

Roundtable on Public-Private Partnerships for the Prevention of Mother-to-Child Transmission of HIV/AIDS

INTRODUCTION

by Elaine Wolfson, Ph.D., President of the Global Alliance for Women's Health and Moderator of the Roundtable on Public-Private Partnerships for the Prevention of Mother-to-Child Transmission (PMTCT) of HIV/AIDS, held November 28, 2001.

Everyone who came to the Roundtable, whether co-sponsors, presenters, or honored guests, was well aware of the problem of HIV/AIDS in their own areas. The objective of the Roundtable was to share information and work out strategies that would be effective not only in the fight against Mother-to-Child Transmission (MTCT) but also improve the health of entire populations.

To those who come to this website without knowledge of the problem, particularly in sub-Saharan Africa, this introduction is meant to provide you with some basic information to enable you to put the presentations and comments in context.

Living with HIV/AIDS is a circle of burdens to men, women and children throughout the world. But for the 13 million women living with HIV/AIDS in sub-Saharan Africa the circle is infinitely larger and more difficult than can be fathomed by most of us.

Women suffer from greater risk and higher prevalence of HIV/AIDS in this part of the world. Based on a review of data from the United Nations, the Global Alliance for Women's Health estimates that 55% of adults living with HIV/AIDS are women. The gender disparity stems largely from societal inequities experienced by women, especially those living in rural areas.

Several traditional and cultural practices not only harm women but also exacerbate the spread of HIV/AIDS. These include (1) a gamut of social, political and economic inequalities between men and women, ranging from unequal access to education, to skewed or non-existent inheritance rights, to requirements that widows marry their husband's brother. Such practices create inequalities that eliminate or significantly reduce women's capacity to navigate safer sexual practices that could provide protection for themselves and their children. (2) HIV-positive women are frequently stigmatized and blamed for their condition. Often ostracized and suffering from violence, many HIV-positive women are deterred from seeking helpful interventions that might reveal their HIV status, such as being tested or using breast milk substitutes.

Additionally, the clinical course of HIV infection in women is often different from men's. According to the Pan American Health Organization (PAHO), untreated or improperly treated sexually transmitted infections (STI's) in women can almost double their risk for HIV. Proper treatment requires access to health care and medicine and access to clean water and sanitation, commodities and amenities not readily available to the poor women in rural areas of sub-Saharan Africa.

Indeed, the pervasive poverty has an especially grievous impact on women's lives, multiplying their burdens many times over. The under-investment in infrastructure - water, sanitation, electricity, roads - by national and local governments and international development agencies has created burdens for women in the 21st Century that mirror those women faced in the 18th.

The lack of accessibility to clean water results in women, and usually girl children, walking long distances to fetch and carry heavy loads of water. Thus, the amount of water available for cooking, cleaning and personal hygiene is constrained by the physical stamina of the bearers. Their ability to provide water is tested to the limit if they become ill with HIV/AIDS or if they must care for a member of the family who is infected with the disease.

For women living in poverty in societies where they are subjected to harmful cultural practices, unequal and inequitable status, being HIV positive is especially debilitating. The 13 million women currently infected in sub-Saharan Africa, and the millions more who will become infected in the coming years, experience a devastatingly tragic circle of burdens.

AGENDA

Welcoming Comments

Dr. Elaine M. Wolfson, President, Global Alliance for Women's Health

Ambassador Lamuel Stanislaus, Permanent Mission of Grenada to the United Nations

Geraldine Ferraro, President, G&L Strategies

Personal Perspective: "An American Experience - A Personal and Professional Perspective from a Positive Woman"

Marcy G. Owens, Associate HIV Community Manager, Bristol Myers Squibb

Foundation Perspective: "Mother-to-Child Transmission of HIV/AIDS Plus (MTCT +)"

Timothy Evans, D. Phil., M.D., Rockefeller Foundation

Academic/Research Perspective: "Testing for HIV/AIDS: The Realities and Challenges".

Dr. Brooks Jackson, Professor and Chair of Pathology for Clinical Affairs, Johns Hopkins University School of Medicine

Private Sector Perspective: "Mother-to-Child Transmission of HIV/AIDS Plus (HIV+)"

John Wecker, Ph.D., Boehringer Ingelheim GmbH

Regional Perspective:

Kathleen Taylor (speaking on behalf of Dr. Rafael Mazin, Regional Advisor on HIV Prevention and HIV/AIDS-STI, Pan American Health Organization (PAHO))

Government Perspective:

Peter McDermott, Principal Advisor, US Agency for International Development, Bureau for Africa

Comments:

Dr. Art Ammann, Head of Global Health Strategies for HIV Prevention

Questions and Answers

PROCEEDINGS

ELAINE WOLFSON:

Greetings. On behalf of the Global Alliance for Women's Health, I welcome you, with our partners, co-sponsors and members of civil societies and NGOs to a roundtable discussion, "Public-Private Partnerships for Prevention of Mother-to-Child Transmission of HIV/AIDS." We have more than 40 countries present today and our kind host, the German Mission, has been very supportive and very generous in providing this facility.

Some of you may know we originally planned to have the meeting during the Summit for Children in the fall; but, of course, the tragic events of September 11 necessitated rescheduling our event. We are very pleased that Boehringer-Ingelheim and Abbott Laboratories continued to underwrite our program.

I want to thank my staff, especially Vivian Nilsson, and the Advisory Board of the Global Alliance for Women's Health for their invaluable support. We could not have done this meeting without their efforts and those of our interns from New York University. We thank you all very sincerely for helping us.

Ambassador Mignonette Durrant is not here at the moment. She had another meeting to attend. But we have Ambassador Lamuel Stanislaus of Grenada, representing the Caribbean Community (CARICOM), and he will make a few comments. We also have the Honorable Geraldine Ferraro here. Many of you will remember her: she is an icon for women, the first woman to run for Vice President of the United States.

A number of speakers will each present for ten minutes and then at the conclusion of the presentations, you will have an opportunity to ask questions about policy issues or other matters that you might be interested in following up regarding to mother-to-child transmission (MTCT).

I assume that because you are here, you are aware of the very serious problem of more than 50,000 babies being born each year with HIV/AIDS. Also, many of you know that women who may be infected and may be transmitting the disease, in many cases, do not get treatment before delivery. If they are in programs where they and their babies are being treated so that transmission does not take place, the mothers are not likely to be treated after delivery.

Dr. Art Ammann, who is here, sponsored a very important meeting in Kampala, Uganda, on HIV/AIDS and MTCT in September and, if we have time, he will say a few words. The important sense that I took away from his meeting was that women with HIV/AIDS have much to say, and we must listen to their voices. To understand their message, we have included in your folders a statement issued by the HIV-positive women in Uganda at the meeting they held parallel to that of the experts on HIV/AIDS and MTCT.

Before our prepared program begins, Ambassador Stanislaus and Ms. Ferraro will speak briefly. Our first presenter will be Marcyia Owens, an HIV-positive woman, then we will hear from Dr. Timothy Evans of the Rockefeller Foundation. Dr. Brooks Jackson from Johns Hopkins will speak on testing; Dr. John Wecker who represents one of our major sponsors from the private sector, Boehringer Ingelheim, will talk about the private sector role. Kathleen Taylor of the Pan American Health Organization (PAHO) is replacing Dr. Rafael Mazin of PAHO; then we will hear from Peter McDermott of the United States Agency for International Development (USAID).

Now I am very pleased to turn the floor over to Ambassador Stanislaus.

AMBASSADOR STANISLAUS:

Thank you, Madam Chair, excellencies, distinguished health providers, physicians, et cetera. With brevity being the wit of humor, let me say that when you are asked to speak, all that is necessary is a good beginning and a good ending. The closer the ending is to the beginning, the better your remarks. With this in mind, therefore, I am happy on behalf of the Caribbean Community, CARICOM, just to say we are delighted to be here for such a very, very important working lunch.

The matter of HIV/AIDS is high on the agenda as it should be all over the world, and let me just remind you that the Caribbean is second only to sub-Saharan Africa in the matter of the incidence and the mortality of HIV/AIDS. So, on that score, I am here to learn from the distinguished presenters, the many physicians who are here, and I will just say enjoy lunch and I will not punish you with any further verbalizing.

Thank very much.

GERALDINE FERRARO:

Thank you so much, Elaine, for inviting me to this very, very important meeting. I am not an expert on this issue, but as a lawyer and former member of Congress and as United States Ambassador to the United Nations Human Rights Commission for President Clinton, I have spent a lifetime arguing on behalf of human rights for women and children. Today you will be focusing on the right of women to make informed choices about their health, and the right of children to their most basic human right, the right to life.

I also believe as all of you do that the global community cannot continue to stand back and allow the AIDS pandemic to take its course. It is already succeeding in wiping out an entire generation of young people. Unless and until a cure can be found and made available to everyone, regardless of their financial circumstances, interim steps will be

necessary and one of those interim steps is to prevent the spread of AIDS when possible. Your discussion today here will focus on precisely that, preventing AIDS infection to newborns, the most vulnerable of our society and still our greatest hope.

