

# How prioritizing health is a prescription for US prosperity

*This article was a collaborative effort by Katherine Linzer, Jaana Remes, and Shubham Singhal.*



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**As the United States rebuilds its economy in the wake of the pandemic, investing in health can lead the way.**

The COVID-19 pandemic has been an unwelcome reminder that health and the economy are inextricably linked. For this year alone, the estimated impact of the pandemic on the US economy is a 4 to 11 percent reduction in real GDP.

Yet prior to COVID-19, health was not typically part of economic growth discussions; the policy debate often focused on controlling healthcare costs.

We estimate that poor health costs the United States about 16 percent of real GDP annually from premature deaths and lost productive potential among the working-age population.

But it does not have to be that way. Rethinking health as an investment, not just a cost, holds the potential not only to improve the health of millions of Americans but to accelerate economic growth for decades to come.

In this article, we build on our global report *Prioritizing health: A prescription for prosperity* to look more closely at the United States and identify what it would take to improve the health of the population and what the benefits would be for individuals, the economy, and society. (For details of the analysis, see the sidebar “Our methodology.”)

## **1. The cost of poor health**

We estimate that each year, poor health costs the US economy about \$3.2 trillion from premature deaths and the lost productive potential associated with diseases. The five diseases with the biggest economic impact are, in order, musculoskeletal disorders, mental disorders, neurological disorders, substance use disorders, and diabetes and kidney disease.

Compared to its peers, the United States has a higher disease burden among younger and working-age populations. In the younger working-age population (20 to 40 years of age), where mental and substance use disorders are the biggest drivers of disease burden, Americans have a 46 to 50 percent higher disease burden rate than residents of other high-income countries. That gap narrows to a 17 to 33 percent higher disease burden in the older working-age population (40 to 70 years of age).

And this situation is expected to get worse. Over the next 20 years, the Institute for Health Metrics and Evaluation at the University of Washington forecasts that the US disease burden will increase by about 20 percent as age- and lifestyle-related diseases, such as cardiovascular diseases, cancers, and neurological disorders, rise (Exhibit 1).

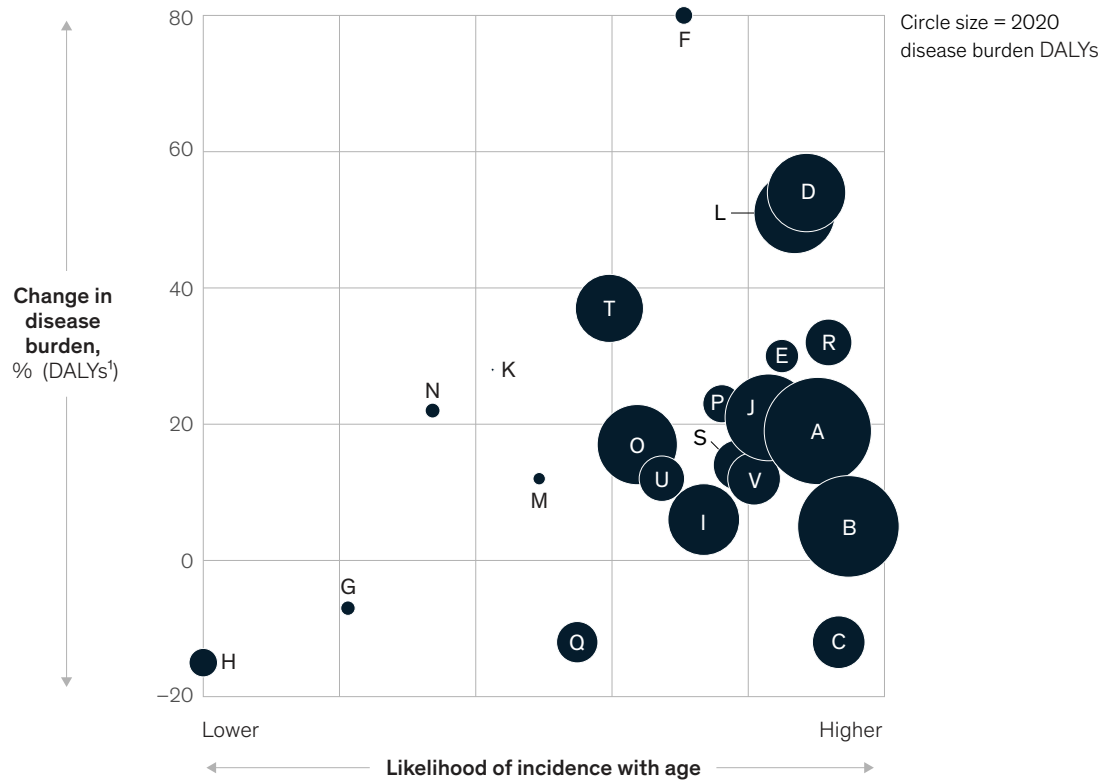
In the United States, no state is spared from this expected increase in disease burden, yet poor health is not borne equally. There are significant differences in health across states (Exhibit 2). Older populations and lower GDP per capita are associated, on average, with higher burdens of disease per capita. A disparity in disease burden per capita of almost 60 percent separates the states with the highest and lowest burden. In addition to state-level differences, there are disparities in disease burden and health outcomes within states as well as across age, gender, race, ethnicity, and socioeconomic status categories. To shed light on these disparities, McKinsey’s Center for Societal Benefit through Healthcare has developed an [open-access dashboard](#) for more than 80 measures at the county, state, and national levels. This data has highlighted, for example, the [disproportionate impact of COVID-19 on communities of color](#) as well as [physical health and behavioral health vulnerability to COVID-19](#).

