RESULTS EDUCATIONAL FUND

Moderator: Joanne Carter
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Operator: Good day everyone and welcome to our RESULTS media call with Open Society Institute and Partners in Health. Today's call is being recorded.

At this time for opening remarks and introductions, I would like to turn the call over to Joanne Carter. Joanne, please proceed.

Joanne Carter: Thank you very much, operator and thank you all for your patience. And welcome – and thanks for being on this call. My name is Joanne Carter. I am Associate Executive Director of RESULTS and RESULTS Educational Fund, an international grassroots organization that works to expand support for strategies and resources to end the worst aspects of poverty and ensure access to healthcare, including TB treatment for all.

I want to thank the media who are here today for bringing these critically important issues to the public and I'm very pleased and honored to be joined today by George Soros, Chairman of the Open Society Institute; the Right Honorable Minister Mphu Ramatlapeng of Lesotho, she is Minister of Health and Social Welfare; Dr. Paul Farmer and Dr. Jim Kim from Partners in Health.

I want to acknowledge Partners in Health for their tremendous work over the years to bring TB treatment and other quality healthcare to some of the poorest places on the planet, and I want to

give special thanks to George Soros for his pioneering leadership in giving attention to the problems of drug-resistant tuberculosis and for his continued support and attention to the fight against this disease which is still far too often neglected by the world.

We come together today amidst a growing epidemic of drug-resistant tuberculosis in southern Africa, including the most extreme forms of extensively drug-resistant disease, and a global epidemic, as well. But the countries in southern Africa face a special challenge and urgent needs, given the high rates of HIV/AIDS in the region and the high mortality especially associated with these forms of TB and people living with AIDS if not treated rapidly and effectively.

In southern Africa, death rates among people living with HIV in South Africa who acquire XDR-TB have been estimated at something like 85 percent, so it's perhaps not surprising that the media has sometimes characterized this disease as untreatable or as a death sentence. But as you'll hear from our speakers, this doesn't need to be the situation. Partners in Health and staff working with the Department of Social Medicine at Harvard Medical School and Brigham & Women's Hospital have extensive experience in the treatment of TB, drug-resistant TB, and HIV.

And since 1996, with the support of the Open Society Institute and others, the group has treated over 5,000 patients with MDR-TB, some of whom have met the definition of this extremely drug-resistant TB. And they've also treated and followed tens of thousands of patients with HIV infection and AIDS. OSI also funded a Partners in Health project in Tomsk Oblast in the Russian Federation whose findings have helped shape the World Health Organization guidelines for the treatment of drug-resistant tuberculosis.

So, my main point being that Partners in Health and OSI have a long history and a successful collaboration in fighting drug-resistant TB and that continues now at a moment of critical importance. Before I hand this off to our distinguished speakers, I just want to say a quick word about the kind of context and urgent need for funding to combat XDR-TB.

The World Health Organization is calling for at least $650 million globally in immediate emergency funding needs to combat XDR for the drugs, the diagnostics, and some immediate infection control. And even this figure doesn't capture all of the broader needs of TB treatment and lab strengthening that's needed to both treat this, but also prevent XDR.

So, the World Health Organization broadly estimates that some $5 billion is needed annually for strengthening basic TB control, and then this immediate response for XDR-TB, as well. And after this, experts and global leaders like Desmond Tutu have in fact been calling on the United States to urgently provide resources now, some $300 million, in the fight against XDR-TB this year because we simply can't wait another year to jumpstart these efforts.

With that background, I want to introduce our first speaker, who really requires no introduction. George Soros is a distinguished international financier and is Chairman of the Open Society Institute, and for many years now, Mr. Soros has been a global champion in the fight against TB. And today he takes that leadership to a next level and continues this work.

And it's a pleasure, Mr. Soros, to have you on this call, and I'd now like to hand it over to you to make some opening remarks.

George Soros: Very good. Well, my foundation got involved in this problem in Russia. In fact, it was still the Soviet Union when we wanted to open up the prisons for reform. And we wanted to – we found that we could sort of work with the authorities best if we helped them combat this very serious problem in the prisons, namely tuberculosis which affected the guards, as well as the prisoners.

And we had a program for treating TB, and there we ran into a multidrug-resistant tuberculosis which could not be cured by the normal methods, and that's when we first started working with

Paul Farmer, who's really been pioneering on this treatment and this problem. And we then sort of remained very concerned with it and worked with Dr. Kim in – Jim Kim in a Stop TB campaign.

And now, we were always afraid that if multidrug-resistant tuberculosis meets HIV/AIDS, that it could be really devastating, and this is now happening in southern Africa. And it's an issue that is not getting the attention that it deserves, and we are really pleased to continue to work with Paul Farmer and Jim Kim in developing appropriate treatment methods. And of course, I'm myself interested – very much interested in hearing what he's – what they're going to do in Lesotho, which is meant to be a pilot project to which can then be introduced internationally.

Now in my involvement with this – with the Stop TB campaign, I came to realize that the problem is neglected and not getting the kind of attention that it deserves because it mainly affects poor countries. And it is, of course, connected with AIDS, but it's also a separate disease very prevalent in poor countries like Bangladesh. And I visited Bangladesh and I was very much impressed there because there the treatment is based on community involvement and – it's particularly an organization called (BRAC), which is basically a micro-credit organization that also provides healthcare and education.

And they don't have multidrug-resistant tuberculosis because they have the right kind of treatment. So, the most important way to fight this XDR is by having the right treatment mechanism and community involvement.

So with that, I'm happy to hand over to them to Minister Mphu Ramatlapeng actually describe the issue and what they're going to do about it.

Joanne Carter: Thank you very much – thank you very much, Mr. Soros. And next, I'd like to introduce Minister Mphu Ramatlapeng – and forgive me if I'm not pronouncing that quite right – is the Minister for Health and Social Welfare for Lesotho. Prior to assuming this position, she had been

country Director for the Clinton HIV/AIDS Initiative in Lesotho from October 2005. She was born in Lesotho, studied medicine in Ukraine, and later obtained a Masters in Public Health from Johns Hopkins University.

After completing her education, she returned to Lesotho, where she has worked in a number of key positions in both the public and private sectors before joining the Clinton Foundation, and now with her work as Minister of Health and Social Welfare. So, Minister, we'd love to have some opening comments from you, as well. Please go ahead.

Jim Kim: Joanne, this is Jim Kim. I think we may have lost her.

Paul Farmer: Yes, Joanne, I think she had trouble connecting.

Joanne Carter: Well, let's go ahead, then. What I'll do is I'll move on, and perhaps we can ask, Paul, for you to make some opening comments. Just give me a moment to introduce you, and then we'll see if we can get the Minister back on the line.

Paul Farmer: Sure.

