HEALTH

Health is one of the great arenas of human progress, from the eradication of smallpox to the development of prosthetic hands that are nimble enough to type. But this all comes at a cost. Treatments are more sophisticated, diagnostic techniques are getting better and populations are growing – all of which puts a huge burden on healthcare systems.

In many countries patients have become better informed and more demanding, while access to healthcare has become a challenge around the world. Life expectancy varies wildly: if you're born in Japan you can reasonably expect to see your ninth decade; in Angola, about two in 10 people don't make it past the age of five. An Angolan woman is nearly 100 times more likely to die in childbirth than her Japanese counterpart. But health is more than just the absence of disease; the World Health Organization defines it as "complete physical, mental, and social wellbeing." Mental health is rising up the agenda. Around the world, 121m people are now diagnosed with depression – four times more than those with HIV.

Changing lifestyles mean people don't exercise enough, they eat too much junk food and they get stressed. These issues are starting to appear in rapidly-growing countries as they get wealthier, leading to an "epidemic" of diseases such as diabetes and heart disease.

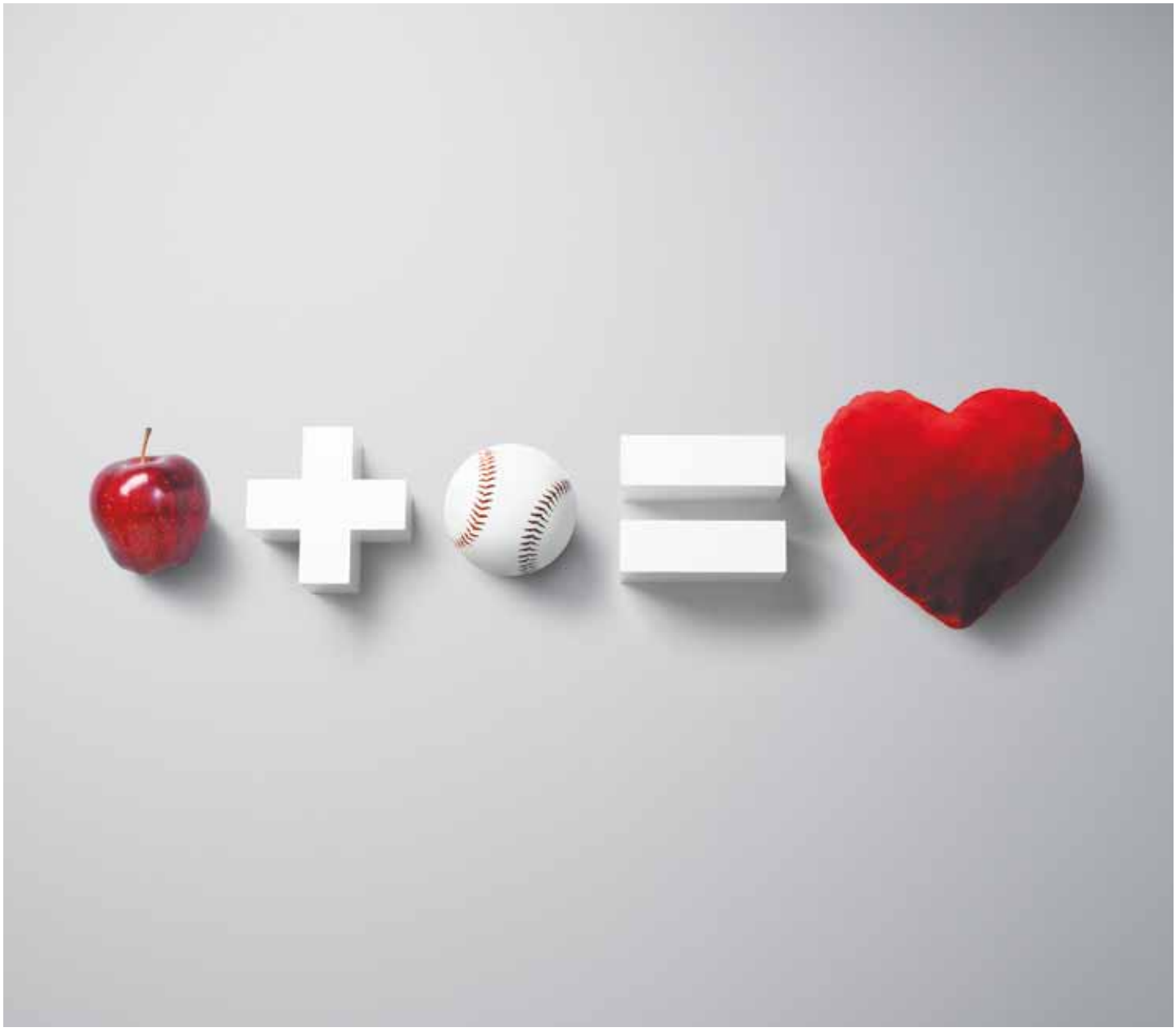
Where's the heat?

