Driving our social impact

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MSCI upgrades Novartis to AA

Top 10 ESG-related questions from shareholders and our responses

Q2 2022 ESG Update

for investors and analysts



Dear investors and analysts

In our Q2 ESG update, our focus continues to be on enhancing our impact on society and addressing the inequalities in global healthcare. We highlight a number of new and expanded initiatives to improve access to innovative and necessary healthcare to underserved patients; and also to enhance the sustainability of healthcare systems globally.

As part of our commitment to enhance our impact, we engaged with many of you during our recent ESG roadshows and appreciate your valuable insights. Feedback and questions we received are reflected in the Q&A at the end of the newsletter.

Thank you again for your interest in Novartis.

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Driving our social impact

During Q2 we extended our range of new initiatives to enhance our contribution to and impact on global health. Our initiatives build on the key issues identified in our materiality assessments including: access through health systems strengthening; and improving outcomes through innovation.

Access through health systems strengthening

Initiative	Activity	Potential outcome/impact
Fighting sickle cell disease in Sub-Saharan Africa	A new ® partnership with the American Society of Haematology to fight against sickle cell disease (SCD) in Sub-Saharan Africa. The Ghanaian government recently announced to provide care (newborn screening and hydroxyurea) free of charge to eligible patients.	Driving early diagnosis for babies with SCD is key to promote better health outcomes. SCD is a life-threatening inherited blood disorder. Over 300,000 children are born with SCD in Africa every year.
	We intend to provide six additional African nations with technology to document and share the diagnosis of babies with SCD.	
Expansion of Novartis collaboration with the Max Foundation	Launched ⁽¹⁾ CancerPath to Care with the Max Foundation, a global nonprofit which aims to accelerate health equity.	CancerPath to Care expects to provide access to care for 36,000 people living with breast and rare cancers in over 70 LMICs by 2025.
	Under the expanded program patients would have access to Novartis treatments for breast cancer, and our novel therapy for CML, Scemblix [®] .	Since 2002, Novartis and Max have helped more than 90,000 patients in low and middle income countries with treatment for chronic myeloid leukemia (CML) and other rare cancers.
US National Institutes of Health supports UTMB-Novartis Alliance for Pandemic Preparedness	The US National Institute of Allergy and Infectious Diseases awarded a \$56 million grant to establish one of the nine Antiviral Drug Discovery centers in a partnership between Novartis and the University of Texas Medical Branch (UTMB).	The UTMB-Novartis Alliance aims to discover antiviral drugs which target viruses with the potential to cause pandemics.
	Researchers intend to focus on coronaviruses, flavivirus and henipavirus.	
First pharmaceutical company to contribute a targeted therapy to Access to Oncology Medicines (ATOM) Coalition	In May, the Union for International Cancer Control established the ATOM coalition. Novartis was announced as a partner of the coalition.	The ATOM coalition aims to increase access to essential cancer treatments in LMICs.
		Novartis is contributing a targeted therapy to this coalition.
		Three in four cancer deaths occur in the poorest countries around the world, often due to lack of early

diagnosis or care.



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Innovation on NTDs and clinical trial diversity

Activity	Potential outcome/impact
We recently Preiterated our commitment towards the fight against Malaria and Neglected Tropical Diseases (NTDs) at the Kigali Summit, announcing a contribution of \$250 million over five years to develop new treatments.	By tackling NTDs we aim to reduce poverty, address inequity, strengthen health systems, increase human capital and build resilient communities.
	It is estimated that 1.7 billion people globally continue to suffer from NTDs.
We have increased our commitment to the <code>\text{\theta}</code> Beacon of Hope to \$50 million as part of an expanded partnership including the increase in clinical trial centers from one to four.	The partnership aims to increase the representation of minorities in clinical trials and ensure trials are targeted at those who need it most. Making progress to empower the next generation of African American and Black students in healthcare. The programme is open for others and two multinationals have already joined.
Beacon of Hope is a 10-year collaboration with 26 Historically Black Colleges, Universities and Medical Schools to address the root causes of disparities in health and education.	
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Research to drive access to healthcare

Research:

Virtual Health and Care report to drive greater health access and equity

Focus

In June, a detailed research report - (1) The Future of Health and Care - driving access and equity through inclusive policies - was published by the Broadband Commission for Sustainable Development Working Group, which was co-chaired by the World Health Organization and the Novartis Foundation.

Methodology

The report analyzed virtual health and care policies in 23 countries.

Conclusions

The report outlines how countries can ensure virtual health and care drives health access and equity.