Joanne Carter: So, our next speaker would be Paul Farmer who, again, needs no introduction, but I'll do a quick one. Paul is a Medical Anthropologist as well as a physician and Co-Founder of Partners in Health. For those of you that don't know Partners in Health, it's an international organization that provides direct healthcare services and undertakes research and advocacy activities on behalf of those who are sick and living in poverty.

Paul is a Professor of Medical Anthropology in the Department of Social Medicine at Harvard Medical School and he is engaged in active clinical practice both in Boston, in Haiti, and more recently even in Rwanda, as well, and focused on diseases that disproportionately afflict the poor.

And Paul and his colleagues at PIH have brought global attention to the needs and the rights of the poor to quality healthcare and the ability to deliver such care in some of the poorest places in the world. So, Paul, we'd love to hear a bit more from you on this issue and on what's going to be happening in Lesotho.

Paul Farmer: Thank you. Thank you, Joanne, and I'd like also to thank George Soros and the folks at OSI and also Dr. Mphu Ramatlapeng, who I hope will join us. She's been a leading light not just in Lesotho, but in speaking on behalf of people who really don't have access to care for HIV or tuberculosis.

I would like to mention one thing. We've had the good fortune of working with George Soros and OSI for a decade on this problem of drug-resistant tuberculosis, which as Mr. Soros said, is really a subset of the larger problem of how best to manage a chronic infection tuberculosis. And community-based care has been something we've worked hard on in our – in our efforts in Latin America and in Africa.

Just one bit of optimism prior to the pessimism that all of us can feel at times in thinking about an airborne disease that's very difficult to treat. When we were invited into the former Soviet Union in – about ten years ago because efforts to treat tuberculosis inside the penitentiary system were failing or not achieving the results that all of us wanted, in Tomsk Oblast in western Siberia, about a quarter of the people with tuberculosis in the prison systems were dying, and these were mostly young men. And once we introduced effective therapy for all TB including drug-resistant TB, that – the death rates inside that prison went to zero.

So, it can be done. It is possible to treat highly drug-resistant TB. It's very difficult. The new twist is the one that we predicted, and many others did, as well. And that is that when HIV and tuberculosis collide and when HIV and drug-resistant tuberculosis collide, there is going to an even more urgent need to intervene effectively because HIV really speeds up the process and

makes these epidemics faster and more lethal – epidemics of TB and especially drug-resistant TB.

And that's what we're seeing in southern Africa. Some of the data that we have seen from KwaZulu-Natal, which borders Lesotho – Lesotho is surrounded by South Africa – show very high death rates from drug-resistant TB among patients with HIV who are on therapy for HIV. And this has led, as you said, Joanne, to the sense that this, you know, is untreatable infection.

But unfortunately, what we see is that it was an untreated infection, that HIV was being treated effectively with antiviral therapy, but until we bring effective therapy for both MDR-TB and HIV together, we're probably not going to – we're not going to see the results we want. It's worth mentioning, then, that this project that we're proposing in Lesotho that we are launching together with OSI and many others, particularly, of course, the Ministry of Health of Lesotho, is going to build on a decade of work, and it – but it is also going to face new challenges because of the high rates of HIV and co-infection.

And that's going to mean that it's all the more urgent for us to develop strong infection control programs. And as Mr. Soros mentioned, good community-based care, involvement of the community, has many, many positive aspects, but one of them is, of course, that you're not having patients congregated together inside treatment facilities and are moving therapy whenever possible into the community where high rates of infection – what's called in the jargon of public health, nosocomial infection, infection that's happening inside institutions.

And those institutions, of course, can be clinics or hospitals or prisons. And to some extent, we're going to need to use hospitals to treat this disease, but we have to make the hospitals safe for our patients so that they don't become infected or re-infected with this disease.

So, the strategy that we're proposing about which you'll hear more from Jim Kim and Minister Ramatlapeng, is one that is comprehensive, that focuses on diagnosis and treatment and beefing up labs quality, but also on infection control and on developing a model that can be – can inform policy. And that's why it's so critical that we have the World Health Organization and the other standard-setting bodies involved, and this program was designed with that in mind.

And I think if we – if we bring all of this – these approaches together and all of these resources together, we will find that many patients with this disease can be treated effectively and also that we can interrupt ongoing transmission and make a difference even in some of the most challenging settings such as Lesotho where there are very high rates of both HIV and TB infection and also high rates of disease from tuberculosis.

And just in closing my few minutes, I would like to underline something for members of the press who are on the line today, and that is it doesn't need to be a death sentence. XDR-TB does not need to be a death sentence. If we can combine good infection control, good prevention strategies, and good therapy, we're confident, based on our past experience, that we can – we can curb this epidemic.

Joanne Carter: Thanks so much, Paul. We're going to go ahead with you, Jim. We have not been able to reach the Minister on the phone, so while we'll keep trying, we'll go ahead. So, our next speaker is Jim Yong Kim. Dr. Kim holds appointments as the FXB Professor of Health and Human Rights at the Harvard School of Public Health and Professor of Medicine and Social Medicine at Harvard Medical School.

He's Chief of the Division of Social Medicine and Health Inequalities at Brigham & Women's Hospital. And as many of you are familiar – he was previously Director of WHO's HIV/AIDS Department where he oversaw the Three By Five Initiative designed to put 3,000,000 people in developing countries on AIDS treatment. Also Co-Founder of Partners In Health, he is an expert

on tuberculosis and has conducted extensive research into effective and affordable strategies for treating drug-resistant TB and has really moved those forward as an advocate in the world.

So, Jim, please go ahead.

Jim Kim: Thanks very much, Joanne. And let me just tackle three quick points. First, I want to talk a little bit about the nature of the problem. Secondly, a little bit about our experience in tackling this disease in other settings. And finally, the plan for this particular project that relates to how, not only will we tackle it in Lesotho, but scale it up in other places.

And let me also just thank Mr. Soros. This collaboration that we've had with him has been very fruitful. And I think that the investments that he's made in MDR-TB maybe not are his best investments, but they've certainly been extremely useful. Because whereas when we first started working with Mr. Soros in 1996, there was a death sentence on any person in a poor country with multidrug-resistant tuberculosis, now there is a mechanism, at least theoretically, to provide funding for people with drug-resistant TB.

There are many, many cases now of MDR-TB. I think the latest estimate was about 500,000, and that number will grow to some 1.5 million over time. While we do now have a very good plan for how to treat MDR-TB – and again, this is multidrug-resistant TB not necessarily in the context of HIV co-infection – while we have plans to treat MDR-TB and we have now gone from it being a death sentence to anyone living in a poor country to 30 countries treating MDR-TB, it's nowhere near enough. We have somewhere in the order of 20,000 people on WHO-approved regimens for drug-resistant TB. And as I said, there are 500,000 who are infected now.

