Appendix 2

Summary analysis of responses to questionnaire sent out to members of the Task Force

We received 16 responses to the questions that we sent out from Ajit Lalvani (Oxford University), Barbara Oberhauser (German Leprosy and Tuberculosis Relief Association), Charles Wells (CDC Atlanta), Cheri Vincent (USAID), Hans Reider (IUATLD) and Philippe Glaziou WHO WPRO), Knut Lonroth (WHO Geneva), Marieke van der Werf (KNCV), Nani Nair (WHO SEARO), Paul Nunn (WHO Geneva), PG Gopi (TRC Chennai), Pierpaolo de Colombani (WHO EURO), Ryuichi Komatsu (GFATM), Samiha Baghdadi (WHO WPRO), Ties Boerma (WHO Geneva), Wilfred Nkhoma (WHO AFRO). Their responses were as follows. (Note: Numbers in brackets give the number of respondents who explicitly made various suggestions; others may have implicitly supported the same suggestions.)

1. Should the case detection rate be retained as a principle indicator of DOTS implementation? If not what should replace it?

The consensus (8) was that case detection rate (CDR) should be retained as a principle indicator of DOTS implementation at least for the time being. The difficulty of estimating CDR precisely was acknowledged (5) but most respondents were of the opinion that better estimates could be made. Several respondents commented on the need to strengthen routine data (3). A variety of proposals were made in this regard including a) calculate CDR for different forms of TB, i.e. for SS+, SS−, EP, and all forms (2); b) add the patient diagnostic rate as an indicator (2); c) measure incidence directly and hence determine CDR more precisely (2); d) promote the use of individual patient data and electronic TB registers (1). One respondent suggested dropping CDR and also dropping the idea of using the PDR. One respondent noted that incidence is very hard to measure in the countries where it is most needed because it is logistically very difficult, it is very expensive and in many countries there is inadequate infrastructure to actually carry out the measurements and suggested that this should be dropped.

2. What modifications, if any, should be made to the monitoring of treatment outcomes in cohorts?

The two suggestions that had the most support in this regard were to stratify treatment outcomes on HIV-status (5), on different forms of TB, i.e. SS+, SS− and EP (5), and on drug resistance (5). Most of those who mentioned drug-resistance (4) said that people on second line treatment should be dealt with separately. Other suggestions were to stratify on new versus re-treatment cases (2), gender (2), age(2) and to pay more attention to defaulters (2). One respondent suggested that the treatment outcomes need to be redefined for TB patients with HIV or MDR-TB. Other suggestions were to stratify on CD4 counts (1), to focus on (1)
and to refine unfavourable outcomes (1), to promote information, education and counselling (1), and to specify deaths from TB and from other causes separately (1). One respondent argued that if we accept that the central goal of TB control is to reduce transmission then we should focus our attention on those cases where the (bacteriological) outcome is uncertain. While deaths have to be averted this depends, in much of Africa, on HIV and the provision of ART, so that consideration should be given to redefining the targets, at least, for treatment outcomes.

3. In monitoring progress to the MDGs, should all countries measure TB incidence, prevalence and deaths? Which measures are more important?

The number of respondents that said that these measures were important and should continue to be measured was: all three 5; incidence and prevalence 2; incidence 2; prevalence and deaths 2. Five respondents said that this effort should focus on key countries. Several other points were made. In particular one person noted that deaths on treatment are easy to determine but deaths among those not on treatment can only be estimated and more extensive use of verbal autopsies was suggested (3). The use of tuberculin surveys to estimate incidence was mentioned (1). One respondent stressed the need to develop good VA algorithms and the lack of good validation studies. He also noted that it would be hard to determine the HIV-status in someone who died from TB from a verbal autopsy. One respondent was sceptical about the prospects of accurately determining any of these indicators.

Table 1. Countries in which prevalence surveys were recommended

<table>
<thead>
<tr>
<th>22 high burden countries (4)</th>
<th>Myanmar (1)</th>
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<tbody>
<tr>
<td>Selected high burden countries (2)</td>
<td>Nepal (1)</td>
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<tr>
<td>Countries with high HIV or MDR-TB (1)</td>
<td>Nigeria (1)</td>
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<tr>
<td>Afghanistan (1)</td>
<td>Pakistan (2)</td>
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<tr>
<td>Bangladesh (1)</td>
<td>Philippines (1)</td>
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<td>Brazil (1)</td>
<td>Russia (2)</td>
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<td>Cambodia (1)</td>
<td>South Africa (3)</td>
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<td>Central Asia Republics (1)</td>
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<td>India (1)</td>
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<td>Morocco (1)</td>
<td>Yemen (1)</td>
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4. Which countries should carry out prevalence surveys within the next 5 years?