This variation in health outcomes does more than highlight disparity—it highlights an opportunity to improve the health of the US population through better delivery of known interventions.

Exhibit 1

**Over the next 20 years, the US disease burden is expected to increase by ~20 percent as age- and lifestyle-related diseases rise.**

**Baseline disease-burden forecast**



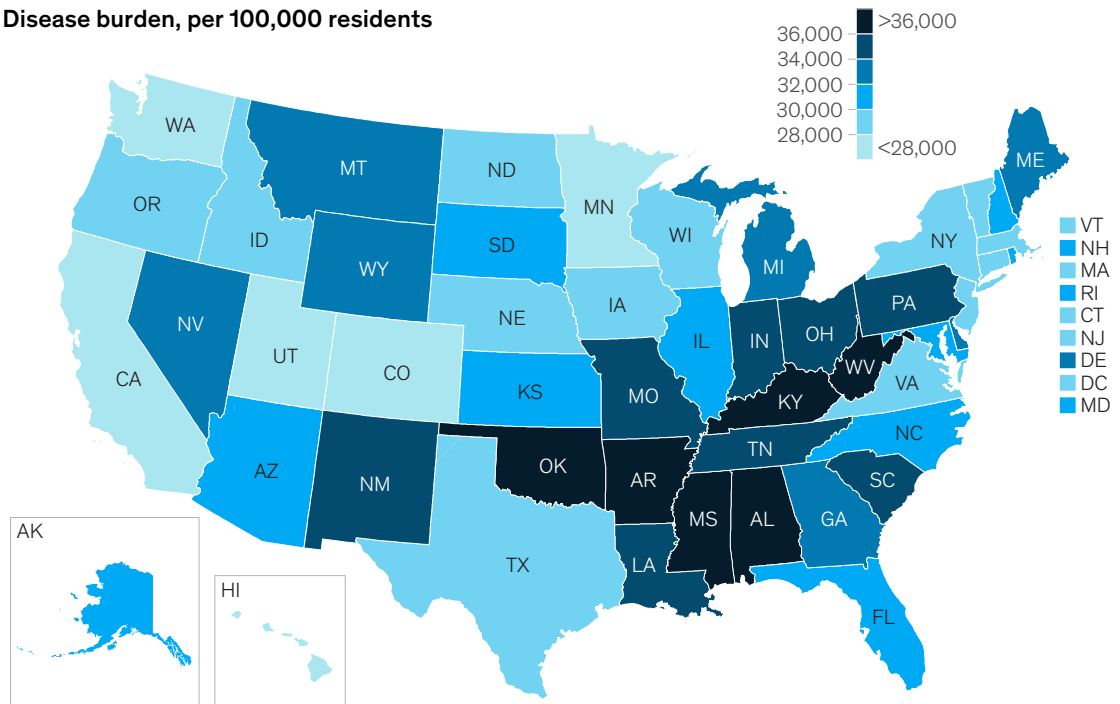
- |                                |  |   |                                  |
|--------------------------------|--|---|----------------------------------|
| A Cancers                      | G HIV/AIDS and sexually-transmitted infections | L Neurological disorders                  | R Sense organ diseases           |
| B Cardiovascular diseases      | H Maternal and neonatal disorders              | M Nutritional deficiencies                | S Skin and subcutaneous diseases |
| C Chronic respiratory diseases | I Mental disorders                             | N Other infectious diseases               | T Substance-use disorders        |
| D Diabetes and kidney diseases | J Musculoskeletal disorders                    | O Other noncommunicable diseases          | U Transport injuries             |
| E Digestive diseases           | K Neglected tropical diseases and malaria      | P Respiratory infections and tuberculosis | V Unintentional injuries         |
| F Enteric infections           |  | Q Self-harm and interpersonal violence    |                                  |

