, but other donors in the host country governments have made in the area of reproductive health and health.

That's a very powerful tool, one that people in the area of education and the environment, agricultural, other developmental sectors don't have. So the fact that USAID 30 years ago was forward-looking in saying, "We need to start making investments in data collection in order to make informed decisions" was in hindsight a truly remarkable thing. I believe it's one of the reasons why the area of Health and Population has fared much better in the appropriations, foreign assistance appropriations and some of the other areas because we have been able to demonstrate return on investments to the Congress.

Another area that affects policy is that it shows things as they wouldn't ordinarily be perceived. Let me give you a concrete example of that. We didn't have an appreciation of how important delaying the onset of sexual behavior would be for HIV/AIDS and that's one of the items in the Demographic Health Survey -- when the sexual debut of young people is. And in countries such as Uganda, the age of sexual debut has been lengthened by almost two years. Most people feel, and I agree with them, that that's one of the major reasons why Uganda's HIV positivity rates, incidents and prevalence has gone down. The same with the age of -- I mean the number of sexual partners.

So we are collecting information in the developing world and have been for a long time, which had been a very powerful tool in tracking not only the course of the pandemic, but also giving us some insights on how to make an impact in trying to contain the explosion of HIV/AIDS.

Now, another broad area that I mentioned in passing with my comments about graphics and newspapers, is that in ways that Martin might be able to expand on, this has been come -- has become the knowledge base for just about every organization that's working in a developing world. It is -- at USAID we see this as an investment on let's say good global citizenship. While

there's other donors who occasionally have contributed to a particular survey, this is basically being paid for by the U.S. and it's being used by just about everybody. And we see this as a contribution to the development world and donors involved with the development in the developing world as something that's -- that's just a good thing to do.

Now Rhonda, do you want to take questions? Where's Rhonda? Do you want to take questions now, or do you want Martin to say a few words? How would you like to do it?

**MS. SMITH:** (Inaudible).

**DR. MARTIN VAESSEN:** I'm not exactly sure where I should start, but in the early days of these surveys, say in the late 60s early 70s when we started, there was a lot of concern about whether it was even possible to collect data like this worldwide in a comparative nature, that people would answer the questions. One of the first positive results of these surveys was that, well, it is possible to collect good quality data even for countries with poor infrastructures, poor levels of education, etc., as long as you provide the right level of technical assistance and support to help them do the work.

It's very important to realize that surveys are done by the people in the country. They're not done by us. We provide financial resources through USAID and technical assistance through people traveling through these countries working with local researchers, but they collect the data. We don't. We help them along.

The importance of this data for policy development cannot be overestimated. I think that's probably where the most important affect has lain. Many cooperating agencies have used this data on a continuous basis to work with local governments, to show them what's happening, whether there's progress, whether there's no progress, and what people in the country want. Herein in the end, one of the first things we found in the World Fertility Survey say in the early 70s, was that 60, 70, 80 percent of women, age 40 and above, said they didn't want anymore children. At the same time, we had contraceptive prevalence rates maybe of 20 percent or so. And so, there was a clear need to serve the needs of the people and I think surveys started making people aware that there was a need to serve the needs of the people.

So, going from there, of course, countries -- out of one survey this morning in my welcome I kind of quoted the Minister of Planning from Niger, who wrote in the forward for their report that was done in 1992, and I think it was the first national survey in the country and I paraphrase now. He says, "My god, look at this data and we are the worst of all the countries since this survey program started. We're going to have to do something, you know, in order to improve the level of living of our women and children." And he really never had seen, you know, where they stood vis-à-vis other people.

You know, in the end, I think one of the things these surveys do is they show people where you stand. It's like a report card you know. We say, oh you know, "The Knicks beat the Celtics by 100 to 95." What does that mean if put into context, if somebody else beats somebody else by 60 to 20 or whatever? I don't know. This is a bad example, but I mean you have to have a frame of reference, you know, in order to judge where you stand and I think that our surveys help

people see where they stand in the region. They identify countries that are doing well, probably reasons why they are doing well. They identify other countries that maybe are not doing so well and then resources can be allocated to help them.

