



Life Sciences for a better world

A fair field and no favour.

The push for ESG, universal healthcare, and meeting the UN's Sustainable Development Goals is increasing. But Life Sciences companies must do their part. We all must.



Never, in our entire species' history, have we been more connected.

We can face-time with colleagues across the world. Perform remote surgery on a patient from another country. Deliver vaccines and medicines across the world in a day, not weeks or months. We have the knowledge – and the ability – to change our world for the better.

The problem is, we aren't doing it fast enough.

We know climate change is real. We witness humanitarian crisis after crisis. We see biodiversity disappearing (as recently as October 2021, the COP 15 UN Biodiversity Conference in Kunming, China stated that “...**a million of the world's estimated 8.7 million species are at risk of extinction. Many natural services essential for their survival are falling apart. Time is running out for an agreement to save many plant and animal species.**”¹ Every day we hear that healthcare is struggling – especially for those living in low, and lower-middle-income countries (#LMIC).

Our most recent challenge, of course, is the coronavirus pandemic. In many areas, amazing things have been accomplished to keep people healthy and safe as a wide variety of global scientific collaborations took place, particularly amongst individuals and groups from different disciplines that had never worked together before.²

This is an encouraging sign for the United Nation's 17 Sustainable Development Goals (#SDG), which are meant to be addressed by 2030. That carbon emissions can be reduced, natural resources conserved, better jobs created, an advancement in gender equality, and that poverty and other inequalities are significantly reduced. But, again, we must move faster.

As mentioned within the United Nation's Sustainable Development Goals Report 2021 regarding the pandemic, “**Had the paradigm shift envisioned by the 2030 Agenda for Sustainable Development been fully embraced over the past six years, the world would have been better prepared to face this crisis – with stronger health systems, expanded social protection coverage, the resilience that comes from more equal societies, and a healthier natural environment.**”³

Future generations shouldn't suffer because of our hubris and short-sightedness.

We all must play our part.

Because the statistics aren't pretty.

¹ <https://news.cgtn.com/news/2021-10-16/COP15-concludes-in-SW-China-s-Kunming-14p3z6iDF3W/index.html>

² <https://www.nature.com/articles/d41586-021-01570-2>

³ <https://unstats.un.org/sdgs/report/2021/>

A global crisis part 1: Health and social inequality.

The World Health Organization (#WHO) estimates that each year 100 million people are pushed into extreme poverty because of the 'out-of-pocket' cost of their healthcare (such 'spending has remained high in low and lower-middle income countries (LMIC), representing greater than 40% of total health spending. The average domestic spending on health of lower income countries was only US\$ 34 per capita in 2018, about 4.4% of GDP, of which nearly 60% was out-of-pocket.⁴) – and that over 930 million spend at least 10 percent of their household income on health care.⁵

For example, this included 25% of those living in Bangladesh (in 2016), 9% in Peru (in 2018), 15% in Chile and Uganda (in 2016), and 19% in Moldova (in 2016). In the past decade, the highest was Sierra Leone (54% in 2011)⁶.

Many live too far from hospitals and other healthcare centres. Most cannot get access to vital care, vaccines, or medicines. Medically fixable physical conditions, easily treatable diseases, safe maternal and neonatal care, are often beyond reach – whether financially or through lack of access – for many living in LMICs.

Exacerbated by social inequality, this is leading to unnecessary long-term health problems and thousands of preventable deaths.

The WHO estimated that on every day in 2017, *“approximately 810 women died from preventable causes related to pregnancy and childbirth (and that 94% of all maternal deaths occur in low and lower middle-income countries.”*⁷

Of the 8.9 million fatalities around the world in 2019, heart disease, stroke, and chronic obstructive pulmonary disease were the leading causes of death. For LMICs this was also true – although neonatal conditions were third (though first in low-income countries), with chronic obstructive pulmonary (COPD) disease coming fourth.⁸ Worldwide, 80% of deaths from COPD occurred in LMICs.⁹

All are highly preventable. Cardiovascular disease (heart disease and stroke) is seen as 80% preventable.¹⁰ Lung disease is also seen as largely preventable and treatable¹¹.

For low-income countries, six out of ten causes of death were communicable – and in low-middle income countries, four out of ten. This includes diarrhoeal diseases, tuberculosis, malaria, and HIV/AIDS. Hepatitis B and C is also a significant problem, as seen by the large amounts of those dying from liver cirrhosis and liver cancer.