I look forward to hearing your comments not only on providing treatment, to AIDS-infected women but also on the use of medication by mothers during delivery and the extremely politically sensitive issue of breastfeeding by AIDS- infected mothers. As a global community, we have a moral obligation to objectively and dispassionately assess how we can help both those mothers and those babies. As a global community, we must make every effort to destroy this evil that is destroying an entire continent of lives. Again, thank you for inviting me, and I look forward to hearing the discussion.

MARCYA G. OWENS, Associate HIV Community Manager, Bristol-Myers Squibb

PERSONAL PERSPECTIVE: "AN AMERICAN EXPERIENCE - A PERSONAL AND PROFESSIONAL PERSPECTIVE FROM A POSITIVE WOMAN"

Thank you, Dr. Wolfson and the Global Alliance for Women's Health, for inviting me here today. And, thank you, all distinguished guests, for being here today for this very important meeting. This problem has been something very close to my heart in a very personal way for nearly eight years now. I feel fortunate to be able to be at a point where I can receive treatment and where my children are able to have life. I also want to thank Bristol-Myers Squibb. I am contracted with them, and they did a lot to help me get here today. I am very nervous, and I just started one of those courses of medications that we have and I have been sick for three weeks. So I am trying to get it together.

I asked myself when I worked on my presentation: how could I, in ten minutes, explain to you what it is like to live with HIV? I must have prepared this presentation about a thousand times and then some again. Finally, I went to my mother, who is a very wise woman, and she told me just to tell you how I live. So, I will start with my first thoughts when I learned that I was HIV positive.

I learned that I was HIV positive, that I was pregnant, and that I had dysplasia within about two months of each other. When the doctor told me that I was HIV positive, my first question was, "Well, what is the risk to my child?" That was in 1994, and we did not even know about AZT. Therefore, only good prenatal care was offered, and the risk of transmission was about 20% if the mother did not breastfeed. Not being able to breastfeed really broke my heart because I was so looking forward to it.

About five minutes after learning about my HIV condition, I told the doctor that I was going to show the world how to live with HIV. I do not believe I ever went through a moment thinking that this virus is something that I could not live with. However, I knew I had to first find out how to live with HIV myself before I could educate others.

My mother has an extensive health and counseling background, and I was raised as a vegetarian. She has a program that she calls "New Start." I like following it because the program covers everything that composes my life and is the reason I can stand before you today. New Start begins with nutrition. It is good to have good nutritional care. As a vegetarian I make sure that I have a very well-balanced diet. When I go places and I say I am a vegetarian, some people serve me a plate full of vegetables. Really, that does not make a good vegetarian meal. You must learn how to become a vegetarian, how to create a healthy diet. So I make it a point to be sure I have everything in the right balance.

Exercise is necessary, and it has always been very dear to me. When I was in college, I ran track. After the unfortunate experience of September 11, I asked my husband, a black belt in jujitsu, to teach me that martial art. That is my form of exercise now.

Water. Right now I have been drinking a lot of water. But, I realize that in some countries with not enough safe water, drinking enough water would be difficult. Sometimes I forget to have enough water, but mostly I really work hard trying. Most of the time, you'll see me just drinking water.

Sunshine. It is also very important to understand that we need sunshine. Sunshine has essential vitamins that we must not ignore.

Faith. It is important to have a trust in God. My grandfather died last year at the age of 96. He was a Baptist minister, and he told me I had a very special mission to do in this world. He died without knowing about my HIV status, but when I was diagnosed with HIV, I got down on my knees and I thanked the Lord. I told the Lord, now I know what you want me to do with my life. This is my life's mission, and it is my trust in God that brings me here now.

Air. Air is very good, and you should take every opportunity to breathe fresh air. In New York and in inner cities elsewhere, that is a little bit hard to get. My family and I love to go camping. We enjoy the fresh air when we get out into nature. We all know that good air is something very important to have.

Rest. My work in the field of HIV and AIDS is a passion. Sometimes I get so passionate and so driven about my work that I forget to rest. And I find myself working from early in the morning until late at night. Yet I know that rest is very important. I just started a medication that is forcing me to rest. Now, due to the medication, I am getting better at making myself rest.

Temperance. It is important to take time in life to put everything into perspective and to take time to smell the roses. Until this year, my entire life revolved around HIV and AIDS. This year, though, I got involved with a whole lot of other things through my church, through youth groups and other things so that I could balance my life and make it more temperate.

I firmly believe that every woman should be given every opportunity to maximize her health. A woman from Virginia called me last night at eleven o'clock. She was nervous about starting medication and wanted to know what she should do. She really did not want to take the medication because she believes in herbs and vitamins. So I told her the benefits of medication, the risks, what was good and what was bad. She will make the decision for herself in consultation with her doctor.

A woman should be given every opportunity to minimize HIV transmission to her child. With my first child I was not given this opportunity. Because there were so many risk factors involved, I would say my first child's safe delivery was a miracle. I was in labor for three and a half days, and the baby was in the cervical canal for three hours straight. We know now that was very unhealthy. I did not receive AZT or any other medications. They were not available to help me avoid transmission. But with my second child I made it a point to find out everything I could possibly know and made an educated decision so that I could minimize the risk to my baby. I believe decisions must be made by the mother in consultation with her health-care provider.

Ultimately every woman should be made aware of all the answers and questions concerning mother-to-child transmission. Once she has this information, she can make her choices and these should be respected and honored. Now, unfortunately, in many countries represented here today, women do not have many choices. That is something I would like to see changed and that is a goal that I have dedicated my life to achieving. We need to make changes so that women will have more choices. Why did I choose to have two children? The reason why I chose to have children is because I wanted to have children and I felt it was my right to be able to live my life. Just because I have HIV does not make me just HIV. I am many things: I am a wife, I am a mother, I am an educator. I am a whole lot of things all in one body. I am not just HIV. I actually wanted to have more children, but after my difficult pregnancies, I just chose to stop at two.

A friend prepared this slide for me. It is an article that recently appeared in The New York Times (August 2001). I know you cannot read it, but I just wanted to show it so that you can see a picture of my family. It was taken on a camping trip, an activity that we love the most. Many of you remember the great Martin Luther King, Jr., and he talked about the great Stone Mountain. Well, there is another mountain, called Arabia Mountain, in that area. We were on top of Arabia Mountain, which my two-year-old son can climb by himself. We were climbing up our mountain when a photographer took this picture of us.

To me, reaching that mountaintop is similar to the way we must face HIV. It is not an easy path. It is not easy at all. But we can reach the summit if we make it a point to work together.

Thank you for having me here today.

TIMOTHY EVANS, Ph.D., M.D., Rockefeller Foundation

FOUNDATION PERSPECTIVE: "MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS PLUS (MTCT+)"

Thanks very much, Elaine. I am pleased to be following Marcya, and I think her last slide, the vision of a healthy family which includes not only children but also the mother and the spouse living with a chronic condition who are able to pursue their lives and livelihoods is one that matches very well with the mission of the Rockefeller Foundation and many other foundations which is, in essence, to improve the well-being of humankind.

Let me take you back over the last two years and very quickly trace the journey that resulted in the emergence of Mother-to-Child Transmission Plus. While I will speak about the program itself briefly later, I think its history is important because the United Nations has had a very important role to play in it. The idea began really in January of 2000 with a Security Council resolution on HIV/AIDS. That was the very first time ever in the history of the United Nations that a health issue had come to the Security Council.

January 10, 2000, was an historic day because it identified, rightfully so, the importance of HIV/AIDS as a risk to security. In addition, it is a risk to many other things, such as health and development. But as a risk to security, clearly, it is on the world's agenda. Much has happened since then.

The Durban Conference on HIV/AIDS in July of 2000 made it very clear that treatment had arrived as a priority. Prevention, yes, was very important, and efforts had to be accelerated to find an HIV vaccine, also primary prevention through condom distribution and behavior modification had to be improved. But effective treatment was within reach and more had to be done to deal with those already infected.

That led the Rockefeller Foundation as well as a number of other foundations to say: well, we are doing some activity related to addressing the AIDS situation, but is it enough given the global magnitude of the problem? And when we looked at the track record of foundations contributing to HIV/AIDS programs over time, we were humbled by evidence that our support had not grown in a way that was commensurate with the nature of the epidemic. In fact, support had been a flat line over the first 20 years of the epidemic. That led a number of foundations to ask the question: what more could they do given that they all agreed that they should be doing something more.

The Rockefeller Foundation was very interested in complementing some of its efforts on primary prevention related to HIV-vaccine development and adolescent behavioral change with an entry into the care and treatment area. We held a meeting in Uganda in April of this year which some of you around this table attended. At that meeting, three areas of care were explored in depth. One related to syndromic management of common infections related to HIV as they are encountered in a primary care setting. The second is the opportunity for prophylactic treatment or preventive treatment of infections, like

tuberculosis, that HIV people often get. The third related to the provision of highly active antiretroviral therapy.

