The WHO Global Task Force on TB Impact Measurement

Mandate and strategic areas of work in the post-2015 era of the SDGs and End TB Strategy: A proposal for the period 2016–2020

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Questions for discussion
1. Do you agree with the proposed mandate and five strategic areas of work proposed for 2016–2020? If not, what modifications would you suggest?
Introduction

Global targets for reductions in TB disease burden by 2015 were set within the context of the United Nations’ Millennium Development Goals (MDGs). The targets were that TB incidence should be falling, and that TB mortality and prevalence rates should be halved by 2015 compared with their level in 1990. The WHO Global Task Force on TB Impact Measurement (hereafter the Task Force) was established in 2006, with the aim of ensuring that WHO’s assessment of whether 2015 targets were achieved at global, regional and country levels should be as rigorous, robust and consensus-based as possible. The Task Force also included two other elements within its mandate: regular reporting on progress towards targets in the years leading up to 2015, and building and strengthening national capacity in monitoring and evaluation.

To fulfil its mandate, the Task Force agreed upon three strategic areas of work:

1. **Strengthened routine surveillance** of TB cases and deaths in all countries, towards the ultimate goal of direct measurement of TB incidence and TB mortality using notification and vital registration data, respectively.
2. **National TB prevalence surveys** in 22 global focus countries.
3. **Periodic review and updating of methods** used by WHO to produce TB disease burden estimates.

These strategic areas of work were taken forward by subgroups of the Task Force, which also periodically met together. A wide range of technical, financial and development agencies, countries and individual experts contributed to the work of the Task Force, with overall guidance, direction and coordination provided by the Monitoring and Evaluation unit of WHO’s Global TB programme (GTB).

WHO published its assessment of whether 2015 global TB targets for reductions in TB incidence, prevalence and mortality were achieved in its 2015 global TB report. This assessment followed a Task Force meeting focused on reviewing methods used by WHO to produce TB disease burden estimates in April 2015. The assessment was well accepted; notably, for the first year ever, no concerns about the estimates (which covered the period 1990–2015 at global, regional and country levels) were expressed to WHO by Member States.

The MDG era (2000–2015) is now over, and has been superseded by a new era of Sustainable Development Goals (SDGs) that have an end date of 2030. Similarly, the era of WHO’s Stop TB Strategy, which covered the decade 2006–2015 and had the overall goal of achieving the 2015 global TB targets, is over. It has been replaced by the End TB Strategy, which covers the period 2016–2035. In this new context of the SDGs and End TB Strategy, the Task Force needs to review and reshape its mandate and strategic areas of work for the post-2015 era.

This document has four major parts:

1. **The SDGs and the End TB Strategy.** This provides an overview of the content of the SDGs and the End TB Strategy, with particular attention to the health and TB-related goals, indicators, targets and milestones that have been defined to measure success and track progress.
2. **Implications of the SDGs and the End TB Strategy for the Task Force’s mandate and strategic areas of work post-2015.** Five major implications are identified.
3. **Other factors with implications for the Task Force’s mandate and strategic areas of work post-2015.** Four major factors are identified.
4. **Proposal for Task Force mandate and strategic areas of work, 2016–2020.** An updated mandate and five strategic areas of work for the next five years are proposed.

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1 The 8 MDGs were: 1) eradicate extreme poverty and hunger; 2) achieve universal primary education; 3) promote gender equality and empower women; 4) reduce child mortality; 5) improve maternal health; 6) combat HIV/AIDS, malaria and other diseases; 7) ensure environmental sustainability; 8) develop a global partnership for development.


1. The SDGs and the End TB Strategy

1.1 The SDGs

The SDGs were adopted by all UN Member States in September 2015, at the United Nations General Assembly. There are 17 goals (Box 1.1), including one on health (SDG3). Departures from the MDGs include a broader agenda (17 goals compared with the previous 8), a consolidated goal on health compared with 3 health-related MDGs, and a desire for universal relevance rather than a focus on issues mostly of concern to developing countries.

**Box 1.1. The Sustainable Development Goals**

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<thead>
<tr>
<th>Goal</th>
<th>Description</th>
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<tbody>
<tr>
<td>1.</td>
<td>End poverty in all its forms everywhere</td>
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<tr>
<td>2.</td>
<td>End hunger, achieve food security and improved nutrition and promote sustainable agriculture</td>
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<tr>
<td>3. <strong>Ensure healthy lives and promote well-being for all at all ages</strong></td>
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<td>4.</td>
<td>Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all</td>
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<td>5.</td>
<td>Achieve gender equality and empower all women and girls</td>
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<tr>
<td>6.</td>
<td>Ensure availability and sustainable management of water and sanitation for all</td>
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<td>7.</td>
<td>Ensure access to affordable, reliable, sustainable and modern energy for all</td>
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<tr>
<td>8.</td>
<td>Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all</td>
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<tr>
<td>9.</td>
<td>Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation</td>
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<td>10.</td>
<td>Reduce inequality within and among countries</td>
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<td>11.</td>
<td>Make cities and human settlements inclusive, safe, resilient and sustainable</td>
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<tr>
<td>12.</td>
<td>Ensure sustainable consumption and production patterns</td>
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<tr>
<td>13.</td>
<td>Take urgent action to combat climate change and its impacts*</td>
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<tr>
<td>14.</td>
<td>Conserve and sustainably use the oceans, seas and marine resources for sustainable development</td>
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<tr>
<td>15.</td>
<td>Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss</td>
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<tr>
<td>16.</td>
<td>Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels</td>
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<tr>
<td>17.</td>
<td>Strengthen the means of implementation and revitalize the Global Partnership for Sustainable Development</td>
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*Acknowledging that the United Nations Framework Convention on Climate Change is the primary international, intergovernmental forum for negotiating the global response to climate change

