Chapter 9

MDG 6: Disease Control

The spread of disease has an extremely adverse impact on the attainment of all other MDGs, as it can cripple the capacity of national and local government and private enterprise, robbing organisations and communities of talented and capable individuals.

This MDG focuses on three major preventable and treatable infectious diseases, HIV/AIDS, malaria and tuberculosis, which continue to impact upon small and vulnerable developing countries. The goal, which covers cost-effective interventions such as providing insecticide-treated nets and condoms, has three targets and ten indicators.

Goal 6. Combat HIV/AIDS, malaria and other diseases

Target 6A: *Have halted by 2015, and begun to reverse, the spread of HIV/AIDS*

Indicators:

6.1 HIV prevalence among population aged 15–24 years

6.2 Condom use at last high-risk sex

6.3 Proportion of population aged 15–24 years with comprehensive correct knowledge of HIV/AIDS

6.4 Ratio of school attendance of orphans to school attendance of non-orphans aged 10–14 years

Target 6B: *Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it*

Indicators:

6.5 Proportion of population with advanced HIV infection with access to antiretroviral drugs

Target 6C: *Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases*

Indicators:

6.6 Incidence and death rates associated with malaria

6.7 Proportion of children under five sleeping under insecticide-treated bed nets

6.8 Proportion of children under five with fever who are treated with appropriate anti-malarial drugs

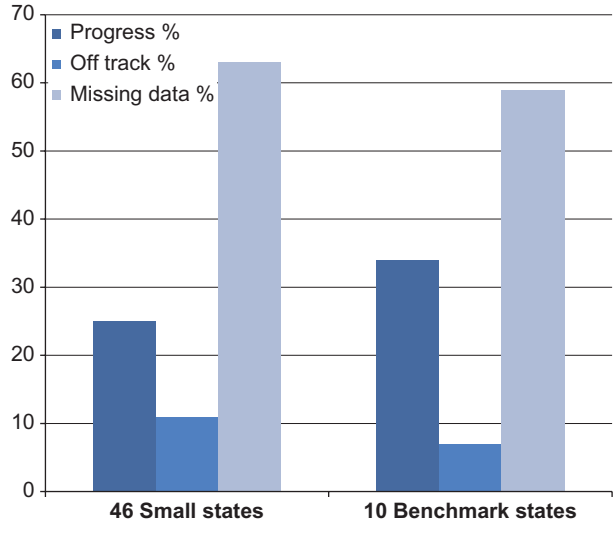
6.9 Incidence, prevalence and death rates associated with tuberculosis

6.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short-course

Targets 6A and 6B relate to HIV/AIDS and have five principal indicators and two sub-indicators. Target 6B relates to achievement by 2010 and not by 2015. The third target and the remaining five principal indicators and five sub-indicators relate to malaria and tuberculosis. Figure 9.1 shows the performance of all 56 states for MDG 6.

In assessing performance on MDG 6, this report has made the following assumptions: for indicator 6.1 the value should be less than the 1990 value; for indicators 6.2 and 6.3 the value is 100 per cent; for indicator 6.4 the target is equality (i.e. a ratio of 1.0 orphans to non-orphans); for indicator 6.5 the target value is 100 per cent.

Figure 9.1 Performance on MDG 6: Disease control



Source: UN MDG database 2010

In assessing performance on the targets for malaria and tuberculosis, this report has made the following assumptions: for indicator 6.6 on malaria the aim is to reduce rates below the 1990 baseline; for indicators 6.7 and 6.8 on malaria it is to increase (or at the very least, not exceed) the value above 1990; for indicator 6.9 on tuberculosis it is to reduce rates below (or at the very least, not exceed) 1990; for indicator 6.10a the aim is to achieve a 100 per cent detection rate; and for 6.10b it is to achieve a 100 per cent treatment rate.

