quality of the information available. Ghys says the data improved after local health officials were trained how to use more comprehensive computer programs to produce and analyze their own information. “In the past, estimates were largely a Geneva-based exercise, with little involvement from the countries,” he says. “If analysts produce their own estimates, they take it more seriously than if it ‘dropped out’ of Geneva.”

Many countries have also expanded their surveillance systems. Until recently, HIV and AIDS estimates were based on tests of pregnant women visiting antenatal clinics, mostly located in cities. The tests were useful in tracking trends, but had limitations for measuring the actual size of the epidemic. Since 2000, a group of 20 countries in sub-Saharan Africa has conducted nationwide household surveys with HIV testing, and some have expanded their surveillance to antenatal clinics in rural areas. When they looked at their respective countries as a whole, researchers in several countries discovered that the prevalence of HIV infection was far lower than previously thought.

Some commentators say the programmes still have a long way to go. John Donnelly, who writes about global health issues for the Boston Globe, argues that UNAIDS and WHO have been far too conservative in downgrading their estimates. Donnelly believes that as more information is gathered, HIV/AIDS prevalence figures will continue to drop. He says that instead of downgrading the figures slowly, it would be “more honest” to admit that information from countries that haven’t done nationwide health surveys is inaccurate, and to adjust the worldwide estimate based on results from those countries that have done the surveys. “The global estimate is an advocacy tool, and it [downgrading the numbers] would be a huge embarrassment,” he says. “But it would help national governments refocus their programmes.”

According to Dr Ties Boerma, Director of WHO’s Department of Measurement and Health Information Systems, “this may have been valid before the 2006 Report on the global AIDS epidemic — but not any more”. Nevertheless, Kenji Shibuya believes that harmonization still has a long way to go. Boerma agrees: “We won’t get the truth easily.”

Much more investment is needed in developing countries to improve data collection, such as national health surveys, says Boerma. But even for countries that do carry out national health surveys, there is no guarantee of accuracy. In South Africa, for example, response rates to national health surveys are under 60% and even lower than this among the white population, making it hard to assess how representative the surveys are. Countries also rely on health workers to report diseases, but in many developing countries record-keeping and reporting are poor.

Another challenge is the availability of multiple sources of data — surveys, civil registration and health facility and administrative records. These data need to be harmonized to come up with the best possible estimates, Boerma says. Another challenge, he says, is “an inclination to overestimate” for the sake of advocacy.

Boerma admits that it may never be possible to come up with just one number when estimating the burden of a disease or the size of an epidemic, because there will always be a range of uncertainty. Moreover, although there may always be disagreements over the final estimates these often lead to constructive discussion and better information. “The best we can do is to be completely transparent,” he says. “And if there is a disagreement to explain very clearly why.”

Anita Elash, Paris

XVI International AIDS Conference in Toronto, Canada

An estimated 20 000 people descended on the Canadian city of Toronto in August for the International AIDS Conference. Participants at the meeting included scientists, health-care workers, activists and civil, political and business leaders. The conference theme was “Time to Deliver” and delegates called on the world to take whatever steps were necessary to ensure HIV/AIDS treatment and care were available for all who needed them by 2010.

Thousands of people fill the streets of Toronto to rally for AIDS treatment.

The Dance4Life group, which uses dance to raise AIDS awareness among young people, entertains the crowd during a special concert held on the opening day of the meeting.

Prevention outreach workers in the conference hall.