



Transcript provided by kaisernetwork.org, a free service of the Kaiser Family Foundation<sup>1</sup>  
(Tip: Click on the binocular icon to search this document)

---

**Stop TB Symposium: Working with the Whole Health System  
Part 1 – Global TB Control Progress  
October 16, 2008**

[START RECORDING]

**MARIO RAVIGLIONE:** -but that will enforce our message of last year that to achieve the targets for—intermediate targets for 2010 and those linked with the millennium development goals and the Stop TB Partnership by 2015, we need urgently to improve early and full case detection for [inaudible 00:00:19] of all patients. Now, this means clearly better tools. It means better focused, application of all components of the strategy and we know that it is heavy—it is heavier than a decade or fifteen years ago. It definitely means that we need to strengthen the health system that provides access to health services for all. You can have a beautiful TB Controlled Program but if the primary services are not there to suspect when a patient has tuberculosis or might have TB—to make the diagnosis promptly through the laboratory, to then put them on treatment—there is nothing really that we can achieve.

We need better managerial capacity in the health system for everything that I said really to work. We need primary service delivery that works. We need laboratory and supplies. We need well-trained and sufficient health workers in primary clinics. We need clear planning; we need clear financing of the health system. We need the engagement of the non-state sector that was actually good part of the topic of yesterday's

We need the communities—we need the communities mobilized and helping both with care and with political mobilization—where they are. We need a TB information system that works in harmony with the general one. These are all the pillars of what is generically termed, the health systems strengthening of today. Without one of these ingredients, everything really risks falling apart no matter how good the national TB programs are in delivering TB control. The global targets in that case may actually not be, reached.

Now, today we have a full day that will cover how we, in the Stop TB Partnerships are—partnerships are addressing system strengthening—how we can engage more in critical global, national, and local initiatives and how we can engage with partners beyond the TB and the AIDS programs, and the program perhaps in some countries on lung health to make, therefore, a real difference for TB and—more broadly speaking—for all MDGs.

In the Doctor's Function Working Group meeting of yesterday, we had a great practical discussion with our professional associations with the medical societies, professional societies, nursing associations, et cetera which is a clear key example, if you like, of reaching out to work with all health providers outside of the regular providers that are part of the national TB programs. I'm quite glad that we are ending the symposium today with a view of what came out of

the engagement of the non-state sector is actually a good model that is really helping others in thinking in the same way.

We had at WHO about a week ago—a meeting on the non-state sector providers and I was almost embarrassed at a certain point because half of the questions were coming from TB people that were sitting around the room. Simply to say that we have a lot of experience that can be used by others and can actually help the development of the health system. That's just one example. Other examples are, provided in this red book.

Obviously, we are all worried about the current economic problems globally and the impact that they will have on the service scale-up and the impact they will have on the international donors to countries. But no matter what is happening, we will need to pursue what we are doing today and we will need actually to continue the discussion about the work of TB programs within the health systems that are there today.

We are also concerned as Marcos in a way said about this unnecessary dichotomy that is being, created by some ideologists, of vertical and horizontal and so on and so forth. This is a debate that will never end. We are simply in the phase of the pendulum that is coming in the other direction that we have seen for—say in the past decade—but we have to remember as well that the DOTS strategy was built and the Stop

system. There are people sometime that speak of TB control programs as if they were outside of the health system as we were doing agriculture or something like that. That's not the case. This is where the convergence really has to be—has to be with innovation with creativity found.

It is the pleasure therefore to conclude to open this symposium on behalf of the World Health Organization TB Department to prove the strong commitment that is behind our work at WHO and TB Control and on linking those responsible for health systems in general. Our Assistant Director General Hiroki Nakatami is here—is the Assistant Director General for the areas of HIV, TB, malaria, neglected tropical diseases and we have other guests from WHO I see. Andrew Cassels that will speak later on that represents more of the health system type of departments or cluster [misspelled? 00:06:12].

Here we are really working towards as much as possible a convergence of these ideas in such a way that we can improve what we have to improve and in our case is the achievement actually of the targets to be controlled by 2015. So, this all will be discussed in depth today and again, thank you very much for attending in such a big number, this is a crucial Symposium and welcome all. [Applause]

**DR. PETER C.F.M. GONDRIE, MD, MPH:** Thank you very much, Mario especially for detailing the relevance and the

the Stop TB strategy. I now would like to invite Dr. Katherine Floyd, Coordinator of TB Monitoring, and Evaluation of Stop TB Department of WHO for her presentation. I would like to indicate to you that we will have two presentations now, back-to-back without any interruption and then we have ample time for questions of discussion and clarification. Katherine.

**DR. KATHERINE FLOYD:** Okay, thank you very much, Peter. Good morning everyone, I'm going to talk about progress toward the global targets for TB control and because of the theme of this presentation; I'm going to give particular attention to some of the links with health systems strengthening and the importance of working with the whole health system.

The presentation is in two major parts. I'm going to start with an overview of progress towards the major global targets that exist—targets for reducing incidence, prevalence and mortality, case detection targets, treatment success targets, targets for the scale up of NDRTB treatment and collaborative TB/HIV activities and financial targets. Then I'm going to talk about the links with health systems strengthening and working with the whole system. Then I'll finish with some main messages.

So starting with progress towards the impact and outcome targets—just a reminder of what these are. The impact targets are first, of all, to halt and reverse incidence by

and deaths by 2015 as compared with a baseline of 1990 and those are targets that were set by the Stop TB Partnership. The outcome targets I think everyone is very familiar with, they're to detect as least 70-percent of new [inaudible 00:08:56] and positive cases and to successfully treat at least 85-percent of those cases. Those are targets first set by the World Health Assembly and more recently adopted by the Stop TB Partnership.

