INTERNATIONAL DIABETES SUMMIT – SHARING BEST PRACTICES

Date: 31st January 2019

APPG FOR DIABETES

About the All Party Parliamentary Group for Diabetes

The All-Party Parliamentary Group for Diabetes (APPG Diabetes) is a nonpartisan cross-party interest group of UK parliamentarians who have a shared interest in raising the profile of diabetes, its prevention and improving the quality of treatment and care of people living with diabetes.

This is not an official publication of the House of Commons or House of Lords. It has not been approved by either the House or its committees. All-Party Parliamentary Groups are informal groups of Members of both Houses with a common interest in particular issues.

Officers of the All-Party Parliamentary Group for Diabetes

- Chair: Keith Vaz MP, Leicester East
- Vice-Chair: Jim Shannon MP, Strangford
- Vice Chair: John Howell MP, Henley
- Co-Secretary: Liz McInnes MP, Heywood and Middleton
- Co-Secretary: John McNally MP, Falkirk
- Treasurer: Baroness Ludford

Special Advisers and Ambassadors

Anna Taylor, Executive Director, the Food Foundation
Dr Gerry Rayman, Consultant, Ipswich Hospital
Jimmy Desai, Pharmacist
Luvjit Kandula, Chief Officer, Leicestershire and Rutland Local Pharmaceutical
Professor Heather Daly, Nurse Consultant in Diabetes Research
Dr David Unwin, General Practitioner, Southport
Vera Labelle, Practice Nurse
Ben Moody, Head of Programme, Health and Social Care, Tech UK
Professor Nadey Hakim, Cardiologist, Imperial College London
Councillor Ketan Sheth, Chair of Community and Wellbeing Scrutiny Committee, Brent
Councillor Emma Clayton, Founder, UK Diabetes Network
Duane Mellor, Freelance dietitian, British Dietetic Association
Paul McArdle, Lead Clinical Dietitian & Deputy Head of Nutrition, Birmingham

Contact details

Email: diabetes-appg@outlook.com
Website: www.diabetes-appg.co.uk
Twitter: @APPG_Diabetes

Key diabetes facts

- In the UK an estimated 4.6 million people across the UK are living with diabetes.
- An additional 1.1 million people are expected to have diabetes but undiagnosed, this is primarily Type-2 diabetes.
- Since 1996 the number of people diagnosed with diabetes has doubled, from 1.4 million to 3.8 million.
- Of those 4.5 million in the UK diagnosed with Diabetes it is expected that 10% have Type-1 diabetes and 90% have Type-2.
- When looking at genetic predisposition more than 85 per cent of Type 1 diabetes occurs in those with no previous first degree family history, the risk among first degree relatives is about 15 times higher than in the general population.
- The risk of a child developing diabetes if their mother has it is about 2–4 per cent higher than the average, if the father has it is 6–9 per cent higher and if both parents have the condition is up to 30 per cent higher than average.
- Type-2 diabetes can also be affected by genetics have a genetic pre-disposition. Those with diabetes in the family are 2-6 times more likely to develop the condition than those without history in the family.
- Diabetes is a condition which is expected to affect 1 in 10 people globally by 2040, equalling 642 million. This will put diabetes on a par with the number of people being diagnosed with cancer by 2040.
- Diabetes is a globally recognised condition. There is expected to be 1 in 2 adults across the world undiagnosed with Type-2 Diabetes. The International Diabetes Federation (IDF) has estimated that in 2015 seven countries have more than 10 million people with diabetes; China, India, USA, Russia, Indonesia, Mexico and Brazil.

Reports published by the APPG for Diabetes

- Assessing the Diabetes Transformation Fund (2018)
- Flash Glucose Monitoring: what's next in Diabetes Technology (2018)
- Diabetes and Mental Health (2018)
- Reversing Type 2 Diabetes (2018)
- Diabetes and Podiatry (2018)
- Emotional and Psychological Support for people with Diabetes (2018)
- Next Steps for Childhood Obesity Plan (2018)
- The Future of Inpatient Diabetes Care (2017)
- Safety and Inclusion of Children with Medical Conditions at School (2017)
- Industry Action on Obesity and Type 2 Diabetes (2017)
- Levelling up: Tackling Variation in Diabetes Care (2016)
- Taking Control: Supporting People to Self-Manage their Diabetes (2015)

International Diabetes Summit

A daylong session of the All-Party Parliamentary Group for Diabetes took place on Thursday 13th December 2018 in the House of Commons. It was a day to discuss Diabetes best-practices, Innovation and Prevention, Cities Changing Diabetes, Health inequality in urban diabetes and how Diabetes expertise can be exported around the world to ensure that all people with Diabetes are receiving the best possible care. The meeting was addressed by Steve Brine MP, Minister for Public Health and Primary Care along with speakers from the UK and the world.