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SDG3 is to “Ensure healthy lives and promote well-being for all at all ages”, and 13 targets have been defined (Box 1.2). One of these targets, Target 3.3, includes explicit mention of TB. It is “End the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases, and combat hepatitis, water-borne diseases and other communicable diseases”. The language of “ending epidemics” is also now a visible element of global health strategies developed by WHO and UNAIDS for the post-2015 era, including the End TB Strategy (section 1.2), and much more ambitious than the MDG language of “halting and reversing” epidemics (or “stopping” them, as in the Stop TB Strategy).

Box 1.2. SDG 3 and its 13 targets

SDG3: Ensure healthy lives and promote well-being for all at all ages

Targets

3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births
3.2 By 2030, end preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births
3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases
3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol
3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents
3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including family planning, information and education, and the integration of reproductive health into national strategies and programmes
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all
3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination
3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate
3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all
3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States
3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks

There is also a target (3.8) related to universal health coverage (UHC). The World Bank/WHO definition of UHC is “all people who need health services (promotion, prevention, treatment, rehabilitation and palliation) receive them, without undue financial hardship... It has two interrelated components: the full spectrum of good-quality essential health services according to need, and protection from financial hardship, including possible impoverishment, due to out-of-pocket payments for health services.”

An Inter-Agency and Expert Group on the SDGs (IAEG-SDGs) was established by the UN Statistical Commission in 2015 to work on the definition of indicators to monitor progress. The list is expected to be finalized during an IAEG-SDG meeting scheduled for March/April 2016. By the end of 2015, agreement had already been reached on most indicators (currently referred to as “green indicators”), including those for Target 3.3. Indicators yet to be finalized (“grey indicators”) include those related to UHC (target 3.8). The indicators for Target 3.3 and the proposed indicators for Target 3.8 are shown in Table 1.1.

### Table 1.1. Indicators agreed (highlighted in green) or under consideration (highlighted in grey) for SDG3 targets 3.3 and 3.8

| 3.3 | By 2030, end the epidemics of AIDS, tuberculosis, malaria and combat neglected tropical diseases, water-borne diseases and other communicable diseases | 3.3.1 Number of new HIV infections per 1,000 uninfected population, by age, sex, and key populations  
3.3.2 Tuberculosis incidence per 1,000 population per year  
3.3.3 Malaria incidence per 1,000 population per year  
3.3.4 Hepatitis B incidence per 100,000 population per year  
3.3.5 Number of people requiring interventions against neglected tropical diseases |
| 3.8 | Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all | 3.8.1 Coverage of tracer interventions (e.g. child full immunization, antiretroviral therapy, tuberculosis treatment, hypertension treatment, skilled attendant at birth, etc.)  
3.8.2 Proportion of the population protected against catastrophic/impoverishing out-of-pocket health expenditure |

The indicator selected to track progress for HIV, malaria, hepatitis and TB is incidence (expressed as per 1,000 population per year or per 100,000 population per year). The indicators under consideration for Target 3.8 include coverage for tracer interventions, including TB treatment; and the proportion of the population protected from catastrophic out-of-pocket expenditures on health care. The full list of proposed indicators for SDG3 is provided in Annex 1.

Across the SDG indicator framework as a whole, the definitions of many indicators include dis-aggregations: for example, by age, sex, geography (e.g. urban/rural), wealth (e.g. bottom 40%, bottom vs. top income quintiles) and employment status. Some indicators give particular attention to specific subpopulations, including pregnant women, people with disabilities, victims of work-injuries and migrants. These dis-aggregations will be used to inform assessments of equity in access to resources, opportunities, services and basic human rights, and identify particular areas or subpopulations where progress is lagging and greater attention is needed.

### 1.2 The End TB Strategy

In anticipation of the end of the eras of the MDGs and Stop TB Strategy, GTB initiated the development of a post-2015 global TB strategy in 2012. Following two years of consultations, a proposed strategy (including targets) was discussed by WHO’s Executive Board in January 2014. It was then presented in the form of a World Health Assembly Resolution for discussion at the May 2014 World Health Assembly. The strategy was unanimously approved by Member States (n=194). The strategy is now known as the End TB Strategy; Box 1.3 shows the “strategy at a glance”. The overall goal is to “End the global TB epidemic”, defined as around 10 new cases per 100,000 population per year. This is a level found in countries considered to have a low burden of TB in 2015.

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The End TB Strategy has three overarching indicators and related targets and milestones. The three indicators are:

1. The number of TB deaths per year;
2. The TB incidence rate per year;
3. The percentage of TB-affected households that experience catastrophic costs as a result of TB disease.