Advanced economies also see similar health issues/ causes of death.

In 2020, the leading causes of death in the United States were heart disease (690,882), cancer (598,932), and COVID-19 (377,883) with overall death rates highest among Black, American Indian, and Alaska Native persons.¹²

In Central Asia during 2019, ischemic heart disease (IHD) accounted for 31.4% of total deaths, stroke for 14.44%, and cirrhosis and other chronic liver diseases for 5.32%. In Central Europe, it was 25.81% for IHD, 15.63% for stroke, and 5.92% for tracheal, bronchus, and lung cancer.¹³



⁴ <https://www.who.int/publications/i/item/9789240017788>

⁵ https://www.who.int/health-topics/universal-health-coverage#tab=tab_1

⁶ https://data.worldbank.org/indicator/SH.UHC.OOPC.10.ZS?end=2018&most_recent_value_desc=true&start=2018&type=shaded&view=map

⁷ <https://www.who.int/news-room/fact-sheets/detail/maternal-mortality>

⁸ <https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death>

⁹ <https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-copd>

¹⁰ <https://www.heart.org/en/get-involved/advocate/federal-priorities/cdc-prevention-programs>

¹¹ <https://www.lung.org/lung-health-diseases/lung-disease-lookup/copd/learn-about-copd>

¹² <https://www.cdc.gov/mmwr/volumes/70/wr/mm7014e1.htm>

¹³ <https://vizhub.healthdata.org/gbd-compare/>

The impact of social/health inequality

Lower-income and socially unequal communities suffer the most.

As the WHO notes: *“There is ample evidence that social factors, including education, employment status, income level, gender and ethnicity have a marked influence on how healthy a person is. In all countries – whether low-, middle- or high-income – there are wide disparities in the health status of different social groups. The lower an individual’s socio-economic position, the higher their risk of poor health.”*¹⁴

Universal healthcare aims to address this problem. As defined by the WHO, universal healthcare *“means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care across the life course.”*¹⁵

Regardless of any nation’s economic wealth.

While it’s clear that lower socio-economic groups suffer disproportionately, an individual’s higher wealth and ability to receive better insurance and healthcare, doesn’t mean that they are not part of a vulnerable group.

Consider the EU.

Diverse, wealthy, modern, and with the world’s highest life expectancy. But... as noted in the WHO’s 2019 EU Country Health Profiles and Companions Report: *“Gaps in the accessibility of health care and a lack of data are undermining universal health coverage across the European Union.”*

Furthermore, *“[the report] shows that not only rural populations but also peripheral populations are beyond*

the reach of mainstream care. Those who are older, less mobile, more vulnerable or living in the heart of urban areas but at the fringes of society all face difficulties with access in at least half of all EU Member States. Irregular residents are also excluded from normal statutory health coverage in a third of Member States; refugees and homeless people in particular suffer from a lack of access.”

Accessibility to healthcare also varies greatly between countries. When it comes to people reporting their unmet medical needs, the percentages are striking in their differences. The Netherlands came out on top at nearly 0 percent, with little difference between low and high incomes. On the other end of the spectrum, Estonia had the highest levels of unmet needs. *“Across all income levels, 11.8 % of Estonians report that their health needs are not met, compared to an EU average of 1.7 %.”* Greece, Latvia, Romania, Finland, Slovenia, Poland, the United Kingdom, Iceland, and Ireland came next.

The top five best performers after the Netherlands, were Spain, Malta, Germany, Austria, and Luxembourg.

Whether through excessive waiting times, lack of regional healthcare centres, travel times, or costs, filling these gaps in coverage requires a coordinated effort.

Businesses, especially those working in life sciences, have an important role to play.

However, *“The reality of how to achieve the United Nations commitment (SDG 3.8) of universal health coverage by 2030 is beginning to bite. Governments around the world, faced with the practical and strategic challenges of this goal, are asking how it can be achieved and who can help them.”*

The answer is simple.

Everyone.

¹⁴ <https://www.who.int/news-room/facts-in-pictures/detail/health-inequities-and-their-causes>

¹⁵ <https://www.who.int/news-room/fact-sheets/detail/universal-health-coverage-uhc>

A global crisis, part 2: The environment.

