Tuesday Plenary
Kaiser Family Foundation
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ANNIE LENNOX: So lovely to see you here. The International AIDS Society and its partners a proud to sponsor a number of prestigious scientific prizes and awards at AIDS 2010. These prizes and awards are aimed at rewarding promising researchers doing outstanding research on HIV and AIDS.

The Women, Girls, and HIV Investigative prize is a prestigious award jointly offered by the IES Industry Liaison Forum and to UNAIDS and supported by the International Center for Research on Women and the International Committee of Women Living with HIV and AIDS. This $2,000 prize is awarded to an investigator from a low-income or middle-income country whose abstract demonstrates excellence in research and/or a researcher in a practice that addresses women, girls, and gender issues related to HIV and AIDS.

This prize serves to highlight the challenges faced by women and girls in this epidemic and to encourage investigators from low and middle-income countries to pursue research in this area.

And so, the 2010 Women, Girls, and HIV Investigative prize is awarded to Naina Rani Mangalore from the Karnataka Health Promotion Trust India for the outstanding abstract Mainstreaming the Prevention of Parent to Child Transmissions Program with a national, rural health mission experiences from

Southern India. I am terribly thrilled to hand over the certificate. [Applause]

FEMALE SPEAKER: [Speaking in foreign language]

MALE SPEAKER: Today more than 1 in 1,020 people living with HIV and AIDS are still living in the rubbles, still living under tent in Haiti.

FEMALE SPEAKER: [Speaking in foreign language]

MALE SPEAKER: They can't even have food.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: They don't have the proper care that they need.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: They can't access all kind of treatment that they need.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Today someone living with HIV and AIDS go to access for jobs, they're not going to get it because stigma in this nation still very high in Haiti.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Today we are here to raise our voice and the fact that people with AIDS in Haiti to let you understand that this is the time for AIDS elimination and HIV and the international community to support the finalization because Haitian government don't care, they don't mind that we are still dying after the earthquake.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Does planning for us, does the leaders, they keep planning without us because they think our thoughts or advice can't help the fight of HIV and AIDS.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Please dear friends here, please support Haiti, please support the fight of those living with HIV and AIDS. We need your force, we need your strength and courageous to be in this fight, to lead it to more.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Today, we walk here just to express our solidarity with the right of people with AIDS in Haiti because they still can't have housing, jobs, and all the treatment that they have.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: We walk here today in solidarity with all the gay men, transgender, lesbian, everybody that never been able to live with the society and their mind and their spirit and their body.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Everyone without any distinction should be about to live their life without any color of their skin, age, or sexual orientation in the respect of dignity.

FEMALE SPEAKER: [Speaking in a foreign language]

MALE SPEAKER: Just want to let you know that in Haiti, they give us enough to keep alive, not enough to let us live. [Speaking in a foreign language] Let's say with the world solidarity with the Haitian people.

[Speaking in a foreign language] Let's stop saying that we are going to help Haiti on the piece of paper. [Speaking in a foreign language] Let's stop saying that we're going to help Haiti by just talking, speaking.

[Speaking in a foreign language] Let's support the fight of people with AIDS by actions. [Speaking in a foreign language] Thank you very much. [Applause]

JACK WHITESCARVER: Our hearts and support certainly go with the Haitians. Good morning and I'm Jack Whitescarver and I want to welcome you to this plenary session.

Our first speaker this morning is Dr. Anthony Fauci and my task in introducing him to quite easy, as he is well known to all of you. Dr. Fauci has served since 1984 as the Director of the National Institute of Allergy and Infectious Diseases, one of the components of the U.S. National Institutes of Health.

Dr. Fauci also previously served as the Director of the position I now hold as Director of the Office of AIDS Research. He recruited me as his Deputy in 1988 when the office was first established. He is the recipient of both the U.S. Presidential

Medal of Freedom and the National Medal of Science and is a member of the U.S. National Academy of Sciences.

In addition to heading the institute with the largest AIDS budget portfolio; he has maintained his own active research laboratory and his clinical responsibilities. He has made very important contributions to defining the aspects of pathogenesis of HIV and he continues to develop much of his research time to identifying the nature of the immunopathogenic mechanisms of HIV infection and the scope of the body's immune responses to the AIDS retrovirus.

Dr. Fauci will speak this morning on new concepts in HIV/AIDS pathogenesis implications for interventions. Dr. Fauci. [Applause]

ANTHONY FAUCI: Thank you very much Jack. It's a great pleasure to be here with you this morning and I want to thank the organizers for giving me the opportunity to discuss with you this morning the topic that you see on the slides on the boards. And that is new concepts in HIV pathogenesis but the particular attention paid towards the implications for interventions.

This is just a partial list of some of the selective issues and the pathogenesis of HIV that over the years have been delineated by a number of investigators throughout the world. I have spent a considerable amount of time since 1980s trying to dissect some of these including Barrett [misspelled?]

immune activation, the role of lymphoid tissue in the pathogenesis of HIV, trying to link this to some insights into how we might intervene.

What I'm going to do during this period of time is to discuss with you how we can use the study of pathogenesis to inform so many of the things we need to translate and which are being discussed at this meeting. So the real theme is that pathogenesis research is not done in a vacuum, it's not just basic science in and of itself, but it is an important gateway to leading to important interventions and historically, this is something that has proven to be true.

And I can spend my entire time talking to you about those links, but let me just give you a couple of examples. First with viral pathogenesis shown on the slide that work of so many investigators who over the years have delineated precisely the molecular and cellular mechanisms of the replication cycle of HIV shown on this slide, which have led over the years to the development of what we call targeted antiretroviral therapy, which as we all know, has been extraordinarily successful in transforming the lives of individuals who have access to these drugs.

From the very first years of the mid- to late-80s with AZT, up to the present time with the extraordinarily effective combination antiretroviral drugs. In addition, an understanding between the viral biology and immunobiology in

studies such as these classic studies have helped us to understand the relationship between viral production and lymphocyte turnover, and how this has informed the need to shut off something that sometimes is not fully appreciated, is the constant wearing away at the immune system, which we'll get to in a moment, has important relevant of when you should start turning off this process.

So what I'd like to do over the minutes that have been assigned to me, is rather than go to every aspect of pathogenesis to focus on one particular issue that is of particular important in general and of great interest to me and a number of laboratories throughout the world and that is HIV transmission and its early events associated with HIV transmission.

This slide is a slide that I've adapted from a review and a few reviews fundamentally from Ashley Haas in which he has described the cellular and molecular events associated from the very first beginning of when virus is deposited as whole virions or viral infected cells at the mucosal surface. And we're going to go from left to right on this slide. And what I want to point out is that what we see here are events that occur literally within minutes to hours, as you see on the bottom of this slide.

I'm going to talk to you briefly about each of these steps from the time the virus goes across the mucosa and must

find susceptible cells. There are dendritic cells that can help bring the virus to the susceptible cells. There are resting t-cells that aren't your classic targets of HIV, but do get infected are an important bridge to the activated CD4 positive t-cell, which is absolutely essential for this process to get going.

So this is a very vulnerable part for the virus because if it doesn't find the capability of self-propagating itself, it will not have an established infection. This also provides for us an opportunity to interfere with the virus's capability to do that. So, if you go then to the activated cell, you then have a process of what we call amplification, the activated cell, then if you go to the dissemination of virus and the establishment of a reservoir of infection, I'm going to go very briefly through each of these focusing on understanding the pathogenic mechanism and whether or not we can actually intervene.

