Diabesity

With diabetes consuming 5% of GDP, a combination of fat taxation, patient data mining and personal budgets play a role in stabilising the obesity epidemic.

Diabetes is the world's most costly epidemic. Over the next ten years there will be an increasing number of technical solutions to help manage the condition but few expect this to counter its growth, particularly the escalation of type 2 diabetes, which is mostly caused by a high-calorie diet and sedentary lifestyle. If governments and public healthcare systems are to manage the direct and indirect costs, significant action to change behaviour is critical.
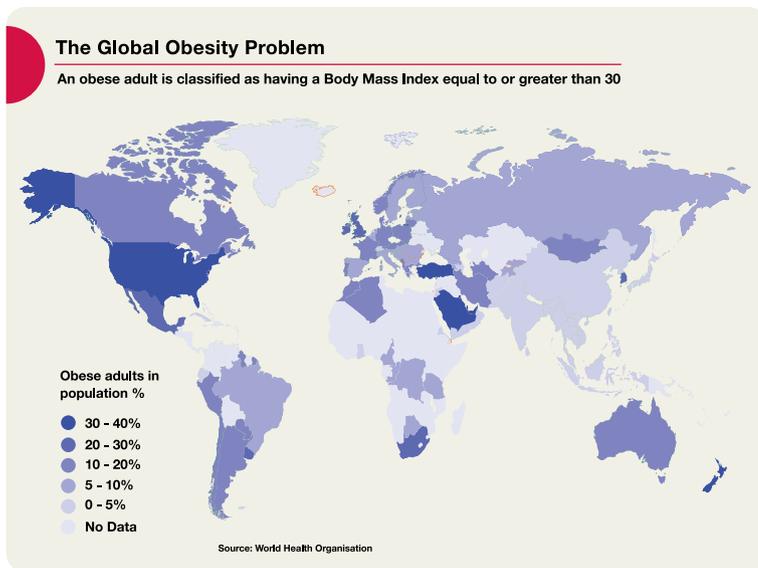
The World Diabetes Foundation estimates that 285 million people – corresponding to 6.4% of the world's adult population – already suffer from diabetes. That number is expected to grow to 438 million by 2030, corresponding to 7.8% of the adult population. In Europe alone, approximately 33 million adults are suffering from the disease. It is no longer a rich-nation problem, as over 70% of people with diabetes now live in low- and middle-income countries: in Saharan Africa, it is projected that the number of sufferers will double, reaching 24 million by 2030. Type 2 diabetes, which affects over 90% of the diabetic population, is the big growth challenge. It already afflicts 92.4 million adults in China and over 10% of the population of countries such as the US, Malaysia and Indonesia are expected to be diabetic by 2020.

The current cost of managing the disease in Europe is around €15 billion per year, with associated medical complications accounting for up to 8% of the total health budget. In the next ten years, roughly 5% of global GDP and over 25% of many public healthcare budgets across the world will be spent on dealing with its consequences. Furthermore the problem is affecting the working population. The average age of impact for type 2 diabetes has already fallen from 54 to 46 but, going forward, this is expected to drop further. By 2020, the behaviour change needed to reduce the impact of diabetes in society will be among people who are today between 30 and 35.

As well as the direct costs of treating diabetes, there are other hidden costs. For the patient, significantly higher insurance premiums are common in developed societies, and in countries such as India, 15% to 25% of an average household income can be required to cover treatment. Add on the impacts of increased susceptibility to other conditions as well as more days off work, early retirement and below average productivity and the hidden costs of diabetes escalate further. Globally, by 2025, it is expected that the direct costs of diabetes to society will be €300bn, nearly double today's figure. Add on the indirect costs and estimates for the 2020 burden are in the order of €500bn.

In the next ten years, new non-invasive technologies, improved low-cost business models and more hard-hitting public health campaigns will have all been

The Global Obesity Problem

An obese adult is classified as having a Body Mass Index equal to or greater than 30

Obese adults in
population %

- 30 - 40%
- 20 - 30%
- 10 - 20%
- 5 - 10%
- 0 - 5%
- No Data

Source: World Health Organisation

influence citizen choice and better manage the risks associated with diabetes.

From discussions in our workshops in the UK, the US and Spain, there are several areas where action is seen as highly probable and potentially effective. In particular, there was strong support for the introduction of fat taxes, the improved use of patient data and an increase in individuals taking responsibility for their own healthcare costs.

Given that higher taxes on cigarettes proved to be one of the best ways to reduce smoking rates, a parallel approach is now on the agenda for obesity. For example, the Mayor of New York City, Michael Bloomberg, is planning to tackle the American fondness for fizzy drinks with a so-called 'soda tax'. With potential regulation at an EU level coming by the middle of the decade, many are now predicting the widespread use of financial levies on either key products (fizzy drinks, sugary snacks and so on) or their manufacturers as an option that many governments will pursue. Some countries, such as New Zealand, are also experimenting with incentives to encourage people to eat more fresh fruit and vegetables but most policymakers we spoke to say the option of making unhealthy, high-calorie foods more expensive will have a greater impact and is easier to implement and manage.

From another view, there is also potential to make better use of patient data. Tech-savvy diabetic sufferers already benefit from a growing number of mobile phone applications that can help to record and track individual measures, diet and performance and there are increasing numbers of systems that allow the sharing of data between patients and their doctors. Building on this, several organisations support the

deployed around the world in various ways to try to mitigate the impact, manage the consequences and control the rise of type 2 diabetes. Potential technological breakthroughs, such as drugs that aid weight loss and inoculations for type 1 diabetics, have already yielded positive results in animals but it will be four to five years before clinical trials are complete and humans can start to benefit. Medical developments are now focused around non-invasive devices which provide alternatives to needles and syringes. This means that the introduction of implants, to change the dynamics of testing, and patch-based systems for blood glucose monitoring are all on the horizon. However, the problem is that the scale, cost and timing of the introduction of many of these solutions will have little overall impact in the short to medium term. Any effective changes will be concentrated around government and regional policies to control food consumption,

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notion that peer-to-peer and expert patient groups may have as much influence on individual behaviour as the more traditional patient–healthcare professional relationship. So, expect to see patient data becoming more visible and more shareable across platforms and systems in the years to come.

Improvements in data collection will not only allow improved relative comparisons between one individual and another, but will also facilitate more predictive data analysis. One outcome of this will be more transparency around future patient scenarios and risk so that diabetic sufferers can see how their condition is likely to evolve relative to other sufferers' experience and they will also be able to predict the likely risk of side effects such as limb loss, blindness or additional incapacity.

In general, public understanding of diabetes is low compared to other diseases and there is a pressing need to address this. The media are already broadly engaged (given its link to obesity, some have christened the issue the 'diabesity debate') but many see the need for increased public awareness as the third component for behaviour change alongside taxation and data use, particularly as individuals may well find themselves obliged to take greater personal responsibility for their healthcare costs.

Across many countries the notion of providing financial rewards for reducing the burden on public health is gaining momentum. For example, some regulators are considering recovering above average healthcare costs from patients either through an increase in income tax for the employed, or by reducing benefits for those out of work. While these may seem politically contentious, they do signal the level of action that economically pressured governments are proposing in order to contain the mounting healthcare budgets.

The diabesity challenge is real and tangible. If an epidemic is to be avoided, many say that drastic action is required, fast. Informed healthcare experts see that 'many economies have a diabetes time bomb to deal with, one that requires concerted approaches across many fronts.' Over the next decade, it looks like taxation on high-calorie foods to influence individual choice, improved sharing of personal data to support this choice, and the increased personal responsibility for healthcare costs to reward this choice are pivotal in gaining control.