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The challenges of managing diabetes as a chronic condition in black and minority ethnic groups

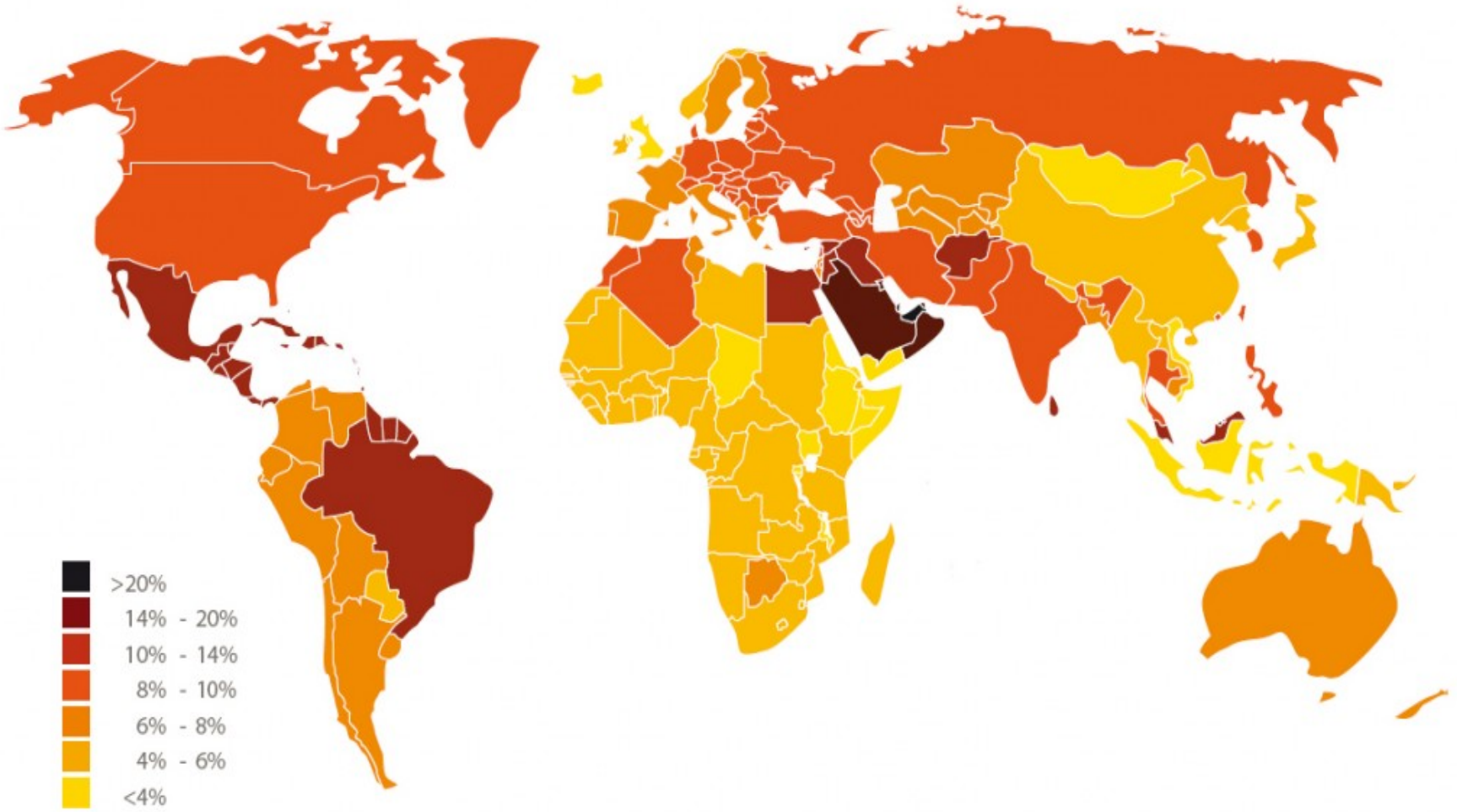
- DR SHAHZADA KHAN
- DIABETES CLINICAL LEAD
- NEWHAM CCG

Job number: PHGB/VOK/0515/0029 Date of preparation May 2015

Declaration of Interests

- I have received funding from Jansen, Lilly, BI, Novo Nordisk, AZ and Sanofi for educational presentations and advisory group meetings