So starting with incidence, this is a graph showing trends and incidents from 1990 up to 2007 for each of the six WHO regions and the world as a whole. Very similar to what we reported last year, incidence is in decline in all of the WHO regions except for Europe and its in slow decline for the world as a whole. Nonetheless, the number of cases is continuing to go up and the estimate for 2007 is that there 9.2 million cases of TB. The positive news on incidence, however, is that at the current rates of progress we're on track to achieve millennium development goal.

TB prevalence and mortality—here is the current assessment of trends and prevalence from 1990 up to 2007 and you can see that prevalence is falling but that it is still some way from the 2015 target. We see a very similar pattern for mortality, it's also falling, but it's still some way from the 2015 target. In terms of the total number of deaths that

million, but the main message from these two graphs is that while prevalence and mortality are falling, at the moment, they're not falling fast enough to achieve the impact targets for 2015.

It's interesting, however, to look at some of the important regional variation that exists. This is a graph showing mortality in 2007 as compared with the target for 2015. What you see in this chart is that there are three regions that are on track to half death by 2015. Those are the Americas; the target has virtually reached there already, Southeast Asia and the Western Pacific, but there are three regions that are not on track, Africa, Eastern Mediterranean, and Europe.

And because Africa is so far from achieving the target its likely to prevent the world as a whole from achieving the target of halving death unless there's much more rapid progress between now and 2015. I'm not going to show it but the data for prevalence are very similar.

Now this has already been, alluded to—progress towards the case detection target, which everybody is always very interested in. The progress in 2007 from 2006 has been very small; in fact, progress in case detection is virtually stagnating. The estimate for 2007 is that the case detection rate was 62-percent, which is only about one-percent more than it was in 2006. You can also see on this graph that almost all

There is some important regional variation and the data here are very similar to the figures that were, shown last year. The Western Pacific region has achieved the case detection target. The Southeast Asian region is very close and the other four regions are lagging behind particularly the African, which has the lowest case detection rate. If we put together the estimates of the total number of incident cases and the estimates of the case detection rate it's also useful to look at where the missing cases are and on the latest estimates most of the missing cases, 71-percent are in the Southeast Asian and in the African region. I'll come back to this when talking about health systems strengthening.

On a more positive note, the treatment success target has now been, reached for the first time in the 2006 cohort. The treatment success rate was 85.3-percent. There are three regions which haven't yet achieved that target—Europe, Africa and the Americas. What we usually present in this symposium is an assessment of which of the 22 high burden countries have met both targets, so this is putting together the information on case detection rates and treatment success rates. We focus on the 22 high burden countries because collectively they account for 80-percent of the world's TB cases.

In the top right hand corner is what we call the target zone and in that zone, there are three high burden countries,

highlighted Indonesia in red because last year Indonesia was also in that target zone, it's dropped out in the later state so possibly linked to the cessation of global fund financing for a large part of 2007. There are also some other countries which are very close to getting into that target zone. I've listed them on the slide, Bangladesh, India, Kenya and Pakistan.

That's the impact and outcome targets. I'm now going to talk about progress toward towards the targets related to TB/HIV, NDRTB and financing and these are targets that were set in the global plan to Stop TB, which covers the period 2006 to 2015. In the case of NDRTB and TB/HIV, specifically these are targets that were set with the goal of universal access to treatment in 2010 in mind.

Some I'm going to start with showing some data on the current scale-up of TB/HIV interventions in Africa and I've chosen to focus on Africa because it's the region, which has 85-percent of the world's HIV positive TB cases. I'm also going to focus on the interventions that are about reducing the burden of HIV in TB patients because we have better data on these interventions at the moment then we have on interventions that are about reducing the burden of TB in people living with HIV.

We start with testing for TB patients—HIV testing for

continuing to increase. It's more than doubled in the two years from 2005 to 2007, a very similar pattern for enrollment of HIV positive TB patients on Cotramoxizole or preventive therapy and a very similar pattern for enrollment of HIV positive TB patients on antiretroviral treatment—so considerable progress here. If we compare directly with the milestones in the global plan for 2007 then you'll see in the table that in terms of HIV testing for TB patients the African region is on track, 56-percent of notified TB cases were tested for HIV in 2007 and that's exactly what was targeted in the global plan.

For the scale-up of CPT and antiretroviral treatment, currently scale-up is lagging behind but not by much in the case of CPT. In terms of ART current levels of provision are about half of the level set out in the global plan.

What about NDRTB treatment? In this graph, you can see for 2008 the targets for each of the WHO regions in terms of the number of patients that should be, treated for NDRTB as compared with what is reported by countries as their current plans for scale-up. The most important message from this slide is that there are two regions, which are really lagging behind in terms of countries' plans for the scale-up with NDRTB treatment as compared with the targets set in the global plan. And those are Southeast Asia and the Western Pacific. And what

for India and part of the bar for the Western Pacific that's in green which is China. It's really these two countries, which explain the reason for the slow scale-up of treatment.

The main message on targets for MDRTB at the moment is that if the global plan targets are going to be achieved then there is going to need to much more rapid scale-up of treatment in India and China in particular.