In the countries themselves, of course, there are huge regional differentials. They keep persisting. I talked this morning about Peru that has made enormous strides in terms of lowering its fertility in the last 20 years, but at the same time there are very large differentials that exist, you know, within the country between the geographical areas, etc. In Peru, for instance, the poorest 20 percent of women, only 13 percent of them get any medical assistance at delivery, while the rich 20 percent, 90 percent of them get assistance at delivery.

So, I mean, these are things that the policymakers need to know in order to be in a position even to start discussing, you know, what to do about them. I mean the process is probably no different than what it is here, or in any other developed country, but it starts with taking consciousness of where the facts are, debating the facts. It doesn't mean that knowing the facts tomorrow immediately the problem is resolved. You know the problem needs resources and commitment and probably cannot be resolved in a short time.

So -- so, we feel very strongly that these surveys have provided a tremendous tool for countries. They use it for all their plans. I just saw the next 15 year plan for Peru, the health plan, and continuously they refer to survey data in terms of where they stand vis-à-vis where they should be going. And as Duff just mentioned, you wouldn't know it because somehow the data -- one of the very good things that USAID has done with this data is they're absolutely in the public domain, you know.

So, you look at data, you don't even know where they came from because now suddenly they become UN data or UNICEF data, or UNDP or World Bank. It doesn't matter. We are not worried about who used the data. We want people to use the data. So, I think that's a unique characteristic as well of this program, because more often than not surveys are done many places in the world and never properly published, analyzed and disseminated.

So, I'd be happy to answer any other questions.

**UNIDENTIFIED MAN:** I wondered if you could just briefly give us an overview of how much money the United States spend on each survey? Are they done annually? And with that data in terms of infection, how many surveys have been done?

**DR. VAESSEN:** I can talk -- I can bring the piece of paper -- I can talk from memory. I looked it up for our survey, okay. I can't speak for the whole AID program, but in terms of the world -- of the Demographic and Health Surveys that started in 1985, I think by the time it finishes because it's still ongoing this round, it will cost something like \$180 million. It will have done by then some 225 surveys, but surveys are not the only part you know. With this program, it is very important to realize this.

What this program does is one, you know we provide, for instance, computer equipment and training for all the countries we work with because we have to build their capacity. Two, we

build a huge data archive that would allow you, for instance -- you want to know anything? You can go tomorrow through your personal computer and access something called the "Stat Compiler" which gives you any data you want from any surveys that we do instantaneously. The archive is maintained for, you know, anybody to ask questions from, to use, to download the data.

So countries, for instance, whenever we do a survey, we have an agreement with them that the survey data will be in the public domain after they've had a chance to write the first report. They have the first crack at writing their report so they build their capacity, but after that's done, it's all in the public domain. So a lot of the funding is to maintain the public domain, the archive -- the support for the archive. Workshops are in there. Our publications program, dissemination you know. It's not only surveys, everything that's around it that's involved in that with the 225 surveys and the \$188 million that I mentioned.

**UNIDENTIFIED MAN:** You mentioned that surveys help countries that want help with their health and population. What is your prescription for say a country like the Philippines whose government seems unable or unwilling to implement more aggressive birth control measures and because of the powerful church, the Roman Catholic Church? I mean do you see a way out of this?

**DR. VAESSEN:** Well, there has to be a way out of this. Look, Italy and Spain are the lowest fertility in the whole world, you know, talking about the Catholic Church. The lowest fertility in the whole world is Italy and Spain and Latin America, I mean, is all Catholic. I mean Catholicism has -- is not anymore the deterrent to having low fertility. I don't -- I would have to look at my cheat sheet here where the Philippines stands at right now, but you know, some of things we find is -- let me put it a different way.

One of the things we do in our surveys, we as an organization leader, executes the surveys. We don't do programs, so we have no stake in the outcome. We're not trying to prove that something is high or low. We try to really be an objective measure of reality in a country, okay? This is very important, so. So we don't, ourselves, do policy you know. Our data goes to other people to do policy, so in that sense I say that because I wouldn't be the one that would tell you have to do this, that or the other. That would go to people like the Policy Project that work with the Philippines to find out whether or not, for instance, if there is demand for different methods of contraception whether given the opinions of the population. Maybe there's scope for going further with this lactational amenorrhea method that seems to be more effective and is acceptable to Catholics. I mean there's many angles there, but the Philippines I think has made significant strides, too, in spite of you know being Catholic. I don't see the figures on this thing. I haven't noticed, but they have made -- we can show you that -- yes?