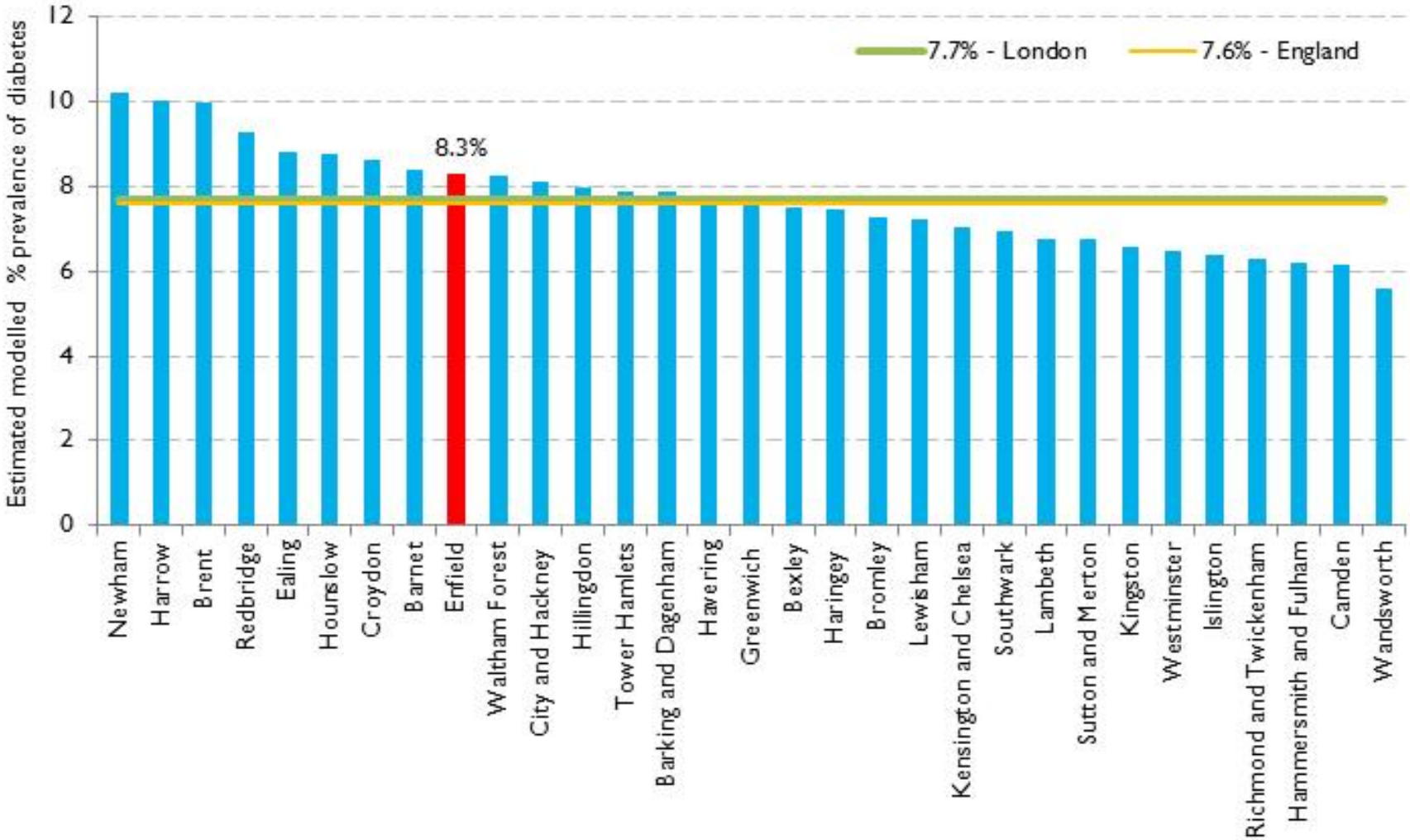
Prevalence estimates of diabetes, 2025



SOURCE: *DIABETES ATLAS THIRD EDITION,* © INTERNATIONAL DIABETES FEDERATION, 2006

Percentage Prevalence of Diabetes in all Persons aged 16 and over, by London Borough: 2012

(source http://www.enfield.gov.uk/healthandwellbeing/diabetes)



DIABETES rates amongst the different ethnic groups

- Why?
- - genes
- - environment
- - obesity
- - sedentary lifestyle
- - lack of physical exercise
- - rich diet