Moving on to the financial targets and here I'm just going to show data for 20 high burden countries out of the 22, so I'm excluding the data for Russia and South Africa. The reason for that is that Russian and South Africa have much higher spending on TB than any of the other high burden countries, so when we present the data with those countries included it tends to distort trends over time. We're also still waiting for the financial data this year, so, for the 20 high burden countries excluding Russia and South Africa, this is first of all a chart that shows the progress in funding for TB control from 2002 up to 2009. It's an impressive increase; you can see it's increased by about 2.5 times the level of funding for TB control since 2002. Some of that's due to increased funding from governments. Some of it's due to increased financing from the global fund. While there is this progress, however, again if we make comparisons with the estimates of the funding that's required in these twenty

countries in 2009 as set out in the global we see that there's a big difference.

The global plan bar on the left is obviously much higher first [inaudible 00:19:43] countries own assessments of their funding requirements and higher again, than the available funding. The gap there is about a billion dollars, most of that linked to lack of funding for NDRTB treatment, some to do with insufficient funding for TB/HIV interventions and some related to advocacy communication and social mobilization.

I mentioned last year also work that WHO has been doing to try to support countries to plan and budget more in line with the global plan targets. I wanted to use this opportunity to give you an update on that work. This is the TB Planning and Budgeting Tool that was developed in 2006 and in 2007 and 2008; a lot of work has been done to support countries to use this tool to plan and budget for TB control in line with the global targets. That includes 15 high burden countries and 36 of the countries in the African region and particular attention, has also, been given to ten African countries through USAID's TB Control Assistance Program.

I mention in passing that you'll hear later about the International Health Partnership. But when we look at making links between cost plans for TB control and efforts across the health sector, it's worth noting that this work on TB control

the International Health Partnership. Of course, we hope that this kind of work is also feeding into health sector planning and financing efforts in other countries.

That's all I'm going to say about progress towards the global targets. I'm now going to move to looking at some of the links with health systems strengthening and the importance of working with whole health system. You've already heard this morning many of the themes in health systems strengthening. I'm just going to talk about four of the major ones which are health financing, the health workforce, working with all providers and health information. All of these themes are important because they can explain why cases don't have access to health care or to specific interventions. They can explain why cases are seeking help but not being, diagnosed. They can explain why cases are being treated, but not notified and, therefore, not part of the numerator that we use to calculate the case detection rate, and, of course, lack of health information can lead us to under or over estimate the number of cases and death because we don't have good enough surveillance data, survey data and programmatic data.

So I'm going to start with looking at some of the big picture links with health financing. This is a chart which shows the percentage of TB cases in each region and the world as a whole that live in countries where health spending less

being chosen here because that's approximately the level of spending that was estimated to be necessary for a basic package of health services in the Commission on Macroeconomics and Health.

What's very striking in these data is that there are three regions, which are clearly much more financially constrained, and then the others and those are Southeast Asia, Africa, and the Eastern Mediterranean. So when we think about where some of the missing TB cases are estimated to be, you can see that Southeast Asia and Africa, which have 71-percent of those estimated missing cases, also have much more inadequate financing for health systems as a whole, than other regions.

We see a very similar pattern looking at the health workforce. This is a map that's taken from a document produced by the Human Resources for Health Department, in WHO, which is an assessment of which countries in the world have critical shortages of staff. And there are 57 countries that are estimated to have critical shortages and of those 36 are in Africa, and interestingly, these are exactly the same 36 countries that also spend less than \$50 per capita on health care. The other region, which has a lot, of countries with critical health-care staff shortages—is Southeast Asia.

This symposium is also going to focus on the importance of working with or care providers. I've included some

is a graph that is showing the percentage of all health expenditure that's by governments and the percentage of health expenditure that's in the private sector. You can see in all regions there's a very high share of spending that is in the private sector, which demonstrates very clearly the importance of working with all care providers.

Now, in the final part of this presentation, I want to talk a little bit about health information, which is one of the major themes in health systems strengthening. It also, of course, has particular relevance to a presentation about measuring progress towards global TB control targets, particularly the impact targets, and the case the case-detection-rate target.

This table is summarizing for the 22 high burden countries on a regional basis what kind of data we currently have to make estimates of incidence, prevalence, and deaths. And I'm just going to pick out the African region, Southeast Asia and the Western Pacific. Here you can see in the African region we're really mostly working with TB notification data. We don't have any data from population-based surveys of the prevalence of TB disease and we only have one country, which has vital registration data.

In Southeast Asia, the picture is somewhat better because in addition to notification data there are also quite a

prevalence of TB disease surveys and other sources of epidemiological information. There are already two countries in that region that are about to implement a disease prevalence survey or in the process of doing so. So again, when we think about where the missing cases are, it's much more likely that we're underestimating or overestimating cases in the African region because we have less good information.

The Western Pacific is a region that stands out for having much better data that allows us to measure prevalence and incidents and mortality. Because in addition to the notification data they have also—all the countries in that region implemented disease prevalence surveys recently.

I also want to point out that for the African region in particular we're constrained in making estimates of TB incidents and the case detection rate because of the difficulty in separating the effective HIV on TB notifications from the effect of better case finding on TB notifications. So in other words, it's difficult to separate out changes in incidence from changes in the case detection rate.

Now, in this context, the WHO Task Force on TB Impact Measurement, which is set up really with the mandate of making sure that in 2015 or one or two years later—we're able to produce a credible, rigorous, widely endorsed assessment of whether or not the 2015 impact targets are achieved or not, has

implementing disease prevalence surveys between now and 2015. Of those 12 are in Africa so it's very important that these surveys are implemented because it will provide much better information which we can use to track progress and estimate the total burden of TB.