<sup>1</sup>DALY = disability-adjusted life year.  
Source: Global Burden of Disease Database 2016, Institute for Health Metrics and Evaluation (IHME); McKinsey Global Institute analysis

Exhibit 2

**There is variance in disease-burden rates across US states.**

**Disease burden, per 100,000 residents**



Source: Global Burden of Disease Database 2017, IHME, used with permission, all rights reserved; McKinsey Global Institute analysis

**2. The health improvement opportunity**

By deploying existing approaches to improve health and prevent and treat diseases, we found that the United States could reduce its disease burden by as much as one-third by 2040.

That would have a significant impact on an individual's health. For example, we found that the average 65-year-old American in 2040 would be as healthy as today's average 55-year-old, and almost eight million more Americans would be alive.

The key to achieving these health benefits is prevention (Exhibit 3). We found that most of the health improvement would occur simply by ensuring access to interventions that are preventive in nature—environmental, behavioral, and preventive medical—like weight management, smoking cessation, preventive generic drugs, and routine vaccines. And a focus on prevention would help build

resilience in the face of future pandemics; we are learning from COVID-19 that people with preexisting conditions such as obesity and heart disease are particularly vulnerable.

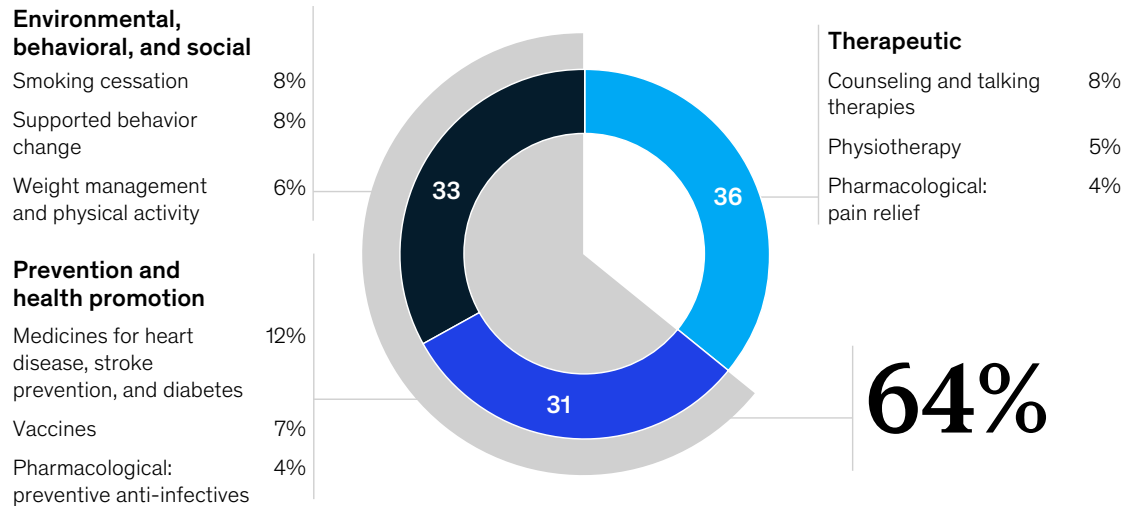
An example is low back pain. It can be addressed by preventive medical and health promotion interventions, like weight management and group-based multimodal programs consisting of different exercises, as well as therapeutic interventions like pain relief medicines. In 2040, if known interventions are implemented, it would be possible to reduce this disease burden by 55 percent, of which only 16 percent would be from pain relief medication and the majority from prevention and health promotion.