More disturbing is the fact that XDR-TB, extremely drug-resistant tuberculosis, has been found already in 28 countries on six continents including all of the G8 countries. So, it is a serious problem, and while we've made great progress in recent years with putting together a plan for

MDR-TB, one, we haven't scaled it up nearly as rapidly as we need to, and two, we still don't have a good plan for dealing with MDR-TB in settings of high HIV infection.

Our experience, together with the Soros Foundation, the Gates Foundation, and many others who've supported and worked with us, has been that MDR-TB treatment is scalable – we did just that in the country of Peru in Latin America, and that very high cure rates can be achieved. What we've also learned is that if second-line drugs, the drugs that treat MDR-TB are widely available and there are no good strategies for infection control and the appropriate use of those drugs, we can get increased problems.

And the increased problem, of course, that we're most concerned about is XDR-TB. So, we in – at Partners in Health and the groups that work with Partners in Health related to Harvard University, we've had a lot of experience in dealing with drug-resistant TB and also a lot of experience in dealing with HIV treatment in countries like Haiti and Peru and Rwanda, now Lesotho, and also soon in Malawi.

So, we feel ready to take on this challenge of MDR-TB/HIV co-infection, and we feel a tremendous amount of pressure to quickly establish a functioning system and disseminating the results very quickly. The World Health Organization has been extremely proactive in taking on this epidemic of XDR-TB, and they will be one of the grantees in this particular project and will have a full-time person on the ground working with us, developing the protocols and preparing them for rapid dissemination.

Much of our plan for Lesotho has already been discussed by Dr. Farmer. And I would just emphasize a couple of things. First, when we're dealing with second line tuberculosis drugs that do have side effects, we really need to work out in a very clear fashion how to deliver those drugs along with antiviral medications. This is one of the important things that we will have to develop, these treatment guidelines, in the next couple of years.

Another issue is what kind of health system infrastructure is necessary to respond effectively to this particular epidemic. And what we know is that we must build up the laboratory capacity in all African countries. But the good news is that this notion of building up laboratory infrastructure has been one that has already been taken up and championed by the various groups that are providing antiretroviral therapy that we know that basic laboratory infrastructure, and perhaps even a little bit more than basic laboratory infrastructure, is needed in all these countries.

And finally the other issue of infection control, this is just a method of protecting both other patients and health workers from becoming infected with these airborne organisms, and we've not, I would say, paid enough attention to infection control in the global tuberculosis community. This is – this problem of XDR-TV is bringing that need home to us very, very quickly.

The vision – just to close, the vision would be that we would quickly develop a working model in Lesotho. WHO would be working hand-in-glove with us, and when the treatment guidelines are available, would be immediately distributed. Lesotho would become a center of innovation and excellence, and would be used as a training site for other countries interested in developing similar kinds of programs. And once the evidence is available for how to effectively treat these diseases, we think that in the next five to ten years, for example, groups like the Global Fund and other funders might pay for this.

But the process in terms of getting the money out of the Global Fund or other already established mechanisms is simply too slow to respond effectively to the crisis we have in front of us, so we desperately need immediate infusions of cash to get these programs up and running, to develop the models, to help other countries develop their own models and proposals, and to have long-term funding in place.

But for now, without Mr. Soros' visionary gift and without some sort of increased commitment from the U.S. government and others, we're going to be in a situation where the problem is going to get worse and worse and worse, and I think in a few years, if we don't respond, we'll all be sorry. Thank you.

Joanne Carter: Thank you so much, Jim. Unfortunately, we have not been able to link through to the Minister in Lesotho, so I would say it would probably make sense to go ahead and take questions from the journalists. I would just – so, to say – to reiterate, what I think our speakers have put forward, which is that drug-resistant tuberculosis and especially linked with HIV in southern Africa really has – offers the potential for undermining some of the enormous progress we've made on reducing AIDS mortality through scalable antiretroviral treatment, as well as undermining our capacity to do good TB control.

And then, as our speakers have said, it's a reflection of underinvestment in these efforts for many years. And the huge importance of developing new models for treatment for infection control and the need for an urgent response immediately as well as a long-term response. This problem is not going anywhere. We need an urgent response now and we need a long-term response.

So with that, operator, I'll ask you if you could give our journalists instructions on how they can ask questions, and then – and then please go ahead with the questions.

Operator: Certainly. If anyone in our telephone audience would like to ask a question, you may signal by pressing the star key followed by the digit one on your touch-tone telephone. Again, that is star one if you'd like to ask a question. If you're on a speakerphone, please be sure that your mute function is disengaged. It can block the signal from reaching our equipment. And again, that is star one.

Joanne Carter: Can I just say one other thing, which is just we also have another colleague from Partners in Health? Salmaan Keshavjee, who is on the line, as well, who's been doing some of the work in Lesotho, so he can also answer some specific questions that may come up around the work that will be going on in Lesotho. But please go ahead, operator.

Operator: Certainly. Our first question will come from Anita Manning with "USA Today."

Anita Manning: Thank you very much. I have a couple of questions actually. I don't know if I missed it or if it wasn't announced, but the – but the gift from the Soros Foundation, I don't know what the – what the grant is.

George Soros: This particular grant is $3 million.

Anita Manning: Oh, thank you. And then my second question has to do with the developing of treatment guidelines. Can you tell us what's involved in that and how long that's expected to take? I'll go back on speakerphone. Thank you.

Jim Kim: This is Jim Kim. The way that this normally works can take as long as three to five years at the World Health Organization, but our estimation – first of all, we have a lot of information about how to treat MDR-TB. In fact, Partners in Health was very involved in writing those guidelines for drug-resistant TB along with the World Health Organization. So, building on that strong foundation, we think that in a very short period of time, like, about a year, we'll be ready to come together and publish these guidelines.

So, normally it takes three to five years, and because this is an emergency, we hope that within a year or so we'll be well on the way of publishing the very specific guidelines. And the new information would be things like, "How do you deal with MDR-TB in the face of HIV co-infection?

How do you deal with preventing health workers and other patients from getting infected?" Those are some of the new things that will be in the new set of guidelines.

Anita Manning: Thank you.

Operator: We'll go ahead and take our next question from Helen Branswell with "The Canadian Press."

Helen Branswell: If I could follow on Anita's questions a little bit, maybe I was missing something, too. I heard a sort of quite eloquent description of the problem, but I'm not quite sure if I've missed what the program is. I mean I know you're going to be developing guidelines. Do you have protocol where you expect to treat X number of people? Do you have agreement from the government to, for instance, work with you to isolate patients and ensure that they aren't walking around infecting other people?

I mean there was a piece in ((inaudible)) – no, in (PLOS) Medicine a couple of weeks ago calling for the quarantining of patients with XDR-TB because of the risks they pose to others in the community. Are you going to be addressing those kinds of issues?