The thrust of the meeting was that research needed to lead the way along with efforts to increase access to care in Africa. One of the very important speeches at that meeting was made by Karesha Abdul Kareem of South Africa. She poignantly pointed out that it was unlikely that a universal program of care would emerge anywhere immediately and that it was more important to build on specific points of entry or opportunities with more discrete common ties.

On the basis of that and in response to Kofi Annan's call for greater action from the global community, the Community of Foundations came up with an idea that one appropriate point of entry for extending care would be to work in the area of MTCT. MTCT provides the par excellence opportunity to prevent vertical transmission through its well-designed package which is up and running in approximately 100 sites in different areas of Africa, South Asia and Latin America. But what we said is that instead of simply preventing vertical transmission, why not offer the opportunity of care to mothers that would build on the infrastructure of MTCT program?

This idea got a good response from a dozen or so foundations. Much more importantly, those groups that are on the ground, working day to day in MTCT prevention and who have been doing it now for several years, embraced the idea as well. And at Art Ammann's meeting in September in Kampala, Uganda, on global strategies, the concept of extending care to mothers was endorsed. So, with a sense that those on the ground are interested and supportive as well as those who have the financial means to support a discrete new initiative around care to mothers in the context of preventing mother-to-child transmission, we developed something called MTCT+.

Had September 11th not occurred, this effort would have been launched on September 17th at the UN Special Session on Children, the Children's Summit. Although that has been postponed until May, the delay has not deterred the foundations interested in supporting MTCT+. Next week the Secretary General will be hosting a dinner of foundation presidents who are contributing to this initiative and a \$100-million five-year program to establish the feasibility of MTCT+ will be launched. The plus attached to MTCT relates to the concept of extending care to mothers. In terms of care it included opportunistic infections, like tuberculosis and some of the pneumonias, as well as the treatment of infections that are commonly incurred with HIV infection. In addition highly active antiretroviral therapy, where indicated, is provided.

The program is going to be led from a New York base through the Columbia University School of Public Health. And, importantly, it will work with those institutions and organizations that are currently involved in the provision of MTCT care.

Thank you very much.

**DR. BROOKS JACKSON, Professor and Chair of Pathology for Clinical Affairs,
Johns Hopkins University School of Medicine**

**ACADEMIC/RESEARCH PERSPECTIVE: "TESTING FOR HIV/AIDS: THE
REALITIES AND CHALLENGES"**

Thank you very much, Elaine. Good afternoon distinguished ladies and gentlemen. I'm going to briefly talk about the challenges and the reality of testing for HIV infection as it pertains to mothers and children particularly in developing countries. I think to understand this challenge one has to first understand the scope of the epidemic. There are approximately 25 million women who deliver babies each year in sub-Saharan Africa alone. The seroprevalence rates range between 5 and 45% so there are a tremendous number of HIV infected children, approximately 600,000 to 700,000 per year. The numbers continue to increase every year because the epidemic continues to increase worldwide.

Fortunately there are several drug regimens, which have been effective in being able to reduce transmission. AZT was the first one used in the United States, but it is a very expensive regimen, about \$1600 per year. There have been more simple regimens since. The Nevirapine regimen, a single dose to the woman in labor and then to the child, has probably been the most simple and inexpensive regimen. As one can see, comparing Nevirapine to a short course of AZT resulted in about 40 to 50% reduction in transmission. Nevirapine is now available for free from Boehringer Ingelheim to governments in developing countries who want to use it.

So there is effective treatment that can have a significant impact on reducing mother to infant transmission. But, of course, it's important to be able to identify those women who are infected. And, in fact, most women who are infected do not know they are infected. The primary test used for the diagnosis of HIV infection in this country is the Enzyme immunoassay (EIA) test for detection of HIV antibody. This test is a screening test and if repeatedly reactive is then confirmed with Western blot assay. This EIA test is roughly about \$7 a test and confirmation with Western blot is typically about \$30. So it's about a \$35 to \$40 test to do this testing algorithm which is really beyond the reach of most developing countries.

To diagnose HIV infection in a child in this country we use DNA PCR or RNA PCR because one can't use the antibody test because the maternal HIV antibody crosses the placenta causing their babies to test positive. But in fact, only about 25% will actually be infected if they did not get AZT or Nevirapine. So we have to use a test that directly detects the virus in the blood. The HIV PCR qualitative test costs about \$20 per test and one typically would do that at six weeks and maybe again at six months of age. So, again, a fairly expensive regimen.

If one wants to actually measure the viral load for treatment purposes of the mother, we use a test called quantitative HIV RNA, also known as plasma viral load testing, which is

about \$110 for that test. And that's typically done several times a year. So that becomes prohibitively expensive.

This slide shows you the antibody test we use in this country. The stronger the reaction the higher the titer of antibodies which are then confirmed with the Western blood test. In addition this testing requires a tremendous amount of infrastructure. For example to do just the screening test, in Uganda, where I've worked since 1989, not only do you need to test kits (which are typically several dollars per test), but you also need the phlebotomist to draw the blood, you need service contracts to support the equipment that's needed and disposable supplies. You also need reliable power, pipettes, skilled technologists, and of course counseling for the women, freezers, refrigerators, centrifuges, plate readers, reagent grade water, burglar proofing, and proficiency testing programs. And that's just for a screening test. Realistically, it would be very difficult to provide this type of infrastructure throughout these developing countries.

So there is a need to have inexpensive rapid testing where the results can be reported back to a woman very quickly. This testing needs to be a very simple procedure that doesn't require centrifugation and equipment. You need to be able to use whole blood so one doesn't have to spin down the blood for serum or plasma. It should not require power or electricity to perform this test or refrigeration for reagents. The test needs to have high sensitivity/specificity characteristics, and it should be widely available on the commercial market. Fortunately there are a number of rapid tests that have been developed by a number of companies and I've listed a number of them here, although I must say only one has been licensed in the United States. But there are at least ten rapid tests that are available outside the United States.

In Uganda we typically use the Abbott Determine assay followed by a second test, the Unigold test. These tests are particularly easy to use. You just take a drop of whole blood, put it on this flow through, dip stick type device. The wick will absorb the blood and when it crosses a certain area coated with HIV antigen and a control, a band will appear. So, in this case this is a positive test, this is a positive control. Here we have a positive test but a negative control, positive test, so that would have to be repeated.

So these are very simple tests and can be read right on the spot. It takes roughly about ten to fifteen minutes and we perform this test in the clinic. In Uganda we've tested approximately 15,000 women since these tests were available over the last year and a half or so, of which about 12 to 15% are HIV antibody positive. So we've been able to identify about 1500 HIV positive women using this technique. And it costs us about \$7-\$10 including the cost of the counselor, the phlebotomist, and technologist performing the test depending on the volume and number of patients.

Another rapid test is the OraQuik test which can use saliva as well as blood and may be more acceptable to some women rather than needle sticks. These tests are very sensitive and specific, having close to 100% sensitivity and specificity. So they're very, very good tests, comparable to what we're using in the United States.

There are a lot of benefits to being able to do it rapidly because in the US we take a blood sample and we send it to the lab and we get the results back to the patient anywhere from three days to a week later. Here you can do it right at the time the patient is seen. This convenience has really increased the demand for testing. This slide's from Malawi. One can see in green, the number of women that were tested using the old method (the EIA assay), compared with using the rapid testing approach. One can see a great increase in demand for this rapid testing. It's easy to use and being able to tell women at the time, reliably, whether they are infected or not is a major benefit. So this has made a big difference in identifying HIV+ women.

Now diagnosing HIV infection in children is still somewhat of a challenge because PCR is much more difficult to do. It requires lab equipment and all the things I showed you on that first slide and more. But the sensitivity of these tests are very good and in the HIVNET 012 study which is the Nevirapine trial done in Uganda, we had 99% sensitivity with this particular assay and costs about \$20 to do it.

When one looks at the cost of this testing more broadly, the cost of this type of testing is significant. As I said earlier there are about 25 million births per year in sub-Saharan Africa of whom probably 12% are HIV infected or three million women. You've got to test all of them if you want to identify all the HIV pregnant women. So 25 million women times \$5/test, it's \$125 million. But I think that's an affordable number for the United Nations and Global Fund for AIDS to support this type of testing. If you want to test the three million infants of these HIV positive mothers at \$20 a test, at six weeks and again at six months of age, because they are at risk of continuing to be infected due to breast feeding, this costs an additional \$120 million. So it's roughly the same sort of cost.