The first point I want to make is that sexual transmission of HIV is extremely inefficient. You would not think so given the fact that we have 2.7 million people newly infected each year, but from a pathogenic standpoint, it is inefficient. How do we know that? We know that from a number of studies on discordant couples, particularly one example in the Rakai Study done by Tom Quinn and his associates in Uganda, which showed that with discordant couples, the transmission

rate is about one per 1,000 to 2,000 coital acts. So if it is inefficient, why is it inefficient?

It is inefficient because the activated positive CD4 t-cells are difficult for the virus to find. They meet the uninflamed mucosa. There are cells there, there are few. When there are more, the chances are better. So understanding those events are critical. That's the activated cell that the virus needs to find. And I'm going to talk to you about some molecular mechanisms which help the virus find that cell.

The second reason on elegant work done from a number of laboratories of individuals who were involved in molecular virology is that there's a viral genetic bottleneck for the sexual transmission of HIV. And I want to remind you that we're talking about mucosal transmission. What do we mean by a bottleneck? Well we all know that HIV exists as a quasi species in infected individuals, which means the virus is there in large amounts, but there are multiple versions of divergent virus.

Yet, interesting, transmission is usually the result of a single infectious event, particularly at the mucosal surface. George Shaw and a number of other laboratories have shown that, that despite the divergence of a quasi species, there is a strong bias; it's not 100-percent, but a strong bias towards the single infectious event, suggesting a high barrier to infection.

So let's go and look at what we mean by that. If you see on the left hand side on the slide, the red viruses. That's the quasi species. Buried within there is a minor variant, are the blue viruses, which we refer to as the minor non-diverged, sometimes referred to as founder virus, which reaches that activated cell and then once it starts replicating, it diverges off away from that first founder cell.

But if you look at someone's blood, that's difficult to find. You usually see highly replicating diverged viruses. So this amplifies that a bit and again, if you look at the blue with the founder and the red with the replicating virus, once that virus takes effect in those first few minutes to hours, as the hours and day s and weeks go by, the virus diverges. The initial virus is highly sensitive to neutralization.

The diverged virus as we know from a number of laboratories is not. So, what are the characteristics of those viruses. In certain studies, the transmitting virus exhibits certain molecular signatures. The most frequent signature is the absence of specific and linked glycosylation sites and Cynthia Ver Dan and Eric Hunter and Julie Overbow and a number of laboratories have elegantly shown that particularly with sub types A and C viruses, as they diverge, they develop and accumulate end-linked glycosylation sites.

But the ones that get transmitted seem to lack that. So there is a particular signature associated with sexual

transmission. Understanding that, as you might imagine, is absolutely critical to the design of early intervention. So I'm going to show you this slide again, but I want to put a little extra twist on it.

So the blue is the founder and the red are the divergents. We know from good studies from a number of labs that as that virus diverges, it accumulates end-linked glycosylation sites. So I'm going to show you here in a linear fashion, the V1, 2 component of the envelope, the variable, the first variable, the second variable region. And we know that in fact, from the studies of Overbow and Hunter and others there are end-linked glycosylation sites that are linked to transmission.

And I have to simplify this to just get the concept across. On the right hand side of the slide, the chronic replicating virus has accumulated end-link glycosylation sites which fundamentally protects it from neutralization. But when it's transmitted, that virus lacks glycosylation sites. Now if you look at the V1, V2, what I want to bring to your attention, if you look right here, I'm referring to something called the alpha4 beta7 binding site on the V2 region of the envelope.

And let me explain what I mean by that. I'm going to talk for the next minute or two on the role of this receptor, alpha4 beta7, on the transmission of HIV at the mucosal surface.

First of all, what is alpha 4 beta7? Alpha4 beta 7 is an integrant, it has natural ligands listed on this slide, but its principle function is to mediate migration to and retention of leukocytes to the gut. Over the past two years in our laboratory we have published, and I'm going to show you some unpublished data, the fact that alpha 4 beta7 on CD4 positive t-cells is by any definition of the word, a true receptor for HIV envelope and has a specific binding site on the V2 region of the envelope.

It is not absolutely essential for infection, but it is extremely important in defining a subset of positive CD4 t-cells that are highly susceptible to HIV infection and can serve at the mucosal barrier as a beacon for those activated, susceptible CD4 positive t-cells. This is a schematic cartoon of alpha4 beta7 shown here. It sticks out higher than CD4, it's closely linked to CD4, it binds to a particular component on the consensus sequence of the envelope. And therefore, it seems perfectly positioned to bind to a virion that is coming across the mucosa.

Before we even did this work, it was very curious and we went back and found this, that if you look at a study published in 2001, when the individuals looked at people with primary acute infection, they noticed a curious, profound, depletion of circulating alpha4 beta7 high CCR5 high memory CD4

positive t-cells, which as you can imagine, was extremely interesting to us when we saw that.

So what we did was to see if you we could prove that in vivo. So we separated alpha4 beta7 high t-cells from low t-cells and we infected them with an R5 virus. As you can see in the blue, the beta7 high CD4 positive t-cells are extremely susceptible to HIV infection; whereas the low cells are barely susceptible. In addition, as shown on the left, we did rectal biopsies and showed that in fact, CD4 positive alpha4 beta7 high t-cells are present in the rectal mucosa. And if you look at the right hand side of the slide, we are looking at beta7 expression and CD4, there are in fact, in the red box, a high degree of alpha4 beta7 high cells in the rectal mucosa. We did exactly the same thing with cervical biopsies and that held true.

Importantly, if you examine the cells in that red box, which again, are alpha4 beta7 high, CD4 positive t-cells, and look in the middle panel, you see that those are the cells that are CCR5 positive and KI67 positive. For the uninitiated means these are highly activated metabolically activated cells, which you would predict would be highly susceptible to HIV infection.

So really what we're saying is that alpha4 beta7 high cells define the subset of CD4 positive t-cells that are indeed metabolically active and susceptible to productive infection. So what does that have to do with what I told you just a few

moments ago about founder versus replicating diverged virus?

Well, I'm going to make the statement and now I'm going to show you some data. The transmitting founder virus in general bind more efficiently to alpha4 beta7 than do chronic divergent viruses. Getting back to the scheme which is linear, but remember, envelopes come from a conformational ways but just to simplify it, if you look at the alpha4 beta7 binding site with the circle in red, that particular binding site has greater access to the envelope of HIV when you have fewer glycosylation sites.

And I'm going to show you the data to prove that. Because if you remove glycosylation sites from chronically replicating HIV, it allows greater access to the envelope of alpha4 beta7. So this is a complicated slide, but let me just run through it with you. We've taken the V1, V2 region and with the red arrows, I've indicated those glycosylation sites that we know are linked to transmission. When they're not there, you have a much more transmissible virus.

As they accumulate, those viruses then, the binding site is then shielded by the sugars and they're partly neutralized. If you look at the bottom part of the slide, what we're doing is that we're taking the wild type envelope and then we're going to selectively remove glycosylation sites and determine, in fact, whether it increases the binding to alpha4 beta7.

