

## Impact and effectiveness hub

From the Global Development Professionals Network

# A geek's guide to measuring the MDGs

An effective post-2015 development agenda will depend in part on our ability to understand how well current targets are doing – and for that, nothing's better than statistics

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Charting MDG progress until the 2015 deadline will help policymakers decide what happens next. Photograph: Karen Beard/Getty Images

As 2015 and the end of the MDGs approaches, policymakers are gathering for high-level panel discussions to answer the question: "what next?".

Deciding what comes next will depend in part on how well the MDGs have performed and to know that, performance must be measured. While setting sensible goals and providing data about implementation are both necessary preconditions for any post-2015 interventions, we also need statistical measures that are transparent and easily understood by everyone.

Time-distance is a novel statistical measure that is being used to determine the performance of the MDGs. As a means of measuring, analysing, and communicating on the implementation process, the time-distance measure contributes new insights to help policymakers and other stakeholders understand reality better.

## How does the time-distance measure work?

Measuring implementation involves comparing two sets of data: actual developments over time against the implied time path from the starting point to the 2015 MDG target deadline. Firstly, one can measure the difference in variables – such as child mortality rates – at a given point in time. And secondly, discrepancies in time (either time lead or time lag) are measured.

Monitoring implementation is like comparing train or bus arrivals with the timetable provided for each mode of transport. In the context of the MDGs, it amounts to comparing the time of actual implementation with the time stipulated by the schedule to the 2015 target. The statistical chart uses the same identifiers as Formula 1 on TV: drivers who score a minus at time distance are shown in green to signify that they are ahead in time. The point is to ascertain if the developing world is on track, ahead or behind schedule to achieving MDG goals (see the graph below).

## Gaptimer progress chart for world regions

Are we on the track, ahead, or behind?

Indicator	Developing Regions	Northern Africa	Sub-Saharan Africa	Latin America and the Caribbean	Eastern Asia	Southern Asia	South-Eastern Asia	Western Asia	CHINA	INDIA
Proportion of population living below \$1 (PPP) per day (2008)	-6.3	TA (2005)	10.0	-5.4	TA (2005)	1.4	TA (2005)	-1.6	TA (2002)	1.8
Prevalence of underweight children under-five years of age	1.0	0.0	7.9	TA (2010)	TA (2010)	1.4	-2.6	TA (2010)	TA (2005)	5.9
Net enrolment ratio in primary education	6.4	-0.5	5.5	2.6	N/A	1.5	9.9	6.2	N/A	-5.5
Ratio of girls to boys in primary education	0.3	1.2	5.0	N/A	TA (1999)	-3.2	2.9	5.7	TA (2001)	TA (2008)
Under-five mortality rate	6.9	TA (2010)	8.6	-1.5	-3.4	3.7	-0.6	0.4	-3.4	3.0
Maternal mortality ratio	4.9	-2.0	6.3	5.7	-3.1	-0.9	-1.1	0.6	-3.1	-2.2
Tuberculosis patients successfully treated under short course (2009)	4.2	7.1	3.2	6.7	2.4	2.9	5.2	3.6	5.4	8.4
Proportion of population using an improved drinking water source, total	TA (2010)	0.6	6.9	TA (2010)	TA (2010)	TA (2010)	TA (2010)	6.4	TA (2003)	TA (2003)
Proportion of population using an improved sanitation facility, total	2.6	TA (2010)	16.0	0.8	TA (2010)	5.9	-2.0	7.1	TA (2009)	6.6
Internet users per 100 inhabitants (2011)	-3.9	TA (2011)	-1.5	TA (2011)	TA (2011)	-0.7	-3.8	TA (2011)	TA (2009)	-1.1

An overview of the situation in the 7 world regions:

2015 Target achieved	18 cases
Time lead	17 cases

Time lag less than 6 years	21 cases
Time lag 6 years or more	12 cases

MDGs measured by

S-time-distance in years (+ time lag, - time lead) comparing the 2010 achievements to the schedule of the 2015 MDG targets.

Based on the chart, one can see that the actual under-five mortality rate for developing regions in 2010 was 63 deaths per 1,000 births – a target which was supposed to be attained in 2003. Plotting this indicator on the 2015 target line shows that there is a 6.9 year delay. The table enables the reader to grasp the world situation at a glance from 100 time distance results across 10 MDG indicators and 10 units (seven world regions, developing regions, China, and India) to facilitate debate on post-2015 targets.

Time-distance complements rather than replaces other methods, for a realistic picture we need all of them. Besides money, time is one of the most important reference frameworks in a modern society, and as such, measuring time-distance has the advantage that it is intuitively understandable to policymakers, civil society, experts, media, and the general public.

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## Other methods and other applications of time distance measure

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There are other ways to measure MDG implementation. One quantitative measure is to use percentage deviations of actual values from the lines to 2015 targets. The problem with percentages is that the desired direction of change is for some indicators increasing and for some decreasing, which makes understanding the results more difficult.

The [UN MDG progress chart](#) in their yearly reports deals with qualitative judgments and is very useful for a quick assessment of this complex issue. The [Gaptimer progress chart](#) adds a more transparent picture of quantitative results in the time perspective for selected indicators.

Data on actual implementation is available at the UN MDG data site; one has only to calculate the implied progress from the starting point to the 2015 target value. The [National Statistical Co-ordination Board in the Philippines](#), is an example of how one policymakers in one country use the time-distance measure of MGDs implementation together with other measures.

Results for [five MDG indicators](#) for 111-140 developing countries and [other applications](#) are also available. A free software tool for [time distance monitoring](#) for MDGs and other topics is available that can be used by international and national organisations, NGOs, experts, businesses, managers, educators, students, interest groups, media, and the general public. And its value extends beyond the MDGs; it can be useful for monitoring implementation in many areas like state budgets and planning, both at macro and business levels.

As the EU learnt when it moved from the [Lisbon Strategy](#) to [National Reform Programmes](#), equal percentage targets for all regions and countries are unrealistic. They must reflect individual circumstances and priorities.

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## Conclusions

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Time-distance helps to interpret information at many levels for decision making, strengthening the capacity of decision-makers to understand what is really happening and encourage broader participation. Describing the implementation of the [millennium development goals](#) as leading or lagging in time against well-known targets enhances knowledge, giving data a value beyond spreadsheets.

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**Editor's note:** Can statistical tools effectively measure development outcomes and more specifically the MDGs? What do you think of the tools Pavle has developed? Tell us in the comments below.

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