An alternative is to not do the testing at all if it's not available and provide drug such as something that's fairly safe and simple such as Nevirapine. We did this analysis a couple of years ago looking at universal access to Nevirapine versus targeting treatment with voluntary testing and counseling. I strongly support the voluntary counseling and testing over universal access but, in many places, it's just not available to these women and one alternative would be to provide the Nevirapine to them, just like we provide supplemental iron or iron tablets to all pregnant women regardless whether they're anemic or not, because this Nevirapine regimen does appear to be very safe and effective.

And then lastly, viral load monitoring is clinically useful. It is prognostic for clinical progression, for vertical transmission, sexual transmission, and most importantly for measurement of antiviral activity for predicting clinical response to therapy. The utility of viral load monitoring has been documented in many, many trials in which one has an effective regimen. The viral load drops very quickly, ten- to a hundredfold to a thousandfold with treatment. A drop in viral load will probably result in less transmission from mother to child either at the time of delivery or during the time of breast feeding.

In this country we monitor viral load at baseline and three to four times a year after that. That's a fairly big expense at \$110 a test or roughly \$600 a year plus CD4 counts, which are about \$40 for each time. So this is very expensive. If you wanted to monitor all the

HIV positive women in sub-Saharan Africa alone, the cost would be three million women times \$600 or \$1.8 billion a year for something like that so it's a very big expense -- and it's continuing every year. The diagnosis of HIV infection on the other hand, is probably affordable and feasible and I think testing the children, too, would be important because then that helps mothers make decisions about continuing breast feeding as well as simple prophylactic regimens to prevent bacterial infections.

In summary, rapid tests are sensitive, specific, feasible and, I think, affordable. Diagnostic tests for infection of the infant are relatively inexpensive in absolute amounts of money. It enables women to make better decisions. Monitoring of viral load and CD4 counts are probably prohibitively expensive and not feasible, in my opinion at this time, certainly on a global basis. But I should caution you that it is unclear how much this viral load testing will actually contribute to clinical benefit because what we do not know is whether you need to do this testing to really reduce morbidity and mortality. Just providing these treatment regimens may be effective.

Thank you very much.

JOHN WECKER, Ph.D., Boehringer Ingelheim GmbH

PRIVATE SECTOR PERSPECTIVE: "MOTHER-TO-CHILD TRANSMISSION OF HIV/AIDS: THE REALITIES AND THE CHALLENGES"

Thank you very much, Elaine. It is my pleasure to be here this afternoon. I am just going to take the first two minutes of my ten-minute allotment today and tell a small story about this particular meeting. It actually was conceived earlier in the year at the meeting of the Global Health Council where I was participating on a panel discussion and Elaine Wolfson was the moderator. After the panel discussion, we sat outside and had a little tea and started talking about mother-to-child transmission prevention and some of the difficulties that I was having in donating or giving away free of charge our drug, Viramune, or nevirapine its generic name. It had become very clear early on that there were some false assumptions made when people heard that this drug, Viramune (or nevirapine), had been made available free of charge. There was an assumption that, okay, now we are well on our way to preventing mother-to-child transmission. The drug is there, the manufacturer is giving it away free, everything must be going well. And, indeed, that is not the case at all.

I was sharing with Elaine some of the difficulties we were having giving the drug away, and we talked about the need to raise awareness not only about mother-to-child transmission and prevention but also of all the other elements that have to be in place along with the availability of the drug. You have already heard about some of these elements from Dr. Jackson. But there are many, many more things that have to be in place to truly offer a comprehensive package of mother-to-child transmission prevention.

And so we discussed some ideas about how we could raise awareness concerning some of these issues. We agreed that there would be an opportunity here in New York at the United Nations Summit on Children to have many of you come to a discussion. A luncheon, such as this today, would offer a setting where we could talk about what can be done and so raise awareness within the political circles, within the government circles in the countries that are affected.

As you know, the tragic events of September 11th forced the cancellation of the Summit on Children and, unfortunately, our luncheon was canceled as well. But Elaine had recognized early on that there was a lot of interest in this discussion. Today, all of you at this roundtable are testimony to the accuracy of her judgment. Elaine kept pushing, and she kept looking for opportunities to reschedule. Eventually, she found this wonderful location and got the word out. It really is through her drive and persistence and perseverance that we are able to come together today. I just want to take a moment and thank Elaine Wolfson. Thank you very much, Elaine.

Now I want to share with you a little bit of information about the nevirapine donation program. I believe this program can serve as an illustration of what the private sector can offer to fight against HIV/AIDS in the developing world. As you have heard from Dr. Jackson, landmark clinical trials have been conducted and have demonstrated that this drug, Viramune, can significantly reduce the transmission of HIV from mother to child during labor and delivery. The results of the trial, HIVNET 012, demonstrated that a single tablet given to the mother during labor and delivery followed by a few drops in suspension given to the infant within 72 hours of birth can reduce the risk of transmission by a significant percentage.

The public health impact of that kind of efficacy was obvious to our company and, consequently, we decided to donate, to offer Viramune free of charge specifically for use in the prevention of mother-to-child transmission to over 100 developing countries worldwide. We made that announcement in July 2000. Initially there was a very positive media response. People were very excited to hear that the manufacturer was coming out and offering a drug free of charge. Following the announcement, we prepared ourselves to receive a large number of requests and applications from people taking advantage of our offer.

Unfortunately, that was not what occurred. In fact, with only a few exceptions we heard very little from the communities out there to whom we were making this offer. In fact, there was a lag time of about a year before we started finally to see the first applications come in to the program. Today, I can say very happily that the number and pace of new applications are increasing: thus far we have agreed to donate nevirapine to 29 different programs in 18 different countries within the developing world. We have committed to offering over 62,000 treatments to those 29 programs. While we are seeing an increase in the number of applications, we have to regard these 62,000 treatments in the context of Dr. Jackson's figures of 600,000 to 700,000 new infections per year in sub-Saharan Africa alone. So, you see, we still have a long, long way to go.

I think that it would be useful to look at some of the reasons why there was a lag time and what was keeping people from coming forward and saying we are able to use the donation. It turned out that, indeed, the drug itself plays a very, very small part. Extensive financial as well as the human resources are necessary before a country is able to take advantage of the availability of a drug such as nevirapine. Dr. Jackson has outlined a few of them for you, but you can add to that list things such as cultural education and awareness, knowledge about HIV within the community, knowledge that there is an option to prevent mother-to-child transmission, and the motivation to get mothers to come into a program. And the list goes on: training medical staff, voluntary counseling, availability of HIV testing, post-natal care follow-up, and the medical facilities themselves.

When you think about all of those other elements, the part that the drug contributes is actually a very, very small part of the whole package. But you cannot prevent mother-to-child transmission until all the pieces, or many of those pieces are actually in place. The drug by itself cannot do it alone. That was the main message that we discovered when looking into why programs and countries were not coming forward to take advantage of our donation program.

To date, 18 countries are now participating in our donation program, the majority of them in sub-Saharan Africa. Guyana is our first Caribbean country, and just yesterday we made a donation in the Ukraine. This represents our first steps to extend the program beyond sub-Saharan Africa. We are confident that in the future we will be able to give away more of the drug and that we will reach many more than the 62,000 or so patients who are currently targeted to receive our donations.

I would like to sum up with a few lessons that we have learned from our experience with the drug donation program. The first has to do with the role of the private sector, per se. We, as a drug company, are a discoverer and developer of drugs and our contribution in the fight against HIV/AIDS is to make our product available. We are not on the ground treating patients. We are not a charitable organization. We are not responsible for the political will that enables a government to come forward to say, "We must do something." That's not what we can contribute. We can only contribute what is consistent with our expertise and our mandate as a pharmaceutical company.

The second lesson taught us that the only way we are going to succeed in this fight against HIV/AIDS is through partnerships. No one stakeholder can do it alone. Not the pharmaceutical company, not the government, not the people living with the disease, not the non-governmental organizations on the ground. Everybody has to come together and contribute according to their expertise and their mandate and who they are.

Lastly, it is at this time when there is so much discussion about expanding access to medicine in the developing world that this lesson has become very obvious to me and to many others: if you want to expand access to medicine, you first have to expand access to healthcare. Without the health care infrastructure, medicines such as nevirapine cannot reach the patients for whom they are intended. I hope, as we go forward in partnership,

everybody coming together, that healthcare capacity will be expanded so that we can really make a difference in the fight against HIV/AIDS in the developing world.

Thank you very much.

KATHLEEN TAYLOR (speaking on behalf of Dr. Rafael Mazin, Regional Advisor on HIV Prevention and HIV/AIDS-STI, Pan American Health Organization)

REGIONAL PERSPECTIVE

Thank you, Elaine, for asking us to come and speak today, and thank you to all the distinguished guests for being here today. Good afternoon, my name is Kathleen Taylor, and I work with the Pan American Health Organization (PAHO). I am speaking on behalf of Dr. Rafael Mazin who could not be here today.