So look at the third one down, glycan delta3, that's the binding site that if you remove it, increases binding to alpha4, beta7 by 23-fold. That's with a subtype A. If you look at the subtype C and you look at glycan 4, if you remove that, you increase the binding to alpha4 beta7 by about seven fold.

So then we took it one step further. We looked at the published sequences of viruses from the same individual, isolated at one month in blue and 41 months in red. This is a sequence published by Julie Overbow. And we measured alpha4 beta7 reactivity.

As you can see, at one month, the reactivity was very, very good. As the virus diverged and accumulated glycosylation sites, the binding went down. So then the next obvious question is what happens if you take the diverged virus and get rid of the glycans, which we did here and we just did that and with the dark blue, when we got rid of the glycosylation sites in the 41 month virus, it acted just like a founder virus.

So we can summarize this part of the talk in the following way: Alpha4 beta7 is a receptor on CD4 positive t-cells, it defines a subset of susceptible cells to infection, it's seen at the mucosal surface. The transmitting virus binds much more efficiently to alpha4 beta7 than chronically replicating virus.

And finally, and at the suggestion that we make from this and this is going to be a lot of work is that in HIV envelope conformation that allows initial binding to alpha4 beta7 are mucosal CD4 positive t-cell should be at least seriously considered as a target for vaccine development.

So let me move on now to perturbations that can influence the efficiency of HIV transmission across the mucosal surface. Here is the intact mucosa. I just blew up what I showed you on that long slide. You have a few resting cells; you have an activated t-cell that the virus needs to find. What happens when you have genital ulcerative disease and/or inflammation and/or immune activation?

One, the virus can go across the mucosal barrier easily. But importantly, there are more activated t-cells for it to find. It's really simple, the virus needs it. If it doesn't happen, then there is a barrier there. You remove the barrier with this type of disease. What about the establishment of a reservoir?

Some people think that a reservoir is established after years and years of virus replication. That's really not the case. In fact, if you look on the slide, the establishment of the reservoir, which is a very important barrier to eradication, occurs very early. We have the opportunity, and this is a rare opportunity to treat someone really early in HIV infection, Tae-Wook Chung in my lab in collaboration with

others, and we found out that the establishment of a CD4 reservoir occurs early during primary infection and even if you treat somebody within 10 days of acute infection syndrome, you still have the formation of a reservoir. That's very, very difficult situation. And we know that latent reservoirs are obstacles to the eradication of HIV.

So what about opportunities for interventions? I told you in the beginning of the talk that studying these fundamental basic science phenomenon are going to provide insight and I gave you examples. What about opportunities in early intervention? Well these are the early events in HIV disease; these are some of the opportunities. You know them well, I'm going to go very briefly through each of these, but I want to return to the fundamental matrix which I showed you on one of the first slides.

Let's take a look at condoms, microbicides, and STDs. Condoms as you know are a physical barrier, you don't even let the virion of the infected cell get to the mucosal surface. Microbicides are a different story. Microbicides can not only kill virus infection that is occurring as it's about to transcend through the mucosa, but it actually permeates through the mucosa, we know that and interferes with those very sensitive early events where the resting cell needs to get infected and then pass it on to the activated cells. And you all know yesterday we had some extremely exciting news of the

first demonstration of a microbicide that is permeated with a 1-percent gel of tenofovir [applause], had a significant by any stretch of the imagination effect on acquisition of HIV. It's a very good start to a field that we hope is going to take off.

The same thing with STD treatment; namely you treat infection, you prevent the ulcers, there's some complicated issues there. Because sometimes even when you treat, as Larry Quarry [misspelled?], there are activated cells that are still there.

What about circumcision? In circumcision you're decreasing the mucosal area of exposure on the male penis and it's very simple. If you look anatomically in the upper panel the flaccid uncircumcised penis, the outer foreskin, if you pull it back in the retracted you really to have a, in fact, a mucosal surface there. If you do circumcision when you get rid of the foreskin, that mucosal surface becomes a keratinized skin surface. That is a very important fundamental mechanism. So if you look on the left hand side, the thick external surface of a foreskin, when you flip it over, you see how thin the mucosal barrier. The reason why circumcision works is obvious.

What about early events in HIV infection and pep and vaccine? Well let's take a look at those early events. Again those vulnerable parts of the virus, again, a resting cell that then transfer to an activated cell, and then starts to amplify

the process. If you can block that and get the reproductive rate of virus replication of less than one, the infection will die out. So that's the reason why post-exposure and pre-exposure shown here, will mechanistically work if in fact they do work.

Vaccine is a different story. You want to get antibodies and CTLs right there in the very beginning. Once you get past the reservoir, once you get further down to the right, you can control infection. But I'm talking about blocking infection, not just controlling it. And that's the reason why I show there the antibodies and the CTLs that can really attack at that vulnerable, early part of the cycle.

Speaking of which, there's been some very exciting data looking at what we call targeted development of vaccines. We've talked about targeted development of drugs. Target development of vaccines is the identification by monoclonal antibodies of neutralizing epitope on various aspects of the viral membrane, fundamentally the envelope. As we go on, we get greater and greater percentage of isolates that are neutralized by the antibodies that are identified.

Most recently, just a week and a half ago from Gary Nables' [misspelled?] laboratory, the exciting results of antibodies VCRO1 and 2, which showed that in fact they alone neutralize ninety plus-percent of the known isolates of HIV.

So if we use that targeted approach we can then do an intervention at that early component of infection.

Finally, let's look a little bit further out, because this really relates to the things that we're talking about early intervention. Remember we're still talking about days and perhaps weeks. The early initiation of ART from the time of acute infection, it's kind of tough if somebody comes into your office, you've got to be really lucky to get them within a couple of days. But even when they come in with acute infection, which why the guidelines now say treat acute infection, if you treat during those early stages of disease the potential results are as follows; reduction in the size of the reservoir. These are important conceptual and practical issues. I'm going to show you data in a second that the earlier you treat the smaller the reservoir.

The preservation of immune function. If we're ever going to get a cure for HIV we're going to have to have a patient whose immune function has some degree of integrity either to contain the virus itself or to use a good therapeutic vaccine to boost it, to protect something that you couldn't eradicate. But also what we've heard from Julio and others, the health benefits to the individual as well as the decreased transmission in the community, all extremely important.

This slide is interesting because what we took were people who we treated really early, right at the time of acute

infection, they're in blue. The chronically treated people who were treated years after they've had replicating virus, it is important to know that by the most sensitive PCR, we had undetectable DNA in 44-percent of the people who were treated early, and only 11-percent of the people who were treated after chronic infection had been established.

We didn't eradicate it, we know, because we stopped therapy and it came back, but the reservoir was much smaller. That's one step towards the goal of possibly curing people.

So here's what I've spoken about over the last 20 to 25 minutes, from the left to the right, multiple opportunities for intervention. I can conclude with the following statements; early events in HIV infection at the mucosal surface are critical to the initiation of propagation of HIV disease.

Pathogenic mechanisms operative during the early events, as you heard are complex but they're time sensitive.

The window of opportunity for intervention completely overlaps with the window of vulnerability of the virus.

Better understanding the nature of these invents will inform greatly the rational design of any intervention particularly vaccine and study of the pathogenic mechanisms of HIV at all stages of disease are essential for optimization of potential interventions.

