THE STORIES BEHIND THE DATA 2017
For years, we’ve heard people question whether investments in the fight against global poverty have an impact. Clearly, we believe they do.

We are investing all our resources in that fight. But that doesn’t mean every dollar spent on development has maximum impact. And that must be our goal.

We are launching this report this year and will publish it every year until 2030 because we want to accelerate progress in the fight against poverty by helping to diagnose urgent problems, identify promising solutions, measure and interpret key results, and spread best practices.

As it happens, this report comes out at a time when there is more doubt than usual about the world’s commitment to development. In our own country, Congress is currently considering how to deal with the big cuts to foreign aid proposed in the president’s budget. A similar mood of retrenchment has taken hold in other donor countries. Meanwhile, most developing countries need to do more to prioritize the welfare of their poorest citizens.

In 2015, the member states of the United Nations adopted the Sustainable Development Goals (SDGs), which together paint a picture of what we all want the world to look like in 2030. However, if we don’t reaffirm the commitment that has led to so much progress over the past generation, that world will remain out of reach. Leaders everywhere need to take action now to put us on the path we set for ourselves just two years ago.

This report tracks 18 data points included in the SDGs that we believe are fundamental to people’s health and well-being. To complement the data, we’re also telling the stories behind the numbers—about the leaders, innovations, and policies that have made the difference in countries where progress has been most significant.

With the charts, we include the SDG targets for 2030. Candidly, we are unlikely to reach every target—some are more realistic and some are more aspirational—but that doesn’t absolve us of the responsibility to get as close as we can.

We asked the Institute for Health Metrics and Evaluation to project the likely range of outcomes on many of our selected indicators between now and 2030. The spaces between the edges of the red and green zones, while only an inch or two on paper, represent the lives and livelihoods of millions of people. If we want to be in the green zone, not the red, then we have to keep innovating and investing.

The decisions we collectively make in the next couple of years are going to have a big impact on the shape these curves take. Of course, it’s not really about the shape of the curves. It’s about what the curves signify: whether or not millions or even billions of people will conquer disease, lift themselves out of extreme poverty, and reach their full potential.
If I had to pick just one data point to focus on, it would be the number of children who die every year before reaching the age of 5. There’s so much packed into that number. Child mortality is a proxy for overall well-being; it’s also a leading indicator of progress (or the lack of it). And when you talk to mothers who have experienced the death of a child, you understand what that number means in human terms.

What is more fundamental than keeping children alive so they can thrive and build the future?

Based on global child mortality data, the world is on the right track. In the years I’ve been working in global health, the number of child deaths has gone down every year. By a lot. Six million fewer children died in 2016 than in 1990. That’s more than the total number of children in France.

"WHAT IS MORE FUNDAMENTAL THAN KEEPING CHILDREN ALIVE SO THEY CAN BUILD THE FUTURE?"

Unfortunately, not many people know about this success. On average, as my friend and mentor the late Hans Rosling pointed out, chimpanzees do better than people on a multiple-choice test about how many children the world has saved. I don’t quite understand why people aren’t more aware of, and more proud of, this accomplishment.

Still, the global child mortality curve doesn’t tell the whole story. It hides an important insight about what it will take to save the next 5 million. If we were to break this single, global line into separate lines for each country, we would see massive differences among them. Children are 75 times more
Global number of deaths of children under age 5 (in millions)

- Current projection
- If we progress
- If we regress

likely to die if they happen to be born in Angola instead of Finland. Warren Buffett calls this the ovarian lottery. The work of this generation is to make the ovarian lottery fairer (and save millions more lives) by addressing child mortality in countries like Angola, Nigeria, Democratic Republic of Congo, and Pakistan, where children are most at risk.

Bill and I began investing in health and development because we believed it was possible to eliminate gross inequities. We’ve seen many poor countries prove the point. Take Malawi. In 1990, one in four children there died. Now, it’s one in 16. This is great news, because Malawi is closing the gap between itself and Finland. It’s also a call to action, because now there’s a big gap between Malawi and Angola.

To answer the call, the world must spread best practices from exemplars like Malawi. Fortunately, we are learning more and more about how to save children’s lives.

Close to half of the almost 5 million children who will die next year will die in the first 28 days of their lives. Most could be saved by a few simple interventions: for example, resuscitation if they can’t breathe,
antiseptics that cost pennies to prevent infection, and breastfeeding to strengthen their immune systems. Cambodia and Ethiopia have shown what happens when a country prioritizes its newborns. The challenge is reaching the most vulnerable people in the world with basic information and services that save babies’ lives.

About 1.5 million of the children who will die next year will die from diseases that we can prevent with vaccines. Many countries, including Bangladesh, Honduras, and Tanzania, immunize more than 90 percent of their children, but there are still nearly 20 million children in the world who aren’t immunized at all. This explains why measles, preventable with a vaccine that costs less than 20 cents, still kills almost 150,000 children every year.

It’s a huge challenge to reach children in countries in conflict or in remote regions hours away from any infrastructure whatsoever. But it’s doable, and it’s more doable now than ever before. Consider how difficult it is to deliver a vaccine that needs to be kept at a specific cold temperature to a child who lives in a desert. New coolers using insulation developed for spacecraft can keep vaccines cold for a month and help us reach millions of children we’re currently missing.

In 2000, our foundation joined many partners in launching what was then called the Global Alliance for Vaccines and Immunization (now Gavi, the Vaccine Alliance). Since then, Gavi has helped more than 70 countries vaccinate 600 million children. It has helped dozens of countries add new vaccines against leading childhood killers such as diarrhea and pneumonia to their immunization programs. It has saved more than 7 million lives.

We know what it takes to give millions of children the opportunity to thrive. The question is, do we have the commitment?
THE GLOBAL CHILD MORTALITY CURVE DOESN’T TELL THE WHOLE STORY. IT HIDES AN IMPORTANT INSIGHT ABOUT WHAT IT WILL TAKE TO SAVE THE NEXT 5 MILLION.
If you were trying to invent the most efficient way to devastate communities and put children in danger, you would invent maternal mortality.