Jim Kim: This is Jim Kim. Let me make three quick points. Now, the first one – quarantine, the reason we're doing this program is so that we don't get to that point of thinking about incarceration. If you can develop effective community-based programs for treating people with drug-resistant TB, then quarantining is not an issue. You know, there are countries that do it, including the United States, when people are completely resistant and refuse to take the medications. But our experience has been that when offered effective treatment, that this is not a measure that one has to take. And Partners in Health has never taken that step.

The second point is to say that, yes, this program is completely integrated with the Lesotho Ministry of Health and it's focused on developing a workable model in Lesotho, given the context

of treating patients for drug-resistant tuberculosis. There are some centers of excellence that have to be built up, there's laboratory infrastructure that has to be built up, there are infection control measures in healthcare institutions that have to be developed, and also there have to be new mechanisms for providing community-based treatment for these – for these patients.

And so, all of those things together are going to be part of the program. And so, the final point I wanted to make was that this is a pilot project, as Mr. Soros said. We hope to treat – we will treat as many patients as we find, but we don't know yet how many that will be. You know, we are just now getting the culture data back to know how many patients with drug-resistant TB we're dealing with.

So, while we don't know that number, we do know that right across the border, a very porous border with South Africa, there in KwaZulu-Natal, the rates of drug-resistant TB when we've looked – are very, very high. We suspect very strongly that that's the case in Lesotho, as well. So, while we haven't set an exact number of patients in terms of patients to treat, we suspect that it's going to be a high number and we're trying to get ready to tackle that problem as it comes.

Helen Branswell: If I could ask a follow-up …

Jim Kim: Sure.

Helen Branswell: … a gift of three million is very generous, but it sounds from what you said earlier, like, this is seed money. You mentioned the fact that you need contributions from governments urgently. How much money do you think this is going to cost?

Jim Kim: Well, the WHOS demand was $650 million a year starting immediately, and so, we …

Helen Branswell: That's globally, I mean …

Jim Kim: That's globally, right. That's globally. And in terms of what we're going to face in Lesotho, again, I can't give you an exact number. Once we get more culture data about how many cases we have, we'll be much better able to tell you what the numbers are. But $650 million global has been the number that WHO has put out after wide consultation and research.

Helen Branswell: If I could ask one last question, you said it's going to take a year, and it sounds like that's an expedited process. But in that year, a lot of new infections could occur in countries that aren't even doing any testing for MDR-TB, let alone XDR-TB. I would assume that you would hope that this will be done – while you're doing this, other organizations will be working elsewhere to address the problem.

Jim Kim: We certainly hope so. You know, unfortunately there are not very many organizations who've got – who've had the experience of doing both MDR-TB treatment and care and HIV treatment and care. And we're one of the few, and so that's part of the problem, but we certainly hope people will move on this, even if it's simply being more careful about preventing infections to healthcare workers and other patients and beginning to test samples for drug-resistance. Even if it's just that, that would be a great start.

Operator: And moving on, we'll take our next question from Maria Cheng with the Associated Press.

Maria Cheng: Hi, thanks very much for having this. My first question is just a basic clarification question. When you talk about setting up these community-based programs, you're talking about treating people with MDR-TB as well as XDR-TB. Is that right?

Male: Yes.

Maria Cheng: OK. My second question is basically I mean we've heard a lot of dire warnings about the deadly the mix between XDR-TB and HIV and how it can be virtually untreatable. We've seen it in 28 countries, but since this was identified last year, we really haven't seen a lot of concrete action aside from a bunch of meetings around the world. I see WHO is finally sending some people to help investigate the outbreak that was identified last year.

And I'm wondering why we haven't seen more action is this is as serious as everyone says. Why is this taking so long? And you know, if this was h5n1 or SARS, we'd probably have a lot more money, but why haven't we seen more commitment from the international community for this?

Jim Kim: Well, hi, Maria. This is Jim. Let me, you know, I, in all my years of working at WHO – three years – it's not that many – unfortunately, one of the things I have to say is that this is a relatively fast response. And I – for a disease like tuberculosis, I think it's fairly clear h5n1 could potentially affect economies all over the world. We saw what happened with SARS. And I think mistakenly the world thinks that it has more time to deal with XDR-TB, but I think it's in error.

Paul Farmer: Maybe I could add one thing, Maria, just as a clinician and someone interested in taking care of the patients. It's a very difficult disease to address clinically, as well. There's a lot of paralysis because it's expensive and, you know, the treatment for this disease is more costly, certainly, than the treatment for HIV disease in the short term.

And it involves fairly significant investments in laboratory and infection control infrastructure. And clearly the collision that Mr. Soros mentioned between HIV and drug-resistant TB is happening in some of the places with the most scant resources to invest in public health. And so, that's a significant part – those two issues, that it's difficult to deal with and expensive, and that it's happening in places where there aren't a lot of resources are a big part of the slow response.

There has also been a desire, as Jim said, to think that we have time, when in fact what this recently described epidemic shows is that even in a matter of weeks, if patients are not treated effectively they're going to die, and they will also continue to transmit, while they're alive, this potentially lethal infection to others. Others with HIV, HIV-negative caregivers – there's a long list of people who are in – you know, at the front of the line in terms of risk. And we're just going to have to move this forward much more quickly, which is why we're all here today.

Maria Cheng: OK. If I could just ask a quick follow-up, you mentioned a couple of times that the borders were very porous, and given that the surveillance systems in South Africa are probably much more sophisticated than those in Lesotho and Malawi and Mozambique and all those neighboring countries, do we have any idea what the prevalence might be in those countries?

Jim Kim: Of drug-resistant TB and XDR-TB?

Maria Cheng: Right.

Jim Kim: Is that what you're asking? No, unfortunately, we don't. And, you know, I wish I could say that the system for detection in South Africa is sufficient. It's not either. So, to tell you how much in the hole we are, the system in South Africa to look at drug resistance, to be able to detect drug resistance, is better than all the rest of Africa combined. And it's still woefully insufficient.

So, systems have to be upgraded in South Africa for sure. There are a lot of really wonderful people doing good work there, but without the capacity to test the number of samples that need to be sampled. And also, the need for developing some capacity to do the kind of surveillance that we need in other countries also is desperately needed. We need to move very quickly on that.

George Soros: May I just add we basically – the seeds of this problem were present when we got involved ten years ago, and it has to develop to a certain size, apparently, before it gets attention.

And if one can short circuit that a little bit, I think a lot of lives and a lot of money can be saved. So, it is a very urgent problem, and that's why we are having this press conference.

Operator: And moving on, we'll take our next question from Christine Gorman, an independent journalist and contributor to "Time."

Christine Gorman: Hi. I was wondering – first, a quick question. Is the Lesotho program across the country, which is admittedly small, or in a particular part?