I'd like to thank the members of my laboratory involved with the work that I've shown, particularly the Alpha-4 Beta 7

work of Jim Arthos, Claudio Cicala, and Elena Martinelli, Tae-Wook Chun with the reservoirs, Paolo Lucco [misspelled?], Cham Kitilio [misspelled?] and Susan Moy [misspelled?] with the immunological aspects and also other individuals outside of the laboratory who contributed so greatly. Thank you very much [applause].

JACK WHITESCARVER: Thank you Dr. Fauci for that very stimulating presentation.

ANNIE LENNOX: Everjoice Win is head of women's rights at ActionAid International in Harari. Ms. Winn has worked with the Women's Action Group and the Pan-African Women in Law and Development in Africa and served as consultant to many local and international NGOs. At ActionAid, an anti-poverty agency working in 50 countries globally, she leads the work on women's rights, which includes providing overall strategic guidance and support on programs and campaigns.

She is a member of the Civil Society Advisory Committee of the United Nations Development Project and regularly contributes to newspapers, magazines and other publications [applause].

[Video Played]

EVERJOICE WIN: Good morning. I am very pleased to be here and to get this opportunity to speak with you this morning? Some of you may be shocked by the statistics that you just saw on that first slide. Some of you have seen these

statistics but perhaps on different slides and not on one slide, and maybe some of you are seeing this for the first time.

My intention this morning is not to play a numbers game or to shock you with those statistics. My intention this morning is to speak to each and every one of us in this room. We are policy makers, we are program implementers, we are researchers, clinicians and activists. Each one of us has the power to change and to reverse those statistics.

My intention this morning is to talk about some of the ways in which some of us have contributed to those statistics, but more importantly I want to talk about how each one of us can contribute to addressing and changing those statistics, on violence against women and the ways in which violence intersects with HIV and AIDS.

My presentation this morning tells a number of basic truth about the intersection between the pandemics of violence against women and HIV. These truths are grounded in both feminist and human rights analysis. First that violence against women and HIV are both pandemics. That they are both human rights and public health crisis and they take place in the global north as well as in the global south.

And while each one of them stands on their own as a crisis; they also intersect with each other, in deadly ways. Gender inequality is the gasoline that fuels that intersection.

Second I will talk about how too few policy makers, service providers and sometimes even those of us who are advocates have the capacity, or shown the political will, nor provided funding to adequately address the ways in which these crisis intersect everyday around the world.

My next point is to talk about how states have the responsibility to respect, protect and fulfill the full range of human rights of all people. And all people means everyone, including those whom in many context we know that our governments don't like; sex workers, drug users, lesbian women, gay men, transgender people, prisoners, people living with HIV and just to restate the obvious, which is often not very obvious in some of our work, women are people and they are human. They are not just mothers; they are not just wives [applause].

I also want to talk about how HIV policies and laws developed by some governments in the recent past, some major donors and health officials sometimes exacerbate the crisis we are talking about. Whether with intention or not, rights of women around the world are being violated, either because of short sidedness or simply discrimination and finally I will talk about the failure or refusal to understand as well as lack of commitment and how this creates the tragedy's we are seeing.

Therefore this presentation will address and make recommendations regarding some of these tragic conditions and I

will argue that activism, whether grounded in human rights, in HIV or women's rights, has been critical and necessary around the globe to bring about change, but it also continues to be critically important.

Particularly in this global context where we have seen the roll-backs on fundamental human rights, where we have seen the questioning of women's human rights and where we have seen the use of culture and religion as excuses for violating women's human rights [applause].

First let me talk about what we already know. We already know that women, regardless of where they live in the world face the unrelenting and omnipresent reality of violence. With that, we also know that violence takes many forms, sexual, physical, psychological, economic, and many of these forms of violence have been adequately elaborated in the United Nations declaration on the elimination of all forms of violence against women, adopted by governments in 1993. This followed the Vienna Human Rights conference, at which the feminist movement mobilized globally and our call for that particular conference was a very simple one; that women's rights are human rights, which to some of you might appear a trite thing to say at this particular moment. But at that time let us remember, that women's human rights had not been established, both in international law and in public discourse as human rights issues. And let no government claim ignorance of the fact that

they have adopted all of these declarations in the last 15 years.

The fear and threat of violence affects all women, their choices, they health, their human rights and their well being. Women and girls encounter violence in their homes, communities, workplaces, streets, police stations, hospitals, at the hands of state and non-state actors. Perpetrators of violence are also quite varied; intimate partners, family members, community members, the police, soldiers, or others in positions of authority. In short, violence against women is pandemic, it's systemic and in many context very, very systematic.

Feminist organizations have pointed out that statistics, like the ones we just saw however are only a tip of the iceberg and I will come back to this issue when talk about the issue of evidence.

Violence is one of the most underreported crimes, because of fear and the fear is based on fear of reprisals, the stigma, the lack of faith in the criminal justice system, which often results from lower rates of investigation, prosecution and indeed conviction.

Most governments do not keep track of prevalence and incidents of violence against women. Governments with policies or laws, even where these exist, fail to track how these laws are being implemented and how they affect women.

Let me step back a little bit as well and just talk about the issue of the concepts that we are using and some of the depoliticization of language that we have seen in the public discourse, particularly in the last 15 years. I am talking here specifically about violence against women, which is gender-based violence and it is directed at women. Let me repeat that, I am talking about violence against women, which is gender-based violence, directed specifically at women.

Gender-based violence can indeed be directed at men and transgender people as well, even though its victims are overwhelming women. Gender-based violence implies that the violence is motivated by the need to maintain gender roles and stereotypes, which as we know are socially created. It is also aimed to enforce and sustain the restrictions on women's sexual, reproductive, social, economic and political choices. Gender-based violence therefore, as we have seen, particularly in many context, has been used sometimes to obscure naming women as the primary targets, thereby minimizing women's experience. We also know, as I said, men and boys can be targeted for violence and very often the reasons that men and boys are targeted are also gender-based.

So for example, the motivation for some perpetrators on perpetrating violence against men and boys is to strip men and boys of their manhood. Particularly those men who are seen to transgress gender norms, such as gay or transgender men and it

is meant to either punish them and also to quote unquote "feminize them."

As I said, we're focusing specifically on violence against women, because they tend to be the overwhelming target of violence. Women's experiences are very different from those of men. A deep [inaudible] understanding of what we are talking about, which attempts to divert attention from women as specific targets and women's experiences of violence leads to a depoliticized intervention. It is important to have conceptual clarity as this will impact our responses and I can't emphasize this enough.

I also want to address the whole issue of vulnerability, a word that we like using particularly in this particular universe of HIV and AIDS. This over used language of vulnerability suggests that women are somehow intrinsically or naturally vulnerable. It can also suggest that women are themselves responsible for avoiding or preventing violence.

Gender-based oppression has agents and actors who cause that oppression, actively and make women vulnerable. So our suggestion is that we should always talk about how women are made vulnerable and not talk about women as intrinsically vulnerable [applause].

It's also important to locate the roots of violence against women and various excuses very often are put forward for the perpetration of violence. But let us be clear in all

societies, the root cause of violence against women is unequal power relations between women and men, which ensures male dominance over women and this leads to violence. Without this understanding we cannot see the difference between men's and women's experiences. Our interventions on both violence against women and HIV must challenge and transform these unequal power relations or we will never change the core of the problem.