The surveys are also very useful if you collect the right data for producing evidence about the reasons why cases are being missed by health services including health system related causes. A recent example of this is a sub-national prevalence survey in Myanmar where it was found that about half of the diagnosed TB cases were not currently under treatment in the NTP. These kinds of surveys not only produce information about impact they also produce information that can be used to strengthen TB controls—strengthen TB control and strengthen TB program's ability to find and treat cases.

I'm also going to highlight a forthcoming publication about a reassessment of incidence in the case detection rate in Kenya. Because I think that this is an example of what could be extended more widely to improve our current estimates of disease burden in Africa. Basically in Kenya, the challenge was to separate the effect of HIV from the effect of improved program performance on notifications. And in this first graph, you can see the predicted notifications. If they only changed in line with the HIV epidemic—that's the blue line—and then you

already, when you see these data, it begs the question of whether the distance between those two lines is due to increased case detection.

Well, this was supported by a variety of other evidence including changes in the number of diagnostic units, 100,000 populations, changes in the number of staff particularly at district level; changes in the number of health units for 100,000 populations to support the argument that indeed this increase notifications after 2001 was due to improved case finding. There was also other data that are provided in the paper that's due to be published early next year. The endpoint of this though, was that incidence was, revised downwards and the case detection rate was revised upwards to 70-percent. So when you have this kind of information it is possible to update and revise the existing estimates that we publish.

Now, I've just put this in not to explain at all because it would take a presentation in itself but I've said that we think that the kind of work that was done in Kenya needs to be extended more widely. The TB Measurement Task Force has recently produced a framework for the systematic assessment of TB incidence that we hope will be rolled out from next year. So this is really just to make you aware that such a framework exists because at the moment it's know really only to the 30 or so members of the task force. We hope that we'll

be able to use this framework with many of you moving forwards to review and possibly revise the case detection estimates.

So, for now, I'm going to finish with the main messages from the presentation. First of all progress in finding and treating new cases of TB is stagnating and the current scale-up of treatments for NDRTB is too slow especially in China and India.

The second main message is that making further progress is going to require health system strengthening and working with the whole health system especially as you've seen from the data represented in Southeast Asia and Africa. And of course, we also need new data and new analysis of disease burden in order to better measure progress towards the impact targets to better measure the case detection rate and also to help show what kind of strategies are needed to reach the currently missing cases.

I need to finish with some important acknowledgements. Many people contribute to the work that's presented and there are just three I want to single out. Philip Glass [misspelled? 00:33:02] Mehran Hosseini and Andrea Pantoja who without which none of the data or the analysis that have been presented would have been possible. The 155 countries that have completed and submitted the WHO data collection form this year.

I'd also like to make a plea for the countries that

of October which is our deadline. We're still missing data from African countries particularly. Last, but not least, USAID who is the principal funder of the monitoring and evaluation work that the TB Monitoring and Evaluation Team does in WHO. Thank you very much. [Applause]

**DR. PETER C.F.M. GONDRIE, MD, MPH:** Thank you very much Katherine for this excellent overview, also going far beyond the traditional case detection and treatment outcome. I think there will be plenty questions from the audience afterwards but first, I would like to invite Dr. Jeremiah Chakaya as Chair of the DOTS Extension Working Group for his presentation on progress of the working groups of the Stop TB Partnership. Dr. Chakaya.

**JEREMIAH CHAKAYA:** Thank you very much, Peter. First, I'd like to thank those who pulled this Symposium together, for requesting me to speak in this Symposium. I would also want to thank the chairs and secretaries and all the people who put the slides together for the great work that they did in making sure that we communicate the work that we are doing in the working groups.

For those of you who may not be familiar with the Stop TB Partnership we thought it would be important for us to let you know how the Stop TB Partnership is, structured currently. The Stop TB Partnership is a coalition of—I think by now, more

TB. This partnership has the Global Partners Forum and this Forum will be meeting again in Rio next year with our Coordinating Board and the Partnership Secretary is currently hosted by WHO in Geneva. And [Inaudible 00:35:29] the partnership, the coordinating board and the partnership secretary to serve in—currently serve in working groups, DOTS expansion, TB/HIV MDRTB, neo-TB vaccines, neo-diagnostics and neo-grants with a cost-cutting working group that deals with the advocacy communication and social mobilization.

So that's the structure that we are currently working on in the Stop TB Partnership. I'm going to be presenting the work that they—the various working groups have been carving out over the last many years since they were established.

The outline of this presentation will mainly focus on the progress that the working groups have made, the challenges that these working groups are facing and how those challenges are, linked with the broader health system challenges. Then I will finish off with the specific Stop TB actions that have been, taken to try to contribute to health system strengthening.

We've already been told about the issue of TB case detection. Lots of progress has made since the DOTS strategy was established or was adopted and since the Stop TB Partnership was established and the working groups started

detection, but we all know—we have been told—Katherine has just reinforced this—that we are not yet on target. There are still about 40-percent of cases that are not being notified and stay missing and that because they are diagnosed but they are not notified, or they diagnosed at all. This is something that needs to concern all of us that there is some stagnation in the case detection rate is something that we should all start paying attention to.

In terms of expanding quality—DOTS great progress has, been made. We know that the 85-percent success rate target has, almost been achieved and we know that most TB services are currently provided in the integrated service delivery primary health care units. There has been—and this has been alluded to by Marcos and Mario—the issue of what the—what the quality of TB control programs versus horizontal programs. If you look, for example, at the human resources available for TB control at the various levels of the healthcare system, you will be, impressed by the fact that, at-service delivery points, there are actually no dedicated TB staff in most countries that, in fact, TB Control Programs use the general healthcare system staff to deliver their services.

