

## Call excerpt

On June 15, 2007 UNAIDS Secretariat held a briefing call to provide background information on the methodologies and surveys in advance of the release of new India figures. Here are excerpts from the call.

Dr. Delay

Good morning. My name is Dr. Paul Delay, I'm the Director of Evidence Monitoring and Policy at UN AIDS, Geneva. I'm going to be joined by Dr. Peter Ghys, who is the Chief of our Epidemiology Unit. We regret that WHO is not able to be on this call. The epidemiology group are in Kigali for the upcoming HIV Implementer's Meeting.

So, I'd like to give a little bit of background about the reason for the call and also want to note that there is a press statement that is available on our Web site that does have some of the facts that we will be talking about now. We will not be giving the estimate numbers for India at this time. This is purely to provide background and talk about some of the issues that are coming up and why this has caused such interest.

As you may or may not know on June 4<sup>th</sup> through June 6<sup>th</sup>, the National AIDS Control Organization of India, NACO, convened of meeting, which was co-organized by UNAIDS and WHO, what is called the core technical working group on estimates and projections and this included national and international experts. This is a meeting that's held every year to discuss and advise on the methods and data sources to be used for estimates for HIV prevalence and related indicators.

This year's meeting is more pertinent than usual, as a far more expansive set of data on India's epidemic has become available, and this new data can actually be divided into three categories. There is expanded sentinel surveillance and the sentinel surveillance program, which was started in 1998, has now expanded to over 1,100 sites as of 2006.

The second source of data is an integrated behavioral and biologic assessment survey, which is essentially a targeted survey that looks at higher risk groups.

And then finally, a large population based survey that was conducted in 2005-2006, which is called the National Family Health Survey or NFHS III. This is a household population survey, similar to the

demographic health surveys that I'm sure some of you are familiar with.

At this meeting, the group agreed on a revised methodology to examine these three different sources of data to come up with new estimates. This process is ongoing and is not complete. We estimate that the analysis will be complete by the first week of July, at which point the analysis will be provided to the National AIDS Control Organization, NACO, who will then decide when and how to release it.

So with that as background, I'd like to turn this over Dr. Peter Ghys, again, who is the Chief of our Epidemiology Unit. He'll talk to you a little bit more about what's behind some of this new data and what the implications are.

P. Ghys

Thank you, Paul. Let me immediately say that expectation is that the new estimates will be lower, that is to say, the estimates that will be announced by NACO in July. And this is generally through, but also, if one looks at the separate sources of information on the prevalence of HIV in India, that is to say, the sentinel surveillance on the one hand and the national survey on the other hand, that both of those sources indicate prevalence data is lower. So India has done a lot of work in the past years and especially in the past year, to expand the surveillance system, as Paul mentioned. It has increased a lot, the size that is included in the system. Also, there are additional groups that have been covered now in the sentinel surveillance and so, the full analysis then covers the expanded sentinel surveillance data, as well as the population based survey.

A part of the work that is ongoing in India on the estimates will also revise estimates for past years. This process of analyzing the data is conducted by epidemiology experts in India. But their meeting that took place last week also included international experts, as well as international organizations including UNAIDS and the World Health Organization. The estimates that will be produced by this working group will also be examined by a group that exists here in Geneva, which is the UNAIDS operational working group on global HIV AIDS and SEI surveillance.

Let me go a bit more into detail about available data and the process to come to the revised estimates. And let me start by saying that the process to come to revised estimates is complex in any country. Given the diversity of the epidemic in India; it is even more complex in India. It is important to recognize that in India, the HIV epidemic is quite different in different regions of the country, and specifically prevalence is higher in the southern states of India than it is in the northern parts of India. And also, the main modes of transmission are a bit different from one region to the other.

So then, it is important that all relevant data sources are examined and included in an estimate, as is happening now. The data, as we mentioned earlier, have considerably expanded. And also, as there is new data, there is also a need for methodology to come to the estimate to be adapted to that expanded set of data. And specifically about available data from the sentinel surveillance system, we've already mentioned that there has been an expansion in terms of the number of sentinel surveillance sites to over 1,100 sites now. And it is again, important to recognize that is not just a numerical expansion of sites, but what is also happening is that the system has expanded from being largely based in general population groups to increasing coverage of groups that are at high risk of HIV infection.