The report also calls on health decision makers to act to prevent digital divides from increasing health inequities with a specific focus on ensuring equitable and inclusive access to virtual services for entire populations.

Research:

Peer reviewed research paper published to help improve managed access requests

Focus

Managed access requests are made when patients with serious conditions seek medical products that are not yet approved or available in their country.

Novartis published a peer reviewed ® paper in the Journal of American Medical Association to share our experience on handling these requests.

Methodology

The study analyzed 31,711 managed access requests received in a 36-month period at Novartis.

Conclusions

The study found that the vast majority (87%) of managed access requests came from high-income countries.

Learning from the factors associated with higher request activity could translate into improved access to novel lifesaving products for patients with unmet medical needs.

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2022 ESG Roadshow

Novartis recently completed its 2022 ESG Roadshow, a program which has been in place for the last four years.

We value the active and engaged dialogue on ESG topics from all participants. Engaging with stakeholders on ESG issues fosters mutual understanding of our practices and ensures we can continue to improve our ESG journey.

Klaus Moosmayer (Chief Ethics, Risk and Compliance Officer) and Lutz Hegemann (President, Global Health & Sustainability) participated in our 2022 ESG roadshow with ~70 participants, including investors representing over 20% of our shareholder base, and both equity and credit analysts.



The primary discussion area was how to measure impact – something Novartis is acutely focused on.

Discussions during the roadshow covered a wide range of topics, including:

- → Access to Healthcare Innovation
- ightarrow Addressing inequities in US
- ightarrow Code of Ethics and approach to risk management

Key questions raised are set out at the end of the newsletter.

Following on from this roadshow, our 2022 ESG Investor Day will be held on 30 November, 2022.



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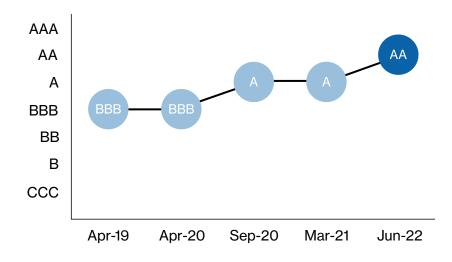
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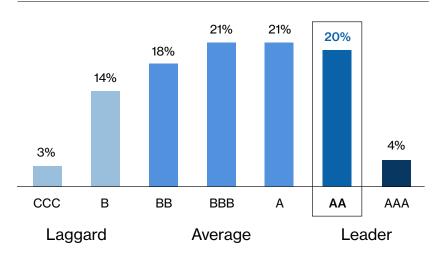
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MSCI upgrades Novartis to AA

Novartis MSCI rating was upgraded to AA during Q2 and our recent progress is set out in the bar chart below

Novartis MSCI rating over time





This places us within the top quartile of the industry. The upgrade was driven by:

Closure of major legacy controversies

Leadership position in the environment category

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Question

Of the total number of patients reached: how much is Sandoz? Impact of potential Sandoz separation to your programs (Access, AMR)

Response

- Out of 760m patients reached, approximately 500m are reached through Sandoz – but considering that generics have a different impact from a complex pharmaceutical drug we do not measure impact this way.
- Novartis has commenced a strategic review of Sandoz, ranging from retaining the business to separation, while ensuring the continued success of Sandoz and the benefit for patients, and also with a view of maximizing value for shareholders.
- The focus of our access efforts is on innovative medicines, while selected generic medicines are being used strategically to create a continuum of care and to strengthen health systems.

2

Can you talk about your efforts on clinical trial diversity? What is the business rationale?

- Diverse, inclusive trials are critical to ensuring that we understand how those patients who are most likely to be treated for a disease or condition will respond to a medicine.
- We have an obligation to address health disparities through our R&D. To make sure all patients can benefit from our medicines, we must understand how these medicines work in diverse populations, especially in groups that have been historically underrepresented in clinical trials.
- We published our target: evaluating D&I principles for 100% of Ph3 studies with US participation starting H2 2021. Our approach focuses on addressing the root causes of health inequities:
 - One of the barriers to diverse patient recruitment is a lack of diverse clinical trial investigators.
 - 2. Build trust with underserved communities by creating more diversity in the entire health research ecosystem.
 - 3. Realizing that health equity can and should not be the job of any one individual, organization, or agency. The participation and inclusion of companies beyond pharma/biotech is also vital.
 - 4. Technology and social interventions present a great opportunity to bridge knowledge and trust gaps.

More details can be found on \emptyset page 3 of this update.

3

You've talked a lot about the importance of psychological safety to drive an ethical culture – can you explain?