9.1 Overall performance

The 10 benchmark states outperformed the 46 small states in the control of major disease (HIV/AIDS, malaria and tuberculosis). The 46 small states made 25 per cent progress, when missing data are included, with 11 per cent off-track and 63 per cent missing data. Excluding missing data, the 46 small states made 69 per cent progress.

In contrast, the ten benchmark states made 34 per cent progress on this MDG, with 7 per cent off-track and 59 per cent missing data. Excluding missing data, the benchmark states made 83 per cent progress.

For the 46 small states there were 63 per cent missing data overall, but for the seven indicators concerned with HIV/AIDS there were 84 per cent missing data. For the five indicators for malaria there were 94 per cent missing data. However, the absence of baseline values prevented the definition of targets, except for those indicators with universal target values (6.3, 6.4, 6.5 and 6.10a).

It was found that for the 10 benchmark states there were 74 per cent missing data on the HIV/AIDS indicators and 86 per cent missing data on the malaria indicators. This frustrated reporting on both the pattern of performance on HIV/AIDS and malaria targets for these 10 benchmark states and made it impossible to make valid comparisons with the 46 small states.

9.2 Targets 6A and 6B: Indicators 6.1–6.5: HIV/AIDS

From the few elements of data reported, it is worth noting that on indicator 6.1 the three countries with the highest reported levels of HIV/AIDS in pregnant women aged 15–24 years (Botswana, Lesotho and Swaziland) have produced modest reductions, each having a baseline figure of over 23 per cent.

The evidence also shows that access to antiretroviral drugs (indicator 6.5) for those with advanced AIDS ranges widely from 18 per cent in Lesotho and 20 per cent in Guinea-Bissau to 79 per cent in Botswana and 95 per cent in Cuba.

9.3 Target 6C: Indicators 6.6–6.8: Malaria

On indicator 6.6b, the death rate from malaria per 100,000 population, the reported range varied from 0 in Belize and 0.11 in Cape Verde to 97 in The Gambia, 98 in Comoros and 142 in Guinea-Bissau. (Mauritius is one of the small island states which has eradicated malaria, but is nonetheless recorded in the UN system as having missing data.)

On children sleeping under insecticide-treated bednets (indicator 6.7), there were some fragmentary reported data. The lowest reported rates were 3 per cent of children under five in Suriname and 1 per cent in Swaziland, while the highest were 39 per cent in Guinea-Bissau, 47 per cent in The Gambia and 56 per cent in São Tomé and Principe.

9.4 Target 6C: Indicator 6.8: Children under 5-years-old treated with anti-malaria drugs

In 41 (89%) of the 46 states, missing data inhibited assessment of progress on this indicator.

Four of the five states where adequate data were reported, Guinea-Bissau, Haiti, Namibia and São Tomé and Principe, had lower levels of treatment in 2009 than in 1990; only in The Gambia had levels increased. The Big Divide in levels of treatment reported ranges from 63 per cent in The Gambia to 5 per cent in Haiti.

