

10

THINGS TO KNOW ABOUT DEVELOPMENT AND THE DATA REVOLUTION

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1

DATA COULD TRANSFORM GLOBAL DEVELOPMENT – BUT WE NEED TO FILL THE GAPS

The data revolution has the potential to lead to sharper, more targeted, better-monitored policies. It could even transform power relations between citizens, governments and businesses. Used well, data can help people reach a clearer picture of their lives – and use the evidence for progress. But people remain uncaptured and big gaps in our knowledge remain.



2

ESTIMATES COULD BE DOWNPLAYING EXTREME POVERTY BY A QUARTER

Data on poverty can be patchy. For example, household surveys often exclude people who live outside typical households, or who are displaced – and undercount others, such as slum residents. As a result, they could be missing up to 350 million people worldwide and resulting estimates could be downplaying extreme poverty by 25% or more.



**350 MILLION
PEOPLE
GLOBALLY MAY
BE MISSING
FROM
HOUSEHOLD
SURVEYS**

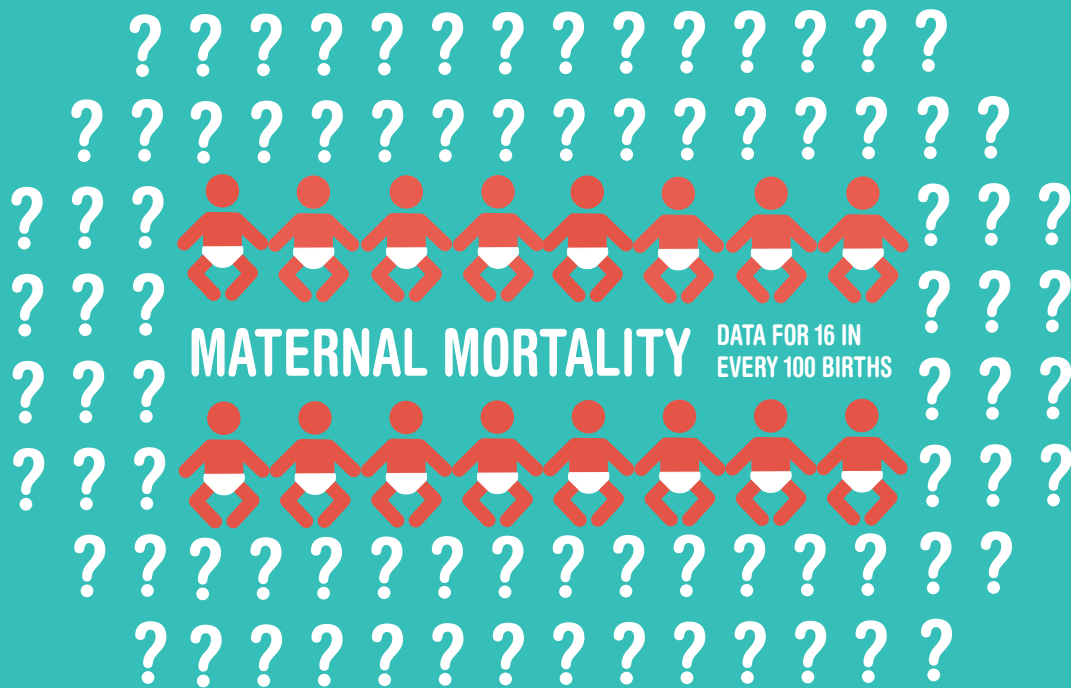


**THESE PEOPLE
COULD
REPRESENT A
25% INCREASE
TO GLOBAL
POVERTY
FIGURES**

3

WE DON'T HAVE ENOUGH DATA ABOUT HOW MANY, OR WHY, PEOPLE DIE

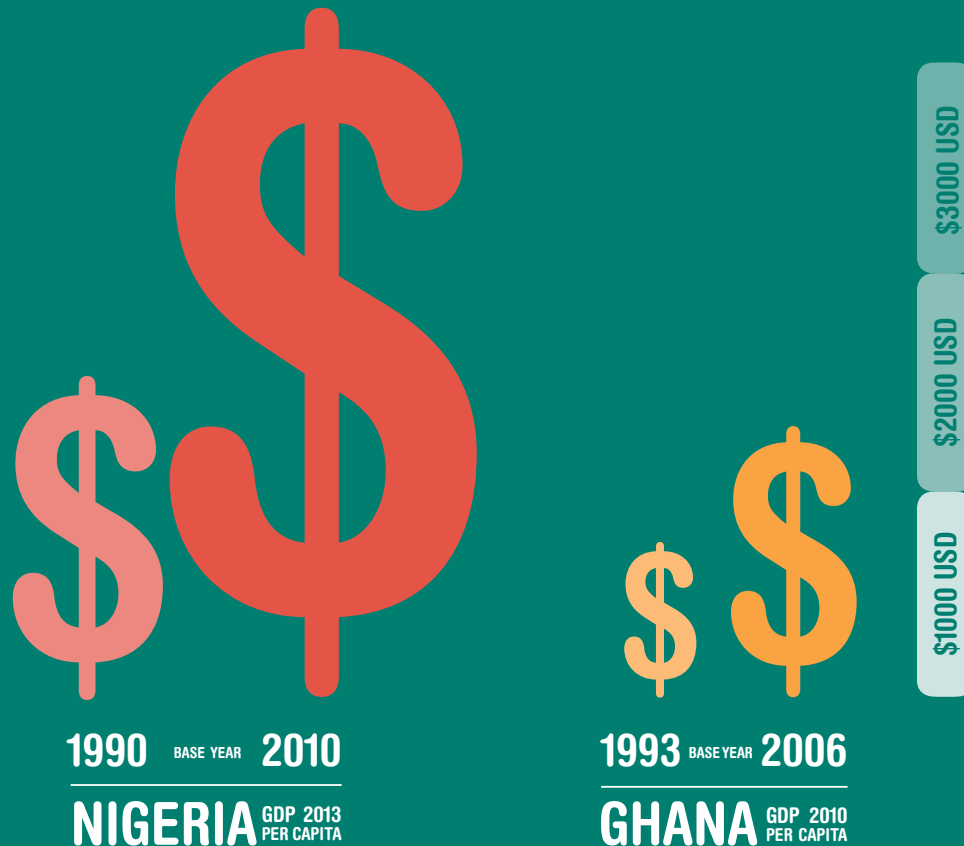
Much of what we know about mortality comes from complex predictions, not actual records. The margins of error are large. Maternal mortality estimates are based on data from just 16 in every 100 births, and could be 40% higher than we think. Our best estimates suggest malaria deaths fell by half between 2000 and 2013 – but here too, we can't know for certain. In 2013, a new model to assess the global extent of HIV found nearly 20% fewer cases than were previously thought.



4

CALCULATE GROWTH DIFFERENTLY AND YOUR ECONOMY COULD LOOK MUCH STRONGER OVERNIGHT

Economists sometimes make sweeping changes to improve their models. In 2010, Ghana changed the 'base year' (a year when particularly good price data are available) for gross domestic product calculations from 1993 to 2006. Alongside a change in methods and new data on economic activity, this led GDP to rise more than 60%. In 2014, Nigeria changed its base year from 1990 to 2010: GDP for 2013 rose 89%. In 2014 alone, Kenya, Nigeria, Tanzania, Uganda and Zambia 'rebased' their GDPs and saw significant rises.