**UNIDENTIFIED WOMAN:** Yes, in other words (inaudible). I remember very well that Population was under the umbrella because we're not of the Health Division. In other words, (inaudible) too much attention, but it is done in the Population area. Perhaps (inaudible). I remember, through my experience, we didn't have any problems (inaudible).

**DR. VAESSEN:** Right. Right. No-no, I lived in Latin America -- I lived in Latin America also and worked there most of my life.

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. VAESSEN:** Well, Brazil -- Brazil has contraceptive problems at 70 percent. Columbia has problems at 70 percent. Peru with its much lower level of development has 60 or 65 percent.

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. VAESSEN:** Right-right, exactly. You're exactly right.

**UNIDENTIFIED MAN:** Can you give us an idea of what you know now that you might not have known 10 years ago to keep that population (inaudible) for both HIV and AIDS that we did not know significantly, that you know now and essential (inaudible) or to implementing programs that made their (inaudible).

**DR. VAESSEN:** Well, it's an ever changing kind of panorama, but one of the things that clearly that we didn't know 10 years ago, for instance, is that incident child mortality seemed to be rising in some sub-Saharan African countries and the speculation that it is the AIDS epidemic that is doing that. Because normally we should still be on a downward track, particularly for infant child mortality and we are starting to see that that's not the case.

And also, you know, we didn't know say a country like Malawi we did an HIV/AIDS prevalence survey in Malawi and there was some discussion about whether that was worthwhile because prevalence may be only 1.7 percent, which as a percentage point is very low, but in absolute population, still 60,000 people even in Malawi, okay? But again, you do a survey and find out that it's actually five percent for you know men, urban men 40 to 49, and five percent for urban women, 35 to 39. So, you start seeing, you know, more of specifics, you know, of your problem. Also, in Malawi, you know, we suspect from surveys that we did that there was a 75 percent increase in the adult death rate between '92 and 2000, probably due also to the HIV epidemic.

**UNIDENTIFIED MAN:** Adults?

**DR. VAESSEN:** Yeah, adults -- adults, adults.

**DR. GILLESPIE:** Martin, you must also mention that while there's a -- while there's a template -- sorry -- while there's a template, a core set of questions that's asked of all countries that participate, so you have comparisons. There's also different modules that countries can choose from that will focus on a particular issue that they're interested in. So, like for example, HIV/AIDS, maternal health, there's a whole series. How many do you have?

**DR. VAESSEN:** There's like seven or eight.

**DR. GILLESPIE:** Seven or eight.

**DR. VAESSEN:** Because of women, domestic violence -- domestic violence is very non-technical and very new. We just started doing that.

**DR. GILLESPIE:** So -- so that --.

**UNIDENTIFIED MAN:** (Inaudible).

**DR. VAESSEN:** Probably 10 years ago.

**DR. GILLESPIE:** Especially when it was -- especially when it was an Egypt type related, right?

**DR. VAESSEN:** Well, Egypt, Colombia maybe.

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. VAESSEN:** No, it was not.

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. VAESSEN:** Right.

**DR. GILLESPIE:** So that the question about what do we know and we know now and in 10 years. The list would be very, very long and longer in some countries than -- than in another. The other thing that I think is important that this is sort of the gold standard for survey research, but it's not the only activity and it -- if some of you were in the session this morning, that (inaudible) from UNICEF gave a couple of examples of this. But sometimes a problem will be identified in which then there is more intensive surveys that the donors or the host country government will do to -- to try to figure out more about that.

That's been especially the case with HIV/AIDS in which we thought that we had -- again, this is going back more than 10 years, probably about 15 -- but we thought when this mysterious thing called AIDS first became something that we knew was going to be big. None of us really knew how big it was going to be and the ignorance about our knowledge of sexual behavior in sub-Saharan Africa became quite obvious. And we got some information from the Demographic Health Survey, but then there was a whole series of surveys and ethnological studies, focus groups that were done to learn more about actual sexual behavior in developing and especially sub-Saharan Africa.