In addition, violence against women is perpetrated or excused under the garb of so called culture. Culture as well as transgression of culture is mythically defined by those who have power and privilege to further entrench their status. Therefore we must always challenge the notion that culture can be used to preclude groups of human beings from enjoying their full human rights and I think it's important once again, to remind particularly our governments, again, as I say, in many parts of the world, where today we are seeing a rollback on some of the gains in international human rights standards that we had made as a feminist movement in the last 15 to 20 years. We have seen concerted effort to try and redefine and recalibrate these rights under the guise of protecting culture or tradition [applause].

What I want to do now is to talk specifically about the ways in which violence against women and HIV and AIDS, as I

said in the beginning, intersect in very deadly ways and have severe consequences on women's human rights.

Violence and HIV intersect with each other. One being a cause or a consequence of each other and indeed vice versa. I will also illustrate how different groups of women, experience violence at least in part because of social factors related to their identity. And here we talk about the concept that we like to use in the feminist movement called intersectionality and it is very important that all of us begin to embrace and use this concept. Because if we don't have an intersection analysis, it will be very difficult for us to understand and to deeply address the ways in which HIV and violence intersect with each other in women's lives.

First young women and girls, as well as older women are at particular risk of coerced and nonconsensual sex. As I showed in the first slide a WHO study that found that as many as 30-percent of women in some locations, reported that their first sexual experience was coerced or forced.

The younger the women are at the time of sexual intervention, the higher the chance that it was violent. And we have seen how more and more our AIDS statistics are showing us that it is particularly younger women who are made vulnerable to HIV and AIDS, particularly because of nonconsensual sex. And I will come back to this issue when I

talk about some of the failures of our interventions to recognize how this plays out.

Women's HIV status also is the ways in which violence intersects with HIV. Women who are, or who are perceived to be HIV positive, face particular abuses including nonconsensual testing and disclosure of results, forced sterilizations, forced abortion, stigmatization, isolation, disinheritance and shunning by their families and communities, and indeed they have faced actual threats or actual incidents of violence.

I also want to highlight what we call structural violence against women, which has taken place in many countries and it is only now beginning to surface which has taken place in health care settings. Here I want to particularly highlight the case that has been taken by the international community of women living with HIV/AIDS in collaboration with the Legal Assistance Centre in Namibia where they have documented cases of women living with HIV who have been forcibly sterilized and many of these women did not know about it and this took place in a health setting.

Women in sex work are also easy targets of violence, discrimination, illegal detainment, nonconsensual testing, among other forms of rights violations. Laws that criminalize sex work, give both state and non-state actors the license to abuse female, male and transgender sex workers with impunity.

Most often these abuses are not reported or punished, for very obvious reasons.

Lesbian, bisexual and transgender women are often easy targets of violence as they are often punished for their gender expression and identities. They face brutal antagonism, including so called corrective rape, and the organization I work with has documented cases of so called corrective rape, which has taken place in South Africa.

Women who use drugs are often rendered invisible. Their health needs are unmet and they exist in an underground universe. Any person who acknowledges illicit drug use often runs the risk of violence, stigma, ostracization, and arrest and of course particularly if the person happens to be female. In conflict situations and post-conflict, violence in the external context exacerbates women's risk of violence and the risk of HIV transmission.

Mass rape and sexual slavery, forced marriage, forced pregnancy are some of the issues that we have seen recorded in places such as Darfur, the ethnic cleansing in the former Yugoslav Republics of Bosnia and Herzegovinian, in Croatia and Serbia and these are designed to humiliate and intimidate communities. But let us remember that this community humiliation comes often as the result on attacks on women's bodies and it is individual women who have to live with the

results in terms of forced pregnancies and of course HIV and AIDS.

Violence against women during conflict is an amplification of everyday violence women face in peace time and is not restricted to the public sphere.

As I said in the beginning, international, regional and national human rights standards, guarantee all women the right to all human rights. This includes the rights to be free from violence, and to the highest standards of physical and mental health. However, as we have seen from some of these examples I gave, these rights are being violated every day.

Another important concept that I want to share with you is the concept of heteronormativity, and I want to know how that translates into Spanish, German or indeed, the sign language. Heteronormativity in violence and HIV interventions implies the legitimization and privileging of heterosexuality and the heterosexual relationships, as fundamental and natural to the exclusion of others within society.

Traditional gender roles are at the crux, so women should be feminine i.e. subservient and docile and men should be masculine, i.e. assertive and aggressive. Interventions which support these assertions weaken efforts to respond to pandemics, HIV and violence against women. And it is important indeed that we consistently question the whole heteronormative discourse that often permeates the universe of HIV and also

indeed violence against women. Because very often, women as I've said, I've talked about as mothers, as wives, as child bearers, and nothing else [applause].

Let me know briefly focus on some of the program interventions that we are all very familiar with in the context of HIV, and look at the extent to which some of these have either violated women's rights or indeed have happened without due attention to the omnipresent reality of violence in women's lives.

Here is a challenging concern; health professions and service providers must understand that elements of the AIDS testing and treatment machinery may bring the risk of violence to women. Such is the danger of violence connected to disclosure of HIV status, coercive and mandatory testing, and so called provider initiated testing.

Various public health interventions have unexplored and dangerous side effects for women. Let me just use a few example; all of us must continue to acknowledge that programs focused on abstinence and faithfulness exclusively without a focus on human rights have failed women, because they do not take into account the reality of violence in women's lives.

The ABC framework disregards the painful but ever present reality that many women are not in a position to negotiate safe sexual encounters, including the C of condom use. We also know that sex in marriage, like marriage itself,

may be permeated by violence or the threat of it. The majority of sexually active girls, age between 15 and 19 in the developing world are married and these same girls are often the ones with the higher HIV rates than their sexually active unmarried peers.

Let us look also at an issue like partner notification policies and provider initiated testing, which can easily become very coercive and can lead to violence outcomes when women's privacy and confidentiality are not valued or maintained. Human Rights Watch in their wonderful report entitled [inaudible] have demonstrated how violence and the fear of violence severely inhibits women's ability to access and are dear [misspelled?] to ARV treatment.

In some countries we have also seen laws and policies that have been put in place and how these tended to criminalize and make the addressing of HIV from a women's rights perspective particularly difficult. Efforts to criminalize HIV transmission present huge dangers to women and are extremely risky for anyone in an already marginalized group. Criminalization efforts have resulted in focus on transmission for women to children in child birth and from women to men generally. These efforts also further stigmatize and force underground the very people who should receive extra attention in prevention and care programs.

For example, the punitive policies such as the United States anti-prostitution loyalty oath, puts the health and rights of sex workers at risk. In this particular section let me also end but just saying, if we are serious about universal access and are interested in ensuring that those who receive treatment are able to adhere to it, we just integrate a response to violence against women, in HIV testing, in counseling, and in treatment programs.

The Women Want Ways Campaign, of which my organization is a part, has been calling for scaled up training of health care providers, particularly providers of HIV voluntary counseling, testing and treatment. And PMTCT plus, and to recognize and respond to signs of violence including during pregnancy, when research shows that women's risk of violence increases.

I just want to say something that will perhaps make some of us in this room very uncomfortable. Human rights are too often expendable in the quest for numbers for donors. It is not enough to tick boxes when you measure success of failure of a program. To simply say that we served 1000 women in this clinic, we notified 1000 partners of HIV positive women, without understanding that the very things you did or authorized might have put those women at risk as a result of their privacy being entirely disregarded, and when results were made known.

