Building on Success: A Roadmap for HIV Prevention
Kaiser Family Foundation
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[1] The Kaiser Family Foundation makes every effort to ensure the accuracy of written transcripts, but due to the nature of transcribing recorded material and the deadlines involved, they may contain errors or incomplete content. We apologize for any inaccuracies.

[START RECORDING]

[Video played] [Applause]

VUYISEKA DUBULA: Good afternoon, my name is Vuyiseka Dubula, I'm the General Secretary of TAC [misspelled] in South Africa. When I watched this video, I was left with enormous sense of pride. That lists by saying where we are coming from and I hope you too, are feeling that sense of pride.

Also, I saw a lot of people in here and heard a lot of voices of people I respected and people that I know and people that I remember from the video. We have worked very hard over the past ten years. We have achieved so much, but there's more work to be done.

We are truly at a turning point, we have to continue to save lives of people by accelerating access to preventing new infections. We all know that donors are saying during the economy crisis that we can't do it. When we know that still less than a third of those need access to treatment have access to treatment. We can find money to fund universal access; we can implement Robin Hood Tax, can't we?

So if we can join me when I say fill the gap, pick the tax, no retreat, tax and treat. I'll say it again so you can join me. Fill the gap, pick the tax, no retreat, tax and treat. [Applause]

Yes there is a financial crisis. Since the beginning of the financial crisis, over 60 million people have been

driven farther into poverty, but there is a way that we can raise the billions needed in the funding gap of HIV and AIDS.

The Robin Hood tax, for a very small tax on all financial transactions, the billions can be raised to raise the billions needed for the universal access that we were promised this year in 2010.

Mr. Gates we need your support of the Robin Hood Tax. Mr. Gates, who has been a champion of both living with HIV has an opportunity here today to raise his support for the Robin Hood Tax and to advocate with us and with people living with HIV to Wall Street and to world leaders to support and initiate the Robin Hood Tax. What's the chant? [Speaking in a foreign language] Thank you. That's why I'm honored to have this opportunity to introduce your speaker for this session, Bill Gates and his wife, Melinda started their foundation on the belief that all lives have equal value.

As HIV has always been a huge priority for them. Bill personally believes that investing in new tools for prevention and making both treatment and prevention more accessible to save lives. He and Melinda came to Toronto four years ago and told the world that we must empower women to protect themselves.

Today, he is going to lay out a roadmap of how we can build on successes we have already achieved. If you have any questions for Bill, please ensure that you fill in your cards

which will be handed out to you and thanks. And now I welcome Bill on the stage. [Applause]

BILL GATES: Thank you. Good afternoon. It was great to see the energy here at this conference. The AIDS movement has achieved a lot and it's important that we collect together and think about where we go from here.

I want to thank President Clinton for the inspiring message he delivered this morning. There's no doubt that we've got challenges, no doubt that certainly in the spirit of what's been said here that there is an obligation to do even more. The world has made amazing progress in the fight against HIV, yet in these economic times, it's tough. We're not seeing the increases that we have in the past. The turbulence is about government deficits and many countries have responded by freezing or even reducing their investments in global health. We have to do everything we can to change that. But as we face that challenge, we don't have to let that define our time.

I'm here today because when it comes to this fight, the fight against AIDS, I'm still very much an optimist. This decade sought remarkable progress. We all celebrate the five million people receiving antiretroviral treatment up from just half a million just six years ago. We all celebrate that since 2001, the rate of infection has fallen 17-percent. It's not enough, but it's certainly moving in the right direction.

The people here, your energy, your invention, your new tools, made this progress possible. The community workers and clinicians drove prevention campaigns. The advocates argued for more funding and the world responded by adding money to this cause faster than any other health problem in history.

The global fund has been a great vehicle for making sure that these funds go to the people who have the greatest need. So this movement has overcome huge obstacles. Two decades ago skeptics said we can't make drugs to treat a virus. But you persisted and now they do. Then skeptics said when we make drugs, we can't make them cheap enough, but you kept pushing and now they do.

Then the skeptics said we can make the drugs cheaply but we don't know whether people will stick to the regimens and when you insisted, it was tried, and now they know that they do. Today, skeptics look at the struggling economy and say that we can't beat AIDS because of these financial limitations.