Keynote speech – European Perspective:

Steve Brine MP, Minister for Public Health and Primary Care

> ***"We want to make sure in government and society that the healthiest choice becomes the easiest choice for us."*** **– Steve Brine MP**

Mr Brine highlighted how diabetes is one of the biggest health challenges in our country. With millions diagnosed and another million estimated to be undiagnosed, this condition and its complications costs the NHS £10 billion a year, a staggering amount of money. And with one in six patients having diabetes, the impact on health services is a lot more than what can be estimated.

Mr Brine talked about the importance of Type 2 diabetes prevention, highlighting the work with the Soft Drinks Industry Levy, the Childhood Obesity Plan and Public Health England's Sugar and Calorie Reduction Programmes. He highlighted the need to go further with the second chapter of the Childhood Obesity Plan, addressing areas of marketing, price promotions and calorie labelling. He explained how these actions would not only have a positive impact on Type 2 diabetes prevention, but on public health in general. Mr Brine also congratulated the success of the NHS Diabetes Prevention Programme, informing that in 2019 the service will be available in every STP, making it the first country in the world to offer this type of service at a national scale.

Mr Brine spoke then about treatment and care of people with diabetes, and the importance of improving patient experience, reduce rate of admission and improve outcomes. He highlighted the two-year £80 million investment through the Diabetes Transformation Funding, supporting local CCGs to increase uptake in education, as well as improve multi-disciplinary foot care teams, hospital care for people with diabetes, and the achievement of NICE-recommended treatment targets. He finalised by commenting on the importance of technology and innovation to help people with diabetes improve outcomes and how technology is already key for the diabetes community, but its access can be much improved.

Panel 1 – Diabetes Best Practices:

- **Chair & Speaker: Dr Domine McConnell, GP, Stockwell Group Practice**
- **Dr Partha Kar, Consultant in Diabetes & Endocrinology, Portsmouth Hospitals NHS Trust**
- **Dr Andrew Keen, Consultant Health Psychologist, JJR Mcleod Centre for Diabetes, NHS Grampian**
- **Dr Pitchiah Balu, Consultant Psychiatrist**

Dr Domine McConnell talked about a new service becoming available in Leicester called the Leicester Diabetes Village. The concept comes from the Steno Centre in Copenhagen. The service provides a one stop shop for people with diabetes. It is a place where people with diabetes can access all essential care and healthcare providers under one roof. They get their medication review, receive an individual healthcare plan, get their eyes and feet checked, receive emotional and psychological support and lifestyle and wellbeing services. Keith Vaz MP came about with the idea due to reports of confusion after a diabetes diagnosis for him and many other patients as to what to do next, as well as the positive evidence on the role of multidisciplinary teams in improving outcomes.

Dr Partha Kar talked briefly on what NHS England was doing. With this programme, 'Getting it Right the First Time' (GIRFT), NHS England is going to different parts of the country, finding and sharing good practice. He exemplified by sharing the great inpatient care work found in Derby and the good examples of foot care found in Leicester and smaller hospitals. He also mentioned the investment NHS England has made to the benefit of people with diabetes throughout the year, from digital education to Flash Glucose Monitoring, among others. He talked about technology - closed loops and CGMs. He stated Diabetes is all about self-management and peer support. Beyond innovation, he also mentioned the importance of integration, saying diabetologists are not part of a hospital or a community but are part of a population. "If we get this, we will see a lot of improvement around the country".