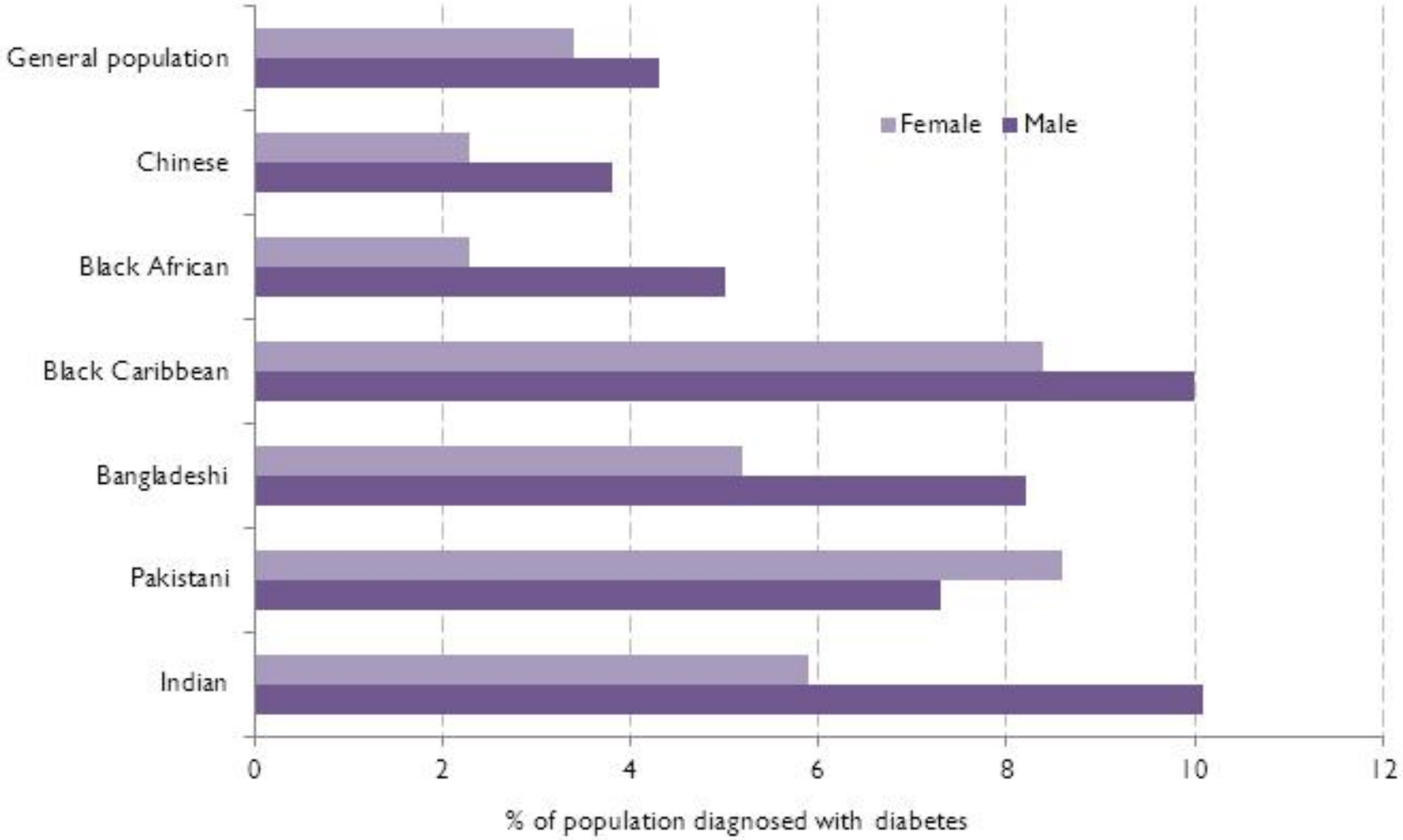
Genes

- Where is the 'diabetes gene'?

- Most cases of diabetes mellitus type 2 involved many genes contributing small amount to the overall condition. As of 2011 more than 36 genes have been found that contribute to the risk of type 2 diabetes.[All of these genes together still only account for 10% of the total genetic component of the disease.

- Genes associated with developing type 2 diabetes, include *TCF7L2*, *PPARG*, *FTO*, *KCNJ11*,*NOTCH2*, *WFS1*, *IGF2BP2*, *SLC30A8*, *JAZF1*, *HHEX* among others. *KCNJ11* (potassium inwardly rectifying channel, subfamily J, member 11), encodes the islet ATP-sensitive potassium channel Kir6.2, and *TCF7L2* (transcription factor 7–like 2) regulates proglucagon gene expression and thus the production of glucagon-like peptide-1. In addition, there is also a mutation to the Islet Amyloid Polypeptide gene that results in an earlier onset, more severe, form of diabetes.

- http://en.wikipedia.org/wiki/Genetic_causes_of_diabetes_mellitus_type_2



http://www.enfield.gov.uk/healthandwellbeing/site/styles/CSS_images/Full_sized_graphs/A-DPE2.jpg

Ethnicity

- Type 2 diabetes is more than six times more common in people of South Asian descent and up to three times more common among people of African and African-Caribbean origin [20].

- African or Caribbean 5.3
- Indian 4.7
- Pakistani or Bangladeshi 8.9
- Chinese 3.0

- Studies show that people of Black and South Asian ethnicity also develop Type 2 diabetes at an earlier age than people from the White population in the UK, generally about 10 years earlier [21]

20 Nazroo, JY (1997). The health of Britain's ethnic minorities: findings from a national survey. London. Policy Studies Institute.

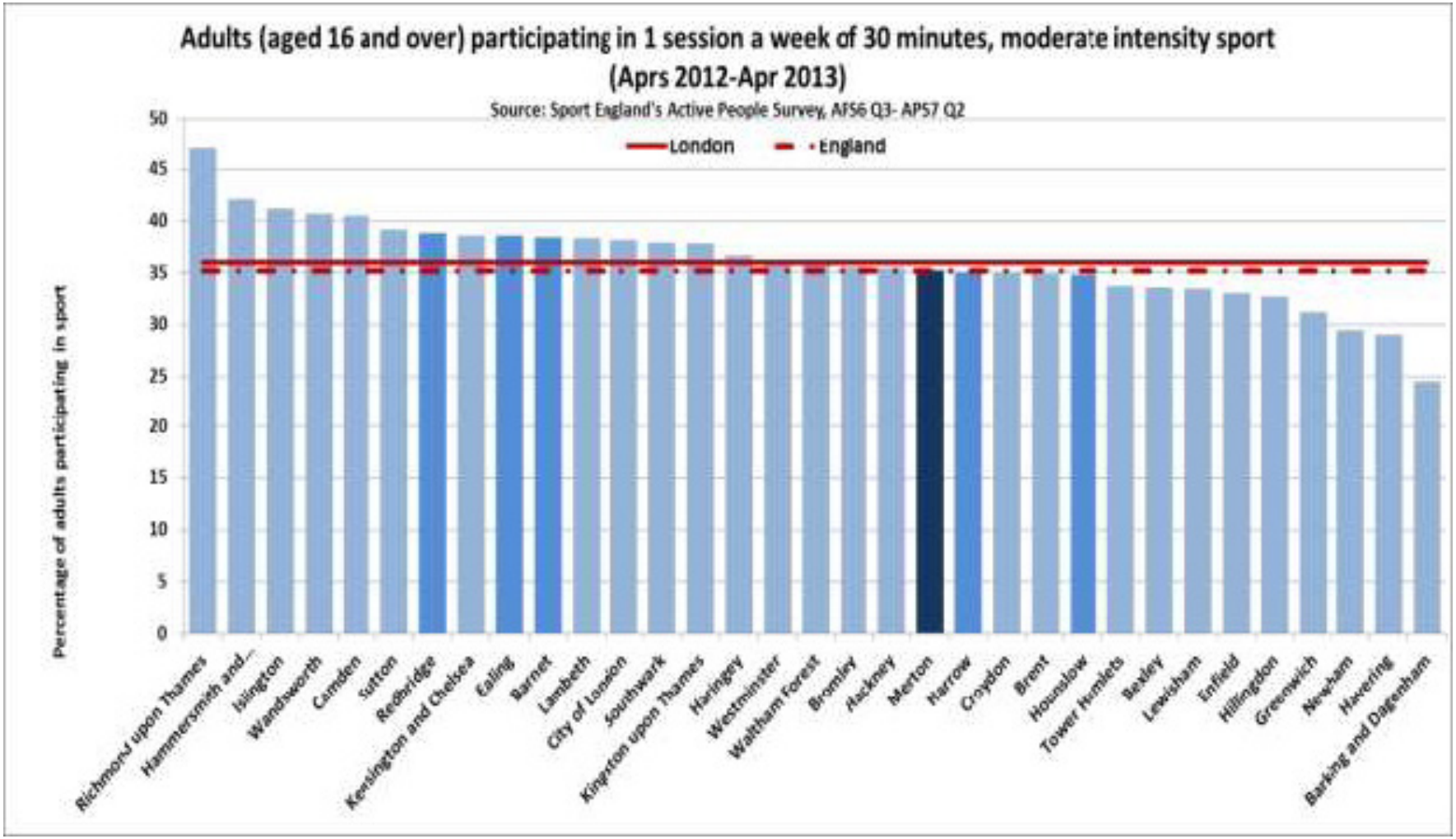
21 Winkley, K et al. (2013) The clinical characteristics at diagnosis of Type 2 diabetes in a multi-ethnic population; the South London Diabetes cohort (SOUL-D). Diabetologia 55(6). 1272–