We will lose the fight against AIDS because of these limitations. I agree with the skeptics that these are tough economic times. Right now there isn't enough money to simply treat our way out of the epidemic. So if we keep spending our resources in exactly the same way we do today, we'll fall further behind in our ability to treat everyone.

That's why I want to talk today that even as we advocate for more funding, we can do more to get the most

benefit from each dollar funding and every ounce of effort. If we push for a new focus on efficiency in both treatment and prevention, and we continue to innovate to create new tools, we can drive down the number of infections dramatically and start writing the story of the end of AIDS.

Our first task is to scale-up the prevention efforts that are cheap, effective, and easy to apply. Some of these, like male circumcision and preventing mother to child transmission, are so cheap and effective that it is more expensive not to pursue them. Immediately you not only get the humanitarian benefit, but an overall reduction of costs in the health system.

For example, in a single month last year, in Kenya, 36,000 men were circumcised and this cost $1.4 million. If these men had not been circumcised and later some of them became infected with HIV at the prevailing rate for uncircumcised males in that country, treating them would have cost the government over 10 times as much. It's an astonishing return, but it's not just about the money, it's about all those lives and what they mean in that country.

I have to admit, when it comes to circumcision, I used to be a skeptic. I thought yes, the studies show that it reduces transmission by nearly 60-percent, but I was doubtful that a large number of men would sign up for it. I'm glad to say I was wrong. Where there are clinics available, men are

volunteering to be circumcised in huge numbers, far more than I expected. I want to show you a short video about one of them, a young man from Swaziland. [Video playing] [Applause]

BILL GATES: After somewhere, I went to South Africa to see for myself how enthusiastically men are embracing circumcision. I visited a clinic in the township of Orange Farm that serves more than 750 men every month. I met several of them and they were thrilled to be getting circumcised. The ones who had already undergone the procedure said it made it easier for them to use a condom.

I also met a surgeon, a tireless young woman named Josephine Artuidarco [misspelled?] she told me she had performed 67 circumcisions that day. I asked her when do you stop? She said when we're done.

Male circumcision is an amazing advance in prevention. If we had a vaccine that was as effective, we would do everything in our power to deliver it to every person who could benefit from it. And circumcision is reaching many men, but not nearly enough. In the four years since we've learned about its benefits, only 150,000 men in Sub-Saharan Africa have been circumcised out of 41 million who would benefit from it. That's inexcusable.

Countries need to make this a priority for their policies and for their funding. We have to do a far better job scaling up interventions that are proven to work as soon as

they're proven to work. We've seen similar gaps with other prevention efforts, including counseling sex workers and offering drug treatment and needle exchanges for drug users.

There are many reasons for these failures, for instances more aid from donor countries needs to reach the people it's intended to help. But there's one reason that especially deserves attention. Many prevention efforts are not targeting the communities where transmission is the highest.

According to the Know Your Epidemic report published this year by UNAIDS, 10-percent of HIV infections in Kenya are due to sex between men. In some coastal regions it's likely to be as high as 20-percent. Yet most districts in the country have no prevention programs for these men.

In Russia the epidemic is largely spread by injecting drug users. In areas where they receive clean needles, testing, and other services, the infection rate rose 15-percent over five years. Where they didn't, it skyrocketed 105-percent. Clearly these services make a different, yet Russia has cut the budget for them to zero and shifted the money in the programs for the general population.

Why? The problem is not a lack of data. UNAIDS data says how it helps endemic countries analyze the information to understand which of their populations are at greatest risk. The problem is that countries are not using this data to make their funding decisions. Instead, politicians make them based on

fear and stigma. They don't want to associate themselves with people who engage in behavior that makes them uncomfortable.

As President Clinton said this morning, every dollar wasted puts a life at risk. If you are afraid to match your prevention efforts to the right populations, then you're wasting money and that costs lives.

There is one other prevention technique where greater efficiency will have a big impact and that's antiretroviral treatment. We know that putting people on ARVs makes them far less likely to pass the virus to others. Treatment is a form of prevention, but it raises a crucial question.