Another benefit of prevention is that it tends to be cost-effective. We found that 34 percent of the health improvements we calculated could be achieved at a cost of less than \$100 for each additional healthy life year.

Exhibit 3

**Almost two-thirds of the health improvement potential from known interventions would come from preventive health measures and environmental, behavioral, and social interventions.**

**Disease-burden reduction potential by intervention type**



Note: 84% of impact would be in low-income and lower-middle-income countries.  
 Source: Global Burden of Disease Database 2017, IHME, used with permission, all rights reserved; McKinsey Global Institute analysis

**3. The role of innovation**

While interventions known to us today can make a significant impact on the US disease burden, there remains a need for innovation, particularly to combat diseases that lack cures or scalable and sustainable treatments. They include some cancers, mental disorders, and neurological disorders as well as new health risks that may emerge.

Of course, progress is already being made in that regard, and potentially life-changing medical breakthroughs and technologies are in the pipeline. In our research, we identified [ten innovations that could reach the market by 2040 and further reduce the remaining disease burden.](#)

Unlike innovations from the past 30 years, which tend to reduce symptoms or delay disease progression but only rarely prevent or cure disease, many of today’s pipeline innovations have the potential to fully cure some diseases. Others tackle the underlying biology of aging, offering the potential to significantly extend healthy lifespan.

We calculate that these innovations could reduce the US disease burden by more than 20 percent by 2040—about twice the global rate, given the assumption of higher adoption rates in the United States.

**4. The size of the economic prize**

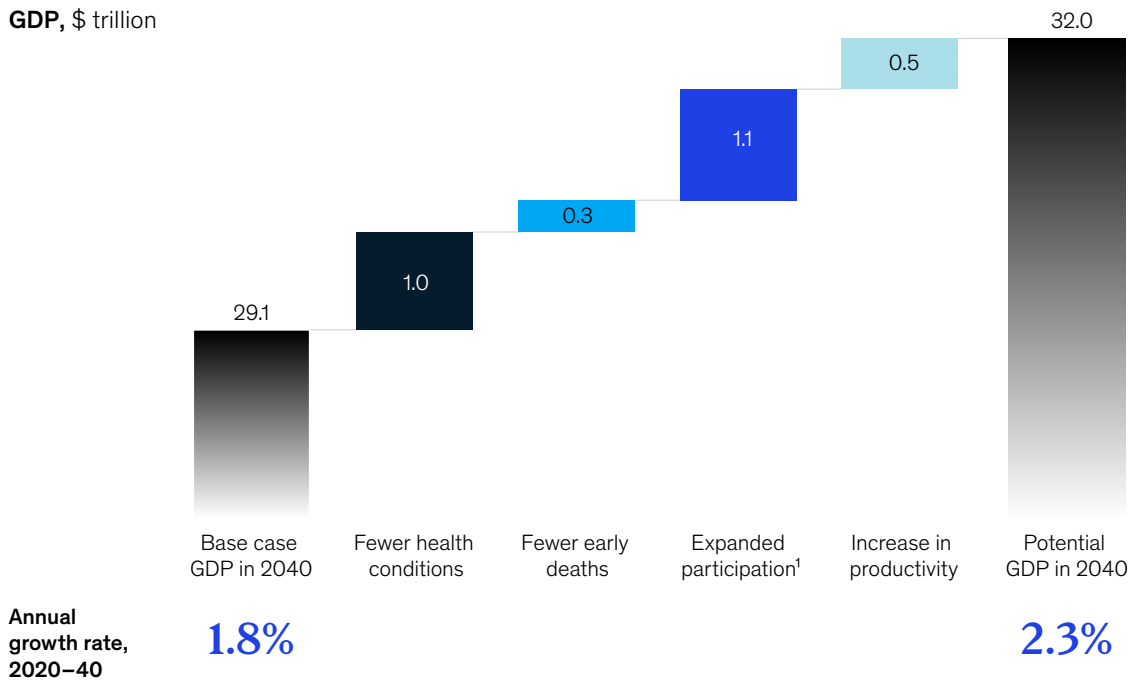
Achieving the health improvements described here would translate to tremendous economic growth—people who previously had a disability or needed to be full-time caregivers could join the labor force, older adults would be able to delay retirement, and employees with chronic conditions that interfered with employment would be able to focus more at work.