So the fact that the number of mothers who die has been cut in half in the past generation is one of the more important successes in global health. It’s all the more impressive because reducing maternal mortality is really hard.

Statistically speaking, it’s rare compared to, say, child mortality. That’s why maternal deaths are rendered per 100,000 live births instead of per 1,000. Therefore, for every new solution that saves a mother’s life, you need to deliver 100 times as much of that solution to have the same impact.

Luckily, solutions already exist. To deliver those solutions to all women, the most important priority is persuading them to give birth in health facilities, where they can get skilled obstetric care, instead of at home. We asked Kesete Admasu, former minister of health of Ethiopia, to write about how his country created a health infrastructure that helped women make this decision.

As Dr. Kesete suggests, as this shift from home to facility births continues, the maternal health community must make sure that the obstetric care provided in facilities is of the highest quality. With many more mothers delivering in facilities, it puts new pressures on health systems—they need more equipment, more staff, and more training. With these resources, developing countries will continue to drive down maternal mortality at the accelerated rates of the past 25 years.

– Bill and Melinda Gates
When I joined the Ethiopian Ministry of Health in 2002, we were using a health system designed for other countries. Our tiny number of highly trained health providers was concentrated in big cities, far away from the 85 percent of our people who live in rural areas. This mismatch led to some of the worst child and maternal mortality statistics in the world.

We were committed to saving those lives, but it didn’t make sense to put good money into a bad system. So we built a new one. Launched in 2003, the Health Extension Program gives Ethiopians the services they need, where they need them. We trained 40,000 health extension workers to provide basic information and care to all 100 million Ethiopians. The goal was to
put knowledge and power—and, ultimately, responsibility—in the hands of local people.

Don’t let me give the impression that any of this was easy. We made mistakes, and we have shared lessons so that other countries can learn from our experience. But, generally speaking, the Health Extension Program worked—and worked fast. Child mortality dropped by half in just eight years. We had proved our theory. When it comes to the things that save children’s lives—family planning, vaccines, bed nets, basic management of common illnesses—you can bring care to the community.

Maternal mortality, though, was a different story. It went down, but not nearly as much as child mortality. We knew why. To save mothers’ lives, you need skilled obstetric care, and that happens in health facilities. But Ethiopian mothers overwhelmingly chose to give birth at home. Health workers advised women to give birth in facilities, but they didn’t persuade many families to change.

“CHILD MORTALITY DROPPED BY HALF IN JUST EIGHT YEARS. MATERNAL MORTALITY, THOUGH, WAS A DIFFERENT STORY.”

By 2010, two separate strands of thinking had come together to suggest a possible solution to our problem. First, the Health Extension Program had always included the concept of model families, early adopters who did things like sleep under bed nets and use latrines—and whose example and leadership we hoped would inspire others. The idea: Model families create model communities, which lead to model districts and eventually to a model country.

Second, our colleagues in Ethiopia’s agricultural ministry had been experimenting with ways to help smallholder farmers use better seeds and modern planting techniques, and they’d had some success encouraging men to advocate within their communities. We adapted that idea for health and used the model families we’d already trained to lead what we called the Women’s Development Army. One health extension worker covers a community of 2,500 people or 500 families. That’s a world of improvement over the old system,
NOW THAT MORE ETHIOPIANS ARE DELIVERING IN FACILITIES, THERE IS MORE WORK TO DO: MAKING SURE THAT THE QUALITY OF CARE IN FACILITIES IS UNIFORMLY EXCELLENT.

but it’s still too many for each worker to build a deep personal connection with every person under her care. The Women’s Development Army, on the other hand, has 3 million members, one for every six families. They are not health professionals talking to community members. They are community members.

They meet with women in the community every day over coffee ceremonies and every week at church or the mosque, and in short order they have helped changed the ecology of childbirth in Ethiopia. Between 2011 and 2016, the proportion of women giving birth in facilities increased from 20 to 73 percent.

It’s not just that the development army tells women in a community what those of us running the health system think they should be doing. It works the other way around, too. They tell us what the community wants us to do. For example, in the Tigray region, we learned that many women refused to give birth at facilities because they wanted their religious leaders to be present at the birth. Another concern: Women didn’t want to be carried on a stretcher, because others who left the village on a stretcher never came back.

Now, religious leaders go to the health facility, so that a safer birth doesn’t mean a birth divorced from people’s culture. We also designed a new stretcher just for pregnant women. We opened maternity waiting homes where women in their third trimester can stay close to the facility while they wait to go into labor. These were problems and solutions we’d never thought of, but the Women’s Development Army opened our eyes to the community’s needs.

Now that more Ethiopians are delivering in health facilities, there is more work to do: making sure that the quality of care in facilities is uniformly excellent. That means a lot of things, including purchasing more equipment and medicines and training more skilled providers, which we are doing.

It also means keeping the community connected to the health system, which is why the Women’s Development Army will continue to play a pivotal role. We have found a way for Ethiopians to voice their demands to the health ministry. And when you have a demanding society, government delivers.
Perhaps the best way to describe the importance of family planning is this: Achieving the family planning goal makes it more likely that we’ll achieve virtually every other Sustainable Development Goal. Poverty. Maternal mortality. Child mortality. Education. Gender equity. They all get better when women can plan their pregnancies so they are physically and economically ready when they have a child.

But norms around sex and family life are powerful. In many countries, families haven’t typically planned. The work of giving them options is not just technical—raising more funding, developing new products, and repairing broken systems. It’s also deeply cultural.

Despite these challenges, many developing countries have started to prioritize family planning, because they understand the impact it has. In the past several years, more than 40 countries have launched rigorous national family planning plans.

We asked two people instrumental in one of the most successful family planning programs, in Senegal, to write about their experience. Fatimata Sy is director of the coordination unit for the Ouagadougou Partnership, an alliance of the nine francophone West African countries committed to reaching more women in the region with family planning services. Imam Moussé Fall, a founder of the Islamic Network on Population, helps his fellow imams think about how family planning fits into their theology.

Together, Mrs. Sy and Imam Fall demonstrate both the breadth and depth of work necessary to make sure families can unlock their full potential.