5

IT WON'T COST MUCH TO GET THE DATA WE NEED

The world needs about \$1 billion a year to monitor its progress on the Sustainable Development Goals (or SDGs – global targets for countries to reach by 2030). This pales in comparison to many other development sums: it's only a thousandth of the estimated \$1 trillion lost to corruption in developing countries each year. And that \$1 billion could be a wise investment. It could spur the growth of open government data and support the creation of innovative businesses: estimates place the value of open government data at \$3 trillion a year worldwide.

MONITORING SUSTAINABLE DEVELOPMENT GOALS EACH YEAR WOULD COST
\$1,000,000,000
\$1,000,000,000,000
IS LOST TO CORRUPTION IN DEVELOPING COUNTRIES EACH YEAR

6

THE DIGITAL UNIVERSE IS HUGE – AND GROWING EXPONENTIALLY

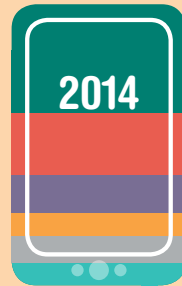
The world's ability to store information reached almost 5 zettabytes in 2014. For that amount of storage, you could stack CD-ROMs from the earth to the moon 20 times over. The 'digital universe' (a measure of all digital data created in the world) grew on average 30% a year over the last 30 years – about five times faster than the world economy. In 1986, less than 1% of the world's information was stored in digital form. By 2014, the figure was 99.5%. By 2020, there will be almost as many 'bits' in the digital universe as stars in the sky.



7

MOBILE PHONE TRAFFIC WILL GROW TENFOLD BY 2019

In 2014 the number of mobile devices overtook the global population. By 2019, mobile phone data will grow nearly tenfold – and most of this increase will happen in Middle East and Africa. Half of all phones will be smartphones. Mobile phone records can help measure population, migration and poverty. Phones can help conduct surveys more quickly and cheaply, and can reach the poorest people even in very poor countries, as shown in Afghanistan and Zimbabwe. However, researchers still struggle to reach rural female respondents this way.



