

Strengthening National Statistical Systems to Monitor Global Goals

- The new development framework that will replace the Millennium Development Goals (MDGs) after 2015 will require a “data revolution”. To achieve this, the international community needs to agree on a global statistical strategy and a global partnership to co-ordinate and deliver it.
- PARIS21 (the Partnership in Statistics for Development in the 21st Century) offers a ready-made structure on which to found such a global partnership and begin co-ordinating a participatory debate on the data and capacity needed worldwide to rise to the challenge of monitoring the post-2015 development framework.
- The MDG monitoring process has prompted an impressive increase in statistical capacity and data availability across the developing world, but more needs to be done. Challenges for the post-2015 agenda include better aligning international monitoring with national data, dealing with conflicting data sources and statistics, and closing further the gap between data needs and supply.
- The Busan Action Plan for Statistics provides a useful framework through which statistical capacities can continue to be developed. This plan emphasises the role of National Strategies for the Development of Statistics (NSDSs), a strategic approach bringing together and co-ordinating between the different data users and producers. However, NSDSs would need new priorities and to be backed up with more financial investment so that international efforts support these national statistical systems rather than side-line or undermine them.

Introduction

A “data revolution” is needed according to a recent report by the High Level Panel (HLP) of Eminent Persons on the post-2015 development goals. The HLP’s vision for the new framework aims to ensure the production of more and better data and statistics to help governments track progress, to make sure their decisions are evidence-based, and also to strengthen accountability (HLP, 2013).

Based on lessons drawn from the MDG process, this paper proposes some next steps needed for tracking the post-2015 development goals. It shows how the need to monitor the MDGs has influenced the production and availability of data, and the development of national statistical capacities. It also highlights certain problems that will need to be resolved for proper tracking of the post-2015 agenda, including: the misalignment between international monitoring and national data; how to deal with conflicting data sources; and the need for sustainable capacity development in countries. These obstacles can be overcome if post-2015 goals and indicators are defined through consultation with national statistical communities, and if investments in data collection and analysis and survey documentation and dissemination are increased at a national level. The work of PARIS21, hosted within the OECD, could be instrumental in ensuring that data demands for monitoring global goals are properly aligned with the need for national statistical capacity development.



Box 1. The Partnership in Statistics for Development in the 21st Century (PARIS21)

The Partnership in Statistics for Development in the 21st Century (PARIS21, www.paris21.org) is a global partnership of statistical producers, users, donors and technical partners, from both developed and developing countries. PARIS21 works on improving national statistical capacity and co-ordination while advocating for the better use of statistics in the decision-making process at national, regional and international levels. One of its key achievements has been to help over 100 countries develop National Strategies for the Development of Statistics (NSDS), providing vision and guidance for the development of statistical systems. In 2013 PARIS21 was mandated to act as the Secretariat for the implementation of the Busan Action Plan on Statistics (BAPS).

Many PARIS21 stakeholders are at the forefront of surveying techniques and are taking part in the International Household Survey Network (IHSN, www.ihsn.org) which fosters co-ordination among international organisations and agencies. The IHSN is complemented the Accelerated Data Program (ADP, www.ihsn.org/adp) which supports better quality and access to survey data. Both programs are jointly run by a World Bank/PARIS21 secretariat.

What has the MDG process taught us about goal measurement?

Countries have risen to the challenge of providing more data

There is wide consensus in the academic literature that the MDGs' monitoring requirements have created a significant challenge for statistical communities. States have been called on to deliver high quality, internationally comparable data – particularly in the social sectors, where these types of data did not exist or were very scarce in individual countries (Prabhu, 2005; Kiregyera, 2007). Many countries have risen to this challenge: more than a decade after the MDGs were agreed, data availability for the majority of the indicators has improved across 174 developing countries (UN Statistics Division, n.d.). In fact, the percentage of countries that produced sufficient data to provide trend analysis for 16 22 MDG indicators rose from 2% in July 2003 to 83% in July 2012 (UN, 2012).