The key challenge, therefore, that remains for all of us in terms of expanding quality DOTS, is the issue of early and complete case detection that has been alluded to and this,

primary health care services. If you are not able to improve your primary healthcare system then it is going to remain a difficult challenge for us to achieve early and complete case detection.

We know that we are facing a human resource crisis in many of endemic countries and we wanted to show you some of the achievements that are being, made in tackling this issue of human resource problems. At this moment in time there are, as many of you know, comprehensive set of tools to help countries develop their TB-related human resources development plans, which of course must be, linked with the general human resource plans of the entire healthcare system.

This has happened in many countries that there are actually TB-related human resource countries and of course, TB Control Programs have been training and re-training many of their general health service providers in primary health care, so that process has gone on for a very long time and is still, continuing.

The key challenge is that, as many of us know, is that the people are just not there. There are insufficient human resources in many of the high-burdened countries for various reasons. Governments may not be willing to recruit new people because they have put ceilings on the wage bill, high turnover posed and stuff like that.

And at least some situation even when the people at the, those people may not be working optimally because of motivational issues, which include of course low salaries, poor working conditions, now unclear career pathways and stuff like that. Therefore, the broader healthcare system challenge for all of us is how we can contribute to solving the human resource crisis that is currently affecting many high burden countries.

In terms of laboratories capacity, strengthening great achievements have, been, made in this area also. We now have a global policy on second-line classes of disability [misspelled? 00:40:44] testing. We now know that we are able to introduce, for example, new techniques saline [misspelled? 00:40:51] assay for the detection of drug-resistant TB. Laboratory norms and standards have been, defined. These are norms and standards including, for example, equipment specification, how to procure equipment, laboratory operating procedures and stuff like that,

We also have the capability now to expand the MDR-TB diagnostics in partnership with UNAID and a very major effort that has happened recently, which is the establishment of the Global Laboratory Initiative to try and strengthen national laboratory capacity but there are still challenges, key of those being weak management capacity at a country level and creating the conditions that are required for accelerated

private sector, which in some countries is a major player in the provision of laboratory services.

The broader health system challenge there is that at the lab infrastructure in many countries, lab infrastructure system is still very weak. There are no laboratory accreditation systems, which, of course, must of course, start with the public sector, which is the largest provider of laboratory services. That challenge of making sure that the public sector laboratory system is good enough to be able to go out and start, accrediting laboratories in the private sector is a big challenge.

In terms of drug management, many countries have currently adopted the WHO recommended regimen for the treatment of TB, both drug-susceptible and drug-resistant TB. This, has been, made possible, by the provision of patient-friendly formulations, blood blisters and fixed dose combination.

A few years ago, especially with the effort of the global drug facility, we introduced patient kits, which have made it very simple for drug quantification to, be made, and these drug kits have promoted rational use of drugs facilitating, therefore, the drug management for both first and second-line drugs.

DDS pooled [misspelled? 00:43:13] procurements mechanism is also helping to ensure that countries are able to

second-line treatment. As many of us know, the GDF support that goes to countries also involves technical assistance and this technical assistance is not just confined to drug management but is broadly related to the management of TB in general. So when you have a GDF mission coming into a country, they look also, at how your basic TB Control Program is running.

The key problems there, which are still persisting is the availability of quality assured manufacturers and products for both first and second-line drugs that will be a problem because the number of people that you can go to is still very limited.

There are also countries that are still having problems with the capacity, ability to quantify their drug needs and forecasting, the issue of financing your anti-TB drugs and the ordering, storage of anti-TB drugs and stuff like that.

These are, all related to the policies that are currently in place in many countries. The regulatory frameworks that are required for [inaudible 00:44:34] drug market to exist in countries. I think this is something that many of us are facing in our countries today. Monitoring and evaluation, I think, TB Control Programs are well ahead of many programs in many countries.

We regularly provide data, which is a very high quality and which is, reported on a very timely manner for most

countries. That's why, for example, Katherine can come and tell you what is happening with TB case detection globally.

The key problems here are that in many countries including mine and I think I can say this with quite a bit of confidence is that the data that is, collected especially by [inaudible 00:45:18] units is not used for planning purposes. So people just pass the data forward and do not use it to try to modify their own programs.

This data is often, the TB program is often the only one that really has a good health information system. The general health information system and vital statistics in many countries simply does not exist. There are problems of getting data from the private sector so that in many countries, we do not know, for example, numbers of patients and outcomes of patients that actually [inaudible 00:45:56] in the private sector.

Because of lack of regulation or if regulation is in place because of lack of enforcement of that regulation, and therefore the broader health system challenges here will relate to how to get general health information up and running and how to enforce regulation, a- to develop that regulation or enforce regulation that allows private sector providers to report to the authorities that they need to report to.

We have [inaudible 00:46:33] TB movement, looked at the

private sector is doing with TB care and prevention and the key achievement that has been made with the private/public mix approaches for TB care and prevention is that all high burden countries currently have some PPM activities going on the ground.

The international standards for tuberculosis care was a major achievement that came into being about three years ago and this has been disseminated to very many countries. Hopefully it is being used to improve the care of people who are suffering TB.