**Box 1.3. The End TB Strategy at a glance**

<table>
<thead>
<tr>
<th>VISION</th>
<th>A WORLD FREE OF TB</th>
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<tbody>
<tr>
<td></td>
<td>– zero deaths, disease and suffering due to TB</td>
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<table>
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<tr>
<th>GOAL</th>
<th>END THE GLOBAL TB EPIDEMIC</th>
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<tr>
<td>INDICATORS</td>
<td>MILESTONES</td>
</tr>
<tr>
<td></td>
<td>2020</td>
</tr>
<tr>
<td>Percentage reduction in the absolute number of TB deaths (compared with 2015 baseline)</td>
<td>35%</td>
</tr>
<tr>
<td>Percentage reduction in the TB incidence rate (compared with 2015 baseline)</td>
<td>20%</td>
</tr>
<tr>
<td>Percentage of TB-affected households experiencing catastrophic costs due to TB (level in 2015 unknown)</td>
<td>0</td>
</tr>
</tbody>
</table>

**PRINCIPLES**

1. Government stewardship and accountability, with monitoring and evaluation
2. Strong coalition with civil society organizations and communities
3. Protection and promotion of human rights, ethics and equity
4. Adaptation of the strategy and targets at country level, with global collaboration

**PILLARS AND COMPONENTS**

1. INTEGRATED, PATIENT-CENTRED CARE AND PREVENTION
   A. Early diagnosis of TB including universal drug-susceptibility testing, and systematic screening of contacts and high-risk groups
   B. Treatment of all people with TB including drug-resistant TB, and patient support
   C. Collaborative TB/HIV activities, and management of co-morbidities
   D. Preventive treatment of persons at high risk, and vaccination against TB

2. BOLD POLICIES AND SUPPORTIVE SYSTEMS
   A. Political commitment with adequate resources for TB care and prevention
   B. Engagement of communities, civil society organizations, and public and private care providers
   C. Universal health coverage policy, and regulatory frameworks for case notification, vital registration, quality and rational use of medicines, and infection control
   D. Social protection, poverty alleviation and actions on other determinants of TB

3. INTENSIFIED RESEARCH AND INNOVATION
   A. Discovery, development and rapid uptake of new tools, interventions and strategies
   B. Research to optimize implementation and impact, and promote innovations

The 2035 targets are for a 95% reduction in TB deaths and a 90% reduction in the TB incidence rate, compared with levels in 2015. The 2030 targets (linked to the SDGs) are for reductions of 90% and 80%, respectively.
For the third indicator (the percentage of TB-affected households that experience catastrophic costs as a result of TB disease), a milestone of zero was defined for 2020, to be sustained thereafter.

The percentage of TB-affected households that face catastrophic costs as a result of TB disease was selected as a third overarching, high-level indicator because of its link to progress towards UHC. If UHC is in place, then people with TB should be able to access high-quality diagnosis and treatment with financial protection, or in other words they should not face costs that are catastrophic.

UHC is fundamental to targets for reductions in TB cases and deaths because:

- Reaching the milestones for reductions in cases and deaths set for 2020 and 2025 requires that the annual decline in the global TB incidence rate accelerates from 2% per year in 2015 to 4–5% per year by 2020 and then to 10% per year by 2025. A decline of 10% per year is equivalent to the best-ever performance at national level historically - for example, in countries in western Europe during the 1950s and 1960s. Declines of 10% per year have only been achieved in the context of UHC (and broader social and economic development).

- Globally, the proportion of people with TB who die from the disease (the case fatality ratio, or CFR) needs to decline from 15% in 2015 to 6.5% by 2025, similar to the current level in high-income countries. A CFR of 6.5% is only possible if all those with TB disease can access high-quality treatment.

After 2025, an unprecedented acceleration in the rate at which TB incidence falls globally is required to reach the 2030 and 2035 targets. This will depend on a technological breakthrough, such as a post-exposure vaccine or a short, efficacious and safe treatment for latent TB infection (LTBI), so that the risk of developing TB disease among the approximately 2 billion people who are already infected with *M. tuberculosis* is substantially reduced.

The trajectories of TB incidence and TB deaths that are required to reach End TB Strategy milestones and targets are shown in Figure 1.1.

**Figure 1.1. Projected incidence and mortality curves that are required to reach End TB Strategy targets and milestones, 2015–2035**
2. Implications of the SDGs and the End TB Strategy for the Task Force’s mandate and strategic areas of work post-2015

The SDG framework and the End TB Strategy have five direct implications for the mandate and strategic areas of work of the Task Force post-2015.

2.1 TB incidence and TB deaths are the two indicators for which post-2015 global targets and milestones for reductions in TB disease burden have been set

TB incidence and TB deaths are the indicators for which targets (2030, 2035) and milestones (2020, 2025) have been set in the End TB Strategy. In the SDGs, TB incidence is the indicator that will be used to track progress towards the target of ending the TB epidemic.

TB incidence and TB mortality are also the two indicators required to estimate the CFR, which is relevant to assessment of progress towards the UHC target set in the SDGs, and progress towards the level of 6.5% required to reach the 2025 milestones of the End TB Strategy. It is also one of the top-ten indicators recommended by WHO for monitoring of progress in implementing the End TB Strategy (Annex 2).

This means that:

- The Task Force’s first strategic area of work during the period 2007–2015, on strengthening surveillance towards the ultimate goal of direct measurement of TB cases and deaths from routine notification and vital registration systems, respectively, remains necessary. However, post-2015 this strategic area of work could be split into two – one on strengthening notification systems to measure cases, and one on developing or strengthening VR systems to measure deaths. Notification and vital registration are separate systems, and while the Task Force can play a leading role in providing guidance and advice for the development of high-performance TB notification systems, the development of VR is part of a much broader agenda led by others (see also background document 2a).10,11

- The Task Force’s third strategic area of work during the period 2007–2015, on periodic review of methods used to estimate TB disease burden, remains necessary. It will be some time before all countries have high-performance surveillance systems. In the intervening period, adjustments to surveillance data and indirect estimates based on other data sources will still be needed for many countries.