Today, I will speak to you about the Pan American Health Organization's regional perspective on the prevention of maternal-child transmission and comprehensive healthcare for HIV-infected women. As we all know, HIV/AIDS is a disease that does not discriminate. It affects men and women of all races, ages, social economic status and sexual orientation. Currently there are 40 million people living with HIV/AIDS in the world. Of these people, 17.6 million are women and 2.7 million are children under age 15.

In Latin America there are now 1.4 million people living with HIV/AIDS, 30% of the adults are women. In 2001 alone, there are 130,000 new infections. The region's prevalence rate is .5%, although countries such as Belize, Honduras and Panama have higher rates of 1% or more.

The Caribbean is the second most affected HIV/AIDS region in the world. Fifty percent of the HIV/AIDS adults are women. In 2001 there are 60,000 new infections. The prevalence rate for this region is 2.2%; Haiti and Bahamas are the hardest hit countries with rates above 4%.

When speaking of HIV-positive pregnant women, there are two possible scenarios to consider: women who know they are HIV positive and chose to become pregnant, and women who are offered HIV testing in antenatal care that are told that they are HIV positive. The latter is when the majority of HIV-positive pregnant women discover their status. The aim is then to provide these women with appropriate quality treatment to avoid negative health outcomes such as transmission of the virus to the fetus during birth, the mother's disease progression and disability, her inability to care for her infant or her death, leaving infants and other children orphaned.

The countries of the Americas and the Caribbean have established that HIV-positive pregnant women are the number one priority to receive the best antiretroviral therapy

available in each country. It is also important to emphasize that a woman's health is an end in itself and that a woman is not just seen as a receptacle to produce a healthy child.

The following are treatment recommendations, from Building Blocks, which is PAHO's integrated model for HIV/AIDS treatment. These recommendations come from the maternal-child transmission prevention component.

When a pregnant woman of unknown HIV status presents for antenatal care and is identified as being at high risk or she lives in an area of high prevalence, she would be encouraged for HIV testing, provided with information about HIV and maternal-child transmission, provided with safer sex information, and offered treatment for sexually transmitted infections (STIs) and information on nutrition and substance abuse.

When an HIV-positive woman between 13 and 34 weeks gestation presents with no previous antiretroviral therapy, with more than 200 T-cells, it is recommended that she be provided with psycho-social support such as counseling and information about safer sex practices and treatments of STIs as well as being provided with information about nutrition and offered substance abuse treatment if that is appropriate at that time. She should also be provided with prophylaxis for opportunistic infections according to her CD4 count. Also, she should be offered long or short antiretroviral therapy protocols for the prevention of maternal-child transmission.

When an HIV-positive pregnant woman beyond 34 weeks gestation presents and has had no previous antiretroviral therapy, she should be treated for opportunistic infections according to her CD4 count, and she should be offered shortened antiretroviral protocols for prevention of maternal-child transmission.

When an HIV-positive woman who has had no previous antiretroviral therapy presents to a health clinic or a hospital during labor, she should be provided with quality healthcare at delivery by a trained, knowledgeable staff and offered antiretroviral therapy prevention protocols that should be given to the mother during delivery and also to the newborn.

After the birth of the child, sustainable HAART therapy should be provided to the mother on a long-term basis, if this is clinically indicated. Antiretroviral should be provided to the infant after birth if the protocol selected calls for this. In situations where it is safe, acceptable and sustainable, it is recommended to avoid breastfeeding and use milk substitutes. Follow-up should be done to ascertain the HIV status of the infant and continued follow-up should be done with both the infant and the mother.

I have copies of our integrated model that I can provide afterward to those who would like it.

Lastly, I have listed some challenges to strive to meet, and I note that they are challenges. The first is to develop health systems to be able to offer HIV testing to all pregnant women. As we have heard, this can be costly and difficult to implement, but it should be a goal. The second is to offer antiretroviral prophylaxis to all pregnant HIV-positive

women and continue HAART treatment for the mother after the birth of the child if it is medically indicated. Lastly, if a woman accepts antiretroviral prophylaxis, she should be counseled and offered milk substitutes for breastfeeding for at least six months if the situation - and I want to stress this -- only if the situation allows for hygienic preparation and is sustainable.

In conclusion, we at PAHO feel that through careful planning it is possible to reduce the risk and the negative health outcomes for mothers and to prevent vertical transmission.

Thank you.

PETER MCDERMOTT, Principal Advisor, US Agency for International Development, Bureau for Africa

GOVERNMENT PERSPECTIVE

Good afternoon, everyone. Let me first of all thank Elaine Wolfson, our moderator, the Permanent Missions present here, especially our host, Germany, and all of the other speakers, especially Marcya Owens whose very poignant testimony we had to start off.

One of the advantages about going last is that you can actually strike out from your own discussion points many of the points that others have raised. I am going to limit myself to a quick review of about eight or nine bullet points. I hope that my presentation is not too disjointed, but I will do this in the interest of brevity.

My first point is that we are running to catch up and we are trying to hit a moving target. What I mean is that if we were in this room a year, two years or three years ago, the debate would have been completely different from the debate that we have today. I think it is very, very important that we look upon the discussion of mother-to-child transmission as one concerning people -- women and children and their families. It is not about drugs and commodities. They are the means to an end and that end is the interruption of transmission.

I think it is also important that we put mother-to-child transmission within that wider context of the continuum of primary prevention, preventing unwanted pregnancies, and demonstrating that we can apply the tools and the technologies that we have now. I think that the drug regimens currently available and the cost of those drugs are something that we could not have hoped for even two or three years ago.

The second point I think that we need to cover is to understand the need to reconceptualize the discussion. A year ago we were talking about mother-to-child transmission. I would argue that we are now also talking about MTCT Plus, and we have heard some of the elaboration concerning that effort. I would urge us to also start thinking about MTCT Plus Plus, because I still think that we have not taken some of the

interventions to their logical conclusions. We are now clearly looking at providing treatment to women as not just an option but also as something that is an imperative.

I would also like us to consider the other end of the spectrum and look at where we care for the children who are going to be, inevitably, orphans. Also, what do we do for the 1.6 million children who are HIV/AIDS positive because we will not be able to secure the interruption of that transmission. MTCT++ includes treatment of the mother, the partner, the male, and the child within the context of primary prevention.

As the third point, I think that we need to square this dilemma: square the circle between demand and supply. I would argue that a fundamental premise, a fundamental assumption, that we tend to ignore, and ignore at our peril, is the need for a modicum of a functioning health service, with an antenatal care clinic, mother-to-child transmission clinic, and some of the auxiliary services. This expansion of care is called for at a time when health services in Africa are going backward. In Africa expenditure on health services is dropping, not increasing. Health services are overwhelmed by the demands of HIV/AIDS. Health manpower is equally affected by the pandemic in terms of the losses of doctors, nurses and clinicians.

So we are asking existing health practices to take on more responsibility at a time when the health service cannot meet existing demands, and we are asking health professionals to do more work at a time when their numbers are being depleted. This is also happening at a time when, because of the structural adjustment programs, or IVSET programs, civil service freezes are occurring and often we can not replace health and teacher personnel. At the same time, remuneration for civil servants is at an all-time low in terms of purchasing power parity. Whether we like it or not, we have to take this issue of health systems and health manpower into account.

I would also like to make the point in terms of this reconceptualization and squaring the circle to offer a tribute to Dr. Ammann who is here and to our colleagues from UNICEF and Elizabeth Glazer in particular, but not limited to them. The courageous innovation in this area that has happened over the last three or four years has not been without its critics from afar. And yet, really, the pioneering work, in terms of the conceptualization of mother-to-child transmission interruption and the operational feasibility work that has gone on, has really laid a foundation for, we hope, this acceleration.

I think the next point is that we do not have a road map. This is one of the few areas in the last 20 years that I am aware of where we do not have scientific consensus. Expert committees in Geneva and elsewhere are meeting even after we have demonstrated something on the ground in the field. We are not used to playing catch-up. I think the work in the field is courageous; I think it is innovative, but I think that what we need to understand is that we will inevitably, therefore, make some mistakes. We also have to learn by doing and not wait for science to give us the end result.

This brings me to the next point: is lack of knowledge an opportunity or a constraint? We go to meetings and we hear you cannot do this because we do not know the answer. You

cannot do that because we do not know what the outcome is. Whether on the feeding issue or the resistance issue, that is the attitude. At the same time, we are taking leaps of faith and we are demonstrating feasibility on the ground in the absence of that sure knowledge.

This has brought inevitable tensions: the scientific community is not necessarily homogenous or coherent in the understanding of some of the implications of the disease, its progression and some of the solutions that we have. Similarly, the implementation community is also at risk. We have governments who are being, in some cases, very conservative and saying, no, we do not have the evidence or the resources to take this forward on a mass national scale. And we have other governments who are saying, no, we will move forward. All credit to those countries like Botswana and Uganda that are providing leadership in this area.