If you look at all the reported PPM projects, they all have had positive effects on TB control. So health detection has gone up. Access to TB services has improved and the financial burden that patients are suffering by following PPM approaches have been, reduced so really, great impact of PPM projects on TB care and prevention.

The key challenges relate to the capacity in many countries for NTPs to engage effectively with a very wide array of providers. Speaking from a country perspective, I know that for sure, if you went to start the traditional healers to very large hospitals and institutions, you have a lot of work on your hands.

The other issue is how you can actually expand PPM initiatives to include other health initiatives, for example,

that also need to be looked into because the private sector is engaged with some of those things.

Some of these things that relate broadly on the regulatory framework is the time and [misspelled? 00:48:24] place and the lack of basic information [inaudible 00:48:28] private sector and how to engage with a large, often unorganized and very heterogeneous private sector. This is really a big challenge.

Tuberculosis and poverty, we all know that TB and poverty are interlinked, interrelated. If we wiped poverty from the world today, maybe we will all not have this union TB meeting every year because we will no longer need it but the key problems are, so what progress has been made in tackling TB and preventing it?

Most countries now are providing TB services free both diagnosis and treatment, which is a major thing that protects the poor from further sliding back into poverty.

Guidelines have been, provided for accessing, enabling access to TB services for the most vulnerable groups and work has been started on looking at the social determinants of TB, which I think is a very important piece of work. We help countries set up appropriate interventions to help the poor.

In practice, even though TB control services, diagnosis, and treatment is free, we all know that there are

many hidden costs that still impose a very heavy financial burden on TB patients [inaudible 00:49:54].

In many countries, the most vulnerable groups are still, not reached and as we know, the most vulnerable groups are the ones that are the highest risk of getting TB. We are not reaching those. We are not reaching them fast enough to stop them sliding into further poverty.

Many countries, at this moment, lack data on equity and access to TB diagnosis and treatment. I think that is something that many of our TB Control programs have not been collecting on a routine basis, as yet. The broader health system challenge here is the issue of inequity to access to quality health care related to deficiencies across all the health system building blocks.

As for drug resistant TB, many countries, 56 as of September 2008, are now using the green light committee services. There is universal access to MDR TB diagnosis and treatment in some countries and there is evidence that TB, that is drug resistant, including XDR TB, can be effectively treated. Sixty-percent of patients with XDR TB in some settings can be cured of their disease.

The key challenge is that there is still a very slow enrollment of patients into drug resistant TB treatment programs. We were told yesterday that almost about five-percent

of patients with MDR TB are being picked up at this stage, which is a very small number indeed.

There are still drug procurement problems, in fact, and insufficient laboratory capacity and of course, the fact that you have a lot of unregulated second-line, both first and second-line drugs out there, which can go fueling the drug resistant TB epidemic.

Again, this is related to what happens with your health care workforce, is there a workforce that is able to provide quality care to TB patients in suspect and the whole issue of drug regulation and maybe the thing that we are often a little afraid of, which is restriction of drug prescription or drug access to only those outlets that we know will use those drugs appropriately.

TB/HIV collaborative activities, great progress has been made especially in the African region as Katherine has shown you. In almost all the African countries, there's a nationwide scale-up of TB/HIV collaborative activities. Visibility for TB/HIV collaboration has improved. The HIV community is taking up its' responsibility and we're all very happy about that.

There is great mobilization of communities in the work and as TB/HIV with a lot of TB/HIV activities gaining global prominence. Key challenges that are coming [misspelled?

HIV prevalence setting is a major setback for sure. We don't have the appropriate the tools yet to respond to some of these challenges.

Suboptimal diagnostics, we all know this was smear-negative pulmonary TB with extra pulmonary forms of TB and patients are dying before they are diagnosed to have TB. In some countries, there's still a lot of opposition to the introduction of [inaudible 00:53:27] preventive therapy on a wide scale and that's a major challenge that we require to be overcome.

Then you have weak monitoring and evaluation systems. The broader health system challenge here is, related to infection control issues. Infection control goes beyond TB and it's so important for TB yet maybe it is not the TB control programs that should carry that burden on its' own and that's a really major problem. Then the laboratory infrastructure that needs to be put into place to be able to offer reasonable services to TB/HIV infected patients.

Now turning on to advocacy communication and social mobilization, the key achievements there have been the fact that capacity's being built at country level to undertake advocacy communication and social mobilization activities including supporting quality health journalism through training and engagement of communities in SCSM planning but that

The big problem actually for SCSM is showing that in fact carrying out SCSM activities is value for money. Having that scientific evidence to show that SCSM activities actually work. I think this is something that we need to generate as quickly as possible if people are going to continue funding SCSM activities. We don't know still on no local data or knowledge, attitudes, and practice for targeting SCSM activities and measuring impact.

I think for me, the most important broader health system challenge related to advocacy communication and social mobilization is how to empower communities, how to empower health care users and how to get into communities with unfragmented health care messages. Communities are not only concerned about TB. Communities are concerned about the child health communities, are concerned about water and sanitation and all those things.

I think it is not really value for many to have different programs going and saying this is what you do for HIV. This is what you do for TB. This is what I think we should have a comprehensive health package that we then go to communities and start dialoging with them on how to move forward with health interventions that make sense to communities.

What about new tools and diagnostics? We all know that our tools are old and we do need to come up with new tools. The

as new tools are concerned is that; for example, we have redefined the whole needs to be called a smear positive test. So one positive smear is enough for us to say you are sputum smear positive case.