To answer the earlier question, I think it's in your briefing books. We spent -- we spent about \$8 billion -- USAID -- on data collection and dissemination information and that goes -- pardon?

**UNIDENTIFIED MAN:** (Inaudible).

**DR. GILLESPIE:** 1965 -- not only in dissemination and information programs.

**UNIDENTIFIED MAN:** You said \$8 million?

**DR. GILLESPIE:** \$8 billion in programs.

**UNIDENTIFIED MAN:** (Inaudible).

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. GILLESPIE:** That's for everything.

**DR. VAESSEN:** Yeah, everything -- yeah, I've said data collection.

**DR. GILLESPIE:** If it is, it's a mistake.

**DR. VAESSEN:** That's not a (inaudible). It's for everything, your AID program, AID assistance.

**UNIDENTIFIED MAN:** And how much out of that for (inaudible)?

**DR. GILLESPIE:** About 15 percent of that.

**UNIDENTIFIED MAN:** Is that this year?

**DR. GILLESPIE:** Oh, this year? That would be probably around -- all together probably around close to \$10 million, but some of that spills over into, for example, vaccine research. It's \$10 million to fill out this vaccine, but then you also have a data collection process the result of that and you have contraceptive development programs. So that they get kind of blurred after awhile. If you count research, including product development, it probably goes up into the area of around close to \$60 million I think.

**UNIDENTIFIED MAN:** And doctors it's not a fair question, but what -- what do you think you don't know? Like, there must be some areas of data collection that you don't have information on, like sort of black holes in demographics or in creation cutters or in health practices that you would want to know about but maybe your survey's too blunt to catch or just didn't focus on an area. Give us some areas that you think you don't know about that you would like to move into if you had the resources or the time.

**DR. GILLESPIE:** Well, there are two broad categories I would put. One is areas that are methodologically possible, but too expensive to carry out. There's one big category and that's maternal health. The information we have on maternal health for a variety of methodological reasons is not very good, and then there's a whole series of health conditions that our knowledge about is just inadequate and we're just beginning, for example, to make major headways, including some very innovative stuff that Martin can describe about mapping the status -- nutritional status of populations. And -- and that's an area that needs to be grown -- to grow. Then there's -- so there's quite a long list of -- of things that if there were more money, we would be able to collect the information.

Then, there's another perhaps even larger group of issues and problems in which our methodologies are sufficiently limited and our current knowledge base is sufficiently limited that we can't show white on those black holes. And I think probably the biggest are -- are behavioral. You mentioned the discussion about the role of religiosity, not religion but religiosity in a number of countries and the Philippines being a good example. We don't really understand some of the factors that go in for making one group of people behave one way, another group of people behave another way and how you modify the messages and the environment, so that they make wiser choices concerning their health. Of course, this is also a problem in the developing countries, too.

I think that -- that those types of issues have gotten much more focused and our limitations much more obvious with -- I keep hating to say HIV/AIDS, but I think with HIV/AIDS it highlighted more our limitations and knowledge on what makes people behave the way they do. Once you find out that -- that it's not unusual for an African businessman to have five different partners and that we -- what do you do about -- how do you -- how do you try to alter that behavior? And that's been a big challenge. Martin?

**DR. VAESSEN:** Yeah, I just wanted to add one thing, is by markers. You know, more and more surveys move into new areas rather than asking questions, we can do some testing. So, for the last 10 years or so we've taken the height and weight of small children, so we get a measure of nutritional status. We take the height and weight of women as well. We have taken blood pricks for measuring of levels of anemia, iron deficiency in women and small children. Some countries we are now doing HIV/AIDS testing --.