But the bottom line is that it is a challenge to us around this table, in the scientific community and on the ground with national governments. We need to learn joint operating skills. At the moment, we are not working as the sum of our parts. We are working sometimes against each other rather than with and for each other. Therefore, I would argue that we need to bring in many more civil society groups and, as today indicates, public-private sector partnerships.

Some of the most cynical words that I have heard in some time were said while I was sitting around with a number of drug company representatives during the last few months. One of them said that no good deed done by drug companies goes unpunished. I think that we need to make sure that statement is not true, and that people work together to their strengths.

But private sector and public partnerships with the private sector are not a panacea. Private sector companies, although they may have a philanthropic or social responsibility role, also have limitations as to what they can and cannot do. John Wecker and others have shown us the difficulties involved in even giving away drugs free. Nonetheless, the drugs are only, as he mentioned, one small part of the package required for successful programs.

Two last points, if I may, very briefly. One: there is a myth about resources. Irrespective of the US government's massive contribution -- and I will come to mention that in just a moment -- and the global trust fund, there are insufficient resources on the table. We have won the battle of mobilization; we have won the battle of advocacy. HIV/AIDS, as we heard, is a Security Council issue. We have had the United Nations General Assembly Special Session (UNGASS), and you are all here as well. We would not have gotten together a group like this two years ago. But the resources that are physically on the table are far from sufficient given the magnitude of program needs.

My last point will speak to the work of USAID and our government. USAID is still the largest contributor to HIV/AIDS controls in the world. Last year, that sum was \$430 million, excluding the \$200 million for the Global Trust Fund. USAID has also huge

partnerships and for our government, the Centers for Disease Control is providing \$100 million on mother-to-child transmission prevention and treatment in 20 countries. The premier research that our National Institutes of Health are doing clearly is very visible as shown at the Kampala meeting and elsewhere.

I think the issue is that the US government, through its cabinet secretary committee on HIV/AIDS chaired by Colin Powell, Secretary of State, and Tommy Thompson, Secretary of Health and Human Services, clearly gives an indication of the administration's priorities. The new HIV/AIDS unit in USAID is being expanded and with some very solid support from Congress, we expect further increased funding from the US government for HIV/AIDS work this year. But for governments around the world, there is still this challenge: although the rhetoric of HIV/AIDS has been cataclysmic, in particular for sub-Saharan Africa and women and children, most governments are still not putting sufficient resources on the table. And as much as we welcome and encourage the work with the private sector, the private sector itself and specific private-public partnerships are not a panacea. Their contributions must be matched by the governments themselves.

Thank you very much.

COMMENT:

Dr. Art Ammann, Head of Global Strategies for HIV Prevention

Thank you, Dr. Elaine Wolfson and guests. I am going to keep my comments brief because you will need to have time for an open discussion on the wealth of information that has been presented. Each speaker has highlighted many important and critical features of HIV/AIDS transmission and its prevention.

As I was thinking about what I could present by way of summary, I reflected back to the beginning of the epidemic in 1981. That was when we saw the very first children with vertical AIDS transmission. At that time we did not know it was a result of HIV. And once HIV was identified, we did not think that we could interrupt HIV transmission from an infected mother to her infant.

When the very first result of the use of AZT to prevent HIV transmission was reported in 1994, that success seemed almost a miracle. It did not come about by any one person or any one group working alone. It happened as a result of collaborative efforts. And it is the power of collaboration that we all need to remember as we gather here today as distinct and unique organizations to discuss how we can move forward.

Significant progress has been made in HIV prevention. In the United States, for example, we have 4 million births each year. While the mothers of 6,000 to 8,000 of these babies are HIV-infected, as a result of treatment, the transmission rate is now between one and

two percent. That is fewer than 200 infected infants per year. That experience was the driving force leading us to ask, "What could be done in developing countries?" And again, thanks to science, clinical research, and the pharmaceutical industry, we found something could be done. In 1999, a study performed in Uganda, found that nevirapine would be an economical and effective way to reduce perinatal HIV transmission around the world.

The cost of drugs for perinatal HIV prevention can now be removed from the list of obstacles to the elimination of MTCT. Even at non-discounted prices, the cost of nevirapine to treat all of the HIV-infected women in the entire world would be somewhere around \$1.5 million, a very small sum of money. As Dr. Jackson pointed out, the cost of diagnosing HIV-infected women and providing them access to health care is a more problematic issue.

When I visited China several years ago, I saw and became extraordinarily concerned with the beginning spread of the HIV epidemic. All of the risk factors for spreading HIV throughout that country were present. Although methods of HIV prevention were known, the Chinese government delayed implementing prevention strategies. We now see the consequences of that inaction. Nevertheless, treating all the HIV-infected pregnant women in China is entirely possible now. There are approximately 23 million births per year in China. Because the seroprevalence of HIV is currently low, there are only an estimated 10,000 HIV-infected pregnant women per year. It would cost less than \$10,000 for nevirapine, at a discounted price, which could provide preventive treatment for all those HIV-infected pregnant women. Testing all pregnant women would require millions of dollars and additional health care resources.

In India, the country that will soon have the highest number of HIV-infected individuals, the cost of providing treatment to prevent perinatal HIV transmission is again not an issue; it would cost an estimated \$400,000 to treat all of the HIV-infected pregnant women with nevirapine. In contrast, the cost for HIV testing of all pregnant women throughout the entire country would be about \$130 million. These figures illustrate why the cost of nevirapine to prevent perinatal HIV infection is no longer an issue.

What have we learned? First, we have to begin by not trying to solve the entire problem immediately, but by providing solutions in a step-wise manner. Second, we must attack the fundamental scientific and public health issues and find solutions by means of research. Once that is done, we begin to bump up against the wall of impeding implementation. Third, we must then break down that wall through activism and advocacy. As we think about why so much progress was made in the United States in the areas of basic and clinical research, pharmaceutical drug development and implementation, we find it is because activists were constantly pushing and prodding those involved to develop rapid solutions to controlling HIV infection. Fourth, recognition of the importance of leadership.. That is why we are all here, whether we represent an organization, a government or a private industry. We saw MTCT go from a Call to Action for treatment to prevent perinatal HIV infection to a Call to Action for

countrywide implementation of MTCT Plus, which is a call to provide treatment for all HIV-infected women and children.

We saw the Rockefeller Foundation step forward and take up the issue of MTCT Plus and as a result of its advocacy, commitments for that purpose from several organizations have now reached \$60 million.

As we intervene in one area, we raise critical ethical questions. Why aren't we treating all HIV-infected women? Why aren't we doing more to prevent HIV infection? Why aren't we treating sexual partners? What about the orphans? Each one of these questions identifies the issue that we must address and will address as we solve the problems they represent and continue to press forward with an agenda for prevention and treatment.

Thank you.

COMMENT:

I am MAY YACOOB, the director for population and health at the United Nations Foundation.

I was delighted to hear about all this scientific research that has come up. We at United Nations Foundation are partners with the MTCT+; we at the UN Foundation have been also among the earliest to support UNICEF in their MTCT experiences. That was about four or five years ago when MTCT was not really on the map. What intrigues me now is the fact that we may be barking up the wrong tree, in the sense that in sub-Saharan Africa, hospitals provide coverage for barely 20 to 30% of the total population.

Most infants are not born in hospitals. They are born at home with the help of traditional birth attendants. The importance of the traditional health provider is an area that none of us has started to look at. They are not really the health workers we know how to communicate with. Yet, they are trusted health workers that we need to access in order to make progress in moving the necessary drugs and testing to people in an effective operational manner.

COMMENT:

I am DORTHEA LANG and I represent the International Confederation of Midwives.

And as you have now stated, we are a group of people that are very seldom mentioned in the broad perspective and yet we are working widely. In some developing countries 99% of all babies are delivered by midwives and traditional birth attendants. I certainly hope

that we are all included among those involved in implementing this tremendous undertaking in the future.

Thank you.

COMMENT:

DR. JOHN WECKER:

On the implementation point, you are absolutely correct about the importance of traditional health workers. Those of us who have been in Africa know that the healthcare infrastructure does not penetrate very deeply, indeed no healthcare infrastructure that we would recognize as such in the North exists. You are also absolutely correct about the need to find different ways of approaching the distribution of healthcare, and in my case, of pharmaceuticals. We have heard this from a number of people on the ground who are dealing with healthcare.

We are now developing the means to enable us to distribute the drug at traditional healthcare facilities so that mothers can receive the drug -- say at their last prenatal care visit or at the time of their discharge from a healthcare facility after childbirth. This would allow the mothers to take the drug and administer it to their infants at home. We are also looking at ways to get the drug easily to mothers and infants outside of the healthcare facility. In response to the kind of feedback we just heard, we have to find different ways to deal effectively with this situation in places such as sub-Saharan Africa.

COMMENT:

DR. ART AMMANN.