We have reduced the number of sputum samples that are required for one to test a patient who is suspected to have TB from three to two. We have introduced and accepted the use of liquid culture saline [misspelled? 00:56:52] systems and we have accepted the use of line probe assays for the diagnosis of MDR TB.

They are promising diagnostic products that might be hitting our laboratories soon. We are told that there are a few drugs that are just about to come into being. I don't know how many more years we need to wait but there are drugs that are, there is a pipeline for drugs. There is a pipeline for vaccines and the most important thing that I think these working groups have been doing is to prepare our programs to be ready to accept and adopt these tools when they become available.

Of course, this will require a lot of additional funding both to come up with the new tools and also to see how best to adopt these new tools at country level. Therefore, the broader health system challenges are market-driven health care research and the health system capacity to find new tools and to adopt those new tools and to monitor those new tools when

So now turning onto what has happened in the Stop TB Department and the Stop TB Partnership and the working groups and confronting the health system challenges that TB Control is facing currently. There's been a lot of documents that have been prepared but I think one of the most critical ones, this you've already been shown by Mario, is this document here that's really very useful in telling us what to do and what not to do as we try and get into tackling the issue of health system strengthening.

The third component of the health system strengthening is of the Stop TB strategies all about health system strengthening and there's something that is critical there, which is looking at innovations that have worked. One of the few innovations that related to health systems, the broader health system strengthening is practical approach to lung care. For example, which has shown, has been shown in those countries where it has been done that you have, if you do a good pal [misspelled? 00:59:10] initiative, there are positive effects on TB case findings and antibiotic use is reduced, and referrals to secondary and tertiary levels is reduced.

The next, I think, innovative thing that has happened in the TB circles is the TB team mechanism, TB technical assistance mechanism. I think that's a really big thing that we have done over the last two or so years.

Department and the working groups done to solve some of the health system issues? TB and health system taskforces were set up. The principles are for NTPs and partners have been developed. There is very close and very intense participation in global forums that are looking at health system strengthening and advice is given to funding agencies and this has all led to today's Stop TB Symposium and the issue is where we go from here.

So my final slide then, which is a summary of what I have said in the last 20-30 minutes, is that TB control or TB care is affected by broad health system challenges that are shared with other diseases, underfunded health system, health workforce crisis with primary health care and all those things that we know.

We should and we are strengthening the system from the TB side using the new Stop TB strategy focusing on human resources, lab management, monitoring and evaluation, private sector, and all the things that we are concerned with because the delivery of TB services is integrated in the primary healthcare system. Then the whole system benefits by a rigorous application of the Stop TB Partnership.

There is scope for further harmonization and integration of certain functions especially human resources, drug manage, monitoring, laboratory issues, which really are

not an end and we need to ensure that working systems are not damaged in the integration process. Thank you [applause].

**MALE SPEAKER #1:** Thank you very much Dr. Chakaya for this very comprehensive overview of achievements but also pointing out the challenges that are ahead, the challenges for the TB programs but also the challenges in relation to the health system.

I would now like to invite Katherine and Dr. Chakaya to join me here on the stage and now the floor is open for questions and discussion. There are microphones in the middle and on the right and left side. If you have a question, please approach the microphone, identify yourself, and formulate the question as short and as concise as possible. I'll start down there.

**DR. WEI MONG:** Yes, thank you. I'm Dr. Wei Mong, National TB Program for one of the 22 high burden countries and one of the 27 MDR TB countries, Myanmar.

I have only three informational questions. Number one is I can see Katherine's presentation on Myanmar achieved in the target zone. Myanmar achieved the 70-85 since 2006 and 2007. That is my information, also the question.

Number two, in the nationwide TB prevalence survey, I see in the two; in India and Indonesia plus two, in this case, Myanmar is in plus two or maybe but I would like to give you

[inaudible 01:03:36] foundation, by the PSI, and supported by the DFID and [inaudible 01:03:43], we were contact generally 2009, nationwide TB prevalence survey in Myanmar.

Number three there is a great opportunity for Myanmar and also a great opportunity to our donor country or donor agency like this because we have the urgent need of first-line anti-TB drugs. Although Myanmar meets the Global TB target, we are with the support of TTF, beyond 2009 first-line anti-TB drug is uncertain so that there is great opportunity to donors so that we were [inaudible 01:04:23] for the first [inaudible 01:04:27] 2008 Chair [inaudible 01:04:28] minister. We invite him to give information to qualified donors. Thank you.

**MALE SPEAKER #1:** Okay. Thank you. Katherine?

**K. FLOYD:** Yes, just on the first point, it's true. In this year's global report, we also have Myanmar as achieving both of the targets and the reason I didn't show it there is because we usually review the data more carefully towards the end of the year. There were some uncertainties around the case detection rate in Myanmar. So that's just the reason for not showing it now. It's quite possible that it will be there when we publish the final results.

The question about which of the two Southeast Asian countries that I mentioned is about to start or currently doing prevalence surveys. The one currently under way is Bangladesh

**MALE SPEAKER #1:** Okay. Any other questions? Seeing someone approach the microphone over there. Yes please?

**DR. HOWARD BASAMPSON:** Thank you for the good presentations. I'm Dr. Howard Basampson [misspelled? 01:05:49]. I work for, in Swaziland. From the global targets, Dr. Chakaya alluded to the issue that many countries are resisting introduction of IPT particularly in the TB and HIV high burden countries.

My question is given that their [inaudible 01:06:17] are still a problem in the resource-constrained countries with high burdens of TB and HIV and also the compliance to isoniazid is an issue. I think studies from Botswana where they have applied IPT in the general public has still not given us very good results in terms of compliance and in terms of protection. What is the view of the working group or the Stop TB on addressing the concerns of national programs on why the application of IPT. Thank you.