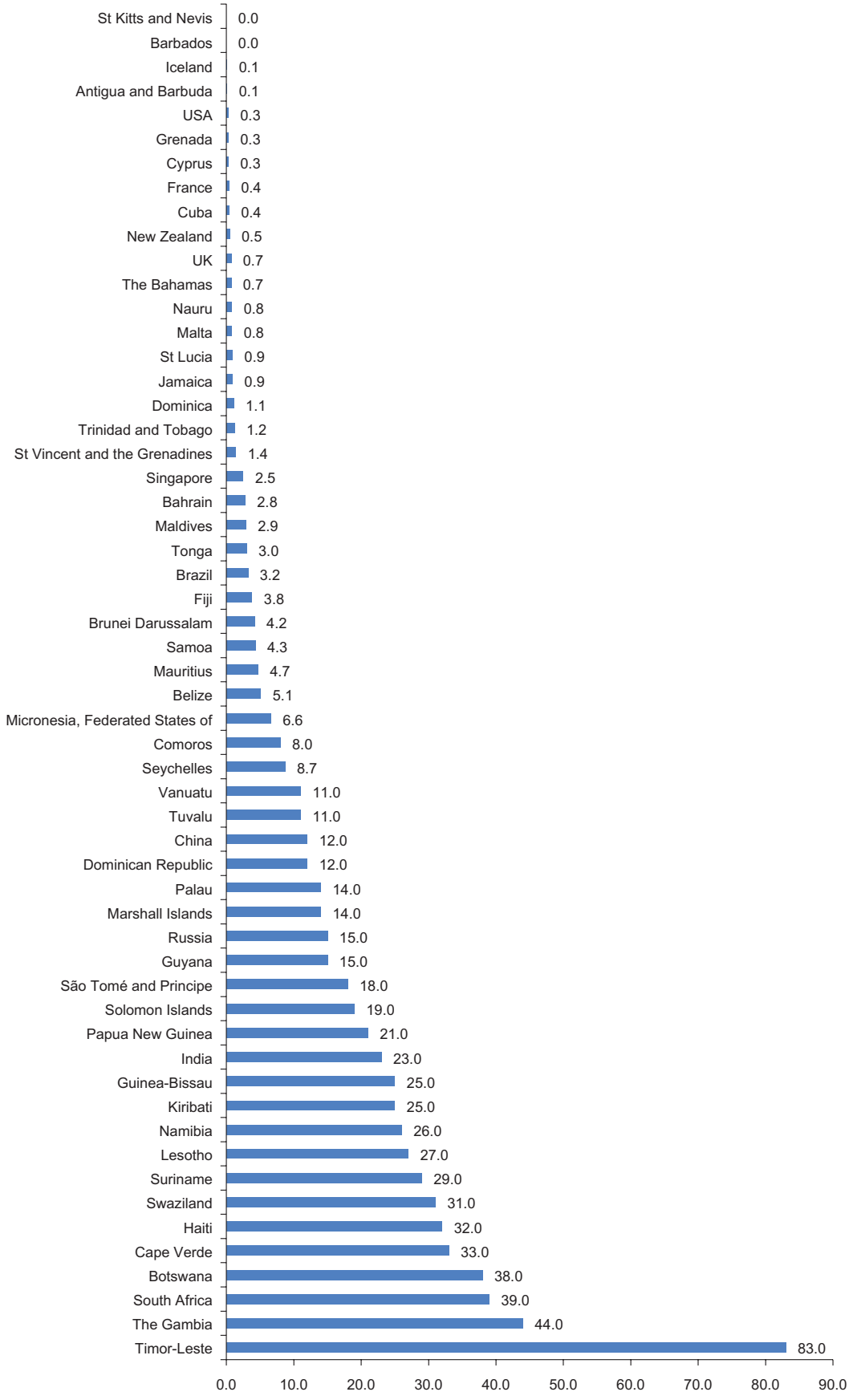
9.5 Target 6C: Indicators 6.9–6.10: Tuberculosis

The remaining commentary on MDG 6 below is on tuberculosis from five indicators (6.9a–6.10b), for which there were 11 per cent missing data for the 46 small states and 10 per cent missing data for the benchmark states.