- Psychological safety is a concept whereby team members feel they can safely express themselves at work.
- The paper analyzed 38,000 responses to the Novartis 2021 global survey of employees. The research found that employees' psychological safety is directly related to their willingness to report unethical behaviors, across countries, culture, seniority, and functions, with line managers playing a key role in fostering an ethical culture. It also highlighted that it is critical that when misconduct happens, there is a strong ethical climate for surfacing information so that leaders can respond quickly and appropriately.

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Question

4

How are you engaging with suppliers on ESG?

Response

- Novartis is engaging with preferred suppliers on environmental topics, to raise awareness and provide basic information, advice and training.
- For new suppliers, Novartis has developed the Novartis Green Expectations from Suppliers, to which all new suppliers must adhere by demonstrating their commitment to sustainability and its alignment with Novartis.
- Novartis continues to implement a range of D&I initiatives with suppliers with the objective to have enhanced D&I principles in all third-party risk management, procurement and supply chain practices by 2023.

5

Can you talk about your approach to patient safety and quality?

- Quality is a key priority throughout the product life cycle, in line with our 2021 materiality assessment – from clinical, manufacturing, and pharmacovigilance.
- We maintain a robust quality management system with harmonized processes and procedures - providing integrated medical safety evaluations and benefit-risk assessments as well as monitoring the quality and safety of in-market and investigational products.
- To maintain compliance with our quality and safety standards and to support the continuous improvement of our Quality Management Systems, Novartis has a robust and independent audit program that covers the product lifecycle - in 2021, >1,400 audits were conducted including ~1,300 supplier audits.

6

Can you talk about the financial sustainability of your access programs?

- Our approach to access has evolved over the past 2 decades as
 we strive for more sustained impact: we have pivoted from donation
 programs towards partnerships which are integrated into our core
 business. Our access thinking goes beyond affordability The Novartis
 Access Principles (launched in 2018) include R&D and health system
 strengthening activities to ensure long-term sustainable impact.
- Most of our access programs relating to innovative therapies are
 either accretive or self-sustaining. In 2019, we announced our novel
 approach to reach more patients in Sub-Saharan Africa (SSA) across
 our portfolio, focused on driving access to medicines, in addition to
 traditional business metrics, such as profits and margins. Our SSA
 sub-unit is delivering a sustainable and profitable model to reach
 underserved populations.

7

Any updates to the Greek controversy?

- In June 2020, Novartis reached a resolution with US authorities that resolved under US law certain legacy compliance issues in Greece dating as far back as 2009.
- The US resolution contained no allegations relating to any bribery of Greek politicians, which was consistent with what the company found in its own internal investigation.
- In the years since that conduct occurred, Novartis has implemented a state of the art approach to ethics, risk, and compliance and has remained committed to Greece and to providing access to treatments to Greek patients in need.
- The Greek State last month filed a civil claim for "moral damages," seeking €214 million based on the legacy conduct outlined in the resolution reached with the US authorities. The lawsuit was only recently served upon Novartis Hellas and we are in the process of carefully evaluating it.
- The company maintains the right to defend itself under Greek law.

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Question

8

Are you aligned with SBTi Net Zero guidance?

Response

 Yes. Novartis already has an interim science-based target that was approved in 2018 which is in line with the 1.5°C climate ambition. In September 2021 Novartis committed to achieve net zero by 2040 and in May 2022 we committed to align this target with the Science Based Target Initiative (SBTi) Standard which was published in October 2021. We now have until May 2024 to have our Net Zero target validated against the Standard.

9

Recent energy inflationary pressures: what is the impact to your climate strategy? Particularly on your vPPAs?

- Inflationary cost pressures in energy support the execution of our existing climate strategy. Our first priority is to reduce our demand for energy through business transformation and investment in technology. The remaining energy demand will be met through renewable sources. Rising energy costs have created some new opportunities such as trigeneration technology using green gas which are currently being explored.
- Our existing vPPAs have a financial mechanism which protects Novartis against rising and falling energy costs.

10

Comments on regulatory developments by SEC and EU?

- We are actively assessing the proposed regulations to determine how our existing reporting could be enhanced and the potential opportunities for Novartis.
- We believe that we are well positioned to respond to emerging ESG regulations, particularly with our integrated reporting approach.
 We will continue to enhance our ESG disclosures and adapt to emerging ESG reporting standards such as those being prepared by the International Sustainability Standards Board (ISSB). Our integrated annual report is prepared in accordance with the GRI and SASB Standards. We also report in line with TCFD and against the UN SDGs through our UN Global Compact Communication of Progress.