Just one quick comment to support that. An area of extreme concern is the change in the lives of men who are infected. The men-to-women ratios were as high as 6:1. But that will change because of the global economy. A new pattern is emerging. More of the male population is going to migrate to cities where they become HIV infected, then go back into rural areas and bring the infection to their wives or other sexual partners. We are going to see more HIV transmission take place. So I absolutely agree that we must target the problem of delivering HIV/AIDS healthcare to the rural areas and determine the best way to use traditional birth attendants and so on.

COMMENT:

MUKARABE MAKINTO. I represent the World Organization of Girl Guides and Girl Scouts.

My home country is Burundi in the sub-Saharan region of Africa. I just want to reemphasize and address the point Dr. Yacoob just made about most of the African countries. If we wait for the infrastructure or wait for traditional health centers or healthcare facilities to be replaced, if we wait for the government to come up and say we have this program for establishing facilities, we will be still talking and people will be dying. So I just want to thank the people who are recognizing the problem and the challenge that needs really to be met.

The challenge also involves testing. Most of the time, rural women who actually can get access to hospitals will go to them. Few provide prenatal HIV counseling, and even if the women do receive some counseling while they are at the hospital, they have to go back to the rural areas where they live. We all know the problems they may face there. If everybody learns that these women are HIV positive, they are just left by themselves. A woman will die within two to three months from the moment that she learns she is HIV positive or has AIDS. Something really has to be done. Thank you.

QUESTION:

I am GLORIA STARRS-KINS of the Washington International Black Tie and Irish Connections.

I am a part of the media and I am interested having someone like the speaker tell me what kind of communication does she think, from her own experience, will get to any of these people? Is it by radio in their national language? What can be done, even in the smallest way, to start to educate them in their own villages? Probably they do not have television, but how strong is the radio capability there? The average person listens to radio a lot in the developing countries, but what is happening in the rural areas.

I would like the person from Burundi who just spoke to say what she thinks can be done to get to rural populations as far as using any kind of medium or communications.

REPLY:

MUKARABE MAKINTO:

Thank you. I will not pretend to have any insights in this. I can see many of my sisters here in the room, and if they would like to, maybe they can add something. But I would like to say that in most of the rural areas radios and newspapers are not available. Most of the time we are dealing with illiterate women. To answer to your question, ask the people

themselves, the people in the communities. If you will come to my country, I will go with you and, then, because I speak the same language and I am from the same background culturally, I will be able to communicate and understand all the ramifications of what is said.

When I was growing up, my mother never told me anything relating to sex. It is taboo. But if you are with someone from that rural area, the women will come out and talk with you because, you know, they are really wondering why you are coming to talk to them about, for instance, how to breastfeed their children. Or, if you come to tell them that they have a problem and say you should not breastfeed your children, most of them would feel that you are taking away their motherhood because that is what they know. And if you just bring them infant milk and say this what I am giving you, it will not happen. So we must tell them things they can understand. And they will understand what they need to learn only if the information comes from the people who are from their own environment.

COMMENT:

My name is TEQUEST GUERMA. I am from the World Health Organization.

I would like to comment on these two points. The first one concerns reaching the rural community, the rural women, and getting them access to treatment. I think from my experience of working in the field I can say that there are many home-based care programs now. Communities are mobilized and are reaching women in the rural areas through these organized home-based programs. More volunteer caregivers could be trained to help provide the rural women with better access to treatment.

Concerning the media, I think what my sister is saying about that is very important. In the rural areas women are illiterate. They do not even have time to listen to the radio and other media are not even available. What can be done is to use door-to-door communication. This has been done in many countries such as Botswana where community members are going from door to door to speak about AIDS prevention and provide other information. Also, at times the village chief will gather with other persons from his area to pass on some information. These methods can help us reach those we looking to inform.

COMMENT:

My name is LEFU MAYOKOLE.

I come from the Mission of Lesotho, and I appreciate all of you here and all of what our experts said and I have to say I appreciate their caring. We have met today and discussed problems thoroughly.

But I want to talk about two things. One is I have a concern about what the expert said when he spoke about resources. I appreciate that there is a need for political will from our member states. Yet, I am also interested that most of the time when there is talk about the kinds of studies and the successes that have been made, speakers cite some particular areas in sub-Saharan Africa, particularly Uganda. I am not envious that the meeting in Kampala was held in such an area, but I know that many resources have been taken to that particular area. If you are going to concentrate or saturate some resources into a particular area and then talk about not having enough resources in other places and then call for better political will on the part of our member states and governments, I appreciate what you are saying. But you should look into these conditions carefully. The problem of HIV/AIDS is vast in all of sub-Saharan Africa, and if you are going to make studies in particular areas and then talk about the success stories there while ignoring some other areas, you are going to make the wrong impression.

I do appreciate what is happening in particular in a country like Botswana where the people are concerned in the matter. And I appreciate all of what the President and the people of Botswana are doing about their problems. But I am asking you to think in terms of the resources being made available there. My feeling is that as you concentrate those resources in a particular area and then start talking about successes there while blaming some other areas, it is as though there is a stigma on some of our member states because they are not showing enough initiative. I think this must be looked into carefully.

I appreciate the concern of our media person about talking to women in rural areas. I think the way to reach them differs from country to country. In my area I believe communication can be more helpful if radio is involved. Due to the topography in my country, there is not much you can do with the television. We have very high mountains, and we do not have enough resources to overcome those barriers. So television can reach just about 5% of the population. Radio is a good way to reach people because most of the women may be illiterate. Going door to door, as was mentioned, can also be a good way to communicate.

I am an example of a person who was born in a village, and I am proud of those women. My mother had time to go to the hospital, and I am here and alive. I never had problems when I grew up so that has to be taken into consideration. I hope I have not been too defensive because I also appreciate everything the experts have said. I just wanted you to look at it in a different light.

COMMENT:

I am GABRIELLA COHEN-FREEMAN from Angola, and I would like to comment on the issue of communication. As a result of my experience working in the field in Angola for seven years, I think that communication and disease face two barriers: power and culture. I do believe that we can reach women in the villages, but we need to identify who has power and who has the knowledge to transmit information to those women. And

I do believe from my experience with villages, at least in my country, that women - and in most cases all the women - have power there. Based on that observation, I think we can develop mechanisms to make the information available.

To do that, we have to challenge the culture. And, unfortunately, our culture, particularly in my country, does not make it easy to have information available. That is a challenge for all of us from sub-Saharan Africa. To challenge the culture it is necessary to make the information available and to break the barriers that prevent particularly women from getting that information. I think that it is our responsibility. Thank you.

QUESTION:

UNIDENTIFIED PERSON.

I would like to thank all of the speakers for their information. One speaker talked about the negative impact of structural adjustment programs in developing countries. On the subject of the different structures in our countries, how do we integrate that discussion in our fight against HIV?

REPLY:

GLORIA STARRS-KINS.

I would like to answer that because I think the answer is media. I follow global hunger as a member of the press. I think that it is very important to return to what our esteemed diplomat from Lesotho and Ms. Guerma from the Ivory Coast said. Maybe if it is a case of getting money, there are interests throughout the world, not just the United Nations, that could be approached. Perhaps you could attach a nice form of advertising to radio programs. Something safe, like buy such and such diapers, so it would be harmless. But you might get funding for the needed radio programs by advertising things that the local buyers could use even if they do not have the money. I believe many international companies would fund a part of our information drive. Advertising is what keeps our television alive, it is what keeps our radios alive as well as our magazines and all of our methods of communication. That is where a lot of money comes from. Maybe even the drug companies who are producing the health saving medicines could help.

COMMENT:

I am PHOLILE LEGWAILA of Botswana.

I would start off by thanking Elaine Wolfson for putting this program together. We are indeed grateful, and we have learned a lot from all the different discussions. I would also like to thank everyone here who has mentioned my country in a positive manner. I am very, very grateful. Like other countries, we have tried very hard; our leadership in Botswana has been very good. You know that I am praising my own country, but I must say that our leadership has been very positive from way back.

Having said that, I would just like to add one more point to the communication discussion. I think one could add here that another way of getting through to the community is to try and target the men. Most of the time the men are left out. It is the women who have to struggle to get information and make sure that information gets to the right people in the various areas.

I think we can target men in a positive way. In Botswana that means getting the information to men before they go to their what is called meetings. At those meetings, men normally get together and discuss village issues. Men should be encouraged to address the issue of HIV/AIDS. As I say, it is not easy. We are doing it in Botswana, but it is a struggle even though our leadership is committed. The president has told his cabinet members to be sure that when people, the chiefs in particular, address governmental meetings, they should highlight the issue of HIV/AIDS.

COMMENT:

My name is GLAUDINE MTSHALI from the South African embassy.

I also want to say thanks to the organizers of this meeting; it was most valuable in bringing information from scientists and other experts to the table.

I want to support the comment that was made by my colleague from Lesotho with the reference to citing, after all these years, only two or three countries as success stories. This raises a concern in one's mind as to what creates success. If the process is not applicable in another country with lesser resources or with not as many resources as are being poured into one or two or three countries, it raises a question as to how we will ever make progress. You cannot have over a period of the last five or eight years only three countries that have successfully implemented all the initiatives that the experts say now work and not be successful in the other places where they have been put in place.