Those tests that gave you your numbers for renewed funding, but when women come back and tell us about the domestic violence they suffered, or when they come back and tell you that they cannot bring their partner to the clinic, when you ask them to go ahead and bring the partner, what have we done as health care providers? Do we shrug our shoulders and say this is not a problem for the Ministry of Health? What do we do in our conversations with the Ministry of Justice? These are some of the conversations that we need to have [applause].

And as we consistently talk about integration of services, as we talk about a multi-disciplinary approach to HIV, so we need to see that in practice when it comes to dealing with women who present either with signs of violence or who come back and tell us about their fears of violence.

Let me briefly touch on the issue of evidence. There is dire need for governments and international agencies, as well as civil society to design and conduct research projects to record the prevalence, impact and costs of violence against women, including in relation to HIV.

Yet, there are a few things that we need to remember. First states, communities, and health authorities must demand, prioritize and resource gender sensitive evidence reduction.

Secondly we must make better use of the evidence that currently exists, because it does, and it is often ignored or underutilized.

Third we also need to remember as I have consistently pointed out, no research or data gathering project, no matter how well designed and well implemented can ever fully reveal the true extent of violence against women, because of underreporting.

In addition, we need to provide more evidence in terms of problematic interventions and what works. And in this particular regard I want to site and congratulate organizations such as the UNAIDS, the WHO, and the Open Society initiatives who have taken the first steps in beginning to document some of the programmatic interventions and to illustrate what really works as an evidence base.

Let us now talk about the issue where often many of our well intention efforts tend to fall through and that is the issue of resources. The current global funding environment presents a significant challenge to women's organizations and movements. In the current financial climate, major donors have reduced contributions to women's organizations, which ultimately threatens violence and HIV.

The organization AWID, Association of Women's Rights in Development, has done an excellent study for the last three years, showing how since 1995 there has been a marked decrease

in terms of resources allocated to gender equality programs and to women's organizations and I encourage all of you to go to the AWID website to see some of these reports.

Since 2006 the Women Won't Wait campaign has conducted research on how much of the money dedicated to the HIV response goes towards combating violence against women. The research has consistently showed three main trends. First that there are too few financial resources dedicated by all key agencies toward violence against women in the HIV response. Secondly that there is a lack of policy guidelines that integrate violence and HIV and third, that while a few agencies have policies on paper, these have tended to evaporate between the headquarters and the field officers.

But at the same time there is some progress which should be commended and there are a few opportunities as well. The new United Nations entity for women that was just created last month UN Women, presents a new opportunity for getting both multilateral and bilateral support to programs that address violence and HIV, and it is only a hope at this point.

Until now, the United National Fund for Women, UNIFEM, the only agency with a mandate to work solely on gender equality has been under-resourced and has often lacked the institutional power required to influence others in the UN system. While UNIFEM has not been made a co-sponsor to UNAIDS it has been programming on gender equality and HIV/AIDS for

over 10 years, building capacity and knowledge on the intersections between gender inequality, violence against women and girls.

In our third report of the Women Won't Wait campaign, just released this week, we also see that there has been some little bit of progress in terms of the issue of resources. Our new report entitled, What's the Budget, Where is the stuff? We note the distinct progress made by several donor institutions, particularly UNAIDS, the Global Fund, as well as the U.S. office of the Global AIDS Coordinator, which manages PEPFA. Indeed this renewed and more substantial attention paid to violence against women and HIV is evidence of the success of women's movements and women's rights advocates, including the Women Won't Wait campaign.

What remains to be seen, however is how these polices will be transformed into practice and many of us will be watching and definitely holding these institutes to account.

Finally a few recommendations; it is important that we recognize and address the intersection of violence and HIV. These issues don't exist in silos. Just as loudly as we say violence is a cause of HIV, we must say that HIV is a cause of violence against women and girls.

This must be immediately translated into policies, implementable programs, into funding, which can be tracked and quantified and of course into research programs.

Second it is important to re-establish and continue to ensure that the state plays its role. States must create budget lines in health, gender and HIV programming to address violence, HIV and their intersection and to commit meaningful funding levels. In addition states at national and local levels must develop more sophisticated and integrated responses to violence and other abuses, including ending impunity of perpetrators.

And it is important to continuously remind governments that is their responsibility to adhere to international human rights standards and norms, to which they have voluntarily acceded. And to ensure that whatever laws and policies that have been put in place are effectively implemented by providing resources.

In the same vein, we call upon bilateral and multi-level institutions to place violence against women and gender inequality at the center of any HIV response. Policy level recognition must immediately be transformed into concrete measurable and resources programming that advances women's human rights through an integrated approach.

Fifth, it is important to invest in research and building an evidence base. Use what is ready available, as I said earlier, and do not dismiss or delegitimize it as too anecdotal and not empirical enough. Governments and providers and service providers must systematically collect data on

violence against women each on their own but also together. Program implementers need to invest more in tracking the impact of their work on women and devise interventions and analysis. We need to show what difference these interventions are making on women's lives.

Importantly, we need to build collaboration across movements, and here, I am speaking to the activists in the room. It is women's groups who historically have provided support and services to survivors of violence including setting up shelters and counseling programs, and AIDS groups have been in the forefront of the HIV response, yet no one is immune from prejudice and stereotypes. Women's groups as well as LGBT, HIV, and human rights organizations have been collectively slow and even resistant to address intersections of HIV violence and rights. We must consistently challenge ourselves to address the rights of all people including those most marginalized, not just to focus on ourselves, and it is important to create these cross movement collaborations because we can see what difference it can make.

I really want to thank all of you. I want to thank the International AIDS Society for giving us the opportunity to talk about this particular issue that is many cases often feels like we are struggling against it in our little corner as the feminist movement or as women living with HIV. I want to thank my co-authors for this paper Neelanjana Mukhia, Cynthia

Rothschild, Gcebile Ndlovu. I want to also thank Beri Hull from ICW, Gcebile Ndlovu also from ICW, Sophie Dilmitis from the Worldwide WCA and I also want to thank all the feminist organizations who have contributed to the writing of this paper and finally, thank you to the International AIDS Society.

[Applause]

JACOB GAYLE: It was noted in yesterdays plenary that 10 years have passed now since we were all together in Durban, South Africa challenging each other to ensure equitable and universal access to those HIV treatment and prevention opportunities. It has been successful within resource rich environments. We committed to erasing the divide between lands of opportunity and lands of disparity. A decade later we turn again to South Africa, this time to learn from its most recent promising trends indicating progress toward universal access. So for me, as a former South African resident and HIV worker there, it gives me extreme pleasure to introduce doctor, the Honorable Aaron Motsoaledi, Minister of Health. Dr. Motsoaledi was appointed. [Applause] Before he speaks Dr. Motsoaledi was appointed South Africa's Minister of Health in May 2009. A medical practitioner by training, Dr. Motsoaledi has a long history of public service focusing on strategies to address poverty, unemployment, and access to services. A member of the African National Congress, Dr. Motsoaledi has served in a number of roles in South Africa Limpopo Province including as

the former Acting Premier and as a member of the Executive Council. The Honorable Minster Motsoaledi will now speak with us on the subject of universal treatment and prevention scale up. Thank you.