Dr Andrew Keen talked about the provision of psychological support and care for people with diabetes. He highlighted how issues such as depression and generalised anxiety are unusually common and lasting among people with diabetes. He said generalised anxiety disorder occurs within 3 per cent of the population, but within 15% of the population with diabetes. While an average 16% of the general population recovers from depression, only 10% of those with diabetes report a recovery. Dr Keen mentioned the relationship between anxiety or depression and a patient's diabetes outcomes can be considered not strong enough to justify a need for resources. He also mentioned the problem of not enough diabetes knowledge within standard psychological care, nor enough mental health knowledge within standard diabetes care. He thus advocates the need to imbed emotional and psychological support within diabetes care and provide a general holistic care for people with diabetes.

Dr Pitchiah Balu added to the conversation by sharing his experience of patients with sugar levels, weight issues and cognitive challenges who became noncompliant with their diabetes care. He highlighted the importance of also looking at those patients with mental health disorders who can develop diabetes, as well as the impact of antidepressants on hypoglycaemic incidents and awareness.

Panel 2 – An International Perspective on Diabetes:

- **Chair & Speaker: Professor Philip Baker, Pro-Vice-Chancellor and Head of the College of Life Sciences, Dean of Medicine**
- **Dr Manoj Bharucha, Gastrointestinal and Metabolic Surgeon – India**
- **Rend Platings, CEO, Sugarwise**
- **Professor Li Rong, Endocrinologist, Chongqing Medical University, China**

Prof Philip Baker started with his perspective on Type 2 diabetes and obesity, highlighting the importance of prevention of Type 2 diabetes on children. He mentioned how subtle changes in early biology can have huge consequences for later in life. "If we can improve pregnancy care and paediatric care, we can prevent diabetes later on".

Dr Manoj Bharucha spoke next on bariatric surgery as a treatment for Type 2 diabetes. According to him, despite the remarkable rates of remission and resolution of Type 2 diabetes in patients undergoing bariatric surgery, not even 2% of the eligible patients undergo surgery. "Getting a larger percentage of patients to surgery will reduce morbidity, complications and early mortality associated with the condition, enormously reducing costs to healthcare providers." He explained how bariatric surgery is the most effective procedure for Type 2 diabetes remission. "Complete remission of even poorly controlled diabetes is evident immediately after surgery and we have a five year remission rate of 53% and 10 year remission rate of 47%", shared **Dr Bharucha**. Moreover, he said the safety of bariatric surgery is equivalent for high or low BMI patients and thus that early referrals to surgery should form a part of policy in every hospital administration when Type 2 diabetes is difficult to control by lifestyle modifications and medical treatment.

Rend Platings talked next about Sugarwise, a charity dedicated to the prevention of obesity and Type 2 diabetes. "The Sugarwise label follows the World Health Organisation's guidelines and definitions relating to free sugars and the need to keep these low in the diet. This is a general health guidance that applies to everyone, not just for people with diabetes". She explained how Sugarwise wants to work to reduce free sugar intake by empowering consumers and giving them the choice to make decisions that are supportive of public health. "We hope to make the healthy choice, the easy choice", said **Rend Platings**. She also spoke about the importance of having a single, uniform labelling that is internationally trusted, and the need to join forces to tackle this challenge. "We need to team up and develop cross border collaborations, partnerships and projects."

Professor Philip Baker shared a survey from China in the absence of Professor Li Rong. The prevalence of diabetes has increased 17 fold in the last 30 years and will reach about 100 million. The prevalence of undiagnosed diabetes has increased from 1.6 % to 8.1% due to a lack of population based screening programmes and the uncontrolled hyperglycaemia will lead to a raft of different complications. In young age groups, there is a similar increase in insulin resistance reaching 10%. Obesity is identified as a central risk factor. Although Asians generally have lower prevalence rates in overweight and obesity, at least it's measured by BMI than our western counterparts. Risk of diabetes is higher among Asians for any given level of BMI so the prevalence rates are similar. As far as diet is concerned, the Chinese dietary pattern has been shifting towards high fat, high energy density and low fibre diets. Risk factors include lifestyle, physical activity, smoking, air pollution, etc. There is a strong association between lifestyle and

diabetes. There has been a big shift towards inactivity associated with urbanisation with physical activity falling by about a third in the last 30 years.