– Bill and Melinda Gates
In 2011, increasing access to sexual and reproductive health services in Senegal and across West Africa was little more than a dream. Our cultures and norms dictated that women have lots of children, and most people didn’t understand the health risks of frequent pregnancies—or how to avoid them. Sadly, those who did often found that public health facilities didn’t have the contraceptives they wanted.

But everything changed when we launched the Ouagadougou Partnership, and when Senegal took the lead to develop the first national action plan for family planning in the region. Everyone in Senegal was involved in developing this plan. The government set the tone, with ambitious policies to change the status quo as well as the funding to back them up. Civil society followed,
with virtually every interest group in Senegal represented: religious leaders, community advocates, youth, and others. For the first time, there was momentum for change.

The action plan addressed many interconnected challenges in creative ways, including strategies to increase the demand for and the supply of reproductive health services. For instance, to increase demand, Senegal launched a public awareness campaign about how frequent pregnancies affect the health of women and their children. For a year, the press spoke constantly of family planning on TV, on the radio, and in newspapers and magazines. There were debates. There were posters everywhere. This was a monumental shift in a country where such subjects had long been taboo.

On the supply side, Senegal decentralized its contraceptive supply chains, with the guidance of private-sector partners, to make sure that a woman seeking services never got sent home empty-handed.

“SENEGAL REVAMPED ITS SUPPLY CHAIN TO MAKE SURE THAT A WOMAN SEEKING CONTRACEPTIVES NEVER GOT SENT HOME EMPTY-HANDED.”

When we started, some types of contraceptives were in stock as little as 20 percent of the time, but now that number is over 98 percent, nationwide. I still think of the slogan they used: “When there are no products, there is no program.”

Senegal’s progress took the world by surprise, and now the other countries in the Ouagadougou Partnership are making extraordinary gains, too.

What excites me even more is that now it’s not just ministers of health who want to hear about family planning. It’s ministers of finance, population, and education as well. They get that family planning isn’t just about health, which is “somebody else’s problem.” It’s about the future, which we’re all responsible for.

For so long, life in Senegal has been about the lack of things. Lack of water. Lack of electricity. Lack of schools. Lack of jobs. Lack, lack, lack. But for the next generation, life can be better. It’s possible. It’s my dream, and it’s becoming a reality. ●

After addressing issues in the supply chain, Senegal can now provide contraceptive options for women seeking services during their first visit to the clinic. (Dakar, Senegal)
My mother had eight kids. I was second-to-last. She passed away when she was 43. From that moment on, I had to face the dangers of the world alone. We realized that the main cause of her death was pregnancies that were too close together. I didn’t want that to happen to anyone else.

When I got older and started studying Islamic thought, I noticed how many religious authorities opposed family planning. The Qur’an is authentic, but religious authorities have to interpret it based on the reality of their time. We have Skype today, but no one’s looking for Skype in the Qur’an. However, all the Qur’an’s themes related to communication can apply to Skype. That is the intellectual effort that religious authorities must take on. We try to help them do that.

For example, the Prophet of Islam encourages women to space births because they have a duty to breastfeed for two full years. Hadiths corroborate that. In the most commonly used one, the Prophet speaks about losing his son, named Ibrahim, when he was a year and 10 months old. The Prophet says, “My son has left this world although his nursing time was not yet done.” The imams we work with know all the verses. After we study them together, they usually agree with our arguments. The next steps are to try to normalize the subject and reserve it for couples duly bound by the sacred ties of marriage.

In every district in Senegal, we offer training sessions with local doctors and influential imams. We cover both theological and medical issues, so that imams also understand how contraceptives work and what the side effects can be. This is hard and continuous work. We’ve trained over 3,000 imams who are now on our side. At the start, they were really against family planning.

I’m sure that what we’ve achieved in Senegal can happen throughout West Africa. Our realities are not different, considering it was the colonists who drew borders between the countries. We have the same values and nearly the same languages. We received Islam at the same time. Senegal’s successes can be a source of inspiration.

What I wish for is people who can use their strengths in building a better future. I believe the work we’re doing together is progress toward this goal. Inshallah.
When you talk to people who worked in Africa around the turn of the millennium, when the AIDS epidemic was totally out of control, they say attending funerals was a routine experience, like cooking breakfast or commuting to work. Starting in the early 2000s, the world made a huge investment to address the crisis, especially through the Global Fund to Fight AIDS, Tuberculosis and Malaria and PEPFAR, the President’s Emergency Plan for AIDS Relief. In the history of global health, there had never been an increase of that magnitude in getting products and services to people who need them. That’s why the curve of AIDS deaths bends so sharply around 2005.

With 35 million dead, AIDS is the worst humanitarian disaster of my lifetime. But when you consider what would have happened if the curve had stayed on its original trajectory, the fight against HIV also has to be counted among our greatest successes.

But it’s a success at risk.

“A 10 PERCENT CUT IN FUNDING FOR HIV TREATMENT...COULD COST THE LIVES OF AN ADDITIONAL 5.6 MILLION PEOPLE.”

Governments in both donor and developing countries that responded so aggressively to the crisis 15 years ago are now focusing on other things. Funding for HIV control has been flat, and now there’s talk of cuts. In a world of competing priorities and limited resources, these conversations are mandatory, but I want to be sure that the people having them are clear about the consequences.

We asked the Institute for Health Metrics and Evaluation to develop a simple model to help us think about the potential impact of a 10 percent annual cut in donor funding for HIV treatment. The top red line in the chart illustrates that such a budget cut could cost the lives of an additional 5.6 million people, over and above the current projection. Given the tenor of the global discussion, an even bigger cut to global HIV funding is a very real possibility.

I’m not advocating for a blank check for HIV treatment, because...
Global HIV deaths per 1,000 people

- Current projection
- If we progress
- If we regress
- 10% budget cut

I don’t think we need one. First, we can treat people more efficiently. Some countries, such as Zimbabwe, have implemented what’s known as differentiated care. Most patients adhere to the treatment regimen closely, so they receive longer-lasting supplies of drugs and go to health facilities less regularly. More than two-thirds of Zimbabweans on treatment visit a health professional only once every three months. However, patients who are less likely to stick to the regimen get extra support. In this model, no one is wasting money by getting more services than they need, and no one is risking getting sicker by getting less than they need.

