If I were Health Minister by Anant Shah

The greatest burden on the UK health and social care system is preventable chronic disease. In the UK, 15 million people have at least one long-term condition (LTC). Treatment of LTCs takes up £7 in every £10 of long-term health expenditure. [1]

Patients with LTCs understand the need for proactive treatment. When surveyed, they highly value being involved in decisions, understanding their conditions and being treated holistically. They do not want to be in hospital unless necessary and instead want the confidence to self-care and manage their own conditions. [i]

In 2018, there were 88,299 preventable deaths in the UK.[2] There are 3.4 million people with a diagnosis of Type 2 diabetes[3], 12.5 million with hypertension[4] and 7.4 million with cardiovascular disease[5]. There are also many millions more with other preventable conditions such as COPD[6] and liver disease.[7]

Physical inactivity is an important cause of ill health. In the UK 39% of adults do not meet the physical health activity guidelines.[8] For children this rises to 53% [9]. Physical inactivity costs £7.4 billion per year and is responsible for 1 in 6 deaths in the UK (making it comparable to smoking). [10]

Time spent being sedentary increases all-cause mortality. [11, 12] Importantly, this effect is observed independently of any physical activity undertaken. It is estimated that adults in the UK spend an average of nine hours per day sitting down[13, 14]. There is mounting evidence to suggest reducing sedentary time is just as important as increasing physical activity to realise health and wellbeing gains.

Physical activity reduces the risk of a large number of conditions including diabetes[15], dementia[16], and some cancers[17, 18]. It has also proven to be exceptionally therapeutic for symptoms of depression and anxiety.[19]

The neurocognitive benefits to exercise are vast, and are apparent across the age spectrum. Among school children, using a standing desk has been shown to improve cognitive functioning[20], while physical activity improves academic attainment[21]. Among middle aged adults physical activity is important for cognitive function[22]. For older adults physical activity results in better cognitive function and less age related brain tissue loss. [xxi]

How could this inform decision making and drive government policy?
The UK government launched the *School Sport and Activity Action Plan* in 2019[23]. The scheme aims to get young people more active, with a focus on the least active groups, such as those from disadvantaged backgrounds. In addition to encouraging physical activity, it is vital that classrooms are redesigned to promote activity and reduce sedentary time. The Standup Kids organisation in America introduced standing desks to a school in California, and as of 2016 had helped to transition 27,000 schoolkids to standing desks. [24]

Physical activity should also be promoted in the workplace. The cognitive benefits could lead to improved creativity[25] and productivity[26] as well as an

improved reaction to stress[27]. It may also lead to a reduction in time off work. This would be a boon for the economy as well as the health of workers.

Ultimately, a significant change in societal behaviour and culture needs to take place to garner the full benefits of physical activity. One could look to the Dutch for inspiration. A quarter of all journeys in the Netherlands are by bicycle[28], compared to 2% in the UK[29]. A huge public health drive investing in cycling could be transformative for health and wellbeing in the UK.

Another area in need of policy transformation is urban planning and access to green space.

There is a strong relationship between access to green space and health inequality[30]. Deprived inner city areas have five times less access to green space and greater levels of pollution[31].

Children in the most deprived areas are twice as likely to be obese than children in the least deprived areas[xxx]. Current data suggests that in the UK, 1 in 5 reception children is overweight or obese, which rises to 1 in 3 by year 6[32].

It is becoming evident that children closer to green spaces have higher levels of physical activity. The benefits of green spaces are seen across the age spectrum; older people live longer with greater access to green spaces[33].

For populations living in the greenest areas, health inequalities related to income deprivation appear to be weakest[34].

Indeed, having greater access to green space is associated with reduced morbidity with the effect being strongest for anxiety and depressive disorders, lower socioeconomic groups, and children[35].

Improving access to green space may therefore represent an effective method of improving both physical and mental health and subsequently reducing health inequality.

The financial benefits of local green spaces is significant. The Wellbeing Value (a subjective financial measure of wellbeing) of green spaces is estimated to be £34.2 billion[36]. Increased access to green spaces reduces the number of GP visits, with an estimated annual saving of £111 million. Importantly, this figure represents only the savings from the cost of the visit itself and not any subsequent savings such as a reduction in prescriptions or referrals. Therefore, improving access to green spaces offers both a health return and a financial return.

As the cities of the future are designed, it is imperative that the government works with urban planners to ensure that all people have sufficient access to green space. This will result in cities which promote health and reduce healthcare costs.