Lack of physical exercise*

- Work ethic (making money, work harder, study!)
- Less emphasis on physical performance in South Asians
- Lazy outlook in terms of treks, walks, mountain climbing
- Cold country (warm people)
- Lack of knowledge about exercise / facilities locally
- Culturally inappropriate – 'stay at home'
- Modesty (male/female)
- Lack of facilities for women / men
- Modern facilities – cars etc
- Childcare
- Opportunity cost- waste of money!

*Speakers own opinion

London


Adults (aged 16 and over) participating in 1 session a week of 30 minutes, moderate intensity sport (Aprs 2012-Apr 2013)
Source: Sport England's Active People Survey, AFS6 Q3- AP57 Q2
London
England
Percentage of adults participating in sport
50
45
40
35
30
25
20
15
10
5
0
Richmond upon Thames
Hammersmith and...
Islington
Wandsworth
Camden
Sutton
Redbridge
Kensington and Chelsea
Ealing
Barnet
Lambeth
City of London
Southwark
Kingston upon Thames
Haringey
Westminster
Waltham Forest
Bromley
Hackney
Merton
Harrow
Croydon
Brent
Hounslow
Tower Hamlets
Bexley
Lewisham
Enfield
Hillingdon
Greenwich
Newham
Havering
Barking and Dagenham

Food and Obesity*

Unhealthy diet (but tasty!)

- Rich food
- Rich desserts
- Overeating
- Snacking
- Cultural norms – hospitality
- Takeaways
- Cheap high calorie plentiful supply of food
- Women not working

• GP meetings

• Manual backgrounds to sedentary jobs – but same diet! (curry with ghee to plough a field, curry with ghee…to tap a keyboard)

- Clothing – no belts!
- Overfeeding children – grandma.