Household surveys provide the main data source for monitoring MDGs and other development indicators (Boerma and Stansfield, 2007; Prabhu, 2005; Carr-Hill, 2013), and their use has increased since the launch of the MDGs. For example, Ethiopia, Ghana and India all notably increased their surveys and censuses after the establishment of the MDGs in 2000.* In Ethiopia and Ghana, the average number of surveys produced each year almost doubled. Development co-operation agencies have been an important driving force behind this increase, although the extent of donor impact on data production varies by country. In India, the survey activities were fully funded from domestic sources. In Ethiopia, the funding for surveys after 2000 came from both external and domestic sources, whereas Ghana relied almost entirely on external support for its survey activities before and after 2000.

Data and analysis gaps remain

However, in contrast to the increase in household surveys, other sources of MDG monitoring data have seen much slower development nationally. For example, there has been virtually no progress in improving birth and death registration globally (Chan et al., 2010). Only a quarter of South Asian countries and less than half of Latin American and Caribbean countries have complete civil registration systems, with no progress since 2005 (World Bank, n.d.). In sub-Saharan Africa this proportion drops to 6%. In some cases data drawn from household surveys can complement registration systems' estimates of vital statistics, where these data are missing or incomplete (Prabhu, 2005; UNICEF, 2008), but survey data are not ideal for all indicators (Boerma and Stansfield, 2007). Co-ordination between the production of statistics in national statistical offices and administrative sources such as those of registration systems therefore merits improvement.

* According to information from the National Data Archives (NADA): a web-based cataloguing tool for national data archives developed and maintained by the International Household Survey Network (IHSN).

Inadequate investment in and assistance for data production, along with the general under-investment in data analysis in individual countries, have left gaps in MDG data (Boerma and Stansfield, 2007; Chan et al., 2010; Prabhu, 2005; Attaran, 2005). Household surveys also tend to under-represent the poorest; according to one estimate, about 250 million people are missing worldwide from the sampling frames of existing surveys and censuses used to monitor progress towards development goals (Carr-Hill, 2013).

National data are not always included in the MDG monitoring process

The increasing amount of data produced nationally has, generally speaking, not found its way into the global monitoring exercise. In its latest report on MDG monitoring, the UN acknowledged that “not all data produced at the national level reach the international statistical system” (UN, 2012). Even when country data are used, they may not agree with data from other sources. For example, for Nepal’s indicator on net enrolment ratio in primary education (MDG indicator 2.1), the UN-reported data seem to be consistent with the country’s administrative sources; however, there are huge discrepancies between UN-reported data and estimates produced by Nepal’s Central Bureau of Statistics, which were calculated from surveys (Pedersen and Roll-Hansen, 2011).

Furthermore, the UN estimates values “when corresponding country data on a specific year or set of years are not available, or when multiple sources exist, or there are issues of data quality” (UN, 2012). Even though the UN bases its estimates on national data, documentation on the source and methodologies are often unclear. In fact, the methods used by international agencies such as the UN for estimates have raised questions about the validity of methodologies and reliability of MDG statistics (Murray, 2007; Boerma and Stansfield, 2007; Devarajan, 2013; Prabhu, 2005). These methods are crude, often based on predictive models and educated guesses without any empirical measurement (Murray, 2007). The process results in vague estimates that do not provide any meaningful measurement of progress towards this target (Murray, 2007; Attaran, 2005). Moreover, countries object strenuously to the estimates, and national policy makers reject them (AbouZahr et al., 2007).

A number of factors have contributed to the underuse of national statistics in tracking the MDGs: poor co-ordination, deficiencies in reporting mechanisms, and the challenge for states in complying with international standards (Sanga, 2011; Kiregyera, 2007; Wold, 2005; Devarajan, 2013; Prabhu, 2005). Within the same country different sources (such as surveys and administrative data) can yield different results when subject to different biases (Prabhu, 2005; Kiregyera, 2007; Boerma and Stansfield, 2007; Chan et al., 2010). A lack of uniform definitions across countries poses an even greater challenge for aggregating data and comparing progress internationally (Kiregyera, 2007). However, the situation is gradually improving. Inter-agency initiatives in data reconciliation are reducing discrepancies for particular indicators (AbouZahr et al., 2007), and data quality is improving (Wold, 2005).