Then also, the population based survey, of course, represents an entirely new source of data for India. Some of you will be aware that this type of survey has been conducted in many countries in Africa and that has also been the basis for improving estimates in African countries. So as I mentioned before, the methodology needs to be specifically adapted to the data sources that are available. But also to the effect that India has different types of epidemics in its different regions, and so this is the work that is currently ongoing in India.

Let me then conclude to say that UNAIDS, as does WHO, we work closely with many partners that are involved in the generation of this type of information. We believe that it is very important for countries to have the latest and best possible data available to make the key decisions that they have to make about a problematic response about levels of resources that are needed to mount those responses and also for the impact of those programs are reducing the number of new infections and treating AIDS patients to extend the length and quality of their lives.

Dr. Delay

I know many of you on this call are familiar with this, but just, to talk briefly about these three survey methodologies, because I think sometimes it's a bit confusing and we tend to use the term survey to mean a lot of different things. In many countries at the beginning of the AIDS epidemic, testing of people was done in a very sporadic and non-routine way. It tended to be in people, where there was an index of suspicion and that is as true in India as it is in other places.

So people who were sick or people who were coming in worried were being tested and that was the basis of the understanding of the epidemic. But these are not good samples, these are not randomized. They're not representational, so sentinel surveillance was introduced. It was actually introduced in the early 90's, but the sentinel system in India didn't really get started until '98.

Sentinel is, as I said, these are warning systems and originally, they were set up to monitor things like measles and flu. But what these do

is, they take settings where there are blood tests being done, ante-natal clinic and looking at every one month or two months in a year, they would test everyone who came in to that clinic. These have strengths and weaknesses.

The sentinel surveys on ante-natal clinic attenders are very good to measure the prevalence of HIV in urban women. And we find that when we compare the urban women prevalence with the household surveys, they're very, very similar. They're not as good, as far as looking at the rural areas, and they're not as good as far as men. And they're not as good as far as high risk groups, injecting drug users, men who have sex with men, commercial sex workers.

However in India, they're doing sentinel surveillance on these high risk groups, not just on ante-natal clinic attenders, so this is a variation of the more traditional sentinel surveillance. So there are two types of sentinel surveillance. One is the standard set within ... and the second high risk group.

Household surveys, as many of you know, basically, have much larger population sizes. They involve essentially going into villages, to towns, and looking at going into households and, basically, checking everyone who's in that household on that day. The sample size, for instance, of the National Family Survey in India, was 125,000 people and I can't off the top of my head talk about how many houses that was. They go in, and these have been around since the late 70's early 80's. And they were set up mainly to look at family planning, look at use of contraception, and fertility rates.

They've slowly been expanded and in 2000 and 2001, normally these have been purely just going in and asking questions, how many children have you had, do you use contraceptives. But in 2000 and 2001 there was the introduction of blood tests. So it was not just a questionnaire, they would go in and test for blood. And in Africa that included, they would do malaria smears. They would check for anemia. They would look for vitamin deficiencies, and in 2000 and 2001, there was the addition of HIV testing.

Now these are, because the sample size is so much larger and it doesn't require someone going to ante-natal clinic, they tend to be more representational. They tend to be much stronger in rural areas. They tend to be good as far as men, though they do have their weaknesses. They're not very good in concentrated epidemics. They tend to be better, more valuable, more accurate in generalized epidemics, epidemics of greater than 1%.

They are expensive. They generally can only be done once every five or six years, so to monitor the trends of an epidemic, you need to

really combine the more rapid sentinel with the national demographic type household surveys.

I think it's important to note that, say in the United States, if we had relied on just a household type survey for trying to figure out what the epidemic would have been, we would've missed half of the infections there. India represents a really unique challenge, because it's really a combination of states with generalized epidemics and states with concentrated epidemics. And this national family survey actually focused on the six states with the highest prevalence to try to get a better sample of what's going on.

Really, India now really represents the state of the art, as far as combining different data sources. And now the analysis that's taking place hopefully will provide us with the most accurate picture that we've ever had on India.

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UNAIDS is an innovative joint venture of the United Nations, bringing together the efforts and resources of the UNAIDS Secretariat and ten UN system organizations in the AIDS response. The Secretariat headquarters is in Geneva, Switzerland—with staff on the ground in more than 80 countries. Coherent action on AIDS by the UN system is coordinated in countries through UN theme groups, and joint programmes on AIDS. UNAIDS' Cosponsors include UNHCR, UNICEF, WFP, UNDP, UNFPA, UNODC, ILO, UNESCO, WHO and the World Bank. Visit the UNAIDS Web site at [www.unaids.org](http://www.unaids.org)