We calculate that these labor force impacts could add up to a 10 percent boost to US GDP in 2040, an increase of about \$3 trillion (Exhibit 4).

To give a few examples of the degree of impact, the health improvements would translate to two million

Exhibit 4

**US GDP could rise by \$3 trillion in 2040, a 10 percent increase.**



<sup>1</sup>Includes impact on older adults, people with disabilities, and informal caregivers.  
 Source: Global Burden of Disease Database 2016, IHME; ILO Stat; Oxford Economics; McKinsey Global Institute analysis

more people in the labor force whose death could be averted, about 5 percent greater workplace productivity for 25 million adults, and greater workplace potential for up to 13 million children and adolescents through avoided childhood disease.

And this opportunity to unlock economic growth is shared across the country, with all 50 states having the opportunity to boost GDP in 2040 by 8 to 13 percent by investing in better health (Exhibit 5).<sup>1</sup> Differences between states depend on demographics and the health status of the population. To take just one example, compare Maine and Utah, which lie at the extremes of US age distribution: the median age in Maine is 45 years, compared to 31 years in Utah.<sup>2</sup> It is not surprising that a larger share of Maine’s improvement opportunity comes from weight management, physical activity, and preventive medication for diabetes and heart conditions, which tend to

increase with age. In Utah, the potential impact of psychological therapy for mental health conditions, which tend to have their highest burden among younger people, is much higher.

In all, the benefits far outweigh the costs. For every \$1 invested in improving the health of the population, the United States stands to gain almost \$4 in economic benefit. However, this does not mean additional funding for healthcare as currently delivered. The health benefits and the economic upside we calculate will not be possible without fundamental changes in not just where and how healthcare is delivered today, but also in how we build communities that help individuals grow up, work, and age in healthy ways.

While harder to measure, the societal benefits from these health improvements far exceed the economic benefits and may be as much as \$4 trillion by 2040.