Over the years, diet has gained prominence in the public consciousness as a source of illness and wellness. Despite this, nutritional intake remains concerning. Guidelines recommend that sugar constitute no more than 5% of calorie intake[37]. Children 11-18 consume almost 3x this, while adults consume over double[38]. These stats are based on average consumption, raising the issue that some people intake far more. There has also been a 34% increase in the number of fast food outlets nationwide between 2010 and 2018[39]. The greater the access to junk food, the more chance a person has of being obese. The prevalence is higher in the most deprived areas.

'Little push' initiatives have proven effective in influencing industrial or consumer behaviour. For example the 5p charge for plastic bags in supermarkets resulted in an 86% drop in consumption.[40] In a similar vein, the Soft Drinks Industry Levy (SDIL) was introduced in 2018 as one solution to the problem of excess sugar consumption. As a result, the sugar content of soft drinks subject to the levy has decreased by an average of 28.8%.[41] However, this has not had the desired effect of reducing sugar consumption, which has increased over the same period, driven by an increase in consumption of sugar foods not subject to the levy. Given its success in reducing sugar content, expanding the levy to a broader range of food and drink should be considered to help to reduce sugar consumption.

In addition to measures to reduce sugar consumption, it is also important to promote healthy foods. Spending £1 billion in subsidising fruits and vegetables could lead to a saving of £7 billion in subsequent healthcare costs.[42] As well as encouraging healthier food choices, this represents a huge return on investment.

Perhaps similar initiatives could be used for the fast-food industry. A tax or levy on calorie content or certain macronutrients could encourage businesses to reformulate their products. In the energy sector, government-issued green bonds have been successful in encouraging green energy. Similar subsidies could also be offered to healthy food businesses to enable them to compete against the unhealthy food market.

Media campaigns can be a powerful tool to improve awareness of the effects of diet and initiate change.[43] However, environment and marketing of sugary food are seen as the biggest barriers to change[44]. In London, advertising of junk food has been banned on public transport. Nationwide, there is a ban on junk food advertising on children's TV channels. These initiatives could be expanded to include all advertising on junk food.

Social connection is a subject which is rapidly developing into a health issue. Humans are inherently social creatures with a fundamental need to connect and to belong.[45]

Social support is a strong protective factor against ill health and a lack of it can be severely detrimental. Strong social connection reduces all-cause mortality by 50%[46]. It could even offset the damage of unhealthy behaviours such as smoking and inactivity[47]. Children with stronger social connections have lower levels of obesity.[48] Social interventions can improve blood sugar control in type 2 diabetes.[49] [50]

For patients with cancer, social connection predicts lower inflammation.[51] It could also be the most important factor in improving mortality in advanced cancer.[52]

Greater social support also predicts an improved mortality rate and better outcomes in ischaemic heart disease. [53] [54]

Unsurprisingly, social connection is profoundly protective and therapeutic for mental illness. [55]

In the UK 23% of adults report feeling lonely most or all of the time.[56] This group is also more likely to be under 50, have a lower income and suffer from a debilitating mental or physical illness.

Though loneliness is currently an underappreciated health issue, there are many interventions which could prove beneficial.

In schools, using the RULER approach (Recognising, understanding, labelling, expressing, and regulating emotions) has led to increased emotional development and more connectedness between students and teachers.[57] [58] [59]

In the workplace, having stronger social connections is associated with increased productivity. Research by Gallup has found that in American workplaces, having good social relationships was one of the most important factors in employee engagement. Having better social connections at work resulted in far fewer accidents and errors. With the UK suffering from one of the largest productivity gaps in Europe, encouraging improved relationships in the workplace is a prudent step for both the health of the population and the health of the economy.

Loneliness is also an increasing problem in older people. Among over 50s, it has been estimated that loneliness could rise by 49% by 2025 compared to 2015.[60] Becoming widowed causes a huge increase in feelings of loneliness, however, these can be attenuated by regularly volunteering in the local community.[61] As well as reducing feelings of loneliness, social activities can improve cognitive function in the elderly.

One nursing home in China offers cheap rent to graduates, on the condition that they spend some time each month with its senior citizens. A town in England has created 'chat benches', to foster conversation between senior citizens and other members of the community.[62] Schemes such as these can easily be expanded on a large scale to effect further progress in health and wellbeing.

Healthcare cannot exist in a vacuum. Determinants of health extend far beyond provision of healthcare or individual decisions. The very culture and design of a society influences healthcare demands and the wellbeing of the population. A successful minister of health and social care should work closely with other governmental departments to encourage policy creation which prioritises health and wellbeing of the population while reducing healthcare costs and demands and tackling health related socioeconomic inequality.

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