2.2 The percentage of TB-affected households experiencing catastrophic costs as a result of TB disease is now a high-level, overarching indicator for which global milestones have been set

The global TB targets set in the MDG era focused on reductions in TB incidence, prevalence and mortality. The End TB Strategy has retained targets for TB incidence and TB deaths, but instead of prevalence the third high-level indicator for which global milestones have been set is the percentage of TB-affected households experiencing catastrophic costs.

This means that:

- If the Task Force is to maintain its mandate of ensuring the best possible measurement of indicators for which global TB targets (or milestones) have been set, then post-2015 its work should encompass measurement of costs faced by TB patients and their households.

11 http://www.who.int/healthinfo/civil_registration/en/.
2.3 TB prevalence and national TB prevalence surveys are lower profile

TB prevalence is not a core indicator in the SDGs or the End TB Strategy. In addition, the more progress there is towards SDG and End TB Strategy targets, the harder it will be to measure prevalence.

This means that:

- Overall, while national TB prevalence surveys will be highly relevant in some countries over the next decade, the profile of prevalence surveys globally will be comparatively lower than in the MDG era. In WHO’s guidance on operationalization (and adaptation) of the End TB Strategy at country level, it is highlighted that prevalence is an indicator that will remain relevant in a specific set (but decreasing number) of countries, including to inform estimates of TB incidence.\(^{12}\)
- It is less necessary to have an entire strategic area of work of the Task Force on prevalence surveys, as was the case during the period 2007–2015.

2.4 Disaggregation of indicators and equity are much higher profile

Dis-aggregations of national data (e.g. by age, sex, location, income percentile) and related assessments of within-country equity in access to resources, opportunities, services and basic human rights are much more prominent in the SDGs compared with the MDGs. Under SDG3 specifically, assessment of within-country equity (via disaggregated data) in access to essential health care interventions will be especially important for the UHC target. For example, in the first WHO report on SDG3 due to be published in May 2016 (and expected to be published annually from 2016 onwards), within-country equity is a standard topic covered in each of the 2-page profiles (including one for TB) that have been developed for each SDG3 indicator (23 in total). The importance of understanding within-country variation in the TB epidemic to inform response strategies is also emphasized in the End TB Strategy (analogous to the “know your epidemic” concept commonly used in the context of HIV).

This means that:

- Dis-aggregations of national TB indicators will need to be available, including ones that allow for assessment of within-country equity.

In the TB section of the upcoming WHO report on SDG3, across country equity is illustrated using national estimates of the CFR. It is highlighted that data to illustrate within-country equity in terms of access to diagnosis and treatment are currently much more limited (in the absence of subnational estimates of the CFR). Evidence on detection and reporting gaps from recent prevalence surveys, which shows systematically higher gaps for men as well as certain age groups (notably the elderly), is cited.

2.5 The burden of latent TB infection (LTBI) is much higher profile

The burden of LTBI is much higher profile within the End TB Strategy. Achieving the 2030 and 2035 targets requires substantially reducing the risk of developing TB disease among people already infected; the combination of preventive treatment of people at high risk and TB vaccination is of the strategy’s ten components; and coverage of treatment for LTBI is one of the top-ten indicators that will be used to monitor progress in strategy implementation, with a focus on people living with HIV and contacts of bacteriologically-confirmed cases aged <5 (Annex 2).

This means that:

- Estimates of the number of people with latent TB infection at global and national levels will be increasingly important and in demand.

\(^{12}\) Background document 4e includes proposed criteria for identifying whether a national TB prevalence survey should be prioritized, for two groups of countries: those that conducted a survey 2007–2015, and those that did not. It also illustrates how results from prevalence surveys can improve estimates of TB incidence.
3. Other factors with implications for the Task Force’s mandate and strategic areas of work post-2015

Besides the implications of the SDGs and the End TB Strategy, there are four other factors that have implications for the Task Force’s mandate and strategic areas of work post-2015.

3.1 Growing demand for disaggregated estimates of TB disease burden

While dis-aggregation of many indicators is part of the SDG monitoring framework, dis-aggregation of TB indicators is not new and has been in growing demand for several years. The annual WHO global TB report has included global and regional estimates of TB incidence and mortality by HIV status for more than a decade, by sex since 2011, and global estimates of TB incidence and mortality among children since 2012. The Task Force discussed methods for producing estimates of TB disease burden in children in April 2015, with recommended methods subsequently used to produce the estimates published in the 2015 global TB report. Estimates for multidrug-resistant TB (MDR-TB) have been published in recent reports, but at global level only. There has been intensifying demand for country-specific estimates of MDR-TB incidence, which requires an updated review and recommendations on appropriate methods (see background document 3b), as well as country-specific estimates for children.

3.2 The importance of analysis and use of data for policy, planning and programmatic action, as well as data generation

Data need to be analysed and used, as well as generated. Many components of Task Force work have covered this topic: for example, analysis and reporting of results is covered in both the Lime Book and the guide on inventory studies to measure under-reporting; identifying recommendations for action based on assessment of surveillance data is an integral part of the TB surveillance checklist; a handbook on understanding and using TB data has been produced and its contents are now being used as the basis for country and regional workshops (background document 2b); analysis and use of data is part of standard terms of reference developed for epidemiological reviews (background document 2c) and the results from prevalence surveys are being used to inform policy, planning, programmatic action and resource mobilization (background documents 4a-c). However, arguably the importance of analysing and using TB data should be more prominently and explicitly featured in the Task Force’s mandate and strategic areas of work post-2015.