How do we get the most prevention from the treatment we're providing? When you have a high CD4 count and your viral load is low, you feel healthy, and you're probably more sexually active. As your CD4 count drops, your viral load spikes and you become less active, but you become more infectious.

When is treatment most effective? A recent study involving seven African countries found a strong answer. People with CD4 counts below 200 were six times more likely than healthier people to transmit the virus. This was true even after accounting for the fact that they were less sexually active. So when the goal is to maximize the prevention benefits of treatment or also to save as many lives as

possible, the focus should clearly be on first treating everyone with a CD4 count below 200.

This gives us vital information for the fight against HIV. It tells us how to target our efforts so we can have the biggest impact in prevention. At the same time, we have to face a harsh truth. Because of the virus's long latency period, expanding our prevention efforts won't drive down the number of deaths and the number of people we need to treat for a decade or more.

Even as we act now to prevent future infections, the only way to save more lives immediately is to expand the number of people receiving treatment. Unfortunately, the current high costs are making that very difficult.

If you have AIDS and you go to a clinic, you should never had to hear someone say I'm sorry, you can't have the drugs that would save your life, we don't have the money. When funding is limited, there are two ways to stop turning people away and continue expanding treatment.

One is to reduce the cost of the drugs and the other is to reduce the other costs of delivering them. The cheapest first line drugs now cost about $100 a year. We need to keep working to reduce these costs and including the most effective regimes that contain Tenofavir.

But unfortunately, drug costs are not likely to go down much in the next few years. So that leaves the option of

driving down the cost of delivery. We have seen a lot of evidence that this is possible. In 2006, PEPFAR studied the number of its sites in Botswana and reported delivery costs of nearly $1,000 per patient per year. Two years later, the cost is down to $245. In Nigeria, it dropped from $2,000 to $280, for a reduction of nearly 90-percent. Now some of these costs come from minimizing personnel costs.

A site seeing more patients, the staff can cover more people. Some tasks can be shifted from doctors to nurses or nurses to assistants. Some clinics also looked at having the most simple testing regimes. They may run fewer CD4 counts or check less often for toxicity.

To drive down the cost of delivering treatment, we need to understand smart ways of doing both, minimizing personnel costs and appropriate simplification of the testing regimes. But right now, we're not measuring best practices or sharing them like we should.

For example, a question like whether there's a more expensive drug that actually saves money because it reduces delivery cost, we would need numbers to know if that was the best approach. If we could limit the delivery and administrative costs to no more than twice the cost of the drugs themselves, then the total cost of treatment could get down to $300 per patient per year.

If we achieve that for the amount of money we spend today on treatment, we could treat twice as many people. ARV treatment and male circumcision are two powerful, proven tools for prevention. And we should scale them up as fast as we can.

Another set of interventions, those designed to persuade people to change risky behavior have had success in certain regions with focused populations. For example, our foundation supports efforts in India to encourage sex workers and their clients to use condoms. And the results have been impressive.

Now as we work to scale-up methods of influencing behavior change in Africa, we need to clearly measure their impact so we know which ones are making a difference and should be scaled-up. The payoff of scaling these tools could be huge. If we identify the most effective efforts and expand access to them, we can prevent millions of deaths.

So that would be good news, but not good enough. Even if we did everything possible with the tools we have today, the most optimistic predictions suggest that we would only cut new infections by half. Millions of people would continue to transmit the virus and we would not have enough money to treat everyone who needs it.

Fortunately, you don't have to assume that in the future we will be limited to fighting HIV with the tools that we have today. We can do better. Innovations coming through

advanced science and diagnostics and computer modeling and our understanding of the virus itself will make it possible to create new weapons for the fight against AIDS, prevent more infections and save more lives.

Let me talk about some of this work that I'm especially excited about. One very promising area is ARV based prevention. Either through pill, gels, or injections with the drugs we now use for treatment. Four years ago, when my wife Melinda and I spoke at this conference in Toronto, we called ARV based microbicides the next big advance in the fight against HIV.

The early trial results of gels that did not contain ARV ingredients did not succeed. But we are very optimistic about the long-term potential of microbicides that contain ARVs and other forms of ARV based prevention.