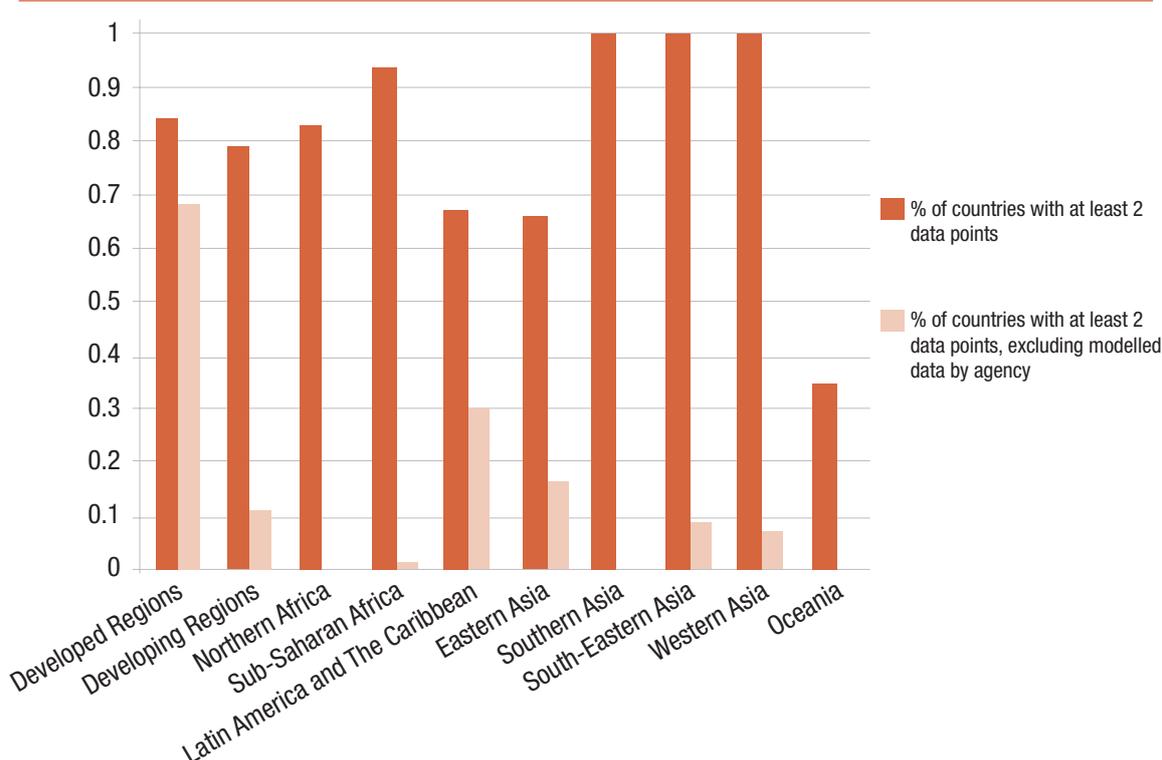
Global data estimates sometimes undermine national systems

Linked to the challenge of using national data for international monitoring is the need to better align national and international efforts to strengthen statistical capacity and monitoring. Despite the marginal uptake of national data, the MDG monitoring exercise has nonetheless strengthened partnerships and co-ordination between national and international statistical systems, and improved statistical capacity development (UN, 2013). However, the process for defining MDG indicators and methodologies often involved little prior consultation with national statistical systems, despite the fact that they are the main providers of data (Prabhu, 2005; Wold, 2005; AbouZahr et al., 2007).

When the process of defining indicators and priorities for data collection is driven purely by external actors, the resulting global monitoring has little relevance to individual countries. The maternal mortality indicator, for example, was developed by international agencies with minimal national involvement (AbouZahr et al., 2007). Up until 2012, while 79% of developing countries had sufficient data in the MDG database to enable trend analysis for this indicator (including 100% of the southern, south-eastern, and western Asian

countries); the availability drops to only 11% of all developing countries when estimates from international agencies are excluded (Figure 1). In fact, all of the data available for northern Africa, southern Asia, and Oceania have been estimated by UN agencies. Yet countries with the least satisfactory data on deaths and births, and whose maternal mortality rates have to be estimated, are exactly those in which the maternal mortality problem is likely to be the most severe (Attaran, 2005).

Figure 1: Data availability for maternal mortality ratio per 100 000 live births*



Source: UN Statistics Division (2012), Data Availability by Series and MDG Region, UN Millennium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/DataAvailability.aspx#Capacity> (<http://mdgs.un.org/unsd/mdg/DataAvailability.aspx#Capacity> (accessed on 14 April 2013)).