3.3 Integration of work on drug resistance surveillance into the work of the Task Force

The Global Project on Anti-TB Drug Resistance Surveillance (DRS) was established in 1994 (background document 2e). The TME unit in GTB manages this work. DRS relies on continuous (routine) surveillance, which is the reference standard, and periodic surveys of a random sample of notified cases until continuous surveillance is established. This is similar to the Task Force’s emphasis on routine surveillance combined with national TB prevalence surveys for measurement of TB disease burden in the MDG era. A standard related to surveillance of drug-resistant TB is included in the WHO TB surveillance checklist. As in prevalence surveys, rapid molecular tests are playing a growing role in DRS, along with sequencing (background document 2f-g).

Given these strong commonalities and possibilities for synergies, there are gains to be made from integrating work on DRS into the work of the Task Force.

3.4 Growing demand for projections of TB notifications and TB disease burden, especially for national strategic plans and Global Fund proposals

Up to 2015, the Task Force focused on disease burden estimates for current and past years and did not work on projections. However, there has been growing demand for guidance and tools
related to development of epidemiological projections that can also be linked to costing of interventions and assessments of cost-effectiveness, notably in the last 2–3 years in the context of Global Fund concept notes. The End TB Strategy (section 1.2) has reinforced this development by generating demand for projections of how post-2015 targets for reductions in TB incidence and TB mortality can be achieved at country level, and the potential contribution of different strategy components. These include not only “traditional” interventions focused on finding and treating cases, but also the role of progress towards UHC, social and economic determinants, new tools and risk reduction strategies (for example, prevention of HIV infection, AIDS, diabetes, smoking, or prevention of catastrophic expenditures on health care).

There has also been growing demand for guidance and tools related to short-term projections of TB notifications, especially in the context of Global Fund proposals and associated epidemiological reviews.

Work to develop tools that can assist countries to develop projections has started. Examples include: 1) a tool focused on projections of case notifications; 2) the impact module of “TIME”, which is being developed by Avenir Health and the London School of Hygiene and Tropical Medicine for use within the OneHealth tool. These are described in more detail in background documents 5f-g.
4. Proposal for Task Force mandate and strategic areas of work, 2016–2020

In the context of the SDGs, End TB Strategy and other developments that have implications for the Task Force’s mandate and strategic areas of work (section 2 and section 3), a proposal for an updated mandate and five strategic areas of work is provided below. The proposal is for the first five years of the SDGs and End TB Strategy i.e. 2016–2020. This is a long enough period to allow for substantive progress to be made, but also short enough a) for relevance and feasibility within a broader context that may change and b) to allow for timely adaptation and refinement as appropriate.

4.1 Mandate

To ensure that assessments of progress towards End TB Strategy and SDG targets and milestones at global, regional and country levels are as rigorous, robust and consensus-based as possible.

To guide, promote and support the analysis and use of TB data for policy, planning, and programmatic action.

4.2 Strategic areas of work

1. Strengthening national notification systems for direct measurement of TB cases, including drug-resistant TB and HIV-associated TB specifically.

2. Strengthening national vital registration systems for direct measurement of TB deaths.

3. Priority studies to periodically measure TB disease burden, including:
   b. Drug resistance surveys.
   c. Mortality surveys.
   d. Surveys of costs faced by TB patients and their households.

4. Periodic review of methods used by WHO to estimate the burden of TB disease and latent TB infection.

5. Analysis and use of TB data at country level, including:
   a. Disaggregated analyses (e.g. age, sex, location) to assess inequalities and equity.
   b. Projections of disease burden.
   c. Guidance, tools, capacity building.

Explanatory notes

SDG and End TB Strategy targets and milestones have been set for TB incidence, the number of TB deaths and the percentage of TB-affected households that face catastrophic costs as a result of TB disease. The CFR (mortality divided by incidence) is also important for assessing progress towards 2020 and 2025 milestones.

Strategic areas of work 1–3 concern direct measurement of TB disease burden.

Strategic areas of work 1 and 2 are relevant to all countries, for direct measurement of TB incidence (including for levels of HIV co-infection and drug resistance among TB cases) and TB deaths. Strategic area of work 2 requires linkages with the broader agenda of strengthening civil and vital registration systems.

In strategic area of work 3, national TB prevalence surveys are particularly relevant in a) high burden countries that still lack any direct measurement of TB disease burden, including to inform indirect estimates of TB incidence, and b) countries with a baseline survey that can use repeat surveys to directly measure trends and infer impact. Drug resistance surveys are required every 3–5 years until continuous surveillance based on universal testing is established, and should include measurement of resistance to a wide range of drugs. Surveys of costs faced by TB patients and their households and assessment of whether these are catastrophic are required every 3–5 years to assess progress towards the End TB Strategy milestones for 2020 and 2025 and to inform assessments of progress towards UHC.

Strategic area of work 4 is required until all countries have surveillance systems and/or the periodic studies required to provide direct measurements, since indirect methods will be needed to estimate TB incidence and mortality at global, regional and national levels up to the current year. Post-2015, estimates published by WHO will focus on the period since 2000. Estimates of the number of people latently infected require indirect estimation approaches.