**MALE SPEAKER #1:** Okay. Thank you. Dr. Chakaya, would you like to answer his [inaudible 01:07:08] and also for somebody present here from the TB/HIV working group who...

**J. CHAKAYA:** I think if Hailey Esos [misspelled? 01:07:17] is here or if Dr. Paul Nunn is here, they can respond to that question. None of them is here. Okay [laughter]. Okay. I know I mean I'm from high burden TB/HIV country and I know

scale are probably widespread throughout Africa and for good reasons for that matter.

We know that if IPT programs are not done very well and then they could end up leading to expansion of isoniazid resistance but I think there is really no good data to show that a good, well-performed IPT program will expand isoniazid resistance.

So this fear is theoretical rather than practical. I think we do need to go in this direction, have very well performed, very well executed IPT programs while monitoring what happens to patients. If we don't do it, we will remain in that fearful state of not adopting an intervention that may have a major impact on HIV-infected persons.

**MALE SPEAKER #1:** Okay. I think we might have an addition, yes please.

**ARTHUR REID:** Yes, my name is Arthur Reid. I'm the HIV/TB advisor at UNAIDS and a member of the Core Group of the TB/HIV working group. In absence of my colleagues from WHO, I'll say a couple of words about what WHO are doing in collaboration with UNAIDS and the rest of the Core Group to address this issue.

Firstly, there's a repackaging of the activities to reduce the burden of TB amongst people living with HIV as Katherine said in her presentation. We're not seeing the uptake

reduce the burden of HIV amongst TB patients. Many of you will have heard about the three "I's" for HIV/TB, which the WHO HIV department is now really promoting. Those three "I's" are isoniazid preventive therapy, intensified case finding, and TB infection control.

At the moment, they're developing the guidelines and advocacy materials to really promote these new activities. As Dr. Chakaya said, many of the fears that are expressed by TB program manager and HIV program managers about using IPT are unfounded on the basis of science.

So there's a paper that's being submitted that, a joint paper from WHO/UNAIDS and other partners that goes through, step-by-step, the arguments that are put up against IPT and refutes those arguments. So that's one of the tools among many that are being done to promote the activities to reduce the burden amongst people living with HIV.

**MALE SPEAKER #1:** Okay. Thank you very much. On the left.

**GINNY WILLIAMS:** Hi. My name is Ginny Williams. I run the TB project for the International Council of Nurses. I just want to remind everyone that you have enormous strength in your health systems. You have enormous strength in your national TB programs and I think often these talents are going unrecognized and unused.

because nurses are the cadre of staff I work with but nurses working in teams who are implementing excellent practice on the ground. I think if we can find and tap this talent and engage this talent at a national and international level, we will make a lot more progress.

I spend basically, when I go and do a training session, it's very interactive. I'll spend four days with a group of 30 nurses from around the particular country I'm training in and I'm constantly hearing A, excellent examples of innovative practice and good results; and B, many frustrations that these are never recognized, not supported, and people are very overwhelmed by the situation they work in.

So please can we make sure that we find the talent that we have in our local programs and really use them to strengthen the implementation because if there's a good example of where monitoring and evaluation is being done well, where any part of the TB program is done well, it can be replicated in other parts of the country but you can use your local talent. It doesn't have to come from outside. There is plenty of talent in your countries. Thank you very much.

**MALE SPEAKER #1:** Okay. Thank you very much, Ginny, for very valuable intervention. Last question from the middle please.

**DR. FIDOSI:** Yes, thank you. Dr. Fidosi [misspelled?

presentation. Just one maybe a provocative question, issue is that you very nicely alluded to the health system constraints where you took two parameters of basically health expenditure and the health workforce and these two basically, indicators, came out quite worst for Southeast Asia but on the other hand, seeing the progress that has been made in these regions and you very nicely presented Southeast Asia being at 69-percent.

That is just one-percent below the global target and having achieved the treatment success for a couple of years, isn't there a paradox there that with all these health system constraints of poor workforce, limited finances, how are these countries with these very poor indicators of health system, how have they, where they are now, is there something within the TB program, which are I mean and we had this discussion quite a lot in the health system workshop in Colombo where we discussed with Nunn [misspelled? 01:14:08] and there we thought that maybe the non-negotiable issues of the TB program is the driving force behind this. Your comments on this would be appreciated.

**MALE SPEAKER #1:** Thank you Fidosi. Katherine?

**K. FLOYD:** Okay. Thank you for picking out something that also made me think in preparing the presentation and looking at the data because there does seem to be something of a paradox there in that Southeast Asia is doing very well in

faces these constraints in terms of human resources and financing. So how has it been able to do that?

I think the people in the region are the best to, in the countries, to say how they think it's been possible given the constraints within which they work but I think there isn't really a contradiction there because we're also looking at expanding case detection further to reach the missing cases and that may well be constrained by health systems' issues and it's not possible to make substantial further progress without addressing the underlying health financing, health staffing, and other issues.

**MALE SPEAKER #1:** Okay. Thank you. We have come to the end of the first session. We have been provided with quite a lot of data. Some answers still many questions and many challenges yet [misspelled? 01:15:35]. I would like to thank Katherine and Dr. Chakaya for their presentations [applause]. There is a coffee break now and we would like to request you to be here again in the audience at 11:00.

[END RECORDING - 01:16:00]