AARON MOTSOALEDI: Program director, distinguished delegates, ladies and gentlemen, good morning. Let me start by thanking the organizers of this 18th International AIDS Conference for inviting me to address this plenary session. In the past, South Africa has been the subject of much criticism at these conferences for being a highly divided country on its approach to the HIV and AIDS pandemic. However, I can stand before you here today to state categorically that in 2010 all of South Africa is united behind our one goal on HIV prevention and treatment.

Through the South African National AIDS Council [Applause] a structure chaired by the [inaudible] for our country, we have achieved a common purpose in approach to the challenges posed by HIV and AIDS. In South Africa, we are proud of our concentration that guarantees the right to see those expression to protest and to access to health services. Often times, the South African Government has found itself losing court cases or being challenged because of not meeting our or being perceived not to meet our constitutional duties, but I want to assure my colleagues in governments across the world that this is a very good thing. It is the [inaudible]

action and it is helping to develop our country. The [inaudible] and human rights are not a threat to government but they are a prerequisite for good governance.

[Applause]

Today, we are guided by science. Best practices and recognition of our cautional [misspelled?] responsibilities provide everyone in South Africa with access to healthcare services and to do our best to try and get control over the HIV/AIDS pandemic. I will say more about our efforts later.

During the opening ceremony our [inaudible] told to that the FIFA World Cup in South Africa taught as the importance of team play. I want to mention today that it also taught us the importance of mobilization of good resources, the importance of good planning and the importance of ambition.

The [inaudible] also during the opening ceremony outlined the commitment that South Africa made to each people during the signing of our Constitution in 1995. the key aspects of the Constitution that are relevant for my address today are the social economic commitments particularly those related to dignity, life, and access to health services. As I will explain, it is clear that we have been falling short of this commitment and that in order for South Africa to meet the minimum development goals and our commitment to improve the quality of life all citizens and free the potential of each person we need to take a rapid and drastic action. Achieving

universal access by meeting our targets on HIV prevention and treatment is critical to achieving both goals however, we acknowledge the scale of the challenges we face.

For the past 20 years, South Africa has conducted the National prenatal survey among pregnant women who attend our public sector [inaudible] clinics. This survey constitutes the best record for our HIV prevalence levels and showed the speed with which the epidemic has taken hold. In 1990 the prevalence among this group of women was a mere 0.9-percent however, by 2005 just within a period of 15 years, it has reached 30-percent.

Over the past three years, it seems to have stabilized around 29-percent but it is still extraordinarily high. The effect of the HIV and TB epidemics can be seen in my country's mortality statistics and in estimates of life expectance. In South Africa 43-percent of mortality is HIV related. Among pregnant HIV positive women mortality is increased tenfold. That is against those who are negative. A similar picture is seen with under five mortality, whereby 57-percent of deaths of children under the age of five during the year 2007 were as a result of HIV and AIDS.

TB is the leading cause of death among people living with HIV and AIDS in South Africa. There is a 73-percent core infection rate. Between 1997 and 2005 the number of people dying of TB each year rose by 338-percent. Of the estimated

5.5 million people in South Africa infected with HIV, one third will develop TB during their lifetime.

So what is the plan to address this challenge. The South African National AIDS Council has got a plan called the National Strategic Plan or NSP. It has two main objectives which are to be achieved by 2011. Objective number one is to address the number of HIV infected people by half. Objective number two, to provide comprehensive treatment, care and support to 80-percent of those who need it. I call this like climbing Mount Everest but it is not as if South Africans have got any choice. In an effort to meet the targets of the National Strategy Plan we have to moved with great urgency to strengthen the comprehensive HIV and AIDS treatment response and I will briefly outline a number innovations intended to assist this.

In April of this year, we began a massive HIV counseling and testing campaign. We have set an ambitious target of testing 15 million South Africans but June 2011. Lead us starting with the president of our country, his excellence, the Honorable President Jacob Zuma to the Deputy President who addressed you here on Sunday, Kgalema Motlanthe, myself and other ministers, as well as premiers of our provinces and leaders of civil society to HIV test to encourage testing and to de-stigmatize HIV testing.

[Applause]

It is intended that this testing will be taken to schools, to universities, to villages and in all of those anybody in a leadership position will be asked to take the lead and be the first one to test. This has called the imagination of South Africans with large numbers of people coming forward to be tested. If we reach our target of 15 million people we anticipate that 1.6 million of those will be diagnosed HIV positive.

The campaign should provide them with the information and access to the interventions to enable them to manage their health and to prevent HIV transmission. Through rapid TB screening and the [inaudible] the campaign also seeks to ensure that those patients requiring treatment are fast tracked onto the treatment program. In the light of this we have planned for an enrollment of an additional 500,000 patients on our ART program by March 2011.

[Applause]

Since the launch of the AIDS/TB Campaign which unfortunately it was slowed a little bit by the FIFA World Cup, but since the launch in April about a million people have come forward to be tested voluntarily.

[Applause]

Out of those, 70,000 have been enrolled onto our ART. This extra burden on the healthcare system has been accepted by health workers because of the reward this campaign is likely to

reap. I am confident it will increase the number of people on treatment and benefit our prevention efforts. It will encourage openness and it will encourage people to use the healthcare system. However, the HIV Council and Testing Campaign is not without considerable challenges. One challenge is that once people discover they are HIV positive, we must prevent them from being lost from the healthcare system, especially, those with high CD4 counts. We must ensure that people who are eligible for treatment start treatment on time. We must also strengthen our positive prevention programs. Similarly, those who test negative must be supported to remain so for the rest of their lives.

[Applause]

Our AIDS CT Campaign will also place considerable pressure on the health budget. Although, I think in the long run it is possible this will be offset reducing the number of opportunistic infections we have to treat and also by reduced hospitalization costs. We are sending a clear message that this is the way to tackle to HIV and that it can be done in a way that respects human rights, a way that is based on people choosing to be tested and not being forced to do so, a way that avoid criminalization and comports stigma. On World AIDS day last year, our president announced the government's intention to introduce new treatment protocols in line with the World Health Organization recommendations. This was implemented

[inaudible] from April this year and are as follows: a pregnant women are being treat with CD4 count of 350 or less. Similarly, with TB and HIV co-infected people, children under the age of one are being treated regardless of their CD4 count and PMTCT has started at 14 weeks of pregnancy. During our high levels of TB and HIV co-infection we have agreed that all TB treatment sites must also and treat for HIV and vice versa.

Secondly, we have agreed to fully integrate all respective HIV with maternal and child health programs at all levels of the system, but especially the cold freeze where the patients meets the healthcare system. We have also started to make treatment available at more health facilities. By December 2009 only 497 of more than 4,000 public health facilities were enrolling patients for treatment. These facilities have been placed under great pressure to improve efficiency and expand access we have to move to decentralize access to treatment. Through a process of training and preparing facilities to [inaudible] and own the role of initiating HIV treatment, we have been able to add an additional 317 facilities to those already initiating patients on ART. By the end of 2001, all 4,000 health facilities in South Africa will be initiating patients on ART.

[Applause]

Key to achieving this package is to train health workers and shift tasks from physicians to nurses, from

pharmacists to pharmacy assistants, and from nurses to lead counselors. This represents a scale up towards universal coverage. Scaling up, definitely, needs additional resources. Even if we improve the efficiency of the health system, from our own revenue we had committed an additional $3 billion grand that is $400 million American dollars to fund the ART expansion program from the first of April this year.