And then secondly, if you could talk about how to motivate people in the United States where TB rates have been going down to see what's coming. I mean most of them are going to say, "Well, it's not happening here. Why do we care?"

Jim Kim: Let me start with the first question. This is Jim. Hi, Christine. The first – in terms of the first question, we're going to start in the capital, in Maseru, but quickly offer treatment in the rural areas, as well. We're actually working in rural areas right now in Lesotho. And we believe that this treatment does not require hospitals. In fact, you want to stay away from hospitals as much as possible and provide treatment on a community based level, meaning, you know, with the people living in the community as opposed to congregating. So, it'll start in Maseru, but we believe that we must offer it throughout the entire country.

And I'll let anyone else take the second, much more difficult question.

Paul Farmer: Well, you know, just one thing, Christine, and I know you've seen this in your work, there are – there are people in the United States already who have this problem – maybe you've been reading some of the press recently. And these are often transnational cases. So, even though TB is declining here, if it's not declining elsewhere and there's lot of back and forth, then, of

course, there will be these transnational cases. Someone will acquire this infection elsewhere and bring it back here, and of course, that's happened.

That scare tactic is not really what we're trying to underline here. We're talking about an effort just based on need elsewhere that will be good for Lesotho in southern Africa, but good for global public health in general. It is true that this is a frightening situation for anyone in any country that's connected to – you know, to places where there's a lot of endemic disease – that's true.

But also, we believe that when people who read your publications, the people – the you collectively – the journalists here, that they will be interested in this, there will be support for this, not just from the citizens or the philanthropic community, but also from public officials who will see this as an important issue.

And just to add one thing to what Jim said and to go back to your – the question about working – you know, is this going to start somewhere, it needs to start somewhere inside that country. There needs to be a national level policy and even a regional policy because the Lesotho epidemic is also a transnational epidemic. It's really a subset of the South African epidemic. And so, it's not just about Lesotho; it's about that region.

And at the same time that we're developing regional or national policies with good leadership inside that country like with Dr. Ramatlapeng, we need to start somewhere to give the policy some sort of bite, you know, to – so, starting in Maseru, the capital city, makes sense, but we're hoping to see effective prevention and treatment of this disease in all the sites where we're working and in – and in sites where we're not working inside Lesotho.

And we've done this before in Siberia, as we've said. Also, the project that Jim mentioned earlier in Peru was taken over as national policy, and in that country, they recently enrolled the ten-thousandth patient for MDR treatment – the Ministry of Health. And many of those – some

substantial fraction of those patients have XDR-TB as we've defined it. So, this seems to us a good strategy that is to have national and, indeed, regional and international policy, but also on the ground projects where you're delivering care and putting in better infection control.

George Soros: I should like to add as a matter of interest that when we were working in Soviet Union then and we were spending some – I don't know, $17 million, there was an outbreak of MDR-TB in Rikers Island, if you recall, and it cost several hundred million dollars because they had to track everybody, you know, who had been to Rikers Island. And I mean and that small outbreak at Rikers Island, the U.S. spent at least ten times more than we spent on the whole Soviet System.

Jim Kim: Christine, let me just say one other thing in terms of getting people interested. I think there have been misunderstandings and people have said, "XDR-TB is untreatable." I think that's really incorrect. You know, as Paul mentioned, we have treated people with XDR-TB successfully. But if we don't respond with a rational, effective approach to XDR-TB/HIV co-infection, what we know is that people all over the world will do something for their loved ones to try to keep them from dying.

And what they do is some medicines here, some medicines there, they can afford three weeks of this medicine and four weeks of that medicine, which leads to – which has led from MDR to XDR-TB. And we also – we also worry that if we don't respond very aggressively now, we will soon end up with many patients who do have completely incurable tuberculosis. So, this response is very much focused on getting out ahead of this problem before we go back to the pre-antibiotic era in tuberculosis control. We don't want to get there, and the only way to not get there is to mount a very robust response immediately.

Joanne Carter: This is Joanne Carter, and the only thing – to all of the eloquent things that our speakers have said, the only thing I might also add there – is that we have collectively been successful in

not only stimulating a response to the HIV/AIDS epidemic, but also to there being a lot of public and policymaker support for that.

And I think as people come to understand that, while clearly the TB epidemic is – in southern Africa is not at all just an AIDS-linked epidemic, the – part of the urgency is responding to the fact that we really are undermining much of the progress that we have made in saving the lives of people with AIDS if we don't respond to this drug-resistant TB-linked HIV/AIDS epidemic. And I think we've seen a lot of response from policymakers and activist NGOs to understand that if we don't make some investments urgently in TB now, we could be undermining not only TB control globally, but also so much of what we've done collectively on HIV/AIDS.

Christine Gorman: And one final follow-up – when you say you're starting in Maseru, is that at Queen II or what?

Salmaan Keshavjee: This is Salmaan Keshavjee. We're actually going to be setting up a small facility at the – a hospital that they have there in (Botsabella), which is near QEII. So, we won't be starting in QEII.

Paul Farmer: It's nice – I mean that sounds like an inane word, "nice." It's wise when we can move detection – well, treatment out of large public hospitals or any large facilities like that and into smaller facilities or, best of all, into the community to cut down on the amount of nosocomial infections that occur.

As Mr. Soros mentioned, he talked about Rikers Island, and if you look at the New York epidemic which, you know, began in the '80s and was also tightly tied to – not only to HIV, but to incarceration – high rates of incarceration, these were also nosocomial epidemics inside jails, treatment facilities, and homeless shelters that just got out of control. And as he said, the cost of reining in those mutant bacteria was huge. One estimate was that a billion dollars were spent.

And we're trying to – this problem in southern Africa is far, far larger than anything we've ever registered in the United States, but again, as Jim said, we'll be sorry if we don't act sooner rather than later because there's no reason – no reason that the problem is going to shrink unless we make it shrink. It will just keep going.

Operator: And we'll go and take our next question from Andrew Jack with "The Financial Times."

Andrew Jack: Yes, hello. Good morning. Apologies – I came in late, so you may have slightly answered this already, but I mean just very succinctly, two questions. First, on the – on the treatment side, I just wonder if you could clarify kind of very briefly, you know, what the key elements will be and how they differ from what's being done at the moment particularly in South Africa.

And the second question for Mr. Soros, just to clarify, you know, how significant, if at all, this type of contribution is for you compared to your activities in the health field already and whether there is, you know, kind of any evolution, perhaps, in your approach to funding for some health-related projects in the future that we should read into this donation.

Paul Farmer: Jim, should I ((inaudible)) the treatment?

Jim Kim: … yes, OK.

Paul Farmer: And then turn it over to Mr. Soros. Well, it's important to underline, I think, for the press that it's not that the patients who've died in this rather well known epidemic in KwaZulu-Natal province. It's not that they died while on effective therapy for drug-resistant TB and HIV. They were on treatment for AIDS, but not for TB.