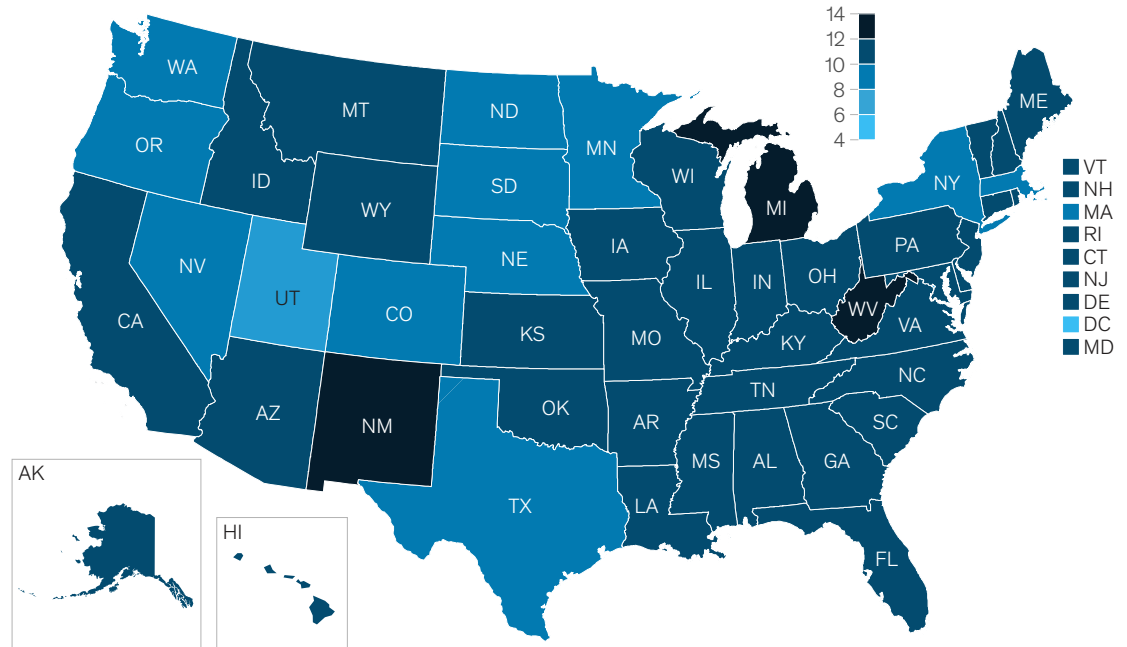
<sup>1</sup> Excluding Washington, DC, which could see a 4 percent increase in GDP by 2040.

<sup>2</sup> 2019 US Census Bureau data, September 2020, via Statista, <https://www.statista.com/statistics/208048/median-age-of-population-in-the-usa-by-state/>.

Exhibit 5

**All states have the opportunity to boost GDP in 2040 by ~8 to 13 percent.**

GDP improvement potential, %



Note: The District of Columbia has an opportunity to boost GDP in 2040 by 4%. Utah has an opportunity to boost GDP in 2040 by 7.9%.

Beyond working, better health would give people the freedom to spend their leisure time on what they want to do most. This includes older people, many of whom may choose to give back to society in other ways after retirement. In fact, through volunteering alone, we estimate that having a larger population of healthier people aged 65 and up could add \$9 billion to \$13 billion in societal value in 2040.

**5. How to capture the opportunity**

If one-third of the US disease burden could be prevented with known, cost-effective interventions, why haven't these interventions been implemented? Simply put, it may be easier said than done. Realizing this opportunity will require significant changes, not just in the provision of healthcare but in society more broadly.

We identify four imperatives to capture this opportunity.

First, we must reframe the economic debate to include health as a growth lever and a critical component of economic and societal resilience—in other words, an investment, not a cost. This will enable us to make the right investments to drive long-term health, kickstarting the virtuous cycle of health and economic prosperity.

Second, we must pay as much attention to health as we do to illness. The health community has long been aware that an ounce of prevention is worth a pound of cure, yet in OECD countries, according to some estimates, only 2 to 3 percent of healthcare budgets goes toward prevention.<sup>3</sup> The real question is how to shift from a focus on disease care to a mindset of disease prevention and health promotion while ensuring effective acute care services and sufficient capacity to deal with surges and crises. This shift involves ensuring that health promotion, preventive care, and early intervention are prioritized on a par with disease care and treatment.

<sup>3</sup> Michael Gmeinder, David Morgan, and Michael Mueller, *How much do OECD countries spend on prevention?*, OECD Health working paper number 101, Organisation for Economic Co-operation and Development, December 2017.

At the same time, it is critical to drive adoption of and adherence to effective therapies and to invest in public health preparedness.