Second, the key to solving the AIDS crisis over the long term is prevention. The fewer people infected in the first place, the fewer who will need treatment. We don’t want to just control a disease when we can end it.

Unfortunately, the outlook for prevention is also concerning. In the past decade, the rate of decline of new infections has slowed. The current rate of decrease is not nearly enough to offset the population increases we’ll be seeing in Africa.
over the next generation. Africa’s youth are a reason for optimism—more and more talented young people who want to solve big problems are coming of age every year—but making sure they’re cared for is also a challenge.

In 1990, there were 94 million people on the continent between the ages of 15 and 24, the age range when people are most at risk of contracting HIV. By 2030, there will be more than 280 million.

What that means is pretty clear. If we only do as well as we’ve been doing on prevention, the absolute number of people getting HIV will go up even beyond its previous peak.

We have to do better. Part of that is more funding, not less. And, as with treatment, we need to identify and promote the best prevention practices so that we can get maximum impact from every dollar we spend.

Kenya has been a leader in this area, emphasizing both voluntary medical male circumcision and pre-exposure prophylaxis, or PrEP, two of the most effective prevention methods currently available. Other countries can learn a lot from Kenya’s experience.

Over time, we will need better tools, such as long-acting drugs that prevent HIV infection and, eventually, a vaccine. But the pattern with research and development funding is the same as with delivery funding: It’s been flat, and now it’s targeted for cuts.

That’s a scary prospect. Without R&D investments, we won’t have the new discoveries that will make it easier to prevent transmission of HIV. In the meantime, if we don’t spend more to deliver the tools we have now, we’ll have more cases. If we have more cases, we’ll need to spend more on treatment, or people will die.

But this chain of causation works in the other direction, too. If we invest more, if we are more efficient, if we share what we learn, if we show more leadership, then we will write the story of the end of HIV as a public health threat.
WE NEED TO IDENTIFY AND PROMOTE THE BEST PREVENTION PRACTICES SO THAT WE CAN GET MAXIMUM IMPACT FROM EVERY DOLLAR WE SPEND.
Poverty is not just the lack of money. It’s also the lack of access to basic financial services that help the poor use what money they have to improve their lives. So the development community has been trying to promote financial inclusion—that is, to connect almost 2 billion people who live completely outside the formal financial system to bank accounts and services like credit and insurance. The problem is, it’s been too expensive to do at any kind of scale.

Until now. With mobile phones, it’s orders of magnitude easier and cheaper to reach the poor with financial services. The number of people with accounts is going up quickly, and we’re starting to see the impact. In particular, there’s exciting new evidence that digital financial services like payments and savings do indeed help people lift themselves out of poverty.

India has been especially innovative about investing in the building blocks of digital financial inclusion. Aadhaar, a nationwide biometric identification system, makes it simpler and more secure for poor people to do business with banks. India’s regulators have implemented new rules that give financial institutions greater flexibility to provide a wider variety of services. For example, a new class of banks called payment banks has brought in new private-sector players to the market and opened millions of new accounts. In 2014, the government launched a program called PMJDY to help the poor open accounts in huge numbers, and it recently started providing benefits to them through these accounts.

One of the development community’s hypotheses has been that inclusion could be especially revolutionary for women, who traditionally have been excluded from making economic decisions. Now, researchers are starting to test it. Last year, a study in Kenya by Tavneet Suri and William Jack established a clear link between financial inclusion and women’s empowerment. This year, Rohini Pande and her colleagues added to the evidence base with fascinating results. Melinda talked to Dr. Pande about her research, what financial inclusion can do for Indians and India, and how to speed up progress.

– Bill and Melinda Gates
Impact when Indian women receive wages directly into their own accounts

- Control group
- Treatment group

Annual earnings

- Control group: 13,479 rupees
- Treatment group: 16,766 rupees

Purchases from own income

- Control group: 2%
- Treatment group: 13%

Melinda: What problem is your research on financial inclusion for Indian women trying to solve?

Rohini: As India has gotten richer, women have actually been working less in the formal labor force. That's a problem for women, because when they don't work they have less power in the household and, usually, less of a chance to live lives as fulfilling as they want. It's also a problem for India, which fails to benefit from the talents of many women who want to work.
M: Why are India’s women working less?

R: One important reason—and one that our research focuses on—is social norms that block women’s mobility. Many Indian women need to ask permission just to leave the house. Working outside the home can be seen as shameful. These norms aren’t just imposed on women. In some places, men are considered bad providers if their wives work. We wanted to know whether connecting women to the financial system would help them transgress these norms. And perhaps, over time, even start to change them.

M: How did you test your theory?

R: The Government of India guarantees every rural household 100 days of work. This is an income security program, sometimes called workfare. Households can split up who does the work however they want, but historically the wages have been paid to the head of household, not the actual worker. So, usually, it’s men keeping most of the money and deciding how to spend it. We wanted to see what happened if wages for women’s work went directly into accounts they controlled.

M: What was the most interesting thing you learned?

R: Women who received wages in their own accounts earned more and saved more. The interesting thing was that they not only worked more in the government’s workfare program; they also worked more in the private sector. After the intervention, when we asked the women to tell us their occupation, they were more likely to say “worker” instead of “housewife.” That suggests a story of empowerment. Having and using a bank account changed her sense of self, or her ability to express her sense of self.

M: You were able to do this study because India has invested in digital financial services. How does digital technology facilitate financial inclusion?

R: Digital has changed the nature of banking and made it cheaper to reach the rural poor. The poor make very small and very frequent transactions—the two things that traditionally make it hard for banks to earn money. Now, though, you have a single person with a point-of-service machine who can sit in a room in the village and be the equivalent of the bank. Digital lowers the cost significantly. Moreover, bringing banking closer to villages is hugely important for women because of the mobility constraints we talked about.