So, they died without specific treatment for this disease. And the reason is not because no one cared whether or not they got the treatment. It's that you need lab capacity to tell you which patients have drug-resistant disease and which do not. And that wasn't available in that area and needs to be made available. The treatments that we have are multi-drug regimens – so-called second line anti-tuberculosis medications. And they're much more difficult to use than the fist line medications which have few side effects that aren't effective.

But they're ineffective if – of course they're ineffective if patients are not sick with what's called drug-susceptible TB. So, they won't work unless the infecting strain of the organism is susceptible to those medications. So, this is far less succinct than your question, Andrew, but what we're – what's different with what we're proposing is that we speed up the rate at which we can diagnose patients with drug-resistant TB and get them on the right medications much more quickly because the most humane and sensible way of stopping transmission of this disease is effective therapy for it.

That way, people – they're not infectious when they're on effective therapy for a fairly short amount of time, and that would be novel in this – in this part of the world, I'm afraid, to make sure that people are diagnosed quickly and put on effective therapy. And it's going to require the medications and, also in the future, new medications. We're not talking about that today, but we do need effective preventives – a vaccine, for example, and novel agents if we're going to take on highly drug-resistant disease. That's a longer-term investment and a longer-term – something that's going to take a long time to develop.

George Soros: OK, and your question – we spend $40 million a year on public health. That's roughly ten percent or less than our overall budget because public health is just one aspect of our endeavor to promote the ideas of Open Society which involve community involvement and holding governments accountable. And I would say that the bulk of our effort is in harm reduction. This is sort of something that we got into in the Soviet Union when we wanted to open up the business

system. And we stayed with it because it is a problem that is not getting the attention that it deserves.

Andrew Jack: And if I could just come back on the first one, the treatment issue, as you say, kind of, there are drugs that are out there, is there an issue particularly in that region of some of the second line drugs that are out there but aren't currently registered and do need to be accelerated through the South African and Lesotho registration authorization process?

Jim Kim: Salmaan, do you want to talk ((inaudible))?

Salmaan Keshavjee: Yes, currently ((inaudible)) (acid patch) is not registered, so we're working on – the South Africans are working on that, and we're also working on that in Lesotho. And also Capriomycin, so, those two drugs we're trying to make available ((inaudible)).

Jim Kim: It's part – it's part of the emergency response is to try to get these drugs registered quickly, and we know now especially with Dr. Ramatlapeng taking over as Minister of Health that that will happen quickly in Lesotho.

Andrew Jack: And how costly and quick is the diagnosis that you need ((inaudible))?

Salmaan Keshavjee: Well, the diagnosis is – if you're using very rapid diagnostic methods, it can take from two days to three weeks. Using slower methods, it can take three months, which is obviously unacceptable in this kind of outbreak. So, our hope in working with partners and building lab capacity in Lesotho is to get it so that a rapid diagnosis can take place within a few days and then within three weeks we can have the final susceptibilities to make sure that patients are getting exactly the right treatment.

Andrew Jack: And with isolation in the meantime while you're waiting for the results?

Paul Farmer: Well, just to – just to butt in a little bit, Salmaan, isolation is a little bit different from quarantine, as you probably know. Isolation is what we do in an American clinical setting, as well. You know, the jargon, if you'll permit it, is respiratory isolation. It's standard practice, but it requires facilities. So, you know, at a Harvard teaching hospital, for example, if someone is thought to have tuberculosis perhaps and of course most of them don't it's standard practice to put them in a room with what's called negative pressure so that other people on that floor or ward do not breathe the air in that patient's room. It gets – it gets moved outside.

And there are inexpensive ways of retrofitting, to use architectural term, facilities that exist already to make them safer. And we've actually done this in some places that are extremely poor like rural Haiti tried to make these respiratory isolation facilities available in our – where we're – you know, where we're working in Haiti, also in Peru and Siberia. So, when you're taking care of someone who's sick, when you're making sure they have the right diagnosis, rapid diagnosis, as Salmaan says, and also the right medications, then respiratory isolation is a hardly a punitive issue but rather standard of care.

Andrew Jack: Thanks.

Operator: We'll go ahead and take our next question from Tom Paulson with "The Seattle Post."

Tom Paulson: Yes, good morning. I guess – well, two quick questions off the top of my head. Is there a consensus on how to treat MDR and XDR tuberculosis? And then secondly, we have the Global Fund for AIDS, TB and Malaria, and I guess I'm wondering why the Fund is not interested in funding this project.

Jim Kim: … let me take the first part of it, and then I'll let Paul take the second part of it. The first part of it it's not that the Fund is uninterested. If there were proposals to the Global Fund that were

based on well accepted guidelines and technical approaches to dealing with MDR-TB/HIV co-infection. They would certainly fund it.

What we're saying is it's going to take an emergency response to develop those guidelines, first of all, so that countries can get ready in some years. Maybe if, you know – I would guess a minimum three to five years to make the kinds of proposals to the Global Fund that could be, then, funded overall. But if something were to come in from a country today, I think the first question that the Global Fund would have is, "Well, has WHO made clear recommendations about how to deal with this phenomenon?" And the answer to that is, "No, not yet."

So, we certainly hope that eventually the Global Fund will be the sustaining funder for programs, but we need to do some work before that's going to happen.

Paul Farmer: Just back to the treatment issue, Tom, although as has been pointed out, the guidelines aren't out there formally, the treatment of MDR-TB, of which XDR is a subset, have been addressed in WHO guidelines and there aren't that many therapeutic options really. So, even though there are going to be disagreements about dosing or certain medications, we're going to be using all the available tools, clinically speaking.

The meds that we have – the medications that we have, people agree on what those medicines are and by and large on the dosing and duration of therapy. There, again, if you were to look at this as a tuberculosis doctor and infectious disease specialist, you might say, "Well, there are lots of disagreements." But I think they're really trivial compared to what Jim is referring to and what Mr. Soros is referring to, which is we need a comprehensive strategy for prevention and care and sound policy that would spark the interest of, not just the Global Fund, but also the ministries of health who are ultimately responsible for this problem in their countries.

But I think, you know, we – the clinicians, the people treating the patients, by and large agree on the best way of treating this, which is with several drugs at once at higher end doses so that people respond more quickly. And when I say "respond," I mean they respond clinically – they start to get better when we're fortunate, but also they become non-infectious and they – when they cough, they're not coughing viable bacteria, microbacteria, around to their families or in prison or a hospital or wherever they may congregate.

Tom Paulson: And if I could just follow up with one thing, I think it was Jim who said – gave a prediction of if we can't stop this spread of XDR-TB that we're going to get, 1.5 million cases and I didn't catch based on what and also by what time period.