For strategic area of work 5, examples include: standardized terms of reference for country-specific epidemiological reviews, including a) disaggregated analyses (e.g. by age, sex, geography) and related assessments of inequalities and equity and b) projections of disease burden; workshops based on the TB surveillance checklist and handbook on analysis and use of TB data; and guidance and tools (including models) to help countries develop projections of notifications and disease burden under alternative target and intervention scenarios.
### Annex 1: Indicators for SDG 3, as of March 2016

<table>
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<tr>
<th>Goal 3. Ensure healthy lives and promote well-being for all at all ages</th>
<th>3.1.1 Maternal mortality ratio</th>
<th>3.1.2 Proportion of births attended by skilled health personnel</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 By 2030, reduce the global maternal mortality ratio to less than 70 per 100,000 live births</td>
<td>3.1.1 Maternal mortality ratio</td>
<td>3.1.2 Proportion of births attended by skilled health personnel</td>
</tr>
<tr>
<td>3.2 By 2030, end preventable deaths of new-borns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under 5 mortality to at least as low as 25 per 1,000 live births</td>
<td>3.2.1 Under-five mortality rate</td>
<td>3.2.2 Neonatal mortality rate</td>
</tr>
<tr>
<td>3.3 By 2030, end the epidemics of AIDS, tuberculosis, malaria and neglected tropical diseases and combat hepatitis, water-borne diseases and other communicable diseases</td>
<td>3.3.1 Number of new HIV infections per 1,000 uninfected population, by age, sex, and key populations</td>
<td>3.3.2 Tuberculosis incidence per 1,000 persons per year</td>
</tr>
<tr>
<td></td>
<td>3.3.3 Malaria incidence per 1,000 persons per year</td>
<td>3.3.4 Hepatitis B incidence per 100,000 population per year</td>
</tr>
<tr>
<td>3.4 By 2030, reduce by one third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and well-being</td>
<td>3.4.1 Mortality rate attributed to cardiovascular disease, cancer, diabetes, or chronic respiratory disease</td>
<td>3.4.2 Suicide mortality rate</td>
</tr>
<tr>
<td>3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol</td>
<td>3.5.1 Coverage of treatment interventions (pharmacological, psychosocial and rehabilitation and aftercare services) for substance use disorders</td>
<td>3.5.2 Harmful use of alcohol, defined according to the national context as alcohol per capita consumption (aged 15 years and older) within a calendar year in litres of pure alcohol</td>
</tr>
<tr>
<td>3.6 By 2020, halve the number of global deaths and injuries from road traffic accidents</td>
<td>3.6.1 Number of deaths due to road traffic fatal injuries (within 30 days of accident), per 100,000 population (age-standardized)</td>
<td>3.6.2 Number of deaths due to road traffic injuries (within 30 days of accident), per 100,000 population (age-standardized)</td>
</tr>
<tr>
<td>3.7 By 2030, ensure universal access to sexual and reproductive health-care services, including for family planning, information and education, and the integration of reproductive health into national strategies and programmes</td>
<td>3.7.1 Proportion of women of reproductive age (aged 15-49 years) who have their need for family planning satisfied with modern methods</td>
<td>3.7.2 Adolescent birth rate (aged 10-14 years; aged 15-19 years) per 1,000 women in that age group</td>
</tr>
<tr>
<td>3.8 Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all</td>
<td>3.8.1* Coverage of tracer interventions (e.g. child full immunization, antiretroviral therapy, tuberculosis treatment, hypertension treatment, skilled attendant at birth, etc.)</td>
<td>3.8.2* Proportion of the population protected against catastrophic/impoverishing out-of-pocket health expenditure</td>
</tr>
<tr>
<td>3.9 By 2030, substantially reduce the number of deaths and illnesses from hazardous chemicals and air, water and soil pollution and contamination</td>
<td>3.9.1 Mortality rate attributed to household and ambient air pollution</td>
<td>3.9.2* Mortality rate attributed to hazardous chemicals, water and soil pollution and contamination</td>
</tr>
<tr>
<td>3.a Strengthen the implementation of the World Health Organization Framework Convention on Tobacco Control in all countries, as appropriate</td>
<td>3.a.1 Age-standardized prevalence of current tobacco use among persons aged 15 years and older</td>
<td>3.a.2* Smoking rate among adults (aged 15 years and older)</td>
</tr>
<tr>
<td>3.b Support the research and development of vaccines and medicines for the communicable and non-communicable diseases that primarily affect developing countries, provide access to affordable essential medicines and vaccines, in accordance with the Doha Declaration on the TRIPS Agreement and Public Health, which affirms the right of developing countries to use to the full the provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights regarding flexibilities to protect public health, and, in particular, provide access to medicines for all</td>
<td>3.b.1 Proportion of population with access to affordable medicines and vaccines on a sustainable basis</td>
<td>3.b.2 Total net official development assistance to medical research and basic health sectors</td>
</tr>
<tr>
<td>3.c Substantially increase health financing and the recruitment, development, training and retention of the health workforce in developing countries, especially in least developed countries and small island developing States</td>
<td>3.c.1 Health worker density and distribution</td>
<td>3.c.2 Health worker density and distribution</td>
</tr>
<tr>
<td>3.d Strengthen the capacity of all countries, in particular developing countries, for early warning, risk reduction and management of national and global health risks</td>
<td>3.d.1 Proportion of attributes of 13 core capacities that have been attained at a specific point in time</td>
<td></td>
</tr>
</tbody>
</table>
### Annex 2: Top-ten priority indicators (not ranked) for monitoring implementation of the End TB Strategy at global and national levels, with recommended target levels that apply to all countries, and identification of whether they require changes to data collection at global and country levels. The target level is for 2025 at the latest.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Recommended target level</th>
<th>Main rationale for inclusion in top-ten</th>
<th>Changes required to measure indicator at country and global levels (compared with data collection systems used in 2015)</th>
</tr>
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<tr>
<td>1 TB treatment coverage Number of new and relapse cases that were notified and treated, divided by the estimated number of incident TB cases in the same year, expressed as a percentage.</td>
<td>≥90%</td>
<td>High-quality TB care is essential to prevent suffering and death from TB and to cut transmission. High coverage of appropriate treatment is a fundamental requirement for achieving the milestones and targets of the End TB Strategy. In combination, it is likely that these 2 indicators will be used as tracer indicators for monitoring progress towards universal health coverage (UHC) within the SDGs.</td>
<td>No change required</td>
</tr>
<tr>
<td>2 TB treatment success rate Percentage of notified TB patients who were successfully treated. The target is for drug-susceptible and drug-resistant TB combined, although outcomes should also be reported separately.</td>
<td>≥90%</td>
<td></td>
<td>No change required</td>
</tr>
<tr>
<td>3 Percentage of TB-affected households that experience catastrophic costs due to TB** Number of people treated for TB (and their households) who incur catastrophic costs (direct and indirect combined), divided by the total number of people treated for TB. **costs faced are above 20% of annual household income.</td>
<td>0%</td>
<td>One of the End TB Strategy’s three high-level indicators; a key marker of financial risk protection (one of the two key elements of UHC) and social protection for TB-affected households.</td>
<td>No change required</td>
</tr>
<tr>
<td>4 Percentage of new and relapse TB patients tested using a WHO-recommended rapid diagnostic (WRD) at the time of diagnosis Number of new and relapse TB patients tested using a WRD at the time of diagnosis, divided by the total number of new and relapse TB patients, expressed as a percentage.</td>
<td>≥90%</td>
<td>Accurate diagnosis is a fundamental component of TB care. Rapid molecular diagnostic tests help to ensure early detection and prompt treatment.</td>
<td>No change to routine data collection systems recommended, but periodic surveys are required</td>
</tr>
</tbody>
</table>