Panel 3 – Preventing Diabetes:

- **Chair: Maggie Meer, Director, Diabetes Professional Care**
- **Professor Dr Jonathan Valabhji, National Clinical Director, Obesity & Diabetes, NHS England**
- **Douglas Twenefour, Deputy Head of Care at Diabetes UK**
- **Dan Parker, Founder, Living Loud and Veg Power**

Maggie Meer started by highlighting the human and financial costs of poor diabetes management. "It is crucial we engage with those at high risk of Type 2 diabetes and prevent them from being diagnosed with Type 2 diabetes", she said.

Prof Dr Jonathan Valabhji spoke first on the NHS England Diabetes Prevention Programme (NDPP). "This summer England became the first country in the entire world to have a national rollout of a Type 2 diabetes prevention programme", he said. By April 2019, the programme is expected to achieve one hundred thousand people at risk of Type 2 diabetes; resources will then double to deliver the programme to two hundred thousand people at risk each year with digital means of delivery too. He explained the different levels of prevention NHS England works on. Firstly, overweightness is addressed at a population level through the Sugar Tax and Childhood Obesity plan. Secondly, the NDPP targets those at risk of Type 2 diabetes, while research looks into preventing Type 1 diabetes through immunisation. "It is not ready yet for clinical delivery, but I do not want the audience to think we are not looking at Type 1 diabetes prevention as well", said **Prof Valabhji**. Thirdly, he highlighted the importance of preventing the onset of complications on those already with diabetes, with investments through the Transformation Funding generating improvements in education, inpatient care, and foot care, among others. Finally, for those patients with diabetes who already have complications, **Prof Valabhji** mentioned the need to prevent worst outcomes by ensuring rapid access to treatment and specialists.

Dan Parker spoke about his experience with being diagnosed with Type 2 diabetes in 2014 and his struggles with finding a diet that worked for him and allowed him the lifestyle change he wanted. He shared his achievement with a low-carb diet and the fact he has been on remission for the last few years. He recommended NHS England to do a trial of different diets to see which one has better outcomes for those with diabetes. He now focuses on reform of junk food marketing and a project on Veg Power to empower kids to eat vegetables and reconnect with real food. "I am part of thousands of people who are putting their diabetes on remission. The heavy blanket of shame on Type 2 diabetes is lifting and it is time we work together to help prevent and put this condition into remission", said **Dan Parker**.

Douglas Twenefour highlighted the information available on Diabetes UK's 2018 nutritional guidelines. "The largest amount of evidence for reducing the risk of Type 2 diabetes is in making sure people are helped to reduce their weight", he explained. There is no evidence that there is a unique option for all to achieve it, which is why Diabetes UK's guidance recommends different options of diet and recommends that all are followed safely. Overall, **Douglas Twenefour** explained, evidence has shown that if you have a diet that is high in fat and glycaemic index, as well as low in fibre, your risk for Type 2 diabetes increases. The opposite diet, such as the

Mediterranean diet, would decrease the risk. “Fruits can be high on carbohydrate, for example, but there is good evidence they not only reduce the risk of diabetes, but also of cancer and heart conditions.” People should be encouraged to eat more fruit and vegetables, wholegrains and unsweetened yoghurt as these foods are associated with lower risk of Type 2 diabetes. They should also be supported to reduce intake of sugar sweetened beverages, other refined carbohydrates, red and processed meat.

Prof Valabhji highlighted the obligation of implementing policy with the best available evidence. He explained how the DiRECT trial was the first large scale Randomised Controlled Trial (RCT) to find evidence of Type 2 diabetes remission, which led to NHS England funding a remission trial with low-calorie diets. “If there are similarly large scale RCTs published in good papers on low-carb diets, NHS England would be happy to consider it”, said **Prof Valabhji**. A good way of reducing calorie intake is to reduce carbohydrate intake, so these are not opposite diets. “You have to be able to differentiate between anecdotal evidence and RCTs.”

Keynote speech – European Perspective:

Sisse Marie Welling, Health Mayor of Copenhagen

> ***“We now have more bicycles than cars. These are important steps to improve health.”*– Sisse Marie Welling**

Sisse Marie Welling started by complementing the summit for giving the opportunity to discuss solutions, share experiences and learn from each other. “This is necessary if we want to fight this condition”, she said.