The new generation of microbicides currently being tested have a good chance at succeeding because they contain active drugs. The results from the first of these trials, CReSA, will be announced tomorrow. Researchers are also building on important lessons from the early microbicide trials.

They now understand that we need a range of products because people have a wide range of needs. For instance, some women can't or won't use the gel every day, so researchers are studying long-acting products that can delivered by vaginal

rings that stay in place for a month or more. FDC trials on one ring are scheduled to begin next year.

If it works, it could help overcome some of the adherence problems we've seen in early microbicide trials. Another promising area of research is pre-exposure prophylaxis or PREP, a daily pill or long-lasting injection. This would put the power of prevention into the hands of women who can't use microbicides. And people at high risk such as injecting drug users and then who have sex with men. Later this year, researchers in London will begin a new study of the oral treatment drug, Rilpivirine, to see if it can be used as a long-lasting injection for prep.

When we get results from these studies, we should be ready to act right away, but right now, we're not doing that. Let's say we got a positive results from under these new tools in the near future; between gaining regulatory approval, raising money and training staff, and other activities, using the normal approach, it would likely take at least six years to scale it up.

That's unacceptable. When we get positive results, we need to figure out how to launch a large community trial almost immediately. We let time go by with male circumcision, and I hope we don't do that again with ARV based prevention.

Effective ARV based prevention would be a big advance, but the ultimate prevention tool, of course, is a vaccine. For

years many question whether it was possible to prevent acquisition of HIV with a vaccine. The results from the RV144 trial in Thailand last year gave us the answer. It is possible. We've never had that kind of evidence before, and it's having a profound effect on the way vaccine research is done.

Researchers are studying those Thai samples to look for correlates. Whatever they find there it will help guide research, and drive us towards the most promising candidates for future trials. There are other exciting developments in the vaccine field. In this last year, both the NIH vaccine research center and the international AIDS vaccine initiative have isolated very potent antibodies that can neutralize almost all the strains of the virus. This is a first step in making a vaccine that can stimulate the body to produce those antibodies.

These are promising ideas; but right now, it takes too long to turn ideas into products. So far, only three vaccine concepts have undergone clinical efficacy testing. The first was in 2003, the most recent to finish was the Thai trial that finished in 2009.

During that six-year span, nearly 17 million people were infected with HIV. That's why we need to speed up the development process for all the new tools without compromising safety, or the timeframe to get the product's license.

Researchers can help by designing trials that require fewer participants; involve earlier reviews of the data, and target the populations with the highest incidence.

At the same time, the agencies that regulate trials can be more receptive to new ideas. And pharmaceutical companies can do more to allow direct comparisons of their products. Vaccines, new diagnostics, and ARV based prevention are some of the tools I'm excited about.

It's impossible to know which of these will break through, but with just a few of them, the impact would be phenomenal. To illustrate this impact, our foundation worked with people at the Imperial College in London to look at computer models for different locations, and look at the impact for different areas where the epidemic has a unique profile.

We looked at two places where I thought you would find the results very interesting. The first was a look at rural Zimbabwe, where the epidemic is generalized across a large part of the population. Let's start and look at the status quo. What will happen if the rate of infection continues as it is today?

Now, I want to look at what would happen if we took the existing interventions that work in this type of epidemic– a generalized epidemic, such as male circumcision, ARV treatment and preventing mother to child transmission. And as you can

see, you get a dramatic reduction. In this place, you get a 38-percent reduction by 2031.

So now, let's look what happens if we get some of these new tools. First, let's look at an ARV based prep and microbicide. Again, a substantial reduction, so now we're down to a 53-percent reduction in people infected.

Well now, let's add a partially effective vaccine delivered to most of the population. And here we see a very dramatic change. Now, the combination of these things brings us down to a 90-percent reduction. These figures suggest that we could stop nearly 400,000 infections between now and 2031 just in rural Zimbabwe, that would be fantastic.

But the way we fight a generalized epidemic, like this one, is different from the way we fight one that's concentrated in a particular population. The way you apply tools is different. So let's take a look at a place where the epidemic is more concentrated. An example of this is urban Benin where the epidemic is concentrated among sex workers and their clients.