* Right axis: two data points are the minimum needed to analyse trends for a given MDG indicator.

For countries dependent on external support, the quality and relevance of global monitoring data have even greater consequences. First, inconsistencies between national and international estimates tend to undermine national statistics (Kiregyera, 2007). In addition, the statistics and analytical work of development co-operation agencies are used to set priorities for external support or official development assistance (ODA) (AbouZahr et al., 2007). Furthermore, for their own decision making and resource allocation, developing countries themselves often draw on global data rather than national data (AbouZahr et al., 2007).

Towards a “data revolution” for the post-2015 framework

Despite, or perhaps as a direct result of, the difficulties in measuring MDG progress as outlined above, the post-2015 development framework is expected to rely heavily on data. The HLP report calls for a “data revolution” that would “fully integrate statistics into decision making, promote open access to, and use of, data and ensure increased support for statistical systems” (HLP, 2013). This approach is in fact taken verbatim from the Busan Action Plan for Statistics (Box 2) – a global initiative to support transparency, accountability and results agreed at the Fourth High Level Forum (HLF-4) on Aid Effectiveness (PARIS21, 2011).

Box 2. The Busan Action Plan for Statistics

At the HLF-4 held in Busan in 2011, PARIS21 and the World Bank proposed a Busan Action Plan for Statistics to:

1. Fully integrate statistics in decision making: Engaging statisticians in planning, budgeting, and monitoring and evaluation processes and developing capacities to produce data relevant to user priorities.
2. Promote open access to and use of data: Making data widely available to manage for results, enhance government effectiveness, and increase public confidence.
3. Increase resources for statistical systems: Promoting domestic allocations to statistics and integrating and aligning external support to statistics into development assistance programmes.

The plan aims to:

- strengthen and re-focus national statistical strategies to produce the data that support country-level development priorities;
- improve accessibility of statistics and implement standards enabling full public access to official statistics;
- develop programmes to increase the knowledge and skills needed to use statistics;
- ensure that outcomes of global summits and high-level forums specifically recognise the need for statistical capacity development; and
- ensure that financing for statistical information is robust.

See: <http://paris21.org/busan-action-plan>.

Source: PARIS21 (Partnership in Statistics for Development in the 21st Century) (2011), *Statistics for Transparency, Accountability, and Results: A Busan Action Plan for Statistics*, PARIS21, Paris, <http://paris21.org/busan-action-plan>.

New data sources

For those countries who already struggle to produce indicators in the MDG framework, measuring progress towards the more sophisticated goals proposed by the HLP (such as gender equality and renewable energy) will be even more challenging. To support this data revolution and improve the quantity, frequency, disaggregation and availability of relevant statistics, the HLP advocates the use of new sources of data made possible by innovations in mobile technology. “Big data” – the deluge of new forms of information from mobile phones, satellite imagery, social media, call logs, online transactions, and so on – has great potential to fill data gaps. These “unofficial” sources of data will undoubtedly put pressure on official statistical systems to collaborate more broadly and to rethink their role in providing the information that decision makers need. By leveraging the expertise of telecommunications companies and software developers, for instance, national statistical systems could potentially reduce costs and improve the availability of data to monitor development goals. However, in the absence of such broader collaboration, official statisticians risk obsolescence, since big data will become increasingly attractive to data users. Moreover, without co-ordination, big data may add to the cacophony of data discrepancies described above.

Stronger capacity for better and more reliable data

If monitoring the post-2015 development framework is to work, data demand must be co-ordinated with national statistical capacity development. This will ensure that countries can produce reliable and relevant data and statistics for global monitoring. To match data supply with demand and maximise limited resources, many countries are developing a National Strategy for the Development of Statistics (NSDS – see Box 3).

So that international efforts support national statistical systems rather than sideline or undermine them, the set statistical strategies will need to integrate the post-2015 priorities and be backed up with more financial investment.

Box 3. What is a National Strategy for the Development of Statistics?