She talked about Copenhagen strategy to fight diabetes. First, they decided to make the healthier choice the easier choice for everybody. They invested heavily on spaces, cleaned the water so citizens could swim in it, and changed the infrastructure to make it easy for people to move around by bicycles.

But she also mentioned the importance of addressing inequality in health. Not all citizens will benefit from these improvements equally. There are regions in Copenhagen where people are more likely to develop diabetes and have years less life expectancy. We need to represent those citizens who can easily fall through the cracks. She wants all that live in Copenhagen to have the same opportunity to live a healthy life.

To address that, they strived to meet people where they are. Programmes are open to all, but the message was tailored to each person. Developed new ways to reach target group and used a peer to peer strategy of support. They also introduced an app to help individuals track their diabetes, keeping track of sugar levels, diet, exercise and allowing communication with HCPs. “Many prefer the freedom of the app. It was cost effective and enabled us to reach those with greater need.”

Finally, she talked about the importance of a holistic approach to diabetes. If you want to prevent it, we cannot focus solely on physical health. We need to remember that the psychological and emotional aspects of diabetes are as important as other clinical treatments. “We still have a lot of work ahead to address diabetes.”

Keynote speech – Cities Changing Diabetes and Novo Nordisk Perspective:

Lars Fruergaard Jørgensen, CEO of Novo Nordisk

> ***We are calling on every city to ask itself: "What will it take to bend the rise of diabetes in our city?"*** **– Lars Fruergaard Jørgensen**

Lars Fruergaard Jørgensen clarified some concerns received from people with diabetes in the UK on the availability of insulin post-Brexit stating, "The product from Novo Nordisk will stay there for them – no matter what happens. We are increasing our stock for it and we are committed to it."

He spoke about Novo Nordisk and their mission to defeat the burden of diabetes. He talked how increase in diabetes is costly for the health system and the country, it is not a sustainable business environment, and despite many thinking companies would enjoy the increase of diabetes. He talked about the alarming rate of increase of diabetes and says medicines is not the only answer to change it. Medicine plays a critical role in treating diabetes but adequate treatment and prevention must play together. That's why we need to work harder and invest more in prevention.

Novo Nordisk has spent more than 90 years researching diabetes, and has a commitment to invest in establishing the new research centre in Oxford.

"In Novo Nordisk, we believe in standing united in a common cause: tackling the global diabetes challenge by improving diabetes care, but also by working to prevent the disease from happening in the first place. We start with cities because a rapidly urbanising world is changing not just where we live but also how we live. The way cities are designed, built, and run creates health benefits and opportunities for citizens, but it also creates risks.

Cities are places where real change can be made, and they increasingly play a leading role in helping to tackle major societal challenges. From climate change to inequality, cities take a leading role in shaping public health. It is in this context that we initiated the Cities Changing Diabetes programme in 2014. It is now a growing global partnership consisting of 19 cities – home to over 130 million people, and well over 100 expert partners who are united in the fight against diabetes. We have set out a bold mission: to bend the curve of diabetes globally. It may take years to see the full impact of all our work, but what is certain is that we are committed to act now and every action counts".

'Cities changing diabetes' challenge ideas of how things work and they are proud of the city of Leicester for being on this programme with them. Also spoke about the sky rocketing number of Type 2 diabetes and the need to understand the link to obesity and other risk factors, such as race and wealth. Then need strategies to address these findings and reduce risks, beyond treatment and health systems.

Panel 4 – Cities Changing Diabetes in Action – Working case study showcasing the Leicester experience:

- **Professor Melanie Davies, Professor of Diabetes Medicine, University of Leicester**
- **Professor Kamlesh Khunti, Professor of Primary Care Diabetes and Vascular Medicine, Diabetes Research Centre, University of Leicester**

Professor Kamlesh Khunti started by talking about the Leicester team passion for providing care for people with diabetes, something they have been doing together for about 20 years. **Leicester Diabetes Centre (LDC) team**, including **Professor Melanie Davies**, **Dr Deirdre Harrington**, **Dr Sophie O'Connell**, **Dr Natalie Darko** and **Carol Akroyd**, as well as **Cllr Adam Clarke** added their contributions.

