Methodology and data sources for projecting progress toward the Goals in table 18.1

The following discussion describes the methodology used to determine the number of lives affected by meeting the Millennium Development Goals (table 18.1). In the first scenario, labeled "current trend extrapolated to 2015," outcomes for 2005 and 2015 are estimated for each indicator by extrapolating population-weighted regional averages from 2002 figures using population projections (United Nations Population Division 2003a) and trend data for 1990–2002 (unless otherwise noted).

The "MDG scenario for 2015" is created by assuming that, subsequent to 2005, countries accelerate progress to meet the Goals in 2015 or continue on their current trajectory if the historical rate of progress exceeds what is needed to achieve the Goals. In the text, the number of lives described as improved or saved by achieving the Goals is calculated as the difference between outcomes under the MDG scenario in 2015 and the 2005 estimates.

Indicator-specific notes

Poverty headcount

Poverty headcounts are calculated as the percentage of people with incomes below $1.08 a day in 1993 PPP (purchasing power parity) dollars. Regional trends are extrapolated from data for 1990 and 2001 using estimates and regional definitions from Chen and Ravallion (2004).

GDP per capita

GDP per capita statistics are based on data from *World Development Indicators* (World Bank 2004c). All GDP data are adjusted to 2003 dollars using the OECD/DAC deflator[1] and divided by population numbers to obtain per capita GDP. Growth rates for both scenarios differ by region. In East Asia and the Pacific and in South Asia, growth rates over the past decade have been on

track to achieve the poverty headcount Goal assuming standard elasticities between growth and poverty reduction. In these regions, we assume that per capita incomes will continue to grow at 5 percent under both scenarios. For the other regions, we extrapolate current trends by using the average growth rate that the region experienced from 1990 to 2002, except in Europe and Central Asia, where we extrapolate growth rates since 1997 (as a more representative post-transition trend over five years). We project the MDG scenario for these slower growing regions by assuming an acceleration of real per capita growth to 3.2 percent.

Undernourishment

Undernourishment trends by region are calculated using population-weighted country data from 1990 and 2000 from FAO (2003a) for all regions except Europe and Central Asia, where data from 1994 to 2000 are used. Trends are extrapolated to 2005 and 2015 to estimate undernourishment under the assumption that current trends continue. The MDG scenario is calculated assuming that the share of undernourished people halves in each country between 1990 and 2015.

Child mortality

Regional under-five mortality rates are calculated using population-weighted national mortality rates (per 1,000 live births) for 1990 and 2002 and extrapolating them through 2005 and 2015. We then multiply these estimates by projected birth rates (United Nations Population Division 2003a) to calculate children's lives lost on trends. The MDG scenario is calculated by projecting a fall in mortality by two-thirds from the 1990 rate and interpolating linearly between 2005 and 2015. The number of lives lost under the MDG scenario was calculated by applying this trajectory to projected birth rates, assuming that countries that have exceeded progress required to meet the target will continue on their historic trend.

Maternal mortality

Insufficient national data are available to estimate regional averages for maternal mortality ratios. We therefore use global totals. According to statistics compiled from UNFPA, UNICEF, and WHO, the global maternal mortality ratio did not change between 1995 and 2000 (400 deaths per 100,000 live births) (WHO and UNICEF 1996; WHO, UNICEF, and UNFPA 2003). We assume further that it remains unchanged through to 2005. Since the worldwide rate was 430 per 100,000 live births in 1990, achieving the Goal would require reducing the worldwide rate to 108 (a 75 percent reduction). So under the MDG scenario the maternal mortality ratio will fall linearly from 400 in 2005 to 108 in 2015. If current trends continue, the maternal mortality ratio will stay constant at 400 through to 2015. We calculate the number

of deaths under the two scenarios, and then take the difference between the outcome under the MDG scenario in 2015 (of meeting the maternal mortality ratio target of 108 deaths per 100,000 live births) and the 2005 estimates to determine the number of lives that would be saved.

New HIV infections prevented

Data and calculations are from Stover and others (2002), who project the cumulative number of new HIV infections between 2002 and 2010 in a baseline trajectory and compare it with an expanded response scenario, as outlined in the July 2001 United Nations General Assembly Special Session (UNGASS). The difference between these two scenarios yields the infections averted by an expanded response by 2010. Although the expanded response scenario is not extended through 2015 and uses assumptions that differ slightly from those recommended by the UN Millennium Project Working Group on HIV/AIDS, it illustrates what an MDG scenario for HIV/AIDS might look like.

Water and sanitation

We use data on access to improved water supply and sanitation from the WHO/UNICEF Joint Monitoring Program (WHO and UNICEF 2004). As for other indicators, we extrapolate current trends, estimate an MDG scenario, and calculate the difference between the outcomes under the MDG scenario in 2015 and the 2005 estimates to determine the number of lives affected between 2005 and 2015.

Individuals living in slum conditions

We use country-level statistics for urban populations in 2001 (United Nations Population Division 2003a) and the proportion of urban populations living in slums (UN-HABITAT 2003) to determine the number of slum dwellers today. The number of slum dwellers in 2020 given current trends is estimated by holding constant the share of urban populations living in slums and multiplying it with projected urban populations in 2020 (United Nations Population Division 2001, 2003a). The MDG scenario is estimated by holding constant the total number of slum dwellers in 2001, assuming that the formation of new slums will be halted, and subtracting a further 100 million people in accord with target 11. The 100 million were distributed across the regions on a pro rata basis.