2,523,938 TB/MONTH



24,314,495 TB/MONTH



8

WE ANALYSE LESS THAN 1% OF BIG DATA

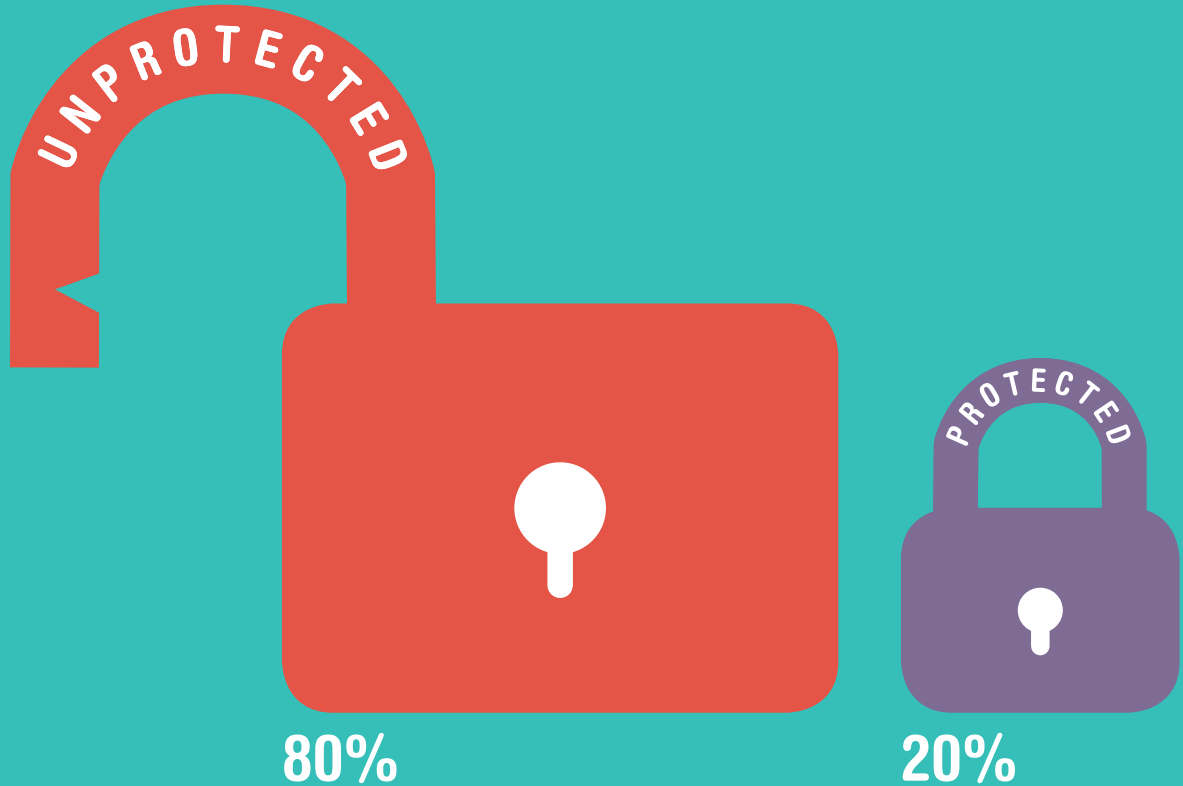
The advent of so-called 'big data' offers huge potential – but so far, it is almost untapped. According to estimates, nearly one-quarter of all data in the digital universe might be useful. However, just 0.5% of these potentially useful data are analysed.



9

THE SHARE OF DATA IN NEED OF PROTECTION IS RISING FAST

The 'data deluge' raises privacy issues. In fact, the share of data needing protection is growing faster than the digital universe itself. It is expected to rise from less than one third in 2010 to more than 40% in 2020. Legislation and regulation need to catch up. MIT computer science professor Alex Pentland proposes a 'New Deal on Data', arguing that people need to possess the same rights over data collected about them as they do over their bodies or their money.



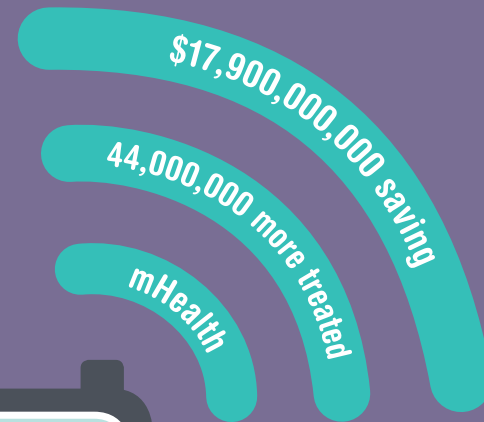
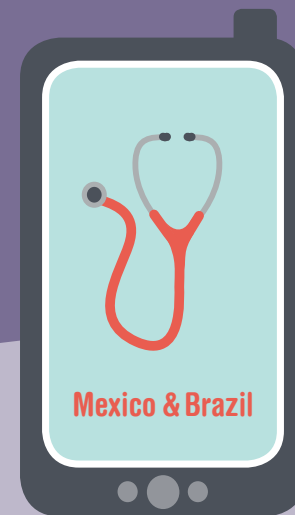
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CONVENTIONAL TOOLS AND NEW TECHNOLOGIES CAN IMPROVE LIVES

While data gaps remain, the greater challenge is using data to improve lives.

Tools can be conventional: in San Francisco, surveys of Chinatown's restaurant workers prompted successful lawsuits to improve working conditions. In Indonesia, placing stickers on newborn babies' houses improved families' access to care.

New technologies can amplify these efforts: by 2017, 'm-health' (mobile health) initiatives in Brazil and Mexico could extend healthcare to an extra 44 million people. In Kenyan slums, residents use GPS technologies to map those previously invisible. A New York charity uses 'big data' to identify families at risk of becoming homeless and offer preventive support.



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