The **LDC team** talked about Leicester multi-ethnic population and the city's history with diabetes. "Leicester is home to one of the largest populations of people with diabetes in the UK. The prevalence of overweight and obesity in the city give cause for concern". In order to continue to address it, **the LDC team** approached Novo Nordisk's Cities Changing Diabetes programme and became the first city in the UK to join the network. "We felt that if we wanted to make an impact, we need a whole-city approach to tackle diabetes."

The **LDC team** explained some of the activities they have been formulating since joining the programme in 2017. One of this aspects was an increase on people's awareness of diabetes and prevention through a healthy lifestyle. To do this, the team started attending various events around the City to screen individuals using the Leicester Diabetes Risk Score tool, developed with Diabetes UK and lifestyle education. "If patients are diagnosed and treated quickly and appropriately, it can reduce complication and the burden on the patient and the NHS."

The **LDC team** also shared some information on their work with the Centre for Black and Minority Ethnic (BME) Health, highlighting the importance of recognising inequalities in patients' experience and the need to shape treatments to address it. "The communities are not actually hard to reach. The methods we use that do not reach them."

Cllr Adam Clarke then also talked about the role Councils and Local Authorities have in preventing Type 2 diabetes. He shared how Cities Changing Diabetes has brought professional sports clubs together to commit to promoting the health and wellbeing of their fans by promoting physical activity and healthy eating.

"Cities changing have given us access to a global academic network, where we can share ideas and develop an evidence based approach to tackle diabetes in Leicester. We are learning from other cities and we will continue learning. We hope this will leave a legacy for many years to come", finalised **Professor Khunti**.

Panel 5 – Health inequality in urban diabetes:

- **Chair: Cllr Adam Clarke**
- **Roberto Pella MP, Vice president Vicar of Italian Municipalities Association (ANCI) and Mayor of Valdengo, EU CoR Member**
- **Professor David Napier, Director for Science, Medicine, and Society Network, University College London**
- **Dr Faith Foreman, Assistant Director of the Houston Health Department**
- **Professor Dr Azhar Farooqi, GP, Chair, CCG Leicester**
- **Steve Mathers, Patient Voice**

Roberto Pella MP started by explaining the role of the ANCI in representing one third of the Italian population and the need to take action on the Type 2 diabetes rise due to the ageing population, urbanisation and unhealthy life styles. Some of the strategies used by the ANCI were the creating of think tanks with private and public sectors; the development of a 10 point manifesto on urban health sent to all mayors, health ministries in Italy. "We wanted to create a political momentum for change where civil society, business and population can work together to design a better system." **Roberto Pella MP** highlighted the roles of housing, public resources and urban planning on prevention of Type 2 diabetes. "Cities need to use resources to invest in sports interventions, social inclusion and integration."

Professor David Napier agreed with Roberto Pella MP and highlighted that a key issue that keeps people addressing their Type 2 diabetes is inequality. We tend to think that if we can provide equal opportunities for people we provide them with incentive for behaviour change if they will necessarily do so. The difference between vulnerability as discovered in the program is that we not only look at the way in which people look at former services and their understanding but we also look at levels of community resilience, how people react in the absence of useful services and finally when communities are under stress things become more unequal. We then have to deal with the problems of people who fall between the cracks.

Dr Faith Foreman-Hays talked next on her experience improving the population health in the city of Houston. "We have the fourth largest population of the United States. We are the most ethnically diverse city in the United States, and we have a big complex healthcare system." She then explained what strategies they took to tackle the city's vulnerabilities that were contributing to the increased risk of Type 2 diabetes. It included conducting in-depth conversations with the population; addressing a lack of trust in the health system; a lack of time for self-care; and a feeling of disconnection with the community, leading to isolation and loneliness. "With nearly 80% of the population identifying as actively religious, these communities of faith became our strong partners and we trained them as health leaders to deliver prevention programmes to the community. Going to where people are is what we are doing", said **Dr Foreman-Hays**.

Professor Dr Azhar Farooqi spoke more on the health inequalities present when dealing with Type 2 diabetes. This included: the genetic predisposition for Type 2 diabetes among BAME communities; the poor quality of healthcare in certain parts of the country, leading to lower referral rates for patient education programmes, for example, and less access to specialists. "We need to make interventions at a bigger scale and we need to have culturally sensitive

communication. We need to make sure that all our communities have access to high quality services."