9.5.1 Indicator 6.9a: tuberculosis prevalence rate

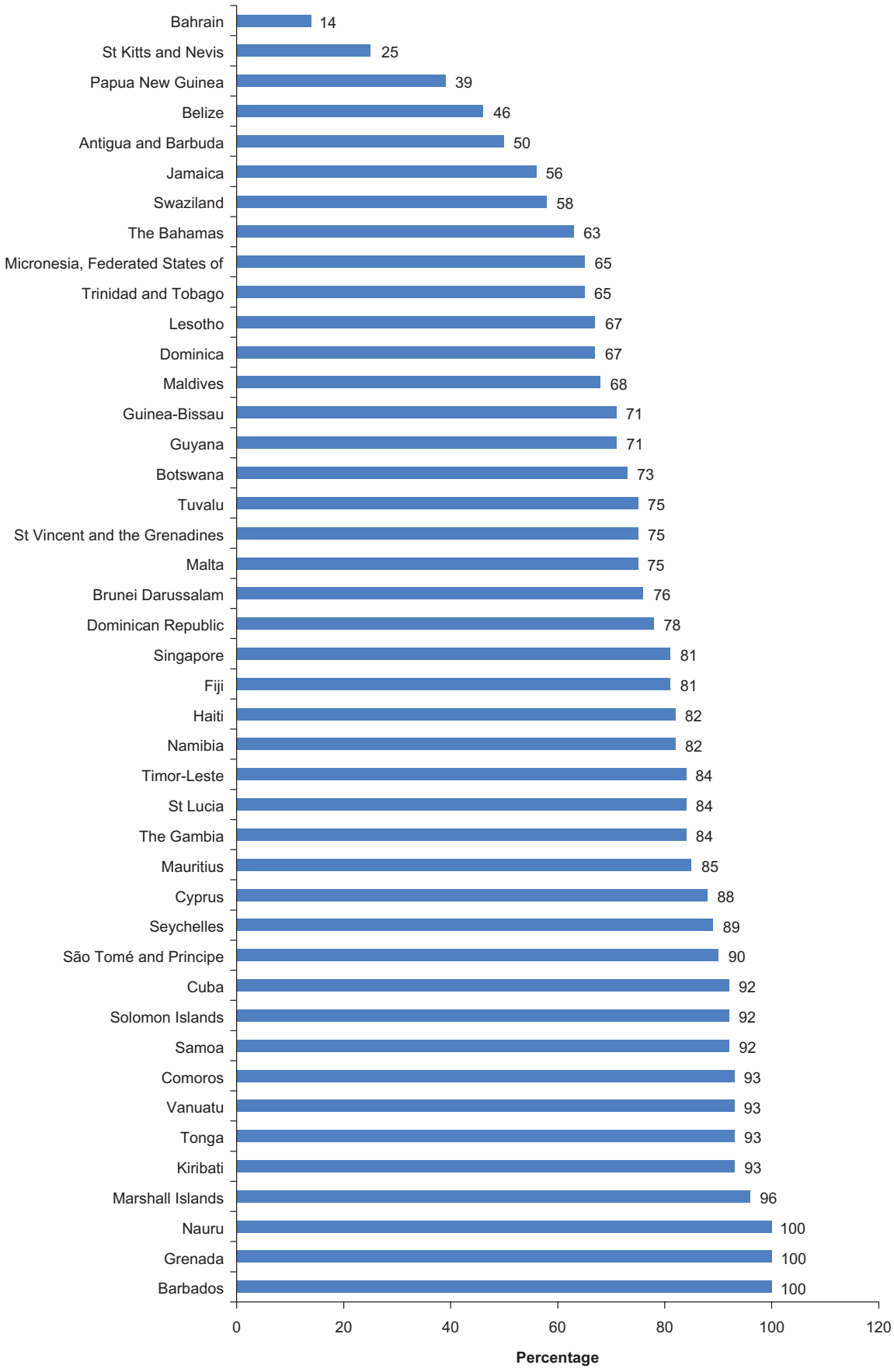
Twenty-nine (63%) of the 46 small states reduced the tuberculosis prevalence rate per 100,000 population below the 1990 baseline. Prevalence in this context means the number of existing cases present at the midpoint in the year, including old and new cases. The ten benchmark states also achieved this, with the exception of South Africa, whose 1990 baseline value of 300 per 100,000 increased to 610 by 2008.

Figure 9.2 Tuberculosis death rate per year per 100,000



Note: Data from 2008.
Source: UN MDG database 2010

Figure 9.3 Tuberculosis successful treatment rate under DOTS



Source: UN MDG database 2010

9.5.2 Indicator 6.9b: Tuberculosis death rate

Twenty-seven (59%) of the 46 small states reduced the death rate from tuberculosis per 100,000 population below the 1990 baseline. Among the 10 benchmark states, all achieved the indicator except South Africa, whose reported death rate increased from the 1990 baseline of 37 to 39 per 100,000 population in 2008.