M: As India ramps up its efforts at financial inclusion, what does the country need to focus on to maximize its impact on women in particular?

R: This world of digital banks is a very new world for women. An important finding from our study was that women need a lot of additional training to feel comfortable using digital financial services. Remember, in India, even if you’re in a digital world, you’re not in a world of internet banking where you have a smartphone app. If you own a phone and your bank is diligent, then you hopefully receive an SMS that tells you when money turns up in your account, or, at best, an SMS on a regular basis that tells you what’s there. In reality, what we find is that an SMS typically gets sent only if you have a large enough account, and that is exactly what we don’t want. We want the people with the smallest accounts who are likely to be the furthest away to get the most information. Transparency is easier once you have a digital system, but you have to invest in it.

M: What do you see that makes you most optimistic about the future?

R: Generational change. When you go to a bank in a village right now, the people you see outside are school kids. Adolescent girls are well-versed in the financial system. You hear the bank tellers complaining that they’re always putting in one rupee at a time, and the tellers really don’t want to do it, but they can’t say no.
WOMEN WHO RECEIVED WAGES IN THEIR OWN ACCOUNTS EARNED MORE, SAVED MORE, AND WORKED MORE. HAVING AND USING A BANK ACCOUNT CHANGED THEIR SENSE OF SELF.
Stunting is one of the most powerful, but most complex, measures in global health. Stunted children are defined as children who are short for their age by a specified amount. But it’s not actually a child’s height we’re concerned about. Rather, stunting is a proxy for something much more important: how children are developing cognitively, emotionally, and physically. Stunting is the opposite of well-being, which is why we say it’s such a powerful measure.

But it’s complex because it’s caused by multiple factors that accumulate over a period of time—everything from a mother’s health to a child’s diet, disease history, and environment. We don’t yet have a complete picture of the root causes—and there is no single intervention to prevent it. We have to mix and match a variety of interventions. We have spent a lot of our time recently speaking to global experts to learn more about stunting and its solutions. As development experts and practitioners continue to build the evidence base, however, countries need to scale up the set of health and nutrition interventions already proven to reduce stunting significantly.

Peru’s story is impressive because they cut through a lot of that complexity and focused on what we know works. Peru proved that stunting is a solvable problem when leaders are committed to following the evidence.

We asked Milo Stanojevich, the national director for CARE Peru, and Ariela Luna, former deputy minister of development and social assessment, to write short essays explaining how the country made so much progress in such a short time.

— Bill and Melinda Gates
Prevalence of stunting among children under age 5 in Peru

Progress to date

I grew up in Peru, left for a while, and came back home after 13 years, in 2005, to find it was a different country, a middle-income country. But we still had the malnutrition rates of a low-income country. The government had been trying to address the problem with traditional feeding programs, but interventions that didn’t address health and nutrition more broadly were never going to work.

CARE Peru had just ended a large program, funded by USAID, that took a different approach. We’d combined a range of nutrition, food security, water and sanitation, and health investments in 1,200 communities, and the results were just amazing. We reduced chronic malnutrition in those communities by 10 percentage points. We wanted the government...
We started by designing a causal model for reducing chronic child malnutrition based on the available scientific evidence, and we got all the stakeholders to agree to it. Next, we prioritized two cost-effective, high-impact interventions: child vaccination and counseling for mothers, to help them understand how to keep themselves and their babies healthy and well nourished during the 1,000 days from conception to the child’s second birthday. You can design a wonderful program with two dozen interventions, but you’ll never get it off the ground. It was important to prioritize and reprioritize.

The health sector worked very effectively with the Ministry of Economics and Finance. We implemented a results-based budget strategy and created the Articulated Nutritional Program, which allowed us to rearrange the existing budget and refocus it toward chronic malnutrition. That was what convinced the Ministry of Economics and Finance. They tend to say, “If this is going to cost a lot, we’ll stay out of it,” but nobody will stand against initiatives for children when the solutions are proven and affordable.

We explained to the candidates that stunting was the core of poverty in Peru—that having 30 percent of children chronically malnourished put a huge dent in the whole country. We also showed them our evidence about a package of interventions that worked. Clear problem, clear solution. We got all the major candidates to sign what we called the 5x5x5 commitment: a pledge to reduce stunting among children under 5, by 5 percentage points, in 5 years.

When Alan Garcia was elected president, the prime minister ratified his commitment in a speech to Congress. We were euphoric. The government was promising to fight chronic malnutrition in front of the entire Peruvian public on TV. In fact, President Garcia eventually pledged to do even more—to reduce stunting by 9 percentage points, a goal he achieved. Nutrition was indeed a national priority.

In 2011, the government changed, and we did the whole thing all over again. And again last year. We wanted to get a question on nutrition into the presidential debates, so we tapped our networks and got 2,000 people to send in the same question to the election board. The moderator asked it: “What will you do to continue reducing chronic malnutrition in the country?”

We are proud of our advocacy, but advocacy alone does not take programs to scale. You have to design programs that fit in with the way government works. We didn’t have all the answers about how to do that. But we knew that it was essential to have the highest-level political commitment, more investment for nutrition, and a strategy that coordinated interventions across ministries and different levels of government. We just kept the pressure on and kept the support through three different administrations, and the government made it happen.

“NOBODY WILL STAND AGAINST INITIATIVES FOR CHILDREN WHEN THE SOLUTIONS ARE PROVEN AND AFFORDABLE.”

ARIELA LUNA
Former Deputy Minister of Development and Social Assessment, Peru

Goalkeepers
The Stories Behind the Data
When we started to implement the program, we targeted the areas in the country where stunting rates were the highest. In those regions, we started budgeting based on the needs of each health care center and tracking the results. When I traveled to any region to supervise the coverage, they couldn’t lie to me, because we kept evaluating them, not just once every year, but every day if possible.

Our ability to measure results also helped us to provide incentives to regional governments that performed well, which accelerated progress. First, we withheld a small part of the Ministry of Health’s budget until the regions met key targets. In six months, almost 100 percent of the country’s regions were carrying out best practices that had been neglected before.