- / **Communicable diseases**
- / **Non-communicable diseases**
- / **Medicine**
- / **Healthcare systems**
- / **Nutrition**
- / **Workplace health**

> Health is a state of complete physical, mental, and social wellbeing and not merely the absence of disease or infirmity
>
> — World Health Organization definition of health

> Every minister is a health minister
>
> — Sir Michael Marmot, President of the British Medical Association

> Under pressure from powerful corporations, the rich world is insisting on stringent patent protection. Vital drugs will be priced out of reach of poor people
>
> — Oxfam's "Make Trade Fair" campaign



/ Communicable diseases

Our track record at dealing with infectious diseases is good: from cholera to HIV/AIDS, progress is being made. However, growing urbanization creates the conditions for disease to spread and drug resistance is increasing for malaria and tuberculosis.

/ Non-communicable diseases

"Lifestyle" diseases are now the biggest global killers – diabetes, heart problems, and some cancers. These diseases are skyrocketing in rapidly-growing economies: India has the most diabetics, and Mexico has the world's highest level of obesity. Tobacco use claims more than 1m lives a year in China alone.

/ Medicine

As the medical industry conquers more illnesses, some ask whether we are going too far in pathologizing complaints. For example, Attention Deficit Hyperactivity Disorder (ADHD) is not a disease, but 3m US children are medicated for it. At the same time, millions of people are still excluded from the medicines or treatments they need.

/ Healthcare systems

With rising costs, how best to organize healthcare is a subject of intense debate in every country. The latest World Health Organization report estimates that between 20 per cent and 40 per cent of global health spending is wasted.

/ Nutrition

As millions of people in low-income countries suffer from under-nourishment, millions of others elsewhere consume excessive amounts of food, often of an over-processed variety. The role that business can play in redressing this imbalance is a live conversation.

/ Workplace health

In developing countries, basic safety is a priority in the workplace. In the developed world, stress-related illnesses are the top concern. Across the world, employers are increasingly aware that it can be cheaper to address employee wellbeing than to ignore it.

What's the context?

It isn't just healthcare and pharmaceutical companies that get involved with conversations about health. Google's Flu Trends analyses search data to predict pandemics by tracking flu activity around the world in near real time. Since 1999, Vodafone's "mHealth" initiatives have explored ways that mobile technologies can support healthcare. Companies in many sectors use their expertise to help achieve health goals.

In the developed world, growing concerns about obesity have led food and beverage businesses to join the conversation: companies such as PepsiCo, Kraft and Kellogg have launched the Healthy Weight Commitment Foundation, which pledges to take 1.5 trillion calories out of the US diet by the end of 2015.

The role of pharmaceutical companies is one of the big topics in the health debate. Many were heavily criticized at the height of the HIV/AIDS epidemic for enforcing patents on lifesaving treatments. However, most now recognize that they are in a unique position to make a positive impact, especially in the developing world.

"Merck's Gift" saw billions of river blindness drugs distributed across Africa. Going even further, GSK substantially cut drug pricing in developing counties. GSK is now reinvesting a percentage of profits into charities that are training healthcare workers and building clinics in poor countries. This is how pharmaceutical companies are adapting their business models in real time, to widen access to life-saving treatments and participate in the conversation.