An NSDS is a strategy for developing statistical capacity across a country's entire national statistical system (NSS). The NSDS provides a vision for where the NSS should be in five to ten years and sets milestones for getting there. It presents a comprehensive and unified framework for continually assessing evolving user needs and priorities for statistics, and for strengthening the capacity required to meet these needs in a more co-ordinated, synergistic, and efficient manner. It also provides a framework for mobilising, harnessing, and leveraging resources (both domestic and external) and a basis for effective and results-oriented strategic management of the NSS. As of March 2013, 96% of developing countries had an NSDS in place or were planning one for the near future (PARIS21, 2013).

Source: PARIS21 (n.d.) National Strategies for the Development of Statistics, PARIS21 website, <http://paris21.org/NSDS>.

The Busan Action Plan for Statistics (Box 2) represents an explicit and high-level political commitment on the way forward for statistical development, and makes NSDSs a top priority.

A global data partnership to co-ordinate the measurement challenge

The HLP also recommends “establishing a Global Partnership on Development Data” whose first task would be to “develop a global strategy to fill critical gaps, expand accessibility, and galvanise international efforts to ensure a baseline for measuring post-2015 targets is in place by January 2016” (HLP, 2013). The logical starting points for this global partnership and strategy are the Partnership in Statistics for Development in the 21st Century (PARIS21), hosted by the OECD, and the Busan Action Plan. PARIS21 is the only international initiative bringing together data users, producers, developing countries, and providers of development co-operation. Its mandate is the same as that of the proposed Global Partnership, and it is ideally placed to draw together national statisticians to set global goals and monitor plans, and to facilitate an inclusive debate on priorities for a global statistical strategy. PARIS21 is already working to resolve the dilemmas of comparability and relevance outlined above, and make better use of national data sources by supporting data source reconciliation, dissemination of microdata, and survey documentation. But more support is needed to fully tackle this global challenge.

Creating a global strategy for statistics requires, first, identifying and quantifying user needs (including, but not limited to, those expressed in the post-2015 development framework), providing a critical assessment of statistical capacities globally and analysing gaps between the two. This baseline inventory of data needs and statistical capacity could form the basis of a more effective global data system. PARIS21 has already begun talks with a number of partners to conduct such an assessment and remains committed to supporting an improved global data system that better serves development.

Conclusion

The post-2015 agenda will require reliable, timely and comparable data, from both traditional and new sources. To ensure that countries are adequately resourced to provide these data, strategies must be agreed, adopted and implemented at national and global levels. Initiatives and frameworks already exist – such as PARIS21 and the Busan Action Plan for Statistics – to take this work forward, and the global community should build on these foundations.