We also gave extra money to regions that invested in the infrastructure they needed to meet the goals we’d agreed upon. In order to make a shoe, you need leather, scissors, and workers. And to implement a vaccination program, you need nurses and supplies. Regions got more budget when they put those pieces in place.

With these two incentives, we could be certain that health care centers were fit for the day-to-day work. And the day-to-day work changed life for Peru’s children.

We are now a country that managed to redirect its resources to help millions of children break free from chronic child malnutrition. And best of all, chronic malnutrition in Peru keeps going down. 

“We managed to help millions of children break free from chronic malnutrition.”
Goalkeepers
The Stories Behind the Data
CONCLUSION

People always ask us why we invest in global development. That’s easy: Poverty and disease in poor countries are the clearest examples we know of solvable human misery.

Take it from the point of view of justice, or take it from the point of view of creating a secure and stable world: Development deserves our attention.

We wish more people asked us how development happens. That’s the hard part. Working on this report—commissioning case studies and stacking charts next to each other—helped us reflect on the how question. To oversimplify the answer, the key is effective leadership.

In one way or another, every story in this report is about a leader or leaders who decided to solve a problem, thought critically about innovative strategies and tactics, and kept at it. Some of the leaders we highlight work in government, some in local communities, others at research institutions, but they’re all focused on what it takes to make progress. Every time one of the curves takes a turn for the better, it’s because a person or a group of people pushed to do more.

We are strong supporters of the Sustainable Development Goals because they help leaders be effective. First, they help identify the problems that need solving. Every country now knows precisely how on or off track it is across a range of key priorities. Second, they help people work together on solutions. When one country is especially successful on a given indicator, it’s a good sign that there’s something worth learning from that country. Sharing best practices is so much easier when everybody agrees on the goals and how to measure progress toward them.

We will publish this report every year until 2030, because we want to inspire leaders by showing what is possible and arm them with evidence and insights about how they might be more effective. Above, we used the phrase “solvable human misery.” We invite everyone to focus on the solvable part of the equation. It is a fact that this misery is solvable. We have it within our power to decide how much of it actually gets solved. Let’s be ambitious. Let’s lead.

– Bill and Melinda Gates
GLOBAL DATA
POVERTY

Proportion of population below the international poverty line (US $1.90/day)

The chart shows a steady decline in poverty since 1990, driven by fast-growing China and India. To hit the target, many countries must accelerate their rate of growth and share growth more equally. Ultimately, the goal is to “end poverty in all its forms,” which is more ambitious than simply guaranteeing a wage on which people can subsist. It means, as our foundation’s mission statement says, that all people can lead a healthy, productive life.

STUNTING

Prevalence of stunting among children under age 5

Stunting is a proxy for overall cognitive and physical underdevelopment. Stunted children will be less healthy and productive for the rest of their lives, and countries with high rates of stunting will be less prosperous. Addressing stunting is not straightforward, because the condition is influenced by so many different factors, but experts have been compiling evidence about what works—and combining basic health and nutrition interventions reduces stunting significantly.


Target: End all forms of malnutrition, including achieving, by 2025, the internationally agreed-upon targets on stunting and wasting in children under 5. Target shown on chart is provisional and has been extrapolated based on existing 2025 target.
Goalkeepers
The Stories Behind the Data

- Current projection  - If we progress  - If we regress

MATERNAL MORTALITY

Maternal deaths per 100,000 live births

In recent years, there has been a massive shift in the number of women giving birth in health facilities instead of at home. Skilled obstetric care is key to saving mothers' lives, so countries must make sure that their facilities are fully supplied, staffed by skilled health professionals, and provide the highest quality of care.

UNDER-5 MORTALITY

Under-5 deaths per 1,000 live births

More than 100 million children have been saved since 1990, due in large part to better newborn care practices and vaccines. The key to keeping the momentum will be helping countries (or regions within countries) with the weakest health systems build up the basic infrastructure they need to reach all children with lifesaving interventions.

Target: Reduce the global maternal mortality ratio to less than 70 per 100,000 live births.

Target: End preventable deaths of newborns and children under age 5, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births. Target shown on chart has been extrapolated from country level to global level.
**NEONATAL MORTALITY**

**Neonatal deaths per 1,000 live births**

Almost half of all child deaths happen within the first 28 days of life. Newborns tend to die from different causes than older children, so saving them requires different approaches. Many solutions—like breastfeeding and devices to resuscitate babies—are relatively simple. The hard part is making sure that mothers have the information to care for their babies properly and that newborns get skilled care when they need it.

Target: End preventable deaths of newborns and children under 5 years of age, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under-5 mortality to at least as low as 25 per 1,000 live births. Target shown on chart has been extrapolated from country level to global level.

**HIV**

**New cases of HIV per 1,000 people**

In the early 2000s, the Global Fund, PEPFAR, and domestic spending in endemic countries helped bring new HIV infections way down. As the sense of crisis dissipated, however, the rate of decline slowed. Eventually, new prevention methods will help speed up the decline, but for now, we have to bend this curve using currently available methods. That means continuously searching for new ways to deliver solutions and sharing best practices widely.

Target: End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases. Target shown on chart has been extrapolated from UNAIDS target of 200,000 new infections among adults in 2030.
**Tuberculosis**

*New cases of tuberculosis per 100,000 people*

Since the early 2000s, a big investment in the fight against TB, especially through the Global Fund, has led to significant improvements in treatment. But the annual rate of reduction is still not enough to hit our target. We are optimistic that new tools, including a vaccine, will be available in the next decade.

Target: End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases. Target shown on chart has been extrapolated from Stop TB Partnership target of <20 cases per 100,000 in 2030.

**Malaria**

*New cases of malaria per 1,000 people*

For decades prior to the early 2000s, malaria deaths around the world were surging. The establishment of the Global Fund and the development of new tools, including insecticide-treated bed nets and improved anti-malaria drugs, started to turn the tide against the disease. Malaria deaths decreased by 60 percent between 2000 and 2015. The projection on the chart assumes no innovation. But with continued investment and research, we expect new tools and strategies that would accelerate progress toward the elimination of the disease.