Third, we must double down on innovation to accelerate the speed of response to public health crises and provide better solutions to the long-term challenges raised here. Scientific advances hold great promise to address many of the challenges we face with more effective, convenient, and acceptable interventions, which would improve the tool kit available to us today, provide new solutions for diseases we cannot yet cure or prevent, and combat new threats such as novel coronaviruses. To achieve this, we must work to ensure that potentially transformative innovations are scalable and sustainable.

Finally, we must maintain health as a priority for all. COVID-19 has put health on the agenda of every organization, large and small, including organizations that historically have not focused on health. Looking ahead, we must ensure that the health agenda remains a fundamental component of both the recovery and the “new normal.” Health, including mental health, should be top of mind in the decision-making process—for governments, companies, health institutions, investors, and societies. Long-term prevention and health promotion cannot simply be left to healthcare providers or public health systems. It is quite literally everybody’s business.

Different groups of stakeholders have specific opportunities. For example, governments could integrate the economic importance of health into decision making across all policy areas, support programs to encourage prevention, implement policies that promote healthy environments and communities, and rethink labor policies to enable an older and more inclusive labor force. Payors and providers could expand existing collaboration to innovate care delivery to promote self-care and prevention and to address social factors that play a role in health outcomes. They also can continue to move toward whole-person care models that place mental health and substance use on a par with physical health. Pharmaceutical and medical technology companies could invest in R&D for unmet needs and roll out known interventions efficiently to enable broader access. Companies could invest in both the short-term and long-term physical and mental health of their employees, foster inclusive work environments, and take broader responsibility for their health footprint, investing to promote the health of the communities and members they serve.

While we recognize that capturing the opportunity is no easy task, we find that it would be well worth the effort. Improving the health of Americans has the potential to be a societal and economic game changer. After all, few investments deliver against so many of today’s social needs, substantially improving well-being while also delivering an impressive shot in the arm to the economy. Let’s not miss the opportunity we have at hand.



## Our methodology

Our analysis involves two main steps. First, we assess the potential to reduce the disease burden from known interventions as well as innovations. Second, we quantify the impact of the disease-burden reduction on economies.

### Assessment of the potential to reduce the disease burden

We source our overall US disease-burden forecasts to 2040 from the Global Burden of Disease data set developed by the Institute of Health Metrics and Evaluation (IHME) at the University of Washington and apply shares of state-level disease burden to get to state-level forecasts. This data set includes diseases that cause death and contribute to years lived in poor health. We define diseases broadly as health conditions that affect quality of life, including infectious diseases, chronic conditions, and injuries.

To estimate the reduction in the disease burden achievable in our healthy-growth scenario, we conducted a detailed review of clinical evidence and guidelines to identify the interventions, both currently available and in the pipeline, with the greatest potential for scalable reduction of today's disease burden. We did so systematically for the top 52 diseases, which contribute to almost 80 percent of global disease burden, and 75 percent of US disease burden, and relied on clinical guidelines and evidence from leading institutions such as the WHO, Disease Control Priorities Network, and Lancet to estimate the health improvement potential. In all cases, our aim was to identify a basket of highly effective interventions with wide applicability, roughly 150 in total, rather than to catalog all possible interventions that might be found in a well-resourced and comprehensive healthcare system.

For each individual intervention for the 52 diseases, we followed three steps. First, we sized the health-improvement potential. This is an estimate of the share of the disease burden that could be averted through rigorous application

of an intervention affecting people with the disease. Second, we estimated the potential to increase adoption from current levels in countries that fall within four income archetypes (high, upper-middle, lower-middle, and low), with the United States considered part of the high-income archetype. For interventions that require ongoing compliance with a treatment program, this adoption estimate includes the sustained adherence and not just initial uptake. Third, we estimated the time required to reach the full impact. This involved two considerations: the time needed for implementation, and the time lag between delivering the intervention and gaining the health benefits from it. Where evidence on current or potential levels of adoption was limited, we made reasonable assumptions based on principles set out in the technical appendix.