**DR. GILLESPIE:** -- Vitamin A studies.

**DR. VAESSEN:** Vitamin A we've done. There's some hepatitis C in some places. Syphilis we're doing in Zambia and other places, so more and more because the technology becomes so easy that adding it on to an ongoing survey, you know, becomes attractive. Because one of the major problems that one has in many of these developing countries is that, how do you get good three percent of the sampling frame? They have all their census and the last census period is maybe 10 years out of date or more in some of these places and then you have to go and actually select and find samples of three percent they did of the population and do you think with them, and that's the major, major thing.

**UNIDENTIFIED MAN:** And yet, you've still got a situation where no matter how good your data are -- take for example South Africa in the last couple of years, politicians for their own purposes or someone else's purposes might even make statements or intimate that HIV is not necessarily the cause of AIDS, which is probably the most basic data about AIDS that we have and even that does not get to some of the answers the way that I imagine you like to the population. How hard is it -- I know that most of your data is probably for the developing countries that help develop programs for the educated people in poorer countries to develop health programs. Is there a way for you to improve the trickle down and the quality of information that you think you're getting down to people and either getting around or improving

-- getting around politicians who underline, for other people to underline? Does it happen a lot? Is it a major problem and how do you get around it?

**DR. VAESSEN:** Well, there's a good example of what we're trying to do, but also there are projects within USAID who will really concentrate on working with politicians in different countries and letting them know what the real situation is. But I think also that on a more global level this program is helpful because whatever you say, they show papers on everybody else for which figures are available. You can see where you stand you know. You're not -- you can't say, "Hey, nothing is happening here" because you know it's happening everywhere you know. So, it makes it more difficult to -- to take different stands, but of course you know, we're not politicians and politicians can always interpret the data as they want to.

**UNIDENTIFIED WOMAN:** Are you working AID with other participating agencies like those of the United Nations or (inaudible). (Inaudible).

**DR. VAESSEN:** They do and there's some good examples. We have some countries where we say the surveys are funded by -- mainly by using AID, but also funded from UNICEF, from the United Nations Populations Fund (inaudible), from the World Bank. We got in several countries worked from the (inaudible) different, particularly in the old (inaudible), Tanzania, Zambia, like Malawi. So everybody -- because everybody's conscious that they need -- all of them need this data and that's the point Duff was making this morning in the session that these data are about the most used data by international agencies. They all adopt them and they all use them and it's a free gift from USAID to them.

**DR. GILLESPIE:** Let me give you another example of -- of how these surveys can be useful in changing people's perception of their health problems in their country and how they might go about doing things that would impact positively on it. But I'll preface that with something that has come up several times, that knowledge information data doesn't translate into action, be it wise action or stupid action, that this is just one component, a very important one.

So, in the case of South African, there's lots of things that have gone in with the President's position there and your guess is as good as mine on -- on how you can change that. It's obviously not a question of information. It's a question of the interpretation of that information in the case of President Mbeki.

We talked about how the DHS has led to other research efforts, including other surveys. It works the other way, too. We have studies which have highlighted a particular finding or important type of -- of condition and that's been added to the DHS. There were a number of studies that were done in Nepal, for example, that showed that giving Vitamin A supplementation -- Vitamin A capsule twice a year to children under five reduced infant mortality by 30 percent. So here's something that costs literally pennies, very simple, and you give it to a child and their death rate drops by 30 percent.

And the first thing that happened when that data was presented -- those results were presented was one of disbelief. People just simply said, "That can't be." So we went through a process of duplicating that in a couple of other studies in countries and it was replicated. We're doing the

same thing now with maternal health where they have pregnant women who've been dosed with Vitamin A and there the drop is about 25 percent.

Taking that information, then we started working with Martin's group to start collecting information on nutritional status and he mentioned the biomarker for Vitamin A. So one of the things you first have to tell the policymakers is that you have a Vitamin A or micronutrient problem in your country, because micronutrients are not always clinically obviously. So you can have someone who is micronutriently deficient and they won't know it.

So for example, in India, it's a fairly big problem in the developing countries and in actually some populations in the United States. Yet, you look at a woman who's anemic and it would not necessarily be obvious that she was. So you demonstrate that there's a problem and in most cases, politicians no matter where they are all things being equal, if you give them and say, "Here's a problem," they will want to do something. You know, they'll say, "Yes, if we can reduce child mortality rate by 30 percent, we want to do that" no matter what your government. You know, they want to do that. So, you get a decision on that, a policy on this as a problem, get resource allocation, and then you can track whether or not you're making any difference.