• Won't break habit

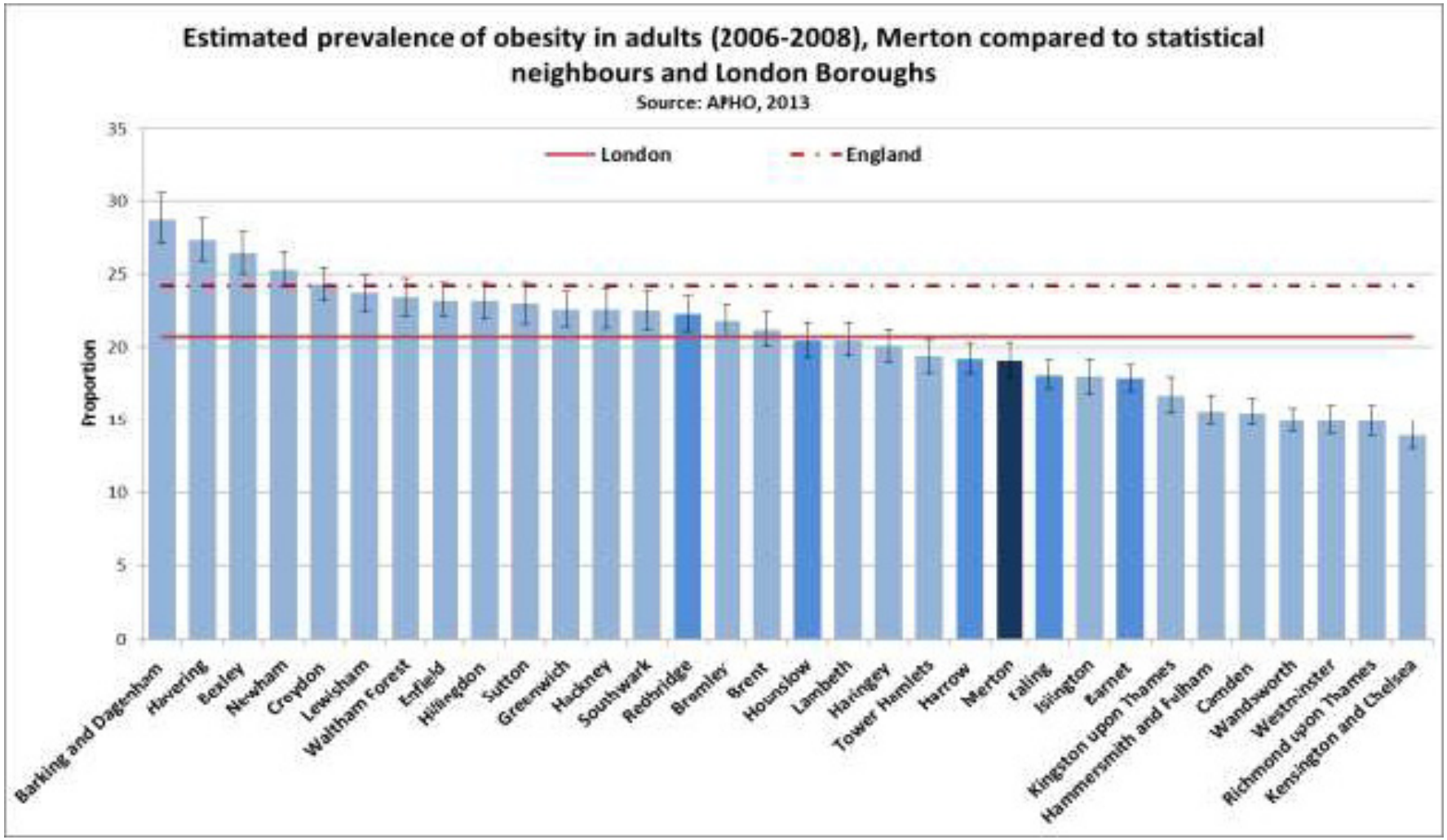
*Speakers own opinion

Festivals

- Feasting
- Fasting
- Weddings

Sweets

Obesity


Estimated prevalence of obesity in adults (2006-2008), Merton compared to statistical neighbours and London Boroughs
Source: APHO, 2013
London
England
Proportion
35
30
25
20
15
10
5
0
Barking and Dagenham
Havering
Bexley
Newham
Croydon
Lewisham
Waltham Forest
Enfield
Hillingdon
Sutton
Greenwich
Hackney
Southwark
Redbridge
Bromley
Brent
Hounslow
Lambeth
Haringey
Tower Hamlets
Harrow
Merton
Ealing
Islington
Barnet
Kingston upon Thames
Hammersmith and Fulham
Camden
Wandsworth
Westminster
Richmond upon Thames
Kensington and Chelsea

'Indians are getting as fat as Americans': Obesity crisis swells among India's middle class youth as children choose Western fast food over traditional cuisine

- **Obesity spreading across India as a result of Western food invasion**
- **Indian fast food market worth £7bn - expected to double by 2016**
- **Doctors fitting gastric bands on children as young as 13**
- **As a result of the obesity epidemic the country also has diabetes epidemic**
- **India already has largest diabetes population in world: 50m sufferers**
- **Medical professionals expect it to reach 100m soon**
- **Indians are more genetically predisposed to developing diabetes**
- **Documentary India's Supersize Kids on BBC iPlayer now**

By MARTHA DE LACEY

PUBLISHED: 16:58, 15 August 2013 | **UPDATED:** 17:00, 15 August 2013

India is suffering a massive obesity epidemic among its middle classes, with millions of Indians now morbidly obese as a result of the Western fast food invasion.

The country's economic boom means wealthy young Indians aspiring to Western lifestyles are increasingly shunning traditional cuisine and choosing to eat from American chains such as

DON'T MISS

She's Charlotte Elizabeth Diana: Kate and William's little princess is named in honour of grandfather, grandmother and great grandmother

Birthday boy David Beckham receives a kiss from doting wife Victoria as he blows out his candles... before daughter Harper helps him get over hangover

Fashionable pair! Victoria Beckham and her daughter Harper sport stylish kaftans as they relax in Marrakech following David's lavish 40th birthday bash

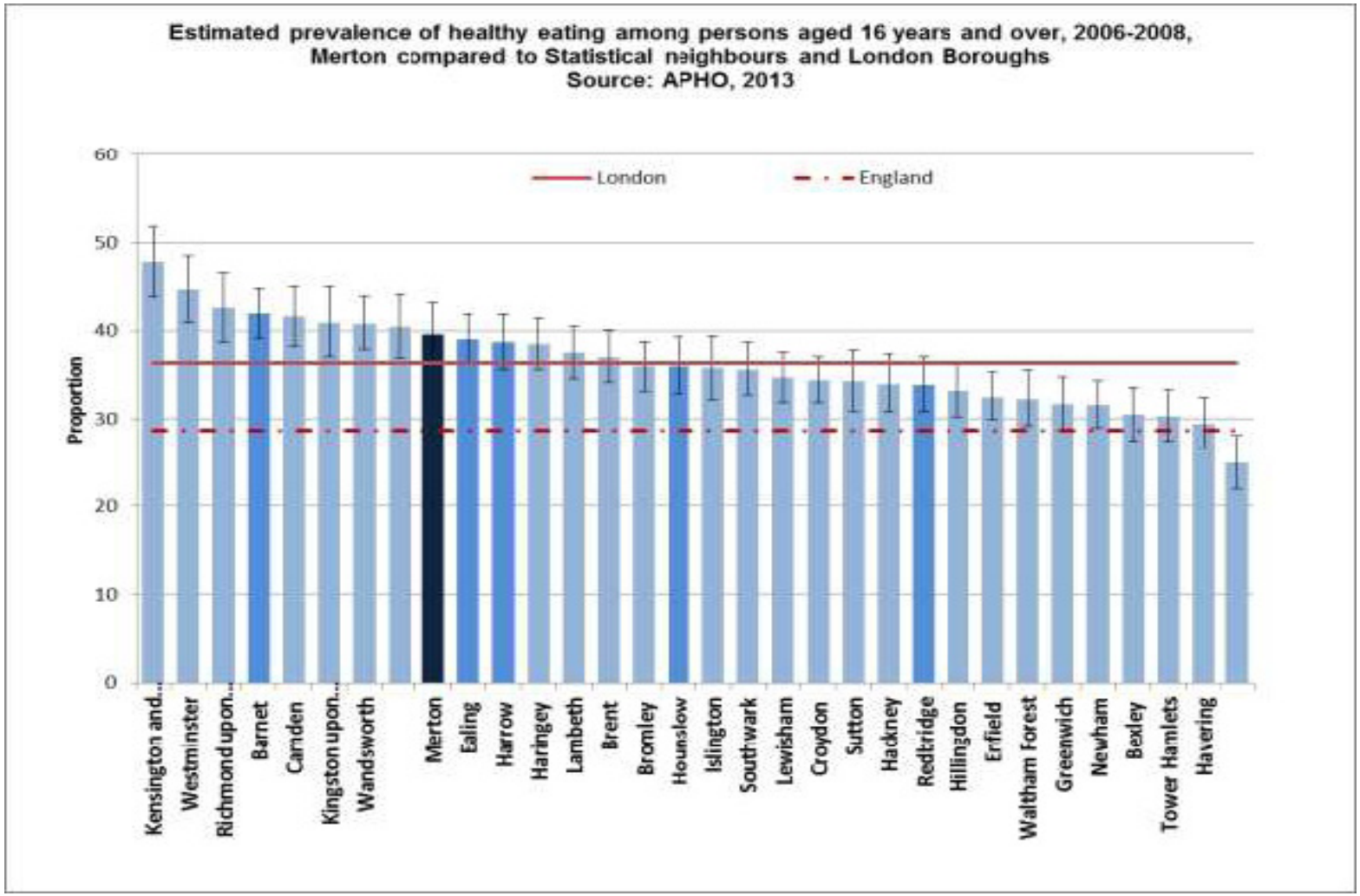
Table 1 The metabolic syndrome and type 2 diabetes