### Quantification of the economic impact

To quantify the economic impact of these health improvements at the US state level, we first leveraged state-level population and labor-force forecasts from Moody's. We used these forecasts to calculate the shares of population for specific age groups and years and applied these proportions to the aggregate US-level forecasts. The same logic was used with labor-force forecasts. Then, we incorporated the impact of health improvements by age group each year. We then translated the improvements in population health to labor-force participation and labor productivity and to GDP through four channels: fewer premature deaths; lower rates of disability among the working population; higher labor-market participation among healthier older people, informal caregivers,

and people with disabilities; and higher productivity of a healthier workforce. The assumptions used to estimate impact across each of these channels were drawn from academic research where available and tested with an expert advisory group of economists.

### Uncertainties in our analysis

A number of uncertainties are inherent in an attempt to understand how global, US, and state-level health could be improved and what the benefits would be in 20 years. These arise from uncertainties surrounding the evolution of the global and US disease burden, the availability and effectiveness of different interventions (both those currently in use and those in development) in diverse populations, and the impact of improvements in health on society and the economy. We manage these uncertainties in each step of our analysis in the following ways:

#### *1. The evolution of the disease burden.*

While McKinsey & Company employs many medical experts and scientists, we are not a disease forecasting firm. We rely on disease-burden forecasts globally and for the United States provided by IHME, which maintains the most comprehensive database of the global disease burden and for the United States as whole. Forecasts of the global and US disease burden are inherently uncertain and health shocks such as the COVID-19 pandemic may affect forecasts.

#### *2. The availability and effectiveness of interventions.*

Our estimates are a snapshot of a very large scientific evidence base that is constantly evolving, often inconclusive, and uneven (in quantity and quality) across disease areas and specific interventions. In addition to the uncertainty inherent in the

underlying evidence and our interpretation of it, other aspects of our methodological approach influence our findings. We have mitigated them by sharing and reviewing our approach and interim results with academic and clinical experts at all stages of the research processes, and by providing a detailed description of our method and sources in the technical appendix and bibliography.

**3. Future innovations.** Research and development in the life and medical sciences is inherently risky and uncertain. We attempted to constrain these inherent uncertainties by looking only at technologies at relatively later stages of development—those that had already passed initial hurdles—and by looking at defined yet relatively broad innovation categories rather than at individual products. We shared and reviewed our method and findings with experts in the field at all stages of the research.

**4. Economic potential.** In the economic analysis, we make assumptions about what labor-market choices people can and choose to make if health benefits are realized. Importantly, we make assumptions about rates of participation in the labor force for groups at different

ages and in different health states. These assumptions are grounded in evidence, such as statistics on current and historic rates of labor force participation by age group, country, US state, and health status. Another key assumption was that the labor market could fully absorb additions to the workforce at average levels of productivity. We addressed this uncertainty using a sensitivity analysis, based on a dynamic equilibrium economic model (for more details, see chapter 4 of the main *Prioritizing Health* report).

#### **What this report does not do**

This report does not forecast health trends. Its purpose is to provide a sense of the magnitude of potential health and economic benefits that could be achieved by more broadly applying known interventions. Our estimates are not predictions, and we recognize the significant changes needed to achieve the identified health gains in just two decades. We also recognize the risks and threats that could alter the underlying disease burden and the validity of our estimates. In particular, the near- and long-term consequences of new diseases, such as COVID-19, and our response to them, will affect this underlying burden in ways that we cannot reliably quantify today.

This report does not assess current and future healthcare costs. Instead, we provide a high-level estimate of the cost implications of shifting to a healthy growth path by drawing on published research assessing the net cost for countries to implement the interventions identified. These implementation costs are incremental to current healthcare spending but could be largely offset by productivity gains in healthcare spending in middle- and high-income countries.

This report does not make recommendations about spending by any government or organization. It is intended to provide insight into what is possible to achieve with a broad-based improvement in global health. While our study provides a guide for how to improve the health of the world's population, the United States as a whole and every state has unique local health and economic conditions that should be considered to determine the most effective interventions in each case.

For more details about our methodology, see MGI's *Prioritizing Health* report's [technical appendix](#).

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