*"We are the first generation to know we are destroying the world. And we could be the last that can do anything about it."*¹⁹

Powerful words from Tanja Steel, CEO of the UK WWF

Especially as climate change is set to hurt LMICs the most. *The impacts of a rise of around 2-3°C in global average temperatures are many and serious. And they fall disproportionately on the inhabitants, human and non-human, of developing countries.*²⁰

This was expanded on by the WHO. *"Between 2030 and 2050, climate change is expected to cause approximately 250,000 additional deaths per year, from malnutrition, malaria, diarrhoea and heat stress. The direct damage costs to health (i.e. excluding costs in health-determining sectors such as agriculture and water and sanitation), is estimated to be between USD 2-4 billion/year by 2030. Areas with weak health infrastructure – mostly in developing countries – will be the least able to cope without assistance to prepare and respond."*²¹

This also isn't a 'far in the future' scenario, as noted in the United Nations Framework Convention on Climate Change Annual Report 2020:

*"The world is facing mounting weather extremes, with heatwaves, wildfires, storms and floods leaving a trail of devastation and threatening lives and livelihoods. Arctic sea ice is disappearing faster than we imagined possible and the continued degradation of the environment has led to an unprecedented loss of biodiversity and the degradation of ecosystems. As with the pandemic, it is the most vulnerable in society who are most at risk from the impacts of climate disasters."*²²

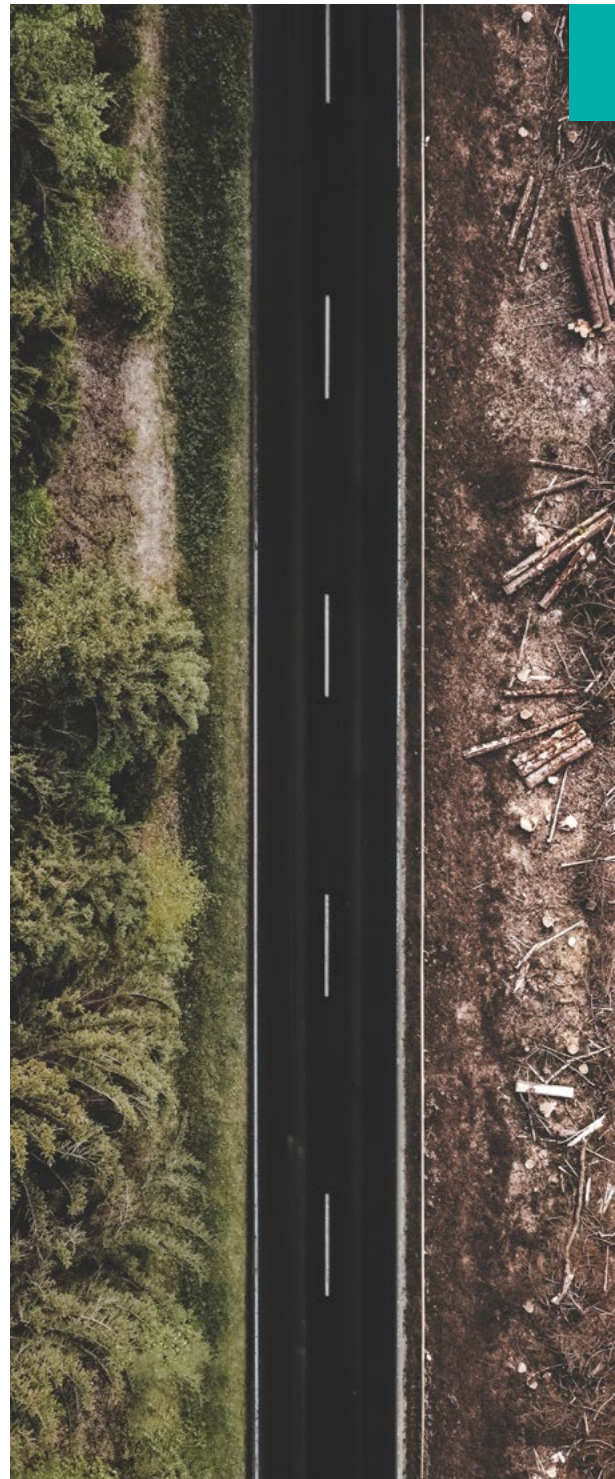
And further discussed by the European Commission, who felt that *"Climate change is already having an impact on health:*