The metabolic syndrome is identified by the presence of three or more of the following:

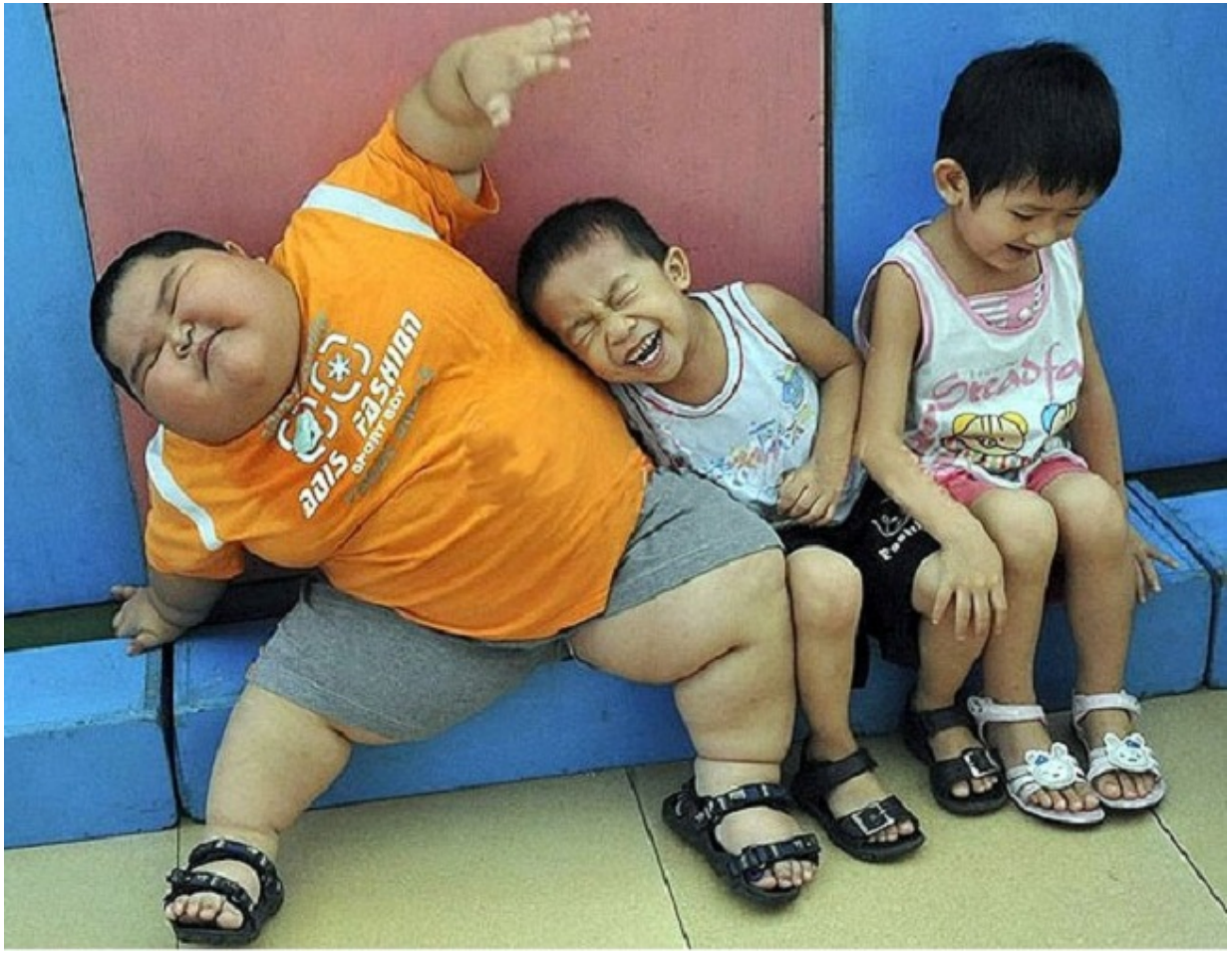
Risk factor	Defining value
Central obesity (waist circumference) Europids (people of European descent): Men Women	 ≥94cm ≥80cm
South Asians: Men Women	 ≥90cm ≥80cm
Raised triglycerides	≥1.7mmol/L
Reduced high-density lipoprotein cholesterol Men Women	 ≤1.03mmol/L ≤1.29mmol/L
Raised blood pressure	≥130/85mmHg
Raised fasting plasma glucose*	≥6.1mmol/L

Maskarinec G, et al. Diabetes prevalence and body mass index differ by ethnicity: the multiethnic cohort. *Ethnicity & Disease* 19(1), 2009.

