

3M Science.
Applied to Life.™



Enabling better, smarter, safer healthcare for all.

Our world is constantly evolving and improving thanks to technology and science. The healthcare industry is just one of the many areas that can greatly benefit from these advancements. With resources and new knowledge at our fingertips, we have the opportunity to leverage that expertise to revolutionize how we treat and care for patients.

Building a better future through sustainability.



How do we — as a healthcare industry — bring better health to all? We can start by integrating our understanding of environmental and social challenges to help design more sustainable solutions. We can also look at health holistically and aspire to make a difference by utilizing the knowledge and science we have available.

The 2030 blueprint from the United Nations supports the goal of enabling better, smarter, safer healthcare for all. The organization has outlined 17 global sustainable development goals (as adopted by the UN General Assembly in 2015) that strive to address the challenges of poverty, inequalities and global climate change by 2030. One of the development goals, “Good health and wellbeing for all,” **helps unite our industry across the world to focus on building a brighter, more sustainable future — together.¹**

¹“Ensure healthy lives and promote well-being for all at all ages,” *United Nations Department of Economic and Social Affairs*, accessed June 10, 2023, <https://sdgs.un.org/goals/goal3>



Challenges to address.

Which specific populations need access to better healthcare — and how can our industry help?

A 2020 *Journal of Epidemiology and Global Health* study highlights that an estimated 462 million individuals globally are affected by type 2 diabetes, which corresponds to 6.28% of the world's population.² This is one significant group that can greatly benefit from advanced technology like wearables. Wearable technology has quickly become instrumental in helping these patients improve their quality of life and get them better connected with clinicians remotely.

Patients living in rural areas, with clinic options being many miles away, can also benefit from advanced wearable technology. Wearables, like continuous glucose monitors with extended wear time, can be life-changing for patients who have limited in-person clinic access. **When empowered to manage health at a distance, patients can address their needs on their own schedule, leaving them with more time for other priorities in their lives.**

Another group in need of specific support is our population of aging patients. According to the World Health Organization, by 2023 one in six people in the world will be aged 60 years or over.³ This population continues to grow in size, and they experience changing medical needs over time. When patients age, for example, so does their skin. They need specific adhesives that won't aggravate or injure their skin. **In response, our industry has intentionally engineered solutions to be gentler on fragile skin to reduce the amount of tearing and discomfort.** Adhesives, devices and techniques continue to evolve and adapt, tailoring to the specific needs of this patient population.

²Moien Abdul Basith Khan, Muhammad Jawad Hashim, Jeffrey Kwan King, Romona Devi Govender, Halla Mustafa, and Juma Al Kaabi, "Epidemiology of Type 2 Diabetes - Global Burden of Disease and Forecasted Trends," *Journal of epidemiology and global health* 10, no. 1 (March 2020): 107–111. <https://doi.org/10.2991/jegh.k.191028.001>

³"Ageing and health," *World Health Organization*, October 1, 2022, <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>.

Opportunities to consider.

Health professionals and scientists have many opportunities to create a world where care can reach further than ever before. Social determinants of health, ways to make care more accessible and how we can work to build a better planet are all spaces that deserve our focus.

Social determinants of health.

There are many factors that influence our health outcomes — everything from economic status to age. Researchers refer to this concept as social determinants of health. These are the conditions in the environment where people are born, live, learn, work, play, worship and age. Only 20% of health outcomes are dependent on the care you receive in a healthcare setting, while the other 80% are determined by factors outside the facilities.⁴ In an attempt to lessen the impact of how much economic status and access to care limit patients' ability to thrive, we must work to make care more accessible.

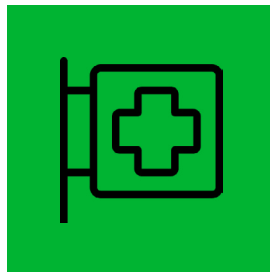
Social Determinants of Health



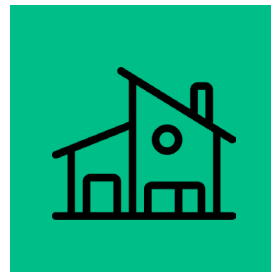
Economic stability



**Education access
and quality**



**Health care access
and quality**



**Neighborhood and
built environment**



**Social and
community context**

Making care more accessible.

Care is becoming decentralized thanks to mobile health solutions like point-of-care tests and wearable devices with extended wear times. These solutions help patients and providers get answers, act and monitor health — all outside the four walls of a clinic or hospital. The implications are huge: we can bring care to people, rather than people to care.

Building a better planet.

Another component to consider is the wellbeing of our planet. It's imperative to foster a healthy environment in order for people to thrive. A way to work towards this goal is to implement devices and applications with extended wear times. These solutions can help patients use fewer devices, which may equate to less waste. By implementing this change, we work to solve a huge waste problem within healthcare.

⁴Nuzum, R., Lewis, C., and Chang, D., "Measuring What Matters: Social Drivers of Health," *The Commonwealth Fund*, November 2, 2021, <https://www.commonwealthfund.org/blog/2021/measuring-what-matters-social-drivers-health>



Next steps to take.

At 3M Health Care, we're excited about the future of medical devices and what they can do to help more people thrive. For us, that means expanding our portfolio of gentle adhesives so patients like children and the elderly can expect quality care without added complications. We also plan to continue investing in skin science by working to develop solutions that stick to skin longer — no matter what type of skin the patient presents. We're prioritizing research to find new ways to extend wear times and creating solutions that stay on longer to minimize waste. Plus, we're getting involved in our communities as STEM ambassadors through giving programs, science days and community improvement projects to support the growth of knowledge.

Let's build it together.

Improving health means providing high-quality care when and where patients need it. As a team, we can work together to foster knowledge and science to bring better, smarter, safer healthcare to all.



Citations

1. “Ensure healthy lives and promote well-being for all at all ages,” *United Nations Department of Economic and Social Affairs*, accessed June 10, 2023, <https://sdgs.un.org/goals/goal3>
2. Moien Abdul Basith Khan, Muhammad Jawad Hashim, Jeffrey Kwan King, Romona Devi Govender, Halla Mustafa, and Juma Al Kaabi, “Epidemiology of Type 2 Diabetes - Global Burden of Disease and Forecasted Trends,” *Journal of epidemiology and global health* 10, no. 1 (March 2020): 107–111. <https://doi.org/10.2991/jegh.k.191028.001>
3. “Ageing and health,” *World Health Organization*, October 1, 2022, <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>.
4. Nuzum, R., Lewis, C., and Chang, D., “Measuring What Matters: Social Drivers of Health,” *The Commonwealth Fund*, November 2, 2021, <https://www.commonwealthfund.org/blog/2021/measuring-what-matters-social-drivers-health>