**Country level:** This indicator requires national notification data on new and relapse cases, which are already routinely recorded and reported in almost all countries. For countries using WHO’s recommended reporting forms for paper-based systems (2013 revision), no changes are required to these forms. **Global level:** WHO will continue to request the notification data required for this indicator from all countries in annual rounds of data collection. To estimate treatment coverage, notifications of new and relapse cases are divided by estimated TB incidence. It is assumed that all notified cases are treated. WHO will continue to produce estimates of TB incidence using methods described in the technical appendix that accompanies the global TB report (www.who.int/tb/publications/global_report/gtbr15_online_technical_appendix.pdf), in consultation with countries and with review each year prior to publication.

**Country level:** This indicator requires data on treatment outcomes for TB cases started on first-line and second-line anti-TB treatment. For countries using WHO’s recommended reporting forms for paper-based systems (2013 revision), no changes are required to these forms. **Global level:** WHO will continue to request data on this indicator from all countries in annual rounds of data collection.

**Country level:** This indicator requires data on treatment outcomes for TB cases started on first-line and second-line anti-TB treatment. For countries using WHO’s recommended reporting forms for paper-based systems (2013 revision), no changes are required to these forms. **Global level:** WHO will continue to request data on this indicator from all countries in annual rounds of data collection.

**Country level:** Periodic surveys (e.g. every 2–3 years) of a random sample of TB patients (around 500) are required, to measure the costs faced by TB patients and their households as a result of TB disease. WHO is providing guidance on the conduct of these surveys; a generic protocol and questionnaire are already available. The Global TB Programme in WHO can be contacted for further details and technical support. **Global level:** WHO will request data on this indicator from countries in annual rounds of global data collection from 2017 onwards, if they state that such data are available.

**Country level:** This is a new indicator that is not captured in the WHO-recommended reporting forms for paper-based systems (2013 revision). However, WHO does NOT anticipate updating the 2013 revision of the paper-based reporting forms to capture this variable. Instead, the indicator can be measured using a survey of a random sample of medical records or patient cards of TB patients, which should capture information on diagnostic tests used. A survey is not required if the variable is already included in a case-based reporting system. **Global level:** WHO will request data on this indicator from countries in annual rounds of global data collection, starting in 2016, if they state that such data are available (from either case-based reporting or a survey).
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<tr>
<td>5 Latent TB Infection (LTBI) treatment coverage</td>
<td>≥90%</td>
<td>Treatment of LTBI is the main treatment intervention available to prevent development of active TB disease in those already infected with <em>M. tuberculosis</em>.</td>
<td>No change to routine data collection systems recommended, but if data are not already captured by such systems, surveys are required</td>
</tr>
<tr>
<td>6 Contact investigation coverage</td>
<td>≥90%</td>
<td>Contact tracing is a key component of TB prevention, especially in children.</td>
<td>No change to routine data collection systems recommended, but if data are not already captured by such systems, surveys are required</td>
</tr>
<tr>
<td>7 Drug susceptibility testing (DST) coverage for TB patients</td>
<td>100%</td>
<td>Testing for drug susceptibility for WHO recommended drugs is essential to provide the right treatment for every person diagnosed with TB.</td>
<td>No change to routine data collection systems recommended, but if data are not already captured by such systems, surveys are required</td>
</tr>
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</table>

**Country level:** Data required to measure treatment coverage among people living with HIV are already compiled through HIV national reporting systems.