So, for example, one of the things that's collected is whether or not the kids get dosed with Vitamin A, whether they get immunized. Martin mentioned something about immunization. One of the things about immunization is that the rates were going down. The coverage was going down and the DHS was a yellow flag, waving a yellow flag, and so we along with UNICEF and others were able to take corrective action and get those -- those rates back up.

So this is not -- I mean what's exciting about this, this is not an academic exercise. This is something that has academic implications, but decisions are made daily based on these surveys and that's -- well, that's one of the reasons they have derived such response for it over the years.

**UNIDENTIFIED WOMAN:** Dr. Gillespie, can you tell us a little bit about why you convened or why this conference was convened? (Inaudible).

**DR. GILLESPIE:** Actually not, it's not in the (inaudible) at all. This was within -- within USAID and on the Hill. This is something that has always received strong support. It's mostly a little bit of stocktaking and, quite frankly, celebratory. I mean there's a lot of people that have been involved with this over the years and take a lot of pride out of what's been accomplished. I mean to throw it around, you know historical, etc., but in this case, this is something that's quite unique in the development field.

**UNIDENTIFIED WOMAN:** Could you tell us how data collection has changed in that 30 years?

**DR. GILLESPIE:** Oh, wow. Well, one of the things that Martin mentioned, which I kind of forgot about, I mean we were both involved in the early stages, is that I can remember going to endless meetings on whether or not you could ask someone what their contraceptive behavior was, whether or not they were using a contraceptive. Anything to do with sexual behavior is a question, and also things like income. I mean there was just a great debate on that, so we -- I

mean in hindsight it seems rather naïve on our parts, but we didn't know. So that's -- that's certainly one thing that -- that has changed.

I think the other thing that has changed is, at least in my view, is that I never realized how useful it was going to be and had no way of anticipating 30 years ago that so many people, so many organizations, so many governments including our own would base decisions on -- on the DHS and its predecessor. And it's actually quite a responsibility and one thing, I'm surprised, I'm waiting for the question. How do you know when people answer a question on a survey that they're telling the truth? But that's one question at least when I've given things like this people always ask.

There's also a great deal of effort put in on reliability and validity and to look at whether or not the information collected through the surveys is sound, does reflect reality on which you can base decisions. And that, too I think, has been a major contribution that we kind of take for granted now all the work that Macro and their partners have done.

The other thing, which I hadn't thought about, that is it's actually kind of revolutionary, but it happened so long ago that I just kind of forgot about it and Martin mentioned it. There's a certain democracy governance product -- byproduct of this. When we first started out, which was then called the World Fertility Survey, it was actually quite difficult to get host country governments to say, "We will make this information available to the world." It was not something that most governments -- remember, this was 30 years ago -- were used to saying and so there was a lot of resistance. And we held our ground and said, "No, if you want this, we'll let you have -- we'll let you do your thing at first, but these tapes -- which back then they were on tapes -- will have to be released to anybody that wants them." And that was a remarkable thing when you think about it and I think has sort of raised the public's right to know issue higher on people's agenda and probably made -- broke some ground. Not probably, I know it did break some ground on how governments view survey data and access to it.

**DR. VAESSEN:** In terms of what's changed, also one of the major things that changed was the, you know, the content. The content as was mentioned before has changed continuously over the years. And whereas before we were very narrowly focused on family planning and fertility and maybe infant child mortality, right now I would say maybe 60 percent of the questionnaire covers maternal and child health. So we are moving away from purely family planning to health issues and there's a lot of pressure always to include more of that -- more of that.

In fact, our problem is how to keep the survey manageable, because everybody wants a part of it. People want to say, why are we not studying aging? Why are we not studying education, etc., and all in the same survey? And the other major change has been, of course, aided by the technological revolution that data now is so easily transportable. You know, you can beam them to the other part of the world, you know, in five seconds flat, so the data are much more accessible and I don't know how many hits we get. Tens of thousands of people in the world that actually use the data, you know, for whatever purposes they find useful.