Target: End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases. Target shown on chart has been extrapolated from the WHO Global Technical Strategy target of reducing incidence by 90 percent.
**NEGLIGENCE TROPICAL DISEASES (NTDs)**

**Prevalence rate of 15 NTDs per 100,000 people**

NTDs are a collection of diseases that keep 1.6 billion of the poorest, most vulnerable people in the world from fulfilling their potential. It’s possible to prevent or treat most of the NTDs, but it’s challenging to reach the billions of people at risk. In 2012, endemic countries, donors, and drug companies agreed to the London Declaration to eliminate or control 10 NTDs. Maintaining this momentum is the key to accelerating progress.

**FAMILY PLANNING**

**Proportion of women of reproductive age (15–49) who have their need for family planning satisfied with modern methods**

We’ve grouped countries and plotted the groups separately to show the gap between more and less developed countries. But this chart still doesn’t tell the whole story, because the indicator being measured, “met need,” depends on women saying they want to delay or stop childbearing. There are many reasons women might not express a need for contraceptives, including cultural norms that prevent them from raising their voice. There is more work to do to address unmet need and hidden demand in most developing countries.

Target: End the epidemics of AIDS, tuberculosis, malaria, and neglected tropical diseases.

Target: Ensure universal access to sexual and reproductive health care services, including those for family planning. Socio-demographic index (SDI) is a measure based on average income per capita, education attainment, and total fertility rate.
UNIVERSAL HEALTH COVERAGE

Performance score for coverage of essential health services

Our focus is primary health care, the most important step to universal care. Unfortunately, low and middle-income countries spend only about one-third of their health budgets on primary care. We’ve grouped countries and plotted the groups separately to show the gap between more and less developed countries. Primary care in key countries would go a long way toward covering the 400 million people without access to basic health services.

SMOKING

Prevalence of daily smoking in populations age 10 years and older

This chart is encouraging but underestimates the prevalence of tobacco use because it measures a limited definition of current smoking and excludes smokeless tobacco products. Still, the number of people covered by at least one tobacco control measure has quadrupled since the landmark WHO Framework Convention on Tobacco Control in 2003. The great unknown is what will happen in Africa, where tobacco companies see opportunity. Strong tobacco control laws there are critical to maintaining the downward trend.
VACCINES

Proportion of the target population covered by eight vaccines, conditional on inclusion in national vaccine schedules

Vaccines are one of the most impressive success stories in global health. More people are being immunized and protected against more diseases than ever before. The next steps for immunization programs are to battle stagnation by finding the pockets of inequity that exist within countries—even those with high average rates—and reach all children with a full set of lifesaving vaccinations. We’ve grouped countries and plotted the groups separately to show the gap between more and less developed countries.

SANITATION

Prevalence of populations using unsafe or unimproved sanitation

This chart is based on data that suggests that improvements will come from more sewer connections and wastewater treatment plants, which are expensive and impractical in many places. We believe we’ll see even greater progress by safely collecting and treating more of the human waste currently gathering in pit latrines and septic tanks, and by introducing innovative toilets that kill pathogens but don’t rely on sewers.

Target: Support the research and development of vaccines and medicines for the communicable and noncommunicable diseases that primarily affect developing countries and provide access to affordable essential medicines and vaccines. Socio-demographic index (SDI) is a measure based on average income per capita, education attainment, and total fertility rate.

Target: Achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations.
FINANCIAL SERVICES FOR THE POOR

Proportion of adults (age 15 and older) with an account at a bank or other financial institution or with a mobile-money service provider

Unlike the other charts, this one only goes back to 2005, when the International Monetary Fund started collecting the data. The 75 percent increase in accounts in a single decade demonstrates the stunning potential of digital financial services. However, merely having an account does not equal inclusion. People also have to use them, instead of expensive informal services. That means banks, mobile network operators, and other fintech companies must innovate to meet the poor’s most pressing needs.

INSUFFICIENT DATA

EDUCATION
Proportion of children and young people: in grades 2 and 3; at the end of primary; at the end of lower secondary achieving at least a minimum level in reading and mathematics, by sex

It’s relatively easy to count the number of children in school. But that doesn’t tell us how much those children are actually learning. The SDGs rightly shifted the focus from just the quantity (e.g., enrollment and completion) to both the quantity and quality of education. Quality (i.e., achievement) is harder to measure, though. Many countries don’t generate any useful learning data at all, let alone in a globally comparable way. The first step is to develop better cross-national assessments, particularly for early grades. We need to know early whether children are able to read, a prerequisite to all further learning.

GENDER
Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and share of women among owners or rights-bearers of agricultural land, by type of tenure

When women smallholder farmers have secure rights to their land, it can change their lives. They have more bargaining power in their households, which means more impact on their family’s future. The SDGs include a goal explicitly about empowering women and girls, but it’s a sign of how much we’ve neglected this issue that only three of the 14 indicators under the goal have sufficient baseline data and are trackable. When the indicator about land tenure by sex was adopted, there wasn’t yet agreement about how to measure it. Since then, the UN has agreed on a definition, standards, and a methodology. We still have to test this approach and ensure that countries are equipped to track the indicator regularly. When we actually have the data on hand, it will be much easier to devise policies and programs that empower women and girls.

AGRICULTURE
Volume of production per labor unit by classes of farming/pastoral/forestry enterprise size

Agriculture is key to driving poverty reduction, so it’s important to track small-scale producers’ productivity and income. Currently, though, many countries don’t collect agriculture data in a rigorous way, because it’s cumbersome and expensive. There’s a powerful new methodology called the Agricultural Integrated Survey (AGRIS) under development that has the potential to collect high-quality data affordably. It uses a modular approach, with countries piecing together different sources of data and using efficient sampling strategies to paint an accurate picture. The priority now is testing and validating AGRIS quickly and making sure that donors help countries implement it and scale it up.
Goalkeepers
The Stories Behind the Data
In this report, we have selected 18 out of the 232 SDG indicators. Below are the sources for the chart data. Where the Institute for Health Metrics and Evaluation has a measurement definition that needs further explanation, we have included additional details below. The 2030 global targets included on the charts illustrate the progress the world is aiming to achieve. Some SDG indicators have a quantifiable global target (e.g., maternal mortality), some have a quantifiable country target (e.g., child and neonatal mortality), which we have extrapolated to a global level, and for others we have used the WHO proposed 2030 targets (e.g., for HIV, malaria, and TB).