In 2008, there were a total of 11,000 deaths from tuberculosis in the 46 small states. Eighty per cent of these deaths came from just seven countries. The highest death rates from tuberculosis per 100,000 population were in Timor-Leste (83), The Gambia (44) and Botswana (38). The lowest were in Barbados and St Kitts and Nevis, which each reported zero tuberculosis deaths in 2008. Among the benchmark states, the highest tuberculosis death rate was 39 per 100,000 population in South Africa and the lowest 0.1 in Iceland.

9.5.3 Indicator 6.9c: Tuberculosis incidence rate

This indicator measures the number of new cases per 100,000 population in the year, in contrast to indicator 6.9b, the prevalence rate, which includes old and new cases. In the 46 small states, 32 (70%) reduced the incidence of tuberculosis below the 1990 baseline. All the benchmark states except South Africa achieved a reduction in tuberculosis incidence. In South Africa the incidence of tuberculosis rose from 300 per 100,000 population in 1990 to 960 in 2008.

9.5.4 Indicator 6.10a: Tuberculosis detection rate under DOTS[1]

Thirty-two (70%) of the 46 small states were on-track to achieve a 100 per cent detection rate under the DOTS (directly observed treatment – short-course) programme. All the benchmark states were on-track, including South Africa, whose detection rate increased from 41 per cent in 1990 to 68 per cent by 2008.

9.5.5 Indicator 6.10b: Tuberculosis treatment success rate under DOTS

Twenty-five (54%) of the 46 small states increased their success rate from the 1990 level under the DOTS programme. Six (60%) of the ten benchmark states also achieved this. However, success rates declined in 16 (35%) of the small states, including Bahrain, Brunei Darussalam, Cyprus, Mauritius and Singapore. Success rates also declined in the benchmark states of Iceland, Russia and South Africa.

The Big Divide in tuberculosis treatment success among the 46 small states ranges from the lowest reported rates in Bahrain at 14 per cent, St Kitts and Nevis at 25 per cent, Papua New Guinea at 39 per cent, Belize at 46 per cent and Jamaica at 56 per cent. The highest reported success rates were in Barbados, Grenada and Nauru, all at 100 per cent. In the benchmark states the lowest reported treatment success rates were in Russia (58%) and Brazil (72%). The highest reported success rates were in India (87%) and in China (94%).

9.6 Action on MDG 6: Disease control

The major diseases identified by this MDG seriously affect economic and social development. As the report bears out, there is a wide range in risk, performance and outcomes, indicating missed opportunities for action. Concerted effort here can not only save lives and suffering, but also contribute to development. Fresh direct financing to tackle the three major diseases of developing countries has not featured highly in recent statements of financial commitment.

Two exceptions are to be found in Botswana, which has faced a major epidemic of HIV/AIDS and subsequently increased its financial support for antiretroviral therapy, and in Mauritius, which has raised its commitment to work with NGOs on HIV/AIDS, drug and alcohol abuse programmes.

The apparent systemic absence of financial commitments to the diseases highlighted in this review warrants further study. It would, for example, be of interest to explore how far the wide range of mortality from tuberculosis is linked to variation in service provision, efficiency in delivery, price at the point of service, and support through education and sensitisation of the most vulnerable groups.

Note

1 DOTS is the internationally recommended approach to tuberculosis control, which forms the core of the WHO-sponsored 'Stop TB Strategy'. The five components of DOTS are: political commitment with increased and sustained financing; case detection through quality-assured bacteriology; standardised treatment with supervision and patient support; an effective drug supply and management system; and a monitoring and evaluation system and impact measurement. The DOTS detection rate for new smear-positive cases is calculated by taking the number of new smear-positive cases treated in DOTS programmes and notified to WHO, divided by the estimated number of incident smear-positive cases for the same year, expressed as a percentage.