Jim Kim: One point five million by 2015, Tom, that's the prediction.

Tom Paulson: And that's XDR?

Jim Kim: That's MDR-TB – drug-resistant TB.

Tom Paulson: MDR.

Jim Kim: MDR, yes. And some proportion of the MDR will be XDR.

Tom Paulson: Oh, OK. Thank you.

Joanne Carter: Tom, could I just add – this is Joanne Carter – that, you know, building on what Jim Kim said, that because we need this urgent response is why actually activists and experts and people like Desmond Tutu are calling on the U.S., but other donors as well, who can mobilize resources more quickly to be able to support the kind of infection control, you know, models for infection control, models for treatment scale-up, models for rapid diagnosis, you know, as well as the

broader laboratory strengthening that's needed for – and other kinds of activities that are needed, which is why we're calling for a response now because, even in the best circumstances, say, the Global Fund, with an annual funding cycle, you wouldn't be seeing monies until 2008 or 2009.

So, it's why in the same way that the world's been responding to avian flu, we need to be responding to this now in addition to longer-term responses, as well. But there needs to be an urgent response in fact in 2007 and not even waiting for the next U.S. funding cycle for 2008.

Tom Paulson: OK. All right, thanks.

Operator: We'll take our next question from John Donnelly with the "Boston Globe."

John Donnelly: Thanks for having the call. I'm interested in finding out what you actually do know at this point from the investigation of case histories of people who have had XDR-TB. There's a wide range of different protocols that are being used around Africa for co-infection, and wondering if you're seeing if mortality rates in some areas is lower and if you can pinpoint some of the reasons for it.

And also specifically if you can look at what kinds of resistances to different drugs that you're seeing so far in the cases, and also if you can give a little details about your investigation so far. How many besides Salmaan, you know, who else will be working in that clinic and whether you're bringing the cultures now back to Boston – some of those things.

Jim Kim: You know, Salmaan, let me start, and then I'll let you ((inaudible)). So John, the really critical thing for us is to have some mixture of people from the United States and other developed countries working with people on the ground. And we're very, you know, happy to have been able to recruit someone from Lesotho to be very involved in this project. Interestingly, we're also hoping that people who've worked on the Peru project will also be going to Lesotho to help with

management of the disease. In other words, you know, really making the most out of the so-called (south-south) cooperation that we've had.

In terms of individual regimens, you know, Salmaan knows the most – individual resistance patterns, Salmaan knows the most of any of us, but it is rather frightening that we know so little right now from – especially from some of the other countries in that region. The last thing that I'll say is that some of the first studies were done at the Massachusetts State Lab, but now we've got a very good partnership with a very high-quality lab in South Africa that will be doing some of our drug testing.

Salmaan, can you take it from there?

Paul Farmer: Can I just add one thing before Salmaan ((inaudible))? John, since you've been to rural central Haiti, I'd just like to say that in the – in the mountains of Lesotho where we've been working since last summer on HIV and TB treatment and diagnosis, the clinical – the chief clinical officer is from Haiti – is from our project in Haiti. I just thought you'd like to know that.

Salmaan Keshavjee: John, you know, one of the lab in Lesotho actually ran some samples at the beginning of last year when they were doing drug sensitivity testing to first line drugs, and they actually found that 10 percent of their samples that they looked at were MDR and 20 percent were not MDR, but were resistant to some first line drug. So, when you think about that, the resistance is 30 percent, and if you try and quantify it, they have in excess of 10,000 cases of TB a year.

So, you're looking at about 1,000 MDR patients potentially per year, and as Jim pointed out, a proportion of those will be XDR. So, we are seeing some frightening resistance to first line drugs, and you know, in our very preliminary analyses, we're seeing some resistance to second line drugs, as well that, you know, we've identified in spot checks. Currently Lesotho is in the process

of planning a drug-resistance survey to really quantify this so that, you know, probably six or eight months from now, we will be able to give you more specific information about that.

As to the people working on the project, as Jim said, you know, we're bringing a group of people from Peru to work with us, we also have people from Haiti, we have Dr. (Jennifer Fern), who is the head of the project in Lesotho who's actually treated MDR-TB in Haiti, in Peru, and in Russia. So, you know, very experienced team. And we've hired two or three local doctors that will – we will train, and we'll also be working with the Ministry of Health to treat TB onsite. So, it's a pretty big team.

John Donnelly: Thanks.

Operator: Moving on, we'll take our next question from Mariama Crandall with "The Voice of America."

Female: Go ahead, please.

Operator: Mariama, your line is open. Please check your mute function.

Hearing no response, we'll take a follow-up question from Helen Branswell with "The Canadian Press."

Helen Branswell: If I could ask a couple of questions to Dr. Farmer, you'd said that this is not a death sentence, that it has been effectively treated in places. But I'm wondering about – if you could tell us about the context of the places. I know, for instance, that there are cases – there have been cases in Toronto and they have been effectively treated, but I don't believe they were co-infections and …

Paul Farmer: Yes.

Helen Branswell: … they were treated in places where access to second line drugs was easy. So, if you could tell us where you're talking about, I would appreciate it.

And also you mentioned when you were answering Maria's question in terms of the slowness of the response, you mentioned paralysis.

Paul Farmer: Yes.

Helen Branswell: I was wondering if you could sort of elaborate on that. I mean is this problem so potentially huge that people just don't even know where to start?

Paul Farmer: Well, let me start with the first – the first question. We have no doubt as clinicians – as people who've taken care of patients, that we can successfully treat MDR-TB – highly drug-resistant TB among patients co-infected with HIV. We've done it in Peru and Haiti. In the project that we did with – in Siberia with partners there including OSI and the Gates Foundation, most of those patients did not have HIV co-infection, and – almost all of them did not have HIV co-infection, so the bulk of our experience is with HIV-negative patients. But among those who do have co-infection, we've had excellent results.

Those are isolated cases compared to what we're seeing in southern Africa. I'll skip Lesotho because as Salmaan and Jim said, we don't have the data we need yet. But among the patients described in South Africa, including KwaZulu-Natal, most of those who died quickly did HIV co-infection, and the same was true in the United States. And it wasn't until more rapid diagnostics were developed in the United States as in Canada that we were able to make sure that people who had both diseases got on the right treatment quickly.

I don't believe there's any reason to think that people with HIV co-infection and MDR-TB or XDR-TB in Africa will respond any differently to a good regimen than those in Canada or the United States, and I'm sure you feel the same way. Scaling this up on a programmatic level is going to be the big challenge. What happens when you go from having a small minority of your patients co-infected with HIV to the majority? That's going to be the big challenge. But clinically, case by case, I think we know what to do, and if we do it correctly, most of them will get better.