121m

Depression affects 121m people worldwide, almost four times as many as those living with HIV/AIDS

x3

Spending on cancer care in the US has increased from $27bn to $90bn per year over the past two decades

20%-40%

The WHO estimates that between 20 per cent and 40 per cent of global health spending is wasted

LISE KINGO
Executive Vice-President & Chief of Staffs, Novo Nordisk

ALAN MOSES
Global Chief Medical Officer, Novo Nordisk

Around the world, diabetes is spreading at an alarming rate. *Lise Kingo* and *Alan Moses* from Denmark-based Novo Nordisk, one of the world's oldest and largest developers of diabetes treatments, tell Brunswick's Gwynne Oosterbaan why prevention is better than cure – even if it means having fewer future customers.

Novo Nordisk generates 80 per cent of its sales from diabetes drugs, but is also investing in prevention and even research for a cure. Are you worried about putting yourself out of business?

Alan Moses: That would be a great problem to have, but unfortunately with the rapid spread

of diabetes, it's unlikely. Diabetes is one of the most widespread diseases today, affecting 366m people – largely, but not exclusively, due to our globalizing and modernizing society. Thanks to rapid growth and the rise of urban living, people simply do not burn the calories they did 30 years ago. We're seeing this globally, but emerging markets have some of the highest rates of diabetes. The risk for diabetes varies by ethnicity, and the risks change based on weight. For example, in India and China, someone with diabetes may have a body mass index (BMI) of 21, versus 27 or higher in the US.

The world has a rare opportunity – because of the social drivers of diabetes – to curb its growth. These are strategies that do not require medical intervention. For a company with 80 per cent of its business in diabetes, Novo Nordisk can hardly sit on the sidelines. So yes, we invest in a cure. In the event that society and medicine could turn the tide against diabetes, we would love to worry about the future of our business.

Are there ethical dilemmas for the company here? How does Novo Nordisk view the balance between business performance, which is linked with the prevalence of diabetes, and social responsibility?

Lise Kingo: It's not an either/or question. Our emphasis on social responsibility started when Novo Nordisk was founded in 1923, when Nobel Prize-winning scientist, August Krogh, and his wife – herself a physician, with Type 2 diabetes – traveled to Toronto in search of a treatment for diabetes. They got a license to manufacture insulin, brought it back to Denmark, and formed the company which today is Novo Nordisk.

Almost 90 years later, we still see our relationship with patients in the same way. The people who use our medicine place the ultimate trust in us, especially since for most people with diabetes it is a daily, even hourly, preoccupation once they're on insulin. We are also very aware of our broader social impact. The bulk of our efforts revolve around helping people who live with diabetes.

You fund various educational programs directly and with partners – why do you feel it is incumbent upon Novo Nordisk to fund efforts to prevent or cure diabetes?

AM: Physicians and the public sector can't keep up with the spread of diabetes. Medical schools in the US don't provide adequate coursework in diabetes and continuing medical education is down, so Novo Nordisk prioritizes education and training. Since we have a wealth of knowledge and experience in diabetes, we see this as an extension of our work and a critical part of our contribution.

There are three stages where Novo Nordisk supports prevention efforts. First, we help prevent the onset of the disease. If we could move the needle at all, we could positively impact outcomes for many millions of people. We invest in our own diabetes education program in the US and a key component of this is working with large employers, like Boeing and Disney, to train their staff in ways to prevent diabetes through exercise and a healthy diet.

But when a patient is diagnosed, our hard work is just starting. We understand patients and how difficult it is to manage this disease. So, second, we work with groups, like the YMCA and UnitedHealthcare, to sponsor patient support groups. Our diabetes educators liaise with physicians to train their staff to help guide patients with the disease. Finally, we are very involved in helping patients prevent complications associated with the disease, such as blindness, kidney failure, and even amputations, which rack up the lion's share of the costs and the negative health impacts that arise as diabetes progresses.

Novo Nordisk is considered a financial bright spot in the pharma industry, with 39 quarters of uninterrupted growth, but do shareholders get worried about these other efforts?

LK: Our shareholders understand our full set of motivations. We are very clear and upfront about what we call our "triple bottom line," which means that we formally measure our impact on society and the environment, in addition to our financials.

Shareholders and analysts are increasingly sophisticated and appreciate that how we conduct ourselves is as important as the returns we generate. They see our investments in diabetes awareness and prevention, together with reducing our environmental footprint, not only in terms of maintaining our license to operate, but also as a cost saving that helps the business.