Healthy Eating



Children



Children with Type 2 diabetes

- In 2000, the first cases of Type 2 diabetes in children were diagnosed in overweight girls aged nine to 16 of Pakistani, Indian or Arabic origin. It was first reported in white adolescents in 2002 .[15.]

- According to the National Paediatric Diabetes Audit, children of Asian origin were 8.7 times more likely to have Type 2 diabetes than their White counterparts and children of Black origin were 6.2 times more likely.[11]

15 Ehtisham S, Barrett TG, Shaw NJ (2000). Type 2 diabetes mellitus in UK children: an emerging problem. Diabetic Medicine 17 (12); 867– 871
16 Tuomilehto J, Lindström J, Eriksson JG et al (2001). Prevention of Type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. N Engl J Med 344 (18); 1343–1350

Psychology*

- Understanding of health, physiology, anatomy
- Personal responsibility / reliance on others (take care of me)
- Adopting the sick role
- HCPs to fix problems rather than self reliance
- Feeling sorry for yourself / helplessness
- Inevitability, passivity and 'God's will/test/punishment/ destiny/fatalistic approach'.
- Extended family expectations - cook, clean, kids, stay at home
- Belief in 'herbal remedies'
- Insulin refusal is common

*Speakers own opinion

Barriers to diabetes management in Black communities*

- Obesity/overweight seen as "the norm" in the black population – corpulence = ‘wealth’
- High consumption of sugary drinks
- More negative attitudes toward Western prescription medications
- More concerns about drug adverse effects and ‘medication dependency’
- Poor adherence to medications over time

*Speakers own opinion

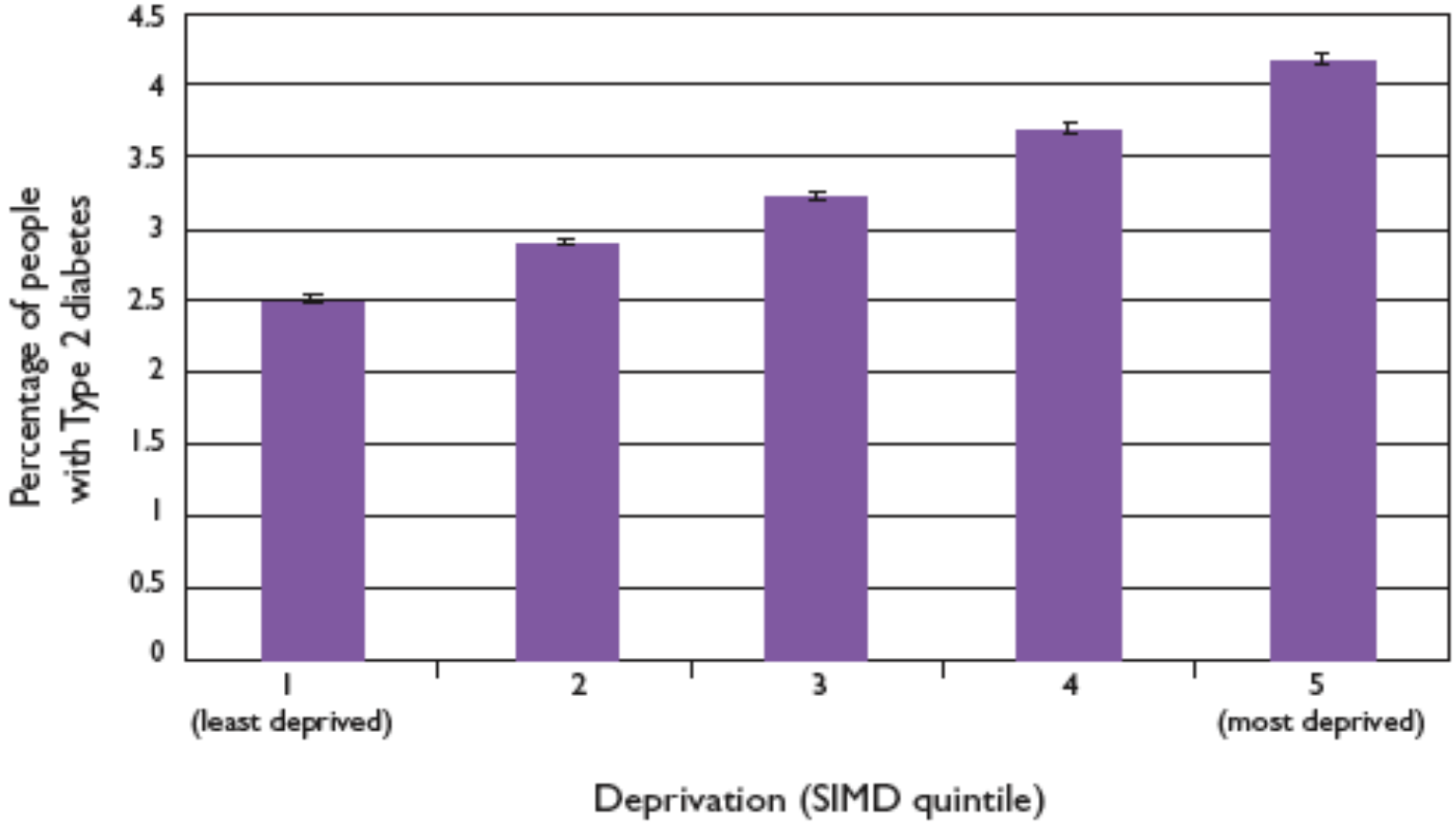
Barriers

- Inequalities in health
- - access
- - language
- - awareness
- - level of education and literacy
- - not taking advantage of equal opportunities
- - signposting
- - different attitudes to exercise.