But say the Japanese who have their own way of doing technical assistance, they have great uses for our data and always want the data for any country they're going to work in because it

provides them a benchmark so to speak of the situation regarding population internal and child health and, therefore, can also serve as a measuring stone for seeing, you know, where they go for their achievements you know in the next 10 years. And so, I think those are two main things.

**UNIDENTIFIED MAN:** Dr. Gillespie, now that you've called us here to celebrate the success of all this data collection --.

**DR. GILLESPIE:** -- There's a reception tonight that you're all invited to.

**UNIDENTIFIED MAN:** Before we go to the reception, that the quality of the data notwithstanding, can you help me understand what cause there is to celebrate when there's less talk of HIV/AIDS when the bottom line, which is the number of people infected and dying continues to get so much worse? No matter how good your data collection is, what cause is there for celebration when the bottom line is getting worse in almost every place you look? (inaudible) What are you celebrating?

**DR. GILLESPIE:** Well, I've been in the development field for 30 years and spend a great deal of time physical and emotional working with HIV/AIDS and other major killers. And for me not to have at least some celebration during that 30 years, I mean I'd be a pretty dull boy indeed. Now, give us a little slack here. It doesn't mean that there's any disrespect for those that are inflicted by HIV/AIDS and, in fact, one of the reasons I've not been able to participate for most of this is that I'm dealing with -- with trying to get some more resources for HIV/AIDS, mother-to-child transmission.

So, you're right when you look at the health conditions, especially but not exclusively in sub-Saharan Africa and other issues, too, not just -- not just health. The education, the equity issues, the environmental degradation, it's a pretty grim picture. If you were to look at that grim picture without some of the investments, I don't want to over-emphasize the role of the Demographic Health Survey, but I can't tell you how difficult it would have been to tell the story without these survey data, not just here but in London, in New York, in Paris, etc. I mean this is really something that has had a global impact (Japan was mentioned) to be able to say that the mortality rate in these countries is not 10 times higher, but hundreds of times higher than they are in Europe. That's powerful. That gets people to start saying, "Well, we do need to do something."

Now what -- would we have been able to do that without the statistics? I don't think so. I think that before we had information-based decision-making, it was basically humanitarian. Famine and you could see the results of the results of the famine, or natural disasters. I mean that was until the 70s basically what foreign assistance was, that and a combination of using foreign assistance to battle the Cold War. But it was basically humanitarian and the Cold War driven. So it's, you know, it's made a difference.

**UNIDENTIFIED WOMAN:** (Inaudible). To move that question a little bit further, there's sort of left global rhetoric about (inaudible). And there has been a certain resistance on the part of governments' efforts in certain countries in the developing countries for whatever reason, religious or cultural or whatever. How do you push your figures, your survey, your finding to governments or countries so that their efforts could make their family planning component of

their developing effort really something that people would buy, including the religious -- pardon me, including the conservative forces that exist in their society?

**DR. GILLESPIE:** We have a number of programs and those programs have been cloned, if you will, by a number of other different organizations that presents information to policymakers, busy policymakers in a very user friendly way and in a graphic way. You can't expect a minister or a president to actually study one of -- however well written it is -- to actually read a Demographic and Health Survey Report.

And these systems are usually interactive, so that if, for example, let's say that it's on a population component and you're talking to a minister of finance and saying, "Okay, here's your goal for the schoolroom student ratio. How many schoolrooms do you need for your students? How many teachers you need per student? And then, here are some projections based on surveys on how many schools you'd have to build and how many teachers you'd have to train five years from now, ten years from now, etc."

And he says, "Well, I think that's too high." I say, "Okay, what do you think?" And you know you can change it. So what I've tried to do is to take the health population nutrition components and make it so it's -- it's so that they can make planning decisions and budgetary decisions based on that. Some of these are better than, quite frankly, some of the information available to policymakers in this country. I mean it's amazing some of the things that are being done in that area.

Another example on reduction of poverty, well actually, what I meant to say -- I mentioned iron. We know that anemia is not only a potential -- iron deficiency actually is one of the leading contributing factors for maternal mortality, but also has a very important role in worker productivity. And so, here again, we can say here's an iron deficiency population. We can help you increase your productivity by fortifying wheat with iron, relatively inexpensive.