REFERENCES

- AbouZahr, C., S. Adjeiand and C. Kanchanachitra (2007), "From data to policy: Good practices and cautionary tales", *The Lancet*, Vol. 369, pp. 1039 46.
- Attaran, A. (2005), "An immeasurable criticism of the Millennium Development Goals and why they cannot be measured", *PLOS Medicine*, Vol. 2(10), PLOS, San Francisco.
- Boerma, J. T. and S.K. Stansfield (2007), "Health statistics now: Are we making the right investments?" *The Lancet*, Vol. 369, pp. 779 86.
- Carr-Hill, R. (2013), "Missing millions and measuring development progress", *World Development*, Vol. 46, Elsevier, London, pp. 30 44.
- Chan, M., M. Kazatchkine, J. Lob-Levyt, T. Obaid and J. Schweizer (2010), "Meeting the demand for results and accountability: A call for action on health data from eight global health agencies", *PLOS Medicine*, Vol. 7(1), PLOS, San Francisco.
- Devarajan, S. (2013), "Africa's statistical tragedy", *Review of Income and Wealth*, International Association for Research in Income and Wealth, Ottawa.
- HLP (High-Level Panel of Eminent Persons on the Post-2015 Development Agenda) (2013), *A New Global Partnership: Eradicate Poverty and Transform Economies Through Sustainable Development. The Report of the High-Level Panel of Eminent Persons on the Post-2015 Development Agenda*, UN, New York.
- Kiregyera, B. (2007), "Statistics for managing for results: Challenges, new initiatives and prospects for improving statistical systems in Africa", *African Statistical Journal*, Vol. 5, African Development Bank, Tunis, pp. 135 159.
- Murray, C. J. (2007), "Towards good practice for health statistics: Lessons from the Millennium Development Goal health indicators", *The Lancet*, Vol. 369, pp. 862 873.
- PARIS21 (Partnership in Statistics for Development in the 21st Century) (2013), *National Strategies for the Development of Statistics (NSDS) Progress Report: NSDS Summary Table for IDA and Lower Middle Income Countries*, PARIS21, Paris: http://paris21.org/sites/default/files/NSDS_Status_Table_Mar2013.pdf.
- PARIS21 (2011), *Statistics for Transparency, Accountability, and Results: A Busan Action Plan for Statistics*, PARIS21, Paris.
- PARIS21 (n.d.) *National Strategies for the Development of Statistics*, PARIS21 website, <http://paris21.org/NSDS>.
- Pedersen, S. I., and D. Roll-Hansen (2011), *Millennium Development Goals (MDG) Database. Metadata for Nepal*, 2011, Statistics Norway, Oslo.
- Prabhu, K. S. (2005), "Social statistics for Human Development Reports and Millennium Development Goal Reports: Challenges and constraints", *Journal of Human Development*, Vol. 6(3), Taylor and Francis Group, Oxford, pp. 375 397.
- Sanga, D. (2011), "The challenges of monitoring and reporting on the Millennium Development Goals in Africa by 2015 and beyond", *African Statistical Journal*, Vol. 12, African Development Bank, Tunis, pp. 104 118.
- UN (United Nations) (2012), *Indicators for Monitoring the Millennium Development Goals*, UN, New York, <http://unstats.un.org/unsd/statcom/doc13/2013-21-Indicators-E.pdf>.
- UN (2013), *Lessons Learned from MDG Monitoring*, UN, New York.
- UNICEF (United Nations Children's Fund) (2008), *Bridging the Gap: The Role of Monitoring and Evaluation in Evidence-Based Policy Making*, UNICEF, Geneva.
- UN Statistics Division (2012), *Data Availability by Series and MDG Region*, UN Millennium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/DataAvailability.aspx#Capacity> (<http://mdgs.un.org/unsd/mdg/DataAvailability.aspx#Capacity> (accessed on 14 April 2013).
- UN Statistics Division (n.d.), *Data Availability by Country*, UN Millennium Development Goals Indicators, <http://mdgs.un.org/unsd/mdg/Default.aspx> (accessed on 14 April 2013).
- Wold, B. K. (2005), "A social statistics systems for the Millennium Development Goals?" *Forum for Development Studies*, Vol. 32(1), Taylor and Francis Group, Oxford, pp. 219 242.
- World Bank (n.d.), *The Bulletin Board on Statistical Capacity (BBSO) (database)*, <http://go.worldbank.org/QVSQL1R6V0> (accessed on 14 April 2013).

The United Nations (UN) Millennium Development Goals (MDGs) were established in 2000/1 and consist of eight development objectives to be achieved by 2015. It is widely agreed that the MDGs have been effective in mobilising worldwide awareness, leveraging resources, guiding global development efforts and increasing accountability. It is also impressive how close the world will get to most of the MDGs by 2015. There is need, however, for a successor framework once the MDGs expire in 2015 to keep the momentum built to date. The OECD played a pivotal role in defining the MDGs. With two years to go, the OECD is increasing its efforts to support the achievement of the MDGs, and at the same time thinking about how it can help the UN in developing a new agenda and framework post-2015. The OECD has a number of areas of expertise which could play an important role in shaping this post-2015 agenda and framework. In the overview brochure for this series, the OECD proposes eleven areas which would be of particular relevance (Beyond the MDGs: Towards an OECD contribution to the post-2015 agenda). This brochure focuses on strengthening national statistical systems to monitor global goals.

- Element 1: Measuring what you treasure and keeping poverty at the heart of development
- Element 2: Developing a universal measure of educational success
- Element 3: Achieving gender equality and women's rights
- Element 4: Integrating sustainability into development
- Element 5: Strengthening national statistical systems**
- Element 6: Building effective institutions and accountability mechanisms
- Element 7: Developing and promoting peacebuilding and statebuilding goals
- Element 8: Ensuring policy coherence for development
- Element 9: Sharing knowledge and engaging in policy dialogue and mutual learning
- Element 10: Promoting the Global Partnership for Effective Development Co-operation
- Element 11: Measuring and monitoring development finance

For more information contact Johannes Jütting (johannes.juetting@oecd.org).