At all our production plants in Denmark, for example, the power comes from a large wind farm in the North Sea, off the coast of Denmark. This has eliminated carbon emissions and benefited our financial bottom line. Our $20m investment into energy savings has already saved us $24m, and savings will continue at the rate of $8m annually.

What are the primary causes of the spread of diabetes? How much of the disease can be attributed to pure "lifestyle" choices?

AM: Today's diabetes pandemic is the result of three things. One is an individual's genetic predisposition. The other two are functions of our globalizing and modernizing society itself. Food production and food availability have increased around the globe; meanwhile we have taken away the need for individuals to actually move around, to exert effort and burn calories.

But there are still mysteries to solve about diabetes. For example, there are people with normal BMIs who look "thin" and are diagnosed with Type 2 diabetes. They are exceptions to the rule, and we don't understand why. Research suggests that one's nutrition before birth plays a role. There's more to discover about the drivers and dynamics of the disease.

Type 1 diabetes – which is an immune system problem – is also on the rise, and we don't understand all the factors behind this. One persuasive hypothesis underlines the decrease in infections thanks to vaccines and improved living conditions so that the body's immune system is not challenged in the way it was 50 years ago.

Our new research center in Seattle is looking at this, as well as cutting-edge strategies to tackle Type 1.

Given that countries like China and India have some of the highest prevalence of diabetes, what is Novo Nordisk's view of the conversation about health equity and access to medicine? How has the global health revolution in the last decade – which focused on access to HIV and malaria drugs – shaped your activities on a global stage?

LK: Novo Nordisk, like the rest of the pharmaceutical industry, experienced a major wake-up call about 10 years ago at the height of the public debate on HIV drug pricing. We have spent the last 10 years putting diabetes on the global political agenda and developing a comprehensive access program that continues to grow.

First, we cut the price of human insulin in the world's least developed countries and capped it at 20 per cent of the average price in the Western world. We set up the World Diabetes Foundation in 2002, with an initial $200m commitment for the first 15 years, which supports every aspect of improving diabetes care in the world's poorest countries – from training to improved treatment to policymaking.

We are also researching the barriers to access – we identified points in the distribution chain where the price to the user has increased because of taxes or additional fees.

We have a special program to train healthcare professionals to treat children with diabetes in resource-poor countries. To date, 1,100 healthcare professionals have received training and more than 5,300 children are receiving treatment in the established clinics. We are working with governments across the globe to help them identify all the players in the diabetes ecosystem and understand how small investments they can make now will pay off over time. We aim to do much more – our access journey is really just beginning.

How is Novo Nordisk working to better understand the challenges of living with diabetes?

LK: Diabetes is sometimes called a silent killer, because many people are affected by it and don't know it. Society doesn't fully appreciate the challenges associated with that and people think, just take insulin, and that's it. Novo Nordisk understands that this assumption comes from a lack of understanding and dearth of convincing data. So we commissioned studies to document in a rigorous way what it's like to live with diabetes, and not just the medical aspects.

We launched Diabetes Attitudes, Wishes, and Needs in 2001, also known as DAWN – a first-of-its-kind study that explored the wider non-medical aspects of diabetes management. Initially, more than 9,000 people with diabetes and their healthcare providers worldwide were involved. The second phase of the study, DAWN2, spans a two-year period starting in 2011 and will collect both narratives and anecdotes from patients, healthcare providers, patient associations and policymakers. The questionnaires are designed to focus on the unmet needs of people with diabetes.

DAWN surveys are being undertaken in 18 different countries; an estimated 16,200 people will participate in three surveys targeting about 9,000 patients, 2,160 family members of people with diabetes, and 5,040 healthcare professionals, respectively. We believe this massive psychosocial study will really improve how society understands diabetes. We'll take lessons from this initiative into training programs, to improve care across the world and find local ways to address challenges of the self-management and mental health of diabetes patients. We hope that this is another contribution that Novo Nordisk can make.

Gwynne Oosterbaan *is a Director in Brunswick's New York office and specializes in corporate reputation and media relations, with a background in international affairs.*

SPACE TAKEN BY NEXT CONVERSATION