Lastly, **Steve Mathers** spoke on his experience with Type 2 diabetes and his issue with not having continuation of care nor access to the best available technology. "I had to wait a year for a Continuous Glucose Monitor", said **Steve**. He would like to see GP's do more testing to identify the people at high risk from developing diabetes.

"There are some things that divide us culturally, but there is so much more that unite us in this challenge."

Recommendations:

1. *Deliver psychological services to people with diabetes that both improves their mental health and their glycaemic control. This is important to commissioners as standard treatments for depression have little effect on diabetes control and there is no compelling evidence that routine mental health therapies for anxiety do either. It is noteworthy that anxiety is markedly more common than depression in people with diabetes, but receives much less attention.*
2. *Provide a general holistic care for people with diabetes.*
3. *Encourage all GP's to seek to identify people at risk from developing diabetes, and to diagnose existing but unidentified people with diabetes. Issue guidelines around which patients could be tested for diabetes through these potential categories; All new practice patients, Anyone with a history of diabetes in their families, Anyone with a BMI of 25+, Anyone with a personal or family history of Cardiovascular Disease.*
4. *With an estimated 900,000 undiagnosed people with diabetes in this country, we need to reach out to these people and encourage these 'at risk' groups to get tested for Diabetes through more pop-up testing clinics at health centre, shopping malls, leisure centres, sports grounds, community centres, and on high streets.*
5. *Provide an environment that makes healthier choices easy choices – to support people manage their weight, eat well and regularly move more. Provide clear consistent labelling on foods so people are better informed about the foods they consume and can make more informed decisions.*
6. *Highlight the importance of sugar labelling in alcoholic drinks.*
7. *Stop advertising calorie-dense foods to school children.*
8. *Use the Sugar Tax to subsidise fruit and vegetables, to make these an easier option for poorer families.*
9. *Providing the environment that supports regular physical activity such as access to facilities, availability of green spaces, removing price barriers to activities and facilities, safe streets for walking, workplace infrastructure, public transport availability.*
10. *There should be a greater focus on early years in the identification of diabetes. Strategies for the prevention of obesity and diabetes are cognizant of the important influences in early life. The World Health Organisation report on preventing childhood obesity highlighted the first years of life (from conception) are of critical importance.*

11. *Bring back Home Economics and Cookery to the school curricula and increase the amount of Physical activity on the school curricula. There is not enough encouragement of children and young people to participate in sport and healthy active lifestyles.*
12. *NHS England need to carry out a trial of different diets to see which one has better outcomes for those with diabetes.*
13. *There are increasing numbers of both children and adults diagnosed with type 2 diabetes before the age of 40. There needs to be more research in these groups, as many patients recruited to the clinical trials and research trials usually have a mean age of 50 or 60. There needs to be a greater understanding of the complex causes of type 2 diabetes in younger people and likely to be significantly impacted on, not just by the lack of research, but also genetic background or environment, complex psychological needs and/or come from communities with less access to health care.*
14. *There is a need to understand better the social, cultural and economic factors which make some groups vulnerable to type 2 diabetes either through non-engagement with local services or through inability to meet health recommendations. Working with these groups to identify these will lead to the development of more effective programmes and interventions for a healthy lifestyle.*
15. *The NHS 10-year plan moves priorities towards detection and early prevention, and this needs to be applied to diabetes. Screening individuals in Leicester has led to identification of those who are at high risk of type 2 diabetes. This early detection of these individuals could lead to preventing further diagnosis of type 2 diabetes if they are educated on the risk factors of type 2 diabetes and understanding what they can do to reduce their risk.*
16. *More collaboration across departments, and an avoidance of isolated work in academic settings, hospital settings and primary care. Local community assets including city council, workplaces, schools, faith and/or community organisations, and sports clubs amongst others can all work together more effectively to promote and improve the lives of people at risk of and with diabetes as demonstrated by the great work that is going on in Leicester in the Cities Changing Diabetes initiative.*
17. *Further investigations into the social and cultural risk factors for type 2 diabetes in cities is required and for partners to work together more effectively to initiate and sustain more effective lifestyle improvement programmes for the management and prevention of type 2 diabetes.*