Respondents suggested that prevalence surveys should be carried out in the countries indicated in Table 1.

The prevalence surveys were needed in Vietnam to explain the apparent lack of impact of the DOTS programme (1); in South Africa to complement the HIV and DR prevalence survey (1); in India to support the recent national tuberculin surveys (1); in Indonesia to test the results of the household survey (1); in Timor-Leste it should be linked to the GIS mapping exercise.

Other comments were that linking prevalence surveys to other surveys can be difficult and may compromise the quality of the survey (1) but that surveys could be linked to DHS surveys (1). One respondent suggested that prevalence surveys should be restricted to countries where the incidence was greater than 100/100k and one to countries that had previously carried out a prevalence survey. One respondent noted the importance of collecting data on health seeking behaviour, previous treatment and demographic variables. One respondent noted that the choice of methods for identifying patients were, in order of preference, 1) radiography and symptoms followed by bacteriology, 2) fluorescent microscopy; 3) cough followed by bacteriology.

5. Should the Task Force recommend the continued use of tuberculin surveys?

Respondents were clear in their answers to this question; 7 said ‘yes’, 3 said ‘with certain provisos’ and 2 said ‘no’. The main proviso was that we should first review the findings of the KNCV review (2). Other suggestions were to re-evaluate the Stýblo ratio (1), use tuberculin surveys only for research (1) and only to monitor trends (1). It was also observed that the logistics of tuberculin surveys are far from trivial and it is often difficult to obtain precise estimates of the annual risk of infection especially when it is low, there is significant exposure to environmental mycobacteria and BCG vaccination is common (2).

6. What methods can be used to strengthen routine surveillance? Should TB surveillance be integrated with surveillance of other infectious diseases or other health conditions?

The best ways to strengthen routine surveillance were thought to be 1) use disaggregated data (5); 2) provide training (5); 3) develop links with the private sector (4); 4) improve feedback (2); 5) help to develop analytical skills in countries (2); free medical cover after notification (1). However, there was a general consensus that surveillance should not be integrated with other surveillance systems (4) and that if it were to be done it needed to be done very carefully (5). The main concern in this regard was that we compromise the quality of the data for little benefit and possibly at significant cost.

Other suggestions were to make better use of electronic recording (2), the internet (1), and geographical information systems (1), to carry out sentinel surveillance to complement
the routine surveillance (1), to make TB reportable (1) but more specifically to develop a quality assurance scheme for laboratories doing bacteriology with mandatory reporting of results (1).

7. Who will certify that targets have (or have not) been met by countries and globally?

Most respondents said that WHO should certify targets (8) but some said that it should be the responsibility of the task force (3) and that IUATLD could be considered (1). Others noted that countries should be consulted (3) and that regions should be involved (1), that there should be consensus workshops (1) and that technical partners should be consulted (1).

8. How will new technology and new analytical methods affect the measurement of progress over the next decade?

Respondents said that new technology would help in detecting (3) and diagnosing (3) cases of TB. The use of interferon-γ (2) and ELISpot (1) was mentioned (2) as was the better use of information technology (2). Several other proposals were made. It was felt that new technology could help to identify suspects more efficiently (1) and to confirm cure (1). It was also suggested that it might lead to shorter treatment (1) and the development of effective vaccines (1). One person suggested that capture-recapture techniques could be more widely used and another that modelling could play a bigger role. One respondent felt that new technology was a red-herring and that it would increase the costs of various activities with little or no benefit while another commented on the gap between the technological promise and the technological reality in poor countries.

9. Should WHO and partners issue guidelines on measuring key indicators: case detection, prevalence and deaths? Should we develop a standard index that certifies the quality of data provided by TB information systems in countries?

Twelve respondents said that WHO should issue these guidelines and 11 that we should develop a standard index of the quality of information systems. One respondent noted that while an index was important this did not obviate the need for a critical assessment of progress. Another noted that while WHO should be responsible for producing these guidelines this is only possible if a sufficiently high level of technical competence is available in-house at WHO.

10. What resources are needed to satisfy these recommendations, both for the Task Force and in countries?

Five respondents said that the resource needs would need to be assessed and two others that it would be straightforward to make such an assessment. Two respondents mentioned the need for more country staff. Other suggestions were to establish a task force to assess resource needs (1); provide fellowships for young students who would work on this issue (1); invest in
information technology (1) and in modelling (1); provide training and support for regional offices and conduct workshops (1). One respondent reminded us that in Global Fund grants 5 to 10% of the budget should be committed to monitoring and evaluation.

References