Again, let's start with the baseline. What would happen if the rate of infection simply goes up with the population. Now, let's add intervening with the existing prevention tools that work with this population, such as [inaudible] promotion among sex workers. Scaling up

[inaudible] interventions would cut new infections by 46-percent.

Now, let's look again at adding new tools. Prep and microbicides delivered to most sex workers in the area. That would cut annual new transmissions by 64-percent.

And finally, let's add the partially effective vaccine; in this case delivered only to have the population. This would reduce annual new infections by 90-percent, averting just in this area, 66,000 new infections between now and 6031.

So this is the kind of outcome that we can achieve; in both countries, whether the epidemic is concentrated or generalized, current and new tools together can cut annual new infections by 90-percent within 20 years. Other countries might need somewhat different interventions to achieve such dramatic results, but this gives you a sense of what's possible.

If we drop the numbers this far in the hardest hit areas, it would change the face of AIDS. New cases would plummet, every person who was sick could be treated. The control of HIV would stand alongside the eradication of small pox as one of the great public health victories in history.

This is our opportunity; we're at a turning point. We can keep doing things the existing way and keep getting modest results. Or we can change; we can push ourselves to make the most out of every dollar of funding and every ounce of

prevention effort. We can identify the most effective ways to save lives and share what we learn as broadly as possible. If we do that, we will have matched our compassion with the growing capacities of science, and we will start to write the story of the end of AIDS.

Thank you. [Applause]

CHIP LYONS: Good afternoon everyone. My name is Chip Lyons and I am the CEO of the Elizabeth Glaser Pediatric AIDS Foundation. [Applause]. Bill, thank you very much for the remarks, as you know, we have a number of questions that have been submitted and I'm just going to jump right in if you don't mind.

First question; can we utilize the global fund or innovative funding mechanisms to drive down the cost of second-line ARVs?

BILL GATES: Well absolutely, the second-line drugs, even though they're used by a small percentage of people under treatment represent 25-percent of the spending. So it's very important. And the Clinton Foundation has done important work on this, and continues to. And they see an opportunity to get those costs down quite a bit.

Today, many of the regimes that are being bought are as much as $1,000 per year. And with the right type of alignment, so we drive the volumes up, work the supply chain properly,

that could probably be brought down to something like $300 a year.

So it's increasingly important to do that as we're trying to optimize and as more people will be on second-line.

CHIP LYONS: And that's entirely a volume issue?

BILL GATES: Well, it's partly getting people aligned in terms of the volume, it's getting some agreement on what the right approach is so that it can be packaged up and put into a form that's easy for the patient and patients. And certainly PEPFAR and Global Fund have a role to play there.

For a lot of that, thinking through the cost chain, the Clinton Foundation will be helping everyone understand the facts and get these practices aligned.

CHIP LYONS: I want to pick up on something from your speech. You said that we should be scaling up easy, effective interventions. And you mentioned male circumcision and mother to child transmission. You spoke a little bit about male circumcision; can we talk about the other? And we were talking about this backstage. Why do you think we have not scaled up PMCTC? And what can we do in this room? It's a necessary condition to eliminate pediatric AIDS as the video indicated.

Where do you think we're not doing enough?

BILL GATES: Well, I think it's outrageous that we haven't done better on this. And I think we need to get countries to set aggressive goals on this; we need to get the

political leaders to recognize the tragedy that this is. It's one area I just don't understand why things have moved so slowly. The best countries, and there's only a few of those, talk about 80-percent coverage, which I'm not that impressed with. But on balance, apparently, it's only about 45-percent, which is absolutely horrific.

In terms of cost of the intervention, the impact on the lives involved; that should be something that we have an above 90-percent. And so, I think we have to go to each of the countries involved, make sure that the funding for that is appropriate, the recommendations are appropriate. This is one where even in the next year, I'd like to see a big change.

CHIP LYONS: So would we.

BILL GATES: Well, your group is at the forefront of this, but somehow we need to get the governments aligned in the effort; it's an operational challenge.

CHIP LYONS: Another question; what aspects of the Global AIDS Epidemic can be addressed with technology? And at what point do we inevitably come to the issue of brain drain and the corollary here is workforce– adequate workforce.