Coverage of treatment for LTBI among child household contacts aged <5 years is a new indicator that is not captured in the WHO-recommended reporting forms for paper-based systems (2013 revision). However, WHO does NOT anticipate updating the 2013 revision of the paper-based reporting forms to capture this variable. Instead, the numerator for this indicator i.e. the number of child household contacts <5 started on LTBI treatment can be measured using a survey of a random sample of medical records or patients cards of TB patients, which should capture information on treatment for LTBI provided to contacts aged <5 years. Alternatively, a survey is not required if the variable is already included in a case-based reporting system. The denominator can be estimated based on the reported number of bacteriologically-confirmed cases (routinely compiled in almost all countries), demographic data, and data on household size.

**Global level:** For people living with HIV, the Global TB Programme will continue to use data compiled by UNAIDS and the HIV department. For children<5, data on the number of children started on LTBI treatment will be requested in annual rounds of data collection, starting in 2016, if countries state that such data are available (from either case-based reporting or a survey).

**Country level:** Contact investigation coverage is a new indicator that is not captured in the WHO-recommended reporting forms for paper-based systems (2013 revision). However, WHO does NOT anticipate updating the 2013 revision of the paper-based reporting forms to capture this variable. Instead, the numerator for this indicator i.e. the number of contacts investigated can be measured using a survey of a random sample of medical records or patients cards of TB patients with bacteriologically-confirmed TB, which should capture information on contact investigations. Alternatively, a survey is not required if the variable is already included in a case-based reporting system. The denominator for this indicator (the number of eligible contacts) can be estimated as described for indicator 5.

**Global level:** WHO will request data on this indicator from countries in annual rounds of global data collection, starting in 2016, if they state that such data are available (from either case-based reporting or a survey).

**Country level:** DST results (at least to rifampicin) are already captured in the WHO-recommended Basic Management Unit (BMU) TB register for paper-based systems (2013 revision). However, reporting of results is not included in the recommended BMU quarterly report. WHO does NOT anticipate updating the 2013 revision of the paper-based reporting forms to capture this variable. Instead, the indicator can be measured using a survey of TB registers, medical records or treatment cards of TB patients. Alternatively, a survey is not required if test results on susceptibility to rifampicin are already included in a case-based reporting system. It is important to highlight that these data should not be collected from laboratory registers because laboratory registers are organised by sample, not by patient.

**Global level:** WHO will continue to request data on this indicator from countries in annual rounds of global data collection, if they state that such data are available (from either case-based reporting or a survey). WHO will use
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</table>
| 8 Treatment coverage, new TB drugs  
Number of TB patients treated with regimens that include new (endorsed after 2010) TB drugs, divided by the number of notified patients eligible for treatment with new TB drugs, expressed as a percentage. | ≥90% | An indicator that is relevant to monitoring the adoption of innovations in all countries. Indicators related to the development of new tools are needed at global level but are not appropriate for monitoring progress in all countries. The definition of which patients are eligible patients for treatment with new drugs may differ among countries. | No change to routine data collection systems recommended, but if data are not already captured by such systems, surveys are required  
**Country level:** Treatment coverage with new TB drugs is an indicator that is not captured in the WHO-recommended reporting forms for paper-based systems (2013 revision). However, WHO does NOT anticipate updating the 2013 revision of the paper-based reporting forms to capture this variable. Instead, the indicator can be measured using a survey of medical records or treatment cards of TB patients that meet the eligibility criteria for a new TB drug, to identify what proportion receive it. Alternatively, a survey is not required if the treatment regimen is already included in a case-based reporting system. In 2016, the only new TB drugs for which it is relevant to collect data are bedaquiline and delamanid (approved by WHO in 2013 and 2014, respectively). Their use is recommended for very specific groups of patients with drug-resistant TB.  
**Global level:** WHO started to request data on use of bedaquiline for TB patients with MDR-TB in 2014. In 2016, data will also be requested on use of delamanid. |
| 9 Documentation of HIV status among TB patients  
Number of new and relapse TB patients with documented HIV status divided by the number of new and relapse TB patients notified in the same year, expressed as a percentage. | 100% | One of the core global indicators used to monitor collaborative TB/HIV activities. Documentation of HIV status is essential to provide the best care for HIV-positive TB patients, including ART. | No change required  
**Country level:** Data for this indicator are already routinely collected in almost all countries. Data for this indicator are captured in the WHO-recommended reporting forms for paper-based systems (2013 revision).  
**Global level:** WHO will continue to request data on this indicator from all countries in annual rounds of data collection. |
| 10 Case fatality ratio (CFR)  
Number of TB deaths (from a national VR system) divided by estimated number of incident cases in the same years, expressed as a percentage. | ≤5% | This is a key indicator for monitoring progress towards 2020 and 2025 milestones. A CFR of 6% is required to achieve the 2025 global milestone for reductions in TB deaths and cases. | No change required  
**Country level:** Data on the number of TB deaths captured in national VR systems are routinely reported by Member States to WHO (the Mortality and Burden of Disease Unit).  
**Global level:** The Global TB Programme in WHO will continue to use VR data provided by the Mortality and Burden of Disease Unit. Estimates of incident cases are produced by WHO as described above for indicator 1. |