So you can actually give them some options even in poorer countries that can help improve their -- not only the health status, but has a cascading effect to other developmental areas. So, it's that type of thing, but you have to -- I mean just to give them a bunch of dry statistics, you have to relate it to their goals and to offer actionable things that they can do. If you just say you know, "You've got micronutrient deficiencies" and not actually say, "But here's some things you can do and these are some of the results that are going to come if you do this."

**UNIDENTIFIED WOMAN:** (Inaudible). Is that actually being tried right now?

**DR. GILLESPIE:** Oh yeah. Well, we've been doing that for --.

**UNIDENTIFIED WOMAN:** (Inaudible).

**DR. GILLESPIE:** Well, I think it goes into the scores. Do you mean on the iron itself, or on this presentation of the data? I don't know, do you have any idea how many it would be?

**DR. VAESSEN:** Well, that's the policy. I would like to mention another thing and that is the National Seminar is saying. When a survey is finished, there's a national seminar in every single country where all the relevant policymakers, scientists, etc., are invited for a one or two-day event where the major findings are given out. Typically attend by a lot of the press, the media, TV. Rhonda there just went to India where we organized regional seminars for every single state or are in the process of. I know we had 150 coverages in the national newspapers, etc.

So, there's a lot of that, you know, from there to make the jump to say, "Yes, I think I'll help you out and I'll do something" is maybe more complicated. But I would like to take the opportunity to address your question a bit about AIDS I think. Say in Uganda right now, we're planning a survey that will involve HIV/AIDS testing and why is this happening? It's happening because while you know a lot of people feel that the survey has -- that the program has been very successful, there's some question marks about whether or not there really has been a big decline or not, or whether the surveillance system actually has given the right results.

So you know, while we're not celebrating that people are dying of AIDS, we're trying to help them, you know, through the surveys to come to -- to get better data to help them. So, we're really trying to -- to look at a commitment, you know, of USAID to help countries have the data at hand to make informed decisions.

**DR. GILLESPIE:** If anybody here is interested in -- in this and it's gone on under different names -- we have one for HIV/AIDS. We have one for population. We have one for child survival. You can give your card to Rhonda or Diane and we can send you information, and if you're really interested, you can stop for a demonstration. I mean it's that easy to deal with and you can do all sorts of calculations. It's a powerful tool. Yes?

**UNIDENTIFIED WOMAN:** Could you tell us a little bit about how often you (inaudible)?

**DR. GILLESPIE:** Well, globally, the -- probably the most dramatic change actually is in the family planning area. When Martin and I started out on this, in the developing countries there were maybe five or six countries that had programs dealing with population and offering reproductive health services, family planning services to the population. Now, there's five or six that don't. I mean it's been that big of a change and one, I might add, that most people wouldn't have thought of.

The second is much more recent. When USAID started their HIV/AIDS program, most countries would not accept money for HIV/AIDS, wouldn't accept it. This was also the case 30 years ago in family planning. Uganda was one of the few and one of the reasons why Uganda has done such a dramatic job is quite simply is that it was the only place that recognized the problem and would accept money and wanted to do something with it.

Within a period of about three or four years, that has completely changed. Now, they have a global fund for HIV/AIDS, Malaria and TB. There is not one donor that hasn't mounted a major effort in HIV/AIDS and there were, I think, 160 proposals, not all of them for HIV/AIDS that were submitted to the global fund in the first round of proposals. So that's -- in terms of rapid change, once the dam broke, it was very rapid and I guess the tipping point as far as the

autobiography of a fad, but in this case it was much more serious. Unfortunately, that tipping point was about two decades late. I mean it was very, very slow in coming and I'm not quite sure of all the things that caused it to happen, but it did happen and it changed very, very quickly. (inaudible).

**MS. SMITH:** We're going to have to close up here. I want to thank our two speakers, Dr. Gillespie and Martin Vaessen and thank you all for coming and being interested in helping with HIV/AIDS (inaudible) in HIV/AIDS and their involvement. Thank you.

END

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