- *There has been an increase in the number of heat-related deaths in some regions and a decrease in cold-related deaths in others.*
- *We are already seeing changes in the distribution of some water-borne illnesses and disease vectors."*²³

Even the World Economic Forum has concerns:

*"The largest impact of climate change is that it could wipe off up to 18% of GDP off the worldwide economy by 2050 if global temperatures rise by 3.2°C, the Swiss Re Institute warns."*²⁴

Not to discount the huge impact on human health. Or to forget the ongoing extinction of animal and plant life. *"Biodiversity loss is one of the world's most pressing crises, with many species declining to critically low levels and with significant numbers going extinct."*²⁵



¹⁹ Tanya Steele, Chief Executive of the UK WWF. <https://twitter.com/TanyaMSteele/status/1085544650499330054>

²⁰ The Britannica guide to Climate Change (Constable and Robinson Ltd, 2008), p.IX.

²¹ <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

²² https://unfccc.int/sites/default/files/resource/UNFCCC_Annual_Report_2020.pdf

²³ https://ec.europa.eu/clima/change/consequences_en

²⁴ <https://www.weforum.org/agenda/2021/06/impact-climate-change-global-gdp/>

²⁵ Species on the Edge of Survival (International Union for Conservation of Nature and HarperCollins, 2012), p3

Playing our part

The #UN's comment in their SDG Report 2021 that targets are not being met is concerning.

Clearly, the ongoing coronavirus pandemic has impacted the realisation of the goals, but (as mentioned in the report) *"the SDGs were already off track even before COVID-19 emerged."*

One of the largest corporate movements during the past years has been the development of environmental, social, and governance (#ESG) strategies²⁶. All of which should have helped organisations meet SDG targets.

Life Science companies must lead the way. Especially with SDG 3.8. But for many, their access strategies are not being prioritized and it's clear to see why. Richer, more developed nations deliver a better (usually short-term) return on investment. Various strategies, such as innovation, are primarily IP-focused, and far less on meeting societal needs. Additionally, governance and metrics often provide little, if any, incentive to innovate in this direction.

New strategies are needed

Of course, within an industry where knowledge advances rapidly, yet planning 'right now' must consider decades of development, being conservative with R&D decisions and overall business strategies is often prudent.

But it isn't helping lift LMIC societies to a better, healthier level. Or ensuring that everyone in developed nations receive equal, timely, and affordable care.

For the SDGs to succeed by 2030, businesses need to develop strategic processes that look closely at where they can make the best impact, and how to reasonably do it. Additionally, innovation must also be geared towards longer-term benefits within multi-stakeholder environments, and not specifically on developed products and markets.

Success will come from smarter collaborations, rethinking revenue streams, developing an incentive structure that looks beyond current products in current markets, fully understanding the different needs per country and what assistance governments can provide, and creating corporate agendas/visions that place 'people and the environment' first.

Ultimately, there must be a stronger shift toward 'service' business models.

An interesting example of this is Viiv Healthcare.

"Viiv Healthcare is the world's only pharmaceutical company 100% focused on HIV. It is our mission to leave no person living with HIV behind.

We turn our mission into action through several initiatives, like accelerating the development of pediatric HIV medicines and improving access to medicines, while partnering with key stakeholders.

In low- and middle-income countries we license our products for free, or at a very reduced price, to local and generic companies. This ensures that modern treatments are readily available, which is incredibly important considering that 94% of adults and 99% of children with HIV live in LMIC countries. By supporting local companies to produce these medicines, the price can be kept low while boosting the local economy.

In Belgium, we also act to ensure no person living with HIV is left behind. Those with a migrant background can face several barriers to accessing optimal care, including linguistic, psychosocial, and cultural barriers.

Therefore, since 2014 we have engaged with iPropeller, who recently joined forces with KPMG, to develop initiatives that benefit Sub-Saharan African migrants in Belgium to live better with HIV. This includes several disease-awareness materials created through a community-driven and co-creative approach to simplify and adapt communications around the complex aspects of HIV treatment. Topics, such as the side effects of medicines, risks of non-adherence, and medication schedules are often misunderstood. Healthcare providers and HIV organizations successfully use these materials to clearly explain these difficult topics to people living with HIV of African origin.