I really want to commend Professor Jackson for giving us the information as to what is required to implement a program successfully. I think of the pivotal role of women that was indicated. If we think that drugs alone will do the trick, we are totally mistaken. We heard very explicitly from Professor Jackson about the cost of doing the testing, the cost of human resources to monitor and follow-up the implementation of these programs. I am sure that many of you have heard very recently about a court case that one of the activist groups brought against the South African government. This is despite the fact that we

have introduced, on a research or pilot basis, a maternal-child information program at certain sites throughout the country. From this operational base we are finding what the kinds of hurdles are that we need to overcome. Also, what creates success, and how you then duplicate the process.

These things are done for the same reason that the Rockefeller Foundation is talking about a five-year feasibility study on MTCT+. It is no different. You cannot go worldwide with a program if you do not know what makes it work. And I do want people to understand that sometimes if you look at things in order to meet all demands and you make certain mistakes, you can land up with more problems than you can ever imagine. Can you imagine us just implementing programs with antiretroviral drugs without testing and assessing the HIV sero positive status of the individuals involved. You could create strains will not respond to the drugs.

I think that one needs to consider a rational approach to the issue. I am not saying that you have to wait until everything is in place and working perfectly, but you have to consider what such a big operation involves.

A LAST WORD

ELAINE WOLFSON:

Thank you for your comments. I have the last word, and I must tell you that I have been delighted with both the turnout and the discussions. I think it is only the beginning. A lot more work needs to be done before our HIV/AIDS programs are successful, but the process of getting together among and across sectors is very critical to that success. We have a lot to learn and by working together in partnerships we can give much added value to our efforts. Thank you all for coming, and I look forward to seeing you at a follow-up meeting.

SPEAKER BIOGRAPHIES



Marcya G. Owens, B.A., Associate HIV Community Manager Bristol-Myers Squibb Virology Company

Marcya G. Owens is the wife of Roy L. Owens, mother of Mariama -7 years old and Omavi - 2 years old, and a woman living with HIV since 1994. After receiving an HIV positive diagnosis in her junior year of college, she began to speak with a group of students from the Atlanta University Center (Atlanta, GA), Youthful Survivors. She received a Bachelor of Arts Degree from Clark Atlanta University (Atlanta, GA) in 1995. In 1996, she applied for a grant through Southern Community Partners - a project of the Lyndhurst Foundation. Southern Community Partners awarded her \$70,000.00 to start her own non-profit organization, R.O.S.E. (Radiant Open-minded Self-assured Empowered) HIV/AIDS project, Inc. Ms. Owens served as Founder and Executive Director of the R.O.S.E. HIV/AIDS Project, Inc. until she accepted a full-time position at the AIDS Survival Project as the Community Outreach Coordinator in 1998. Ms. Owens was advanced to Program Manager, Treatment Education in the summer of 2000 where she managed the largest Treatment Resource Center in the southeastern part of the USA. In February 2001, Ms. Owens accepted a contract with DuPont Pharmaceutical Company to serve as the Associate HIV Community Manager for the Southeastern Region of the USA.

Ms. Owens has made presentations at the 1999 National Conference on Women and HIV, 1999 United States Conference on AIDS (pre-conference), 1999 National AIDS Treatment Advocates Forum and the 2001 Community Summit on AIDS and African Americans as well as numerous other presentation throughout the United States. She has written many published articles, which have appeared in Survival News (a monthly newsletter of AIDS Survival Project), and The Body.com. Articles have been published about Ms. Owens in the New York Times (August 2001), Marie Claire magazine (July 2000), Atlanta Journal-Constitution (1999), and other local newsletters and newspapers. She has also appeared on CNN and local radio stations. Ms. Owens has served on the 2000 United States Conference on AIDS Host Committee, Governor Roy Barnes Census 2000 Complete Count Committee, and 2000 Martin Luther King March Committee. She is very involved with her committee and wishes to assist in making a change to a healthier and vibrant global community.



**Timothy Evans, D.Phil., M.D.
Rockefeller Foundation**

Timothy G. Evans is Director of Health Equity at the Rockefeller Foundation. His most previous position was as assistant professor of population and international health at the Harvard School of Public Health. He has degrees in agricultural economics (D.Phil., Oxford) and clinical medicine (M.D., McMaster University) and has completed residency training in Internal Medicine (Brigham and Women's Hospital).



Brooks Jackson, M.D., MBA Professor and Chair of Pathology for Clinical Affairs, Johns Hopkins University School of Medicine

Brooks Jackson is Professor and Chairman of Pathology at the Johns Hopkins Medical Institutions. Dr. Jackson received his M.D., and M.B.A., degrees from Dartmouth College and received his residency training in Clinical Pathology and fellowship training in Transfusion Medicine at the University of Minnesota. Dr. Jackson is Director of the clinical HIV Laboratory at Johns Hopkins Hospital and has been involved in numerous clinical HIV therapeutic and prevention trials in the United States, Uganda, and China. He is a funded investigator in the NIAID sponsored adult and pediatric AIDS Clinical Trials Groups and the HIVNET and HIV Prevention Trials Network. Dr. Jackson is the Protocol Chair of several adult and perinatal HIV prevention trials in the United States and Uganda including the HIVNET 012 perinatal nevirapine trial.



**John Wecker, Ph.D.
HIV Specialist, Boehringer-Ingelheim GmbH**

John Wecker, Ph.D., currently holds the title of HIV Specialist, Corporate Division Marketing Prescription Medicines, Boehringer Ingelheim. He is responsible for coordinating Boehringer Ingelheim's HIV/AIDS activities in the developing world, including the Accelerated Access Initiative and the VIRAMUNE Donation Programme. Announced in July 2000, the VIRAMUNE Donation Programme is Boehringer Ingelheim's commitment to provide VIRAMUNE free-of-charge to developing countries for a period of five years for use in the prevention of mother-to-child transmission of HIV-1.



Peter McDermott, MSc, RPN
Principal Advisor, US Agency for International
Development, Bureau for Africa

Mr. McDermott is currently serving as Principal Advisor for the Bureau for Africa at the US Agency for International Development. Prior to assuming his current post, Mr. McDermott served as representative from the United Nations Children's Fund (UNICEF) to Zambia from 1998 to 2000. From 1996 to 1998 Mr. McDermott served as Deputy Director for Emergency Programs in Geneva, Switzerland. Between 1990 and 1992, Mr. McDermott served as Operations Officer for Mr. James P. Grant for the Office of the Executive Director. From 1985 to 1990 Mr. McDermott served UNICEF in Afghanistan, Somalia, Senegal and Gambia in various capacities. In addition, Mr. McDermott served as an Assistant Health Planner, UK Ministry of Health, and as a Technical Cooperation Officer, ODA/UK from 1984 to 1985. Between 1982 and 1985, he was the Assistant Field Director for Voluntary Services Overseas (VSO) in Nigeria. Mr. McDermott holds a Bachelor of Arts degree from York University, England, and received his MSc from the London School of Economics, England, and a RPN from St. George's Hospital, England.



Elaine M. Wolfson Ph.D.
Founding President of the Global Alliance for
Women's Health

A political scientist and academic since 1967, Dr. Wolfson became a representative of a non governmental organization at the United Nations in 1991. As a result of her research in the formation of social policy with more than a decade of work on women's health policy and her experience at the United Nations, she noted the consistent under attention and inadequate information available about all stages of women's health throughout the world. She founded the Global Alliance for Woman's Health (GAWH) a non governmental organization in 1994 in order to help address these shortcomings through women's health advocacy, education and promotion internationally.

Her research on the formation of social policy in the United States during the 1960's convinced her of the importance of the private sector in the development of sustainable economic opportunity. It also became apparent to her that many of the advances in women's health garnered in the twentieth century in the US often originated from private initiatives - from individuals as well as corporations, foundations and academia and from

the profit as well as the not for profit sectors. In those instances the role of government in developing public policy for women's health was reactive

In the early 1980's after finishing a special program for Ph.D.'s in the arts and sciences at the Wharton School of the University of Pennsylvania, Dr. Wolfson began teaching courses on business and society in an MBA program at Baruch College, a branch of the City University of New York. Her lectures and her research on women's health reinforced her understanding of public private partnerships. With her founding of the Global Alliance for Women's Health these ideas coalesced. Public private partnerships became a cornerstone of GAWH's mission and its method for advancing women's health internationally.

Dr. Wolfson was educated at Smith College (BA) and New York University (MA and Ph.D.) and the Wharton School of the University of Pennsylvania (certificate). She has taught at New York University, the State University of New York, Long Island University, Rutgers University and the City University of New York and she has held an adjunct appointment at Columbia University, School of Public Health. Her publications on women's health include articles, monographs and edited compilations.

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