Sources and Notes

In this report, we have selected 18 out of the 232 SDG indicators. Below are the sources for the chart data. Where the Institute for Health Metrics and Evaluation has a measurement definition that needs further explanation, we have included additional details below. The 2030 global targets included on the charts illustrate the progress the world is aiming to achieve. Some SDG indicators have a quantifiable global target (e.g., maternal mortality), some have a quantifiable country target (e.g., child and neonatal mortality), which we have extrapolated to a global level, and for others we have used the WHO proposed 2030 targets (e.g., for HIV, malaria, and TB).

**POVERTY**

Homi Kharas, the Brookings Institution, personal correspondence, July 2017.

**FINANCIAL SERVICES FOR THE POOR**

Global data for the “Current projection” scenario is based on the following sources:


**ALL OTHER CHARTS**

Estimates are from the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. Methodologies for scenarios:

“If we progress” scenarios are derived from setting the rates of change to the 85th percentile of historical median annual rates of change across countries.

“If we regress” scenarios are derived from setting rates of change to the 15th percentile of historical median annual rates of change across countries.

Current projections are based on past trends.

For further information on IHME data, see http://healthdata.org/globalgoals, and read the forthcoming article by Global Burden of Disease (GBD) 2016 SDG collaborators in the September 2017 volume of Lancet, “Measuring progress and projecting attainment based on past trends of the health-related Sustainable Development Goals in 188 countries: an analysis from the Global Burden of Disease Study 2016.”

Further details on IHME’s definitions for the following indicators:

**NEGLECTED TROPICAL DISEASES**

IHME measured the sum of the prevalence of 15 NTDs currently measured in the Global Burden of Disease study:

- Human African trypanosomiasis, Chagas disease, cystic echinococcosis, cysticercosis, dengue, food-borne trematodiases, Guinea worm, intestinal nematode infections, leishmaniasis, leprosy, lymphatic filariasis, onchocerciasis, rabies, schistosomiasis, and trachoma.

**UNIVERSAL HEALTH COVERAGE**

Defined by a UHC index of the coverage of nine tracer interventions and risk-standardized death rates from 32 causes amenable to personal healthcare. Tracer interventions include: vaccination coverage (coverage of three doses of DPT, measles vaccine, and three doses of the oral polio vaccine or inactivated polio vaccine); met need for modern contraception; ANC coverage; SBA coverage; in-facility delivery rates; and coverage of antiretroviral therapy among people living with HIV. The 32 causes amenable to personal health care include tuberculosis, diarrheal diseases, lower respiratory infections, upper respiratory infections, diphtheria, whooping cough, tetanus, measles, maternal disorders, neonatal disorders, colon and rectal cancer, non-melanoma cancer, breast cancer, cervical cancer, uterine cancer, testicular cancer, Hodgkin’s lymphoma, leukemia, rheumatic heart disease, ischaemic heart disease, cerebrovascular disease, hypertensive heart disease, peptic ulcer disease, appendicitis, hernia, gallbladder and biliary diseases, epilepsy, diabetes, chronic kidney disease, congenital heart anomalies, and adverse effects of medical treatment.

IHME then scaled 41 inputs on a scale of 0 to 100, with 0 reflecting the worst levels observed between 1990 to 2016 and 100 reflecting the best observed. They took the arithmetic mean of these 41 scaled indicators to capture a wide range of essential health services pertaining to reproductive, maternal, newborn, and child health; infectious diseases; noncommunicable diseases; and service capacity and access.

**VACCINES**

IHME’s measurement included the following vaccines: DPT (three doses), measles (one dose), BCG, polio vaccine (three doses), hepatitis B (three doses), Haemophilus influenzae type b (Hib, three doses), pneumococcal conjugate vaccine (PCV, three doses), and rotavirus vaccine (two or three doses). IHME used the geometric mean of coverage of these eight vaccines, based on their inclusion in a country’s national vaccine schedule.

**SANITATION**

IHME measured households with piped sanitation (with a sewer connection); households with improved sanitation without a sewer connection (pit latrine, ventilated improved latrine, pit latrine with slab, composting toilet); and households without improved sanitation (bush toilet that is not piped to sewer or septic tank, pit latrine without a slab or open pit, bucket, hanging toilet or hanging latrine, shared facilities, no facilities), as defined by the Joint Monitoring Program.
GLOBAL DATA

AN AT-A-GLANCE VIEW OF THE 18 INDICATORS TRACKED IN THE REPORT

POVERTY
Proportion of population below the international poverty line (US $1.90/day)

STUNTING
Prevalence of stunting among children under age 5

MATERNAL MORTALITY
Maternal deaths per 100,000 live births

UNDER-5 MORTALITY
Under-5 deaths per 1,000 live births

- Current projection
- If we progress
- If we regress
Global Data Overview

**TUBERCULOSIS**
New cases of tuberculosis per 100,000 people

**MALARIA**
New cases of malaria per 1,000 people

**UNIVERSAL HEALTH COVERAGE**
Performance score for coverage of essential health services

**SMOKING**
Prevalence of daily smoking in populations age 10 years and older

**FINANCIAL SERVICES FOR THE POOR**
Proportion of adults (age 15 and older) with an account at a bank or other financial institution or with a mobile-money-service provider

**INSUFFICIENT DATA**

**EDUCATION**
Proportion of children and young people: in grades 2 and 3; at the end of primary; at the end of lower secondary achieving at least a minimum level in reading and mathematics; and by sex

**GENDER**
Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and share of women among owners or rights-bearers of agricultural land, by type of tenure

**AGRICULTURE**
Volume of production per labor unit by classes of farming/pastoral/forestry enterprise size