BILL GATES: Well, in terms of technology, it's mostly biological technology; cheap tests, certainly there's some modeling work that is finally going on to look and do comparative analysis, understand the nature of the epidemic and what's going on. The cost– the brain drain cost in an AIDS

epidemic are quite severe, and that's where the scaling up of the treatment things– we want to be at universal treatment, and efficiency is one of the things we're going to have to push on hard to be able to take the dollars, which are not going as fast and get to those numbers.

And so, I don't think we have to get into the negative cycle where you're losing your capacity and therefore, you're executing worse. It is one of the possibilities, but I don't think that's where we'll end up.

CHIP LYONS: Thank you. Another question; with such substantial increases in resources being provided for health commodities, the supply side, are we investing enough on improving the demand side? And then specifically, what can the Gates Foundation do to improve the uptake and impact of healthcare commodities?

BILL GATES: Well, healthcare commodities covers a wide ranges of things; in terms of age, we have a lot of people who don't know that they have HIV. And the volunteering testing is finally starting to come up, and that drives demand for the ARVs.

For a long time, demand was not out there; lots of people were not seeking treatment. Now, the good news is demand is coming up, and the question is will supply be able to go up with it?

In terms of other commodities, reproductive health; vaccines, there's a lot of learning around social marketing where the best practices often involve organizing the women at the village level, and using that as a powerful force to demand that the right things get done. In some parts, particularly in Asia, less so in Africa to-date, that's been a phenomenal thing in terms of making sure the health system does the basic things and making sure the pull-through is there for the appropriate interventions.

CHIP LYONS: This is a question from Nigeria, and I know you've spent a considerable amount of time in working there. But it's an interesting take on it, and I wonder if it comes up during your visits. How can we get wealthy Africans to support health programs the way you do through the Bill and Melinda Gates Foundation? [Applause].

BILL GATES: Well, Robin Hood believed that the rich should give to the poor. And I did have lunch when I was in Nigeria with some of the industrialists there and talked about how they could get involved and have an impact. People have to see something that meets their needs; they have to see that it can be very successful, they have to understand the complimentary roles of the government and philanthropy. And a philanthropy is often funding the new approaches, new ideas to make sure that the government does things right.

And those models haven't been developed. Warren Buffett and my wife Melinda and I are doing this giving pledge thing; first in the United States. We're certainly going to extend it to train in India, and we'll see how it goes. And those three geographies, before we take it to Africa. But I think absolutely, we need more examples of success with people coming back and getting involved in these health issues.

CHIP LYONS: I know we started a little bit late, and so this has to be the last question. It's not an easy question, but if you can provide just kind of a short answer. The larger question is what are some of the exit strategies that the foundation has developed in terms of ensuring that programs remain sustainable and successful? To make it briefer, I would say to what extent are you concerned about exit strategies at the foundation? And sustainability?

BILL GATES: Well, most of the things we do at the foundation, there's a clear sense of progress. If you invent a vaccine, you spend a lot of money, eventually, that gets done. Then you got to make sure it can be manufactured for the developing world, it's got to be at very low cost. There's a lot of things involved in that.

Finally, if you do get it down to something like a dollar a dose, and we've really picked a disease that you've proven the burden of, over time, that is such an unbelievably

positive impact that the governments themselves will pick it up. We partner with a group called GAVI that does a lot there.

So all of these things have got to have a way that they work in the long run. And fortunately, almost all of these interventions you can look at them getting cheaper, more effective, more data-driven, and better as time goes on. Now, you have to be patient, you know, we give more to AIDS than any other disease, and I bet you 10 years from now, we'll give more to AIDS than any other disease.

I wish that wasn't the case, because it would be based on some phenomenal success. But we'll be here until this thing gets finished, and keep it as our top priority.

CHIP LYONS: Thank you. [Applause]. I'm sorry that that was the last question, because I know you have interesting things to say about the rest of these. But I think of behalf of the audience, we all look forward to working with you over the next 10 years and beyond. Thank you.

BILL GATES: Thank you, Chip.

CHIP LYONS: I'll come off with you. [Applause] [END RECORDING]