And of course, some of them will not, and that leads me to the second part of your question about paralysis. It's a very scary disease, and it's a huge problem. And I do think there is some paralysis, but we've seen this again and again. You know, we've seen it with tuberculosis in general, including drug resistant TB. We've done it in HIV. As you know, for many years, people felt paralyzed ((inaudible)) we can't use these new drugs effectively in what are these days called resource-poor settings, and that was paralysis – not sound analysis.

And this is why we're very grateful to OSI and to George Soros because as happened a decade ago, this lead gift is going to spark, we believe, a lot more philanthropy and also official government funding for this sort of work. And we – in other words, there is real paralysis, but we can overcome that. We know that from past experience.

Operator: And we'll go ahead and take our final question from Sarah McGregor with Reuters.

Sarah McGregor: Hi, this is a question for Mr. Soros.

Joanne Carter: I'm sorry but I believe Mr. Soros needed to get off the line, so, apologies.

Sarah McGregor: Oh, OK. OK, well, maybe someone else, then, could ((inaudible)). I know Joanne has – it just – it seems that AIDS, obviously, has attracted a lot of cash and attention, you know, with ((inaudible)) programs (willing out) and the response definitely scaling up. But I'm just wondering

– I mean I was going to ask Mr. Soros based on his experience with the outbreak of MDR-TB and XDR-TB in Russia and how fast it spread whether, you know, it is a real cause for concern that XDR-TB is going to – could reverse some of the gains made in the HIV fight.

Paul Farmer: I think Jim has ((inaudible)) thought a lot about this, so – Jim, are you there?

Operator: Dr. Kim has also dropped off.

Paul Farmer: OK, well, let me give it a shot. I think, yes, you know, the short answer is "Yes, we're very concerned that drug-resistant TB in general, or TB really, can undo some of the gains made." And we're concerned because the rate of excellent clinical response to a proper treatment regimen for AIDS is just excellent. And we know this from our work in Haiti and Rwanda that even in very, very resource-poor settings, people do extremely well – people with AIDS – when they're given proper therapy.

And I would say the biggest challenge – the biggest threat to success in treating HIV disease or AIDS is TB. It's the number one threat. And it's difficult to diagnose TB. Forget about MDR-TB – it's just difficult to diagnose. We have very old, you know, antiquated diagnostic techniques. And so if we are not aggressive in confronting this early, it's going to undo a lot of successful programs.

So, we're already – we're already seeing that happen, and let me just go back to the example that sparked a lot of interest last – early last summer. You know, the people who died KwaZulu-Natal– you know, Salmaan will remember the numbers, but something like 51 or 53 diagnosed were dead within a couple of months. They were already on antiretroviral therapy for HIV disease, so imagine the discouragement, not just in the families among the patients themselves, but among those caring for them, trying to do a good job, making sure they were – they were getting treated for AIDS.

This – it's extremely discouraging when you go from, you know, claims of very successful programs, which I think are sound claims – AIDS treatment programs, to a setting in which a substantial number of your patients are not doing well, not because they're not being treated properly for AIDS, but because they're not being diagnosed and treated properly for tuberculosis.

So, there's ample reason to worry about this disease, tuberculosis, undermining the treatment for the other disease, AIDS.

Salmaan Keshavjee: Can I just add one thing to what Paul is saying, and that is that, you know, in Lesotho, because they have a Know Your Status campaign, you know, almost all the patients that come to the clinic are tested for HIV. And we're going to be doing a very, very – we're going to implement a very strong surveillance program for TB in this pilot project that will hopefully be rolled out nationwide. So, you know, this is really an opportunity to show exactly what Paul is saying, that if you actually identify people with TB early and treat them appropriately using proper diagnostics and proper medications, that hopefully we'll be able to stem this epidemic.

Sarah McGregor: And just one quick question – I'm just wondering why not set up this program in the – what would seem to be the natural place which would be South Africa where you know that there are infections – you know, 100 percent sure.

Salmaan Keshavjee: Well, Lesotho – 70 percent of the men go back and forth to mines in South Africa. It borders KwaZulu-Natal. So, there's no reason to think that this does not exist in South Africa – I mean in Lesotho, as well.

Paul Farmer: It's really a sub-epidemic of the South African epidemic and, you know, there are – as Jim mentioned earlier, there are more sophisticated diagnostic capacities and even public health intervention capacities in South Africa than in Lesotho, but because this is, you know, a perfect

storm collision of TB and HIV, it's going to take a lot more investment there, as well. We're going to be working as close as we can with our colleagues in South Africa.

And just as one aside, in 1999, we worked with Open Society Institute to survey this problem of drug-resistant TB, and one of the areas upon which we focused was South Africa. And if you look at this – you know, the report from many years ago, you'll see that XDR-TB had already been described there. Although that term was developed more recently, these extensively drug-resistant cases were already described there and, you know, they were described in Peru and Russia, as well. It's just the concurrence of HIV is so really staggering in southern Africa that we need a new and more vigorous response.

Joanne Carter: If I could just add that while there have been more cases because of – partly because of diagnostic capacity of XDR-TB found in South Africa and, you know, certainly it is an epicenter, that, again, to reiterate that XDR-TB is really a marker for a much larger number of cases of multidrug-resistant TB. And we know that's the case, as Paul and Salmaan and others were saying, in southern Africa.

And also, frankly, this needs to move up the models that are being developed and the work that's being done for – on developing rapid diagnostics and the rest need to actually move up to – in terms of eastern Africa, as well, because we know that there are more cases of under-diagnosed MDR-TB. And it's MDR-TB as well as XDR-TB that, if not treated properly, will rapidly kill people that are HIV-positive.

And so it's really in a sense a marker for the larger epidemics. And we know there's some XDR that we're finding, but we also know that there's much larger numbers of cases of MDR. And what's ideal is also to put in place the strategies and the treatment so that doesn't all turn into XDR, as well.

Sarah McGregor: OK, great. Thank you.

Joanne Carter: Thanks.

Operator: And at this time, I'll hand the conference back to Ms. Carter for any closing or final comments.

Joanne Carter: I just want to – for those of you that are still on, I want to thank you for the interest and attention and your participation in this call, and of course, thank our speakers for being on and for the work that they have been doing and are going to be doing in Lesotho. I would say we will have a transcript of this call which should be available certainly within 24 hours hopefully sooner that will be up on our Web site, which is www.results.org.

If you have further questions – want follow-up information, then I would suggest that the best thing to do is to contact our media person, Jove Oliver – joliver@results.org or 202-783-7100, extension 120. And he can either get the information you need or put you in touch with some of the partners that have been on the call for further information.

And thanks again, everybody. This is a hugely important issue. It needs and deserves an emergency response. And just thanks for everybody's participation and good attention today. Thanks.

Operator: And that does conclude our conference. Again, thank you all for your participation today. We do hope you enjoy the rest of your day.

Joanne Carter: Thanks, operator.

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