We're committed to continuing our efforts to leave no person living with HIV behind."

*Helena Van Mechelen,
Medical Affairs Manager Viiv Healthcare*

²⁶ <https://home.kpmg/uk/en/home/services/environmental-social-governance.html>

With the life sciences and healthcare industries becoming more aligned on providing healthcare; especially for those with ongoing, chronic illnesses; service models will become increasingly essential.

Within Europe, even with its varied issues regarding healthcare access, there is a growing understanding that managing illnesses is as equally important as finding a cure. For vulnerable individuals, managing their disease is very complex. Life Sciences can share this burden by helping to ensure they receive proper care, make the right choices regarding their treatment, and can easily follow any set treatment and/or drug regimes.

But outside of Europe, things are still problematic.

While many organisations have programs and policies in place to assist LMICs (donating drugs, helping to develop better access strategies for care and medicine, etc), the programs are often not (or not fully) strategic and part of core business values. They may also not live up to an organisation's purpose statement, which can be an issue as the public and investors increasingly scrutinise them.

Life sciences can lead the way

In many ways, the coronavirus pandemic has been a true litmus test in how we, as a society, can come together and overcome a crisis. On a purely scientific and logistics standpoint, we did very well. Organisation's collaborated, vaccines were rapidly produced, governments cut red tape.

We showed what fast, collective action can achieve.

But it simply could not have been done without the years of research, experience, and dedication that came from Life Sciences companies.

There is no reason that this cannot be done on an even bigger scale with Life Sciences helping to



bring essential services to those most in need, to lift societies, and to contribute towards an ecologically healthy planet.

But everyone needs to keep the momentum going and strive to achieve the UN's Sustainable Development Goals by 2030. To help others, save the environment, and boost your own business.

To know that your success is everyone's success.

Contact us today to discuss how we can help you make a world of difference.

KPMG Global: <https://home.kpmg/xx/en/home/industries/life-sciences.html>

KPMG Belgium: <https://home.kpmg/be/en/home/industries/life-sciences.html>

KPMG Germany: <https://home.kpmg/de/de/home/branchen/life-sciences-chemie.html>

KPMG France: <https://home.kpmg/fr/fr/home/secteurs-activite/sante-et-sciences-de-la-vie.html>

KPMG Ireland: <https://home.kpmg/ie/en/home/industries/life-sciences.html>

Authors

Thomas Hillek
EMA Lead Partner KPMG Life Sciences
thillek@kpmg.com
+49 89 9282-1409

Michael Wagemans
Head of Sustainability, KPMG in Belgium
mwagemans@kpmg.com
+32 3 821 17 14

Contact persons

Koen Van Ende
**Partner, Head of Life Sciences Sector,
KPMG in Belgium**
kvanende@kpmg.com
+32 2 708 36 72

Silvan Jurt
**Partner,
KPMG Switzerland**
sjurt@kpmg.com
+41 58 249 50 25

Anne Julie Verhaeghe
**Life Sciences Sector Lead,
KPMG in Belgium**
annejulieverhaeghe@kpmg.com
+32 2 708 46 21

Jerwin Tholen
**Partner,
KPMG The Netherlands**
Tholen.Jerwin@kpmg.nl
+31206 564584

Wafa Jafri
**Partner,
KPMG United Kingdom**
Wafa.Jafri@KPMG.co.uk
+44 7775 006965

Paolo Barzaghi
KPMG Italy
paolobarzaghi@KPMG.it
+390267631

Bridget Beals
**Partner,
KPMG United Kingdom**
Bridget.Beals@KPMG.co.uk
+44 207 3114684

Ramon Pueyo Viñuales
**Partner,
KPMG Spain**
rpueyo@kpmg.es
+34914566017

Anne Garans
**Partner,
KPMG France**
agarans@kpmg.fr
+33155688752

Igor Korotetskiy
**Partner,
KPMG Russia**
IKorotetskiy@kpmg.ru
+74959374444 x14504

Gerd Krause
**Partner,
KPMG Germany**
gkrause@kpmg.com
+49 221 2073-1363

Prathmesh Raichura
**Partner,
KPMG India**
prathmesh@kpmg.com
+912230902377

home.kpmg/be
home.kpmg/be/socialmedia