We have also committed an additional $5.4 billion grand or $750 million American dollars to further expand the treatment program over the next three years. At current drug prices this will provide for 2.1 millions to be involved onto the program by the 2012-2013 financial years.

We recognize that South Africa is a middle income country with developing country health performance and so we have committed to funding the majority of our health project from within our fiscus.

[Applause]

As a measure of extent to which we have scaled up program funding, total HIV/AIDS expenditure from government and from our development partners in 2009 alone was a combined $17.6 billion grand or $2.33 billion American dollars. 83-percent of this is provided by our own government.

[Applause]

This is up from just under $14 billion grand or $1.84 billion American dollars which was utilized in 2008. We are

doing all of this because we are committed to improving the lives of people in South Africa but this is not easy. We face many challenges. It is important to remember that apart from the challenges of HIV and AIDS we are having to transform our health system from one that under the Apartheid system denied millions of our people basic healthcare services because of their race. HIV and AIDS has made this more urgent and just more difficult.

We do face many problems. Some of these are systemic and structural, other are financial. Gently, we are humbling the ability of public health system to provide treatment, care, and support to all those in need. For example, in 2009 one of our provinces implemented the five month moratorium on new patients on treatment. This caused great unhappiness. We investigated the systemic causes of this and resolved never to allow it to happen again.

[Applause]

The lesson in South Africa is that universal access needs universal support and assistance. The issue of fighting HIV and AIDS has become a hot issue at this conference and I would like to say the following about this. Over the last decade, the world has seen an unprecedented mobilization of resources for health to support poor countries, especially those in Sub-Saharan Africa. We thank bilateral and multilateral organizations for heeding the call to provide

additional funding as well as AIDS activists for the pressure that has helped to bring this about.

The Global Fund and PEPFAR have been crucial to scaling up treatment so that today UNAIDS tell us that there are 5 million people on antiretroviral treatment in low and middle income countries. As I have already explained, in South Africa we have got over one million people on treatment and while AIDS has taken tens of millions of lives, the global effort of the last decade has begun to reverse that. We are saving lives. Globally we have got a long way to go but I think we are now on the right track.

Yet the success will be under threat if funding dries up. The global economy recession is resulting in the Global Fund may fall short of $17 billion American dollars it needs over the next three years. The reason, allocation to pay for are keeping track with inflation but not much more. Certainly, our government believes that there is need to be for greater donor investment in HIV if we are to ensure that millions continue to be saved. We have to ensure that public and donor money is spent responsibly. We must not tolerate misappropriation of global fund tax fund or our own tax funds. Corrupt officials must be prosecuted and in the long run, [Applause] and in the long run Africa must become less dependent on international donors. [Applause] But we have to take the steps today to ensure that this possible in the

future. African civil society organizations have got a key role to play in holding us accountable. Democracy is important to healthcare and AIDS. With democracy health ministers like myself can be held accountable and supported so that we can do our jobs more efficiently and effectively.

Finally, there are questions being asked all over the world, my own country included. Sometimes these questions are asked even by people who are meaning well and the questions are: Are we not projecting HIV and AIDS as the only disease on this planet? Are there no other diseases that need more attention, perhaps even more than HIV/AIDS itself? Is our funding with HIV and AIDS not to the detriment of the whole healthcare system? These questions reach on and on and on and my answer to these questions it a big no, no, no.

[Applause]

Because the investment in HIV and AIDS has led to substantial increases in healthcare spending of Africa in general. HIV and AIDS has reversed life expectancy gains in many Sub-Saharan African countries and only by combating HIV and AIDS can we ensure life expectancy that heads in the right direction in Sub-Saharan Africa.

HIV and AIDS are a relatively new disease that has made terrible impact on life in Sub-Saharan Africa. Because it primarily strikes young, sexually active adults it has evaporated much human capital and killed many bread winners

with knock down effects across society. Throwing or keeping millions in poverty and producing a generation of orphans. In my count South Africa all the health related Millennium Development Goals will never be achieved without a frontal attack on HIV and AIDS.

[Applause]

HIV and AIDS has brought our health system to the brink of collapse. It has therefore been absolutely right to prioritize HIV and AIDS and we have to continue doing so. The focus on AIDS has also brought into sharp focus issues of human rights as mentioned by the speaker here before me so eloquently, the rights of people with different sexual and gender orientations and the rights of patients generally. The real question is how do we replicate what has been done for HIV and AIDS. How do we ensure that the investment is mobilized against other diseases, many of which are easily treated, diseases that may also claim millions of lives across poor and middle income countries, and how do we utilize that experience to rebuild the health system. This must be done but not at the expense of treating and preventing HIV and AIDS because otherwise our gains will be reversed.

More money is needed for global health generally. A sustainable plan as to how health can be financed is needed. Better coordination across diseases and donors is needed. A globally endorsed plan to train and deploy more health workers

is needed. These are things we should beginning to work on with a greater sense of urgency.

In conclusion, I want to state that investing in health is investing in development. Investing in HIV and AIDS program is investing in health. A long time ago, there was a bog argument about whether money for HIV and AIDS should be invested primarily in prevention or treatment. We know the answer to that now. There is no conflict between treatment and prevention. An HIV positive person are geared into treatment with an undetectable viral load is much less infectious and that is positive prevention.

Now that we have overcome that argument, we must not build other false dichotomies. We must take in all the causes of maternal mortality and infant mortality not just some. We must build decent health systems for all causes of ill health not just some. Responding to AIDS with vigor and anger and commitment has started us on this road.

The bottom line is that do this more resources are needed and existing resources must be used more efficiently. Developed countries have a responsibility to mobilize resources for this effort and we call on them to embrace this responsibility. The first test will be the full replenishment of the global fund to meet the needs that has objectively calculated to exist. But once the money is found it must be spent honestly, equitably, and accountable on medicines, health

systems and health workers. We should all know that because HIV and AIDS are going to be with us for a long time, we must ensure that we are all in this partnership for the long haul. We cannot as countries to make universal access a priority and provide them with assistance for only one or two years. If high-burdened countries are not assisted for as long as assistance is needed this will be violating human rights. We cannot give up on our universal access because that is giving up on life and human rights.

Let me leave you with a quotation by the President of our country on World AIDS Day is the referring to the liberation strategies of Africa, he said and I quote, "In one moment in a different city we came across a conclusion that there come a time in the history of any nation to submit or to fight and we have chosen to fight. We will never surrender the country to the ravages of HIV and AIDS." I thank you.

[Applause]

MALE SPEAKER: Thank you that was a very excellent set of plenarys I am here to make a couple of special announcements as Mr. Fauci indicated, today the CAPRISA 004 results for the study entitled Safety and Effectiveness of the 1-percent Tenofovir Vaginal Microbicide Gel in South African Women will be reported for the first time. In view of the fact that this has generated a lot of attention, we are moving the special session which is going to be held at 1:00 p.m. to

Section Room 6 which is a much larger session and hopefully that will be able to accommodate most of you. I also want to make a special plea for all of you to join Annie Lennox and myself, among others, of the Historic Human Rights March on Raleigh which will depart punctually at 7:30 from the [inaudible]. We hope you will be there and make this a memorable occasion. Thank you very much.

[END RECORDING]