Deprivation

- Smoking
- Poor work-life balance – working long hours
- Stress
- Poor diet

Deprivation



http://www.gov.scot/Publications/2009/05/28085904/8

Advantages

- Equal opportunities
- Extended family for help
- Open spaces in parks
- Different languages available
- Drs / Nurses from minority backgrounds

Improving outcomes in BME communities – working group recommendations

- The increasing prevalence and poor outcomes of people with type 2 diabetes in South Asian, black African and black African Caribbean communities is a significant health inequality.

- National and local commissioners must act to identify those people at high risk of developing diabetes, provide education to families and communities, and remove the barriers which prevent people from engaging with their condition earlier.

Referenced from: Diabetes in BME Communities. Raising awareness, improving outcomes and sharing best practice: April 2014

Improving outcomes in BME communities – working group recommendations

National

1. Public Health England should work with patient and community groups to develop a community **awareness initiative** such as a 'national diabetes in BME communities awareness week'. Furthermore, this should be supported by **role models** from different BME communities to raise awareness of dangers of diabetes and obesity.

2. Given that the development of diabetes varies according to ethnicity, and that BME groups are less likely to meet treatment thresholds, the National Institute of Health and Care Excellence should consider **whether** in its Guidance and Guidelines, **the thresholds for intervention for HbA1C, blood pressure and cholesterol should be tailored to each ethnic group.**

3. Public Health England should work with national patient groups and local community groups to ensure that different BME communities can **access appropriate and culturally sensitive dietary information**, and that this information is **disseminated in innovative ways. Dietary information and lifestyle support has to resonate and be applicable with people's lives.**

4. There is a pressing need to **build on existing research** exploring the reasons why different ethnic groups experience varying rates of diabetes complications and outcomes. Furthermore, it is essential that this information is used to tailor NHS policy to the specific needs of these communities.

Referenced from: Diabetes in BME Communities. Raising awareness, improving outcomes and sharing best practice: April 2014

Improving outcomes in BME communities – working group recommendations

Local – we need to know where we are now that is very important?

1. CCGs should work with health and wellbeing boards to develop strategies to **improve the identification of people at risk of diabetes in BME communities**, to raise awareness of the specific risks that these communities face, and to tailor **appropriate and culturally sensitive advice** and education specifically for BME communities.
   Health and wellbeing boards should ensure that JSNAs review health data on BME groups including South Asian, black African and black African Caribbean people with, or at risk, of diabetes.

2. Each health and wellbeing board should appoint a **BME lead** to ensure strategy and interventions to tackle health inequalities are delivered.

3. Public Health England and local authorities should commit to targeting the NHS Health Check at people from the age of **25 onwards in BME communities**.

4. Local commissioners and healthcare professionals must seek to **raise awareness beyond traditional healthcare environments**. Information about diabetes should be accessible and available in public spaces where people live, work, travel and shop.

5. In partnership with local authorities and commissioners, it is essential that clinicians recognise the value of **extending healthcare beyond individuals to families and communities. Individuals who have prominent positions in the social structures of different communities are vital as a means to raising awareness of diabetes and obesity**, and reaching families and individuals who do not access healthcare services in traditional ways. Local authorities should offer training to local religious, cultural, social and business leaders in diabetes awareness and understanding so that they can educate people as part of their everyday work.

Referenced from: Diabetes in BME Communities. Raising awareness, improving outcomes and sharing best practice: April 2014

Improving outcomes in BME communities – working group recommendations

Local – we need to know where we are now that is very important?

6. Directors of Public Health, health and wellbeing boards, CCGs and healthcare professionals need to work together to embed awareness and education of diabetes in primary and secondary education; develop appropriate and **culturally sensitive leisure facilities**; and ensure that the planning of public spaces recognises the distinct healthcare challenges facing our changing population.

7. Childhood obesity is a driving force of high rates of adult diabetes in the UK, and this is a particular concern for children from BME backgrounds. Local authorities have to manage this trajectory through improving access to healthcare in schools, and through **improving the ability of children to understand the difference between healthy and unhealthy food from an early age**. Furthermore, **parents should also receive education and support** to help manage their child's health.

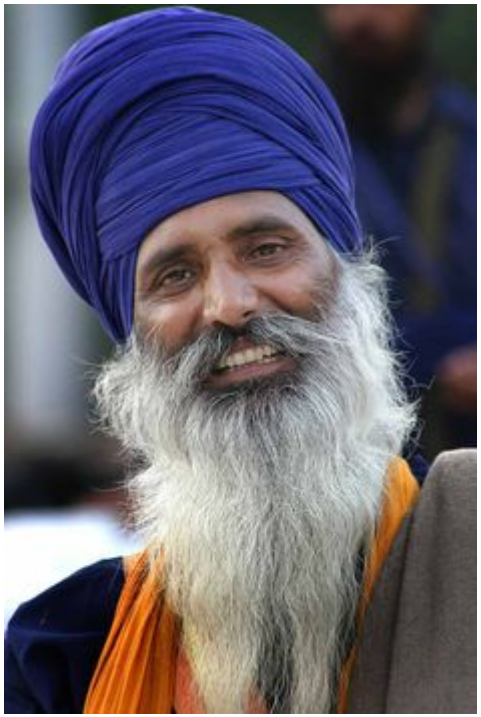
8. **Healthcare professionals should receive training to recognise the cultural, clinical and social differences that exist** within and between South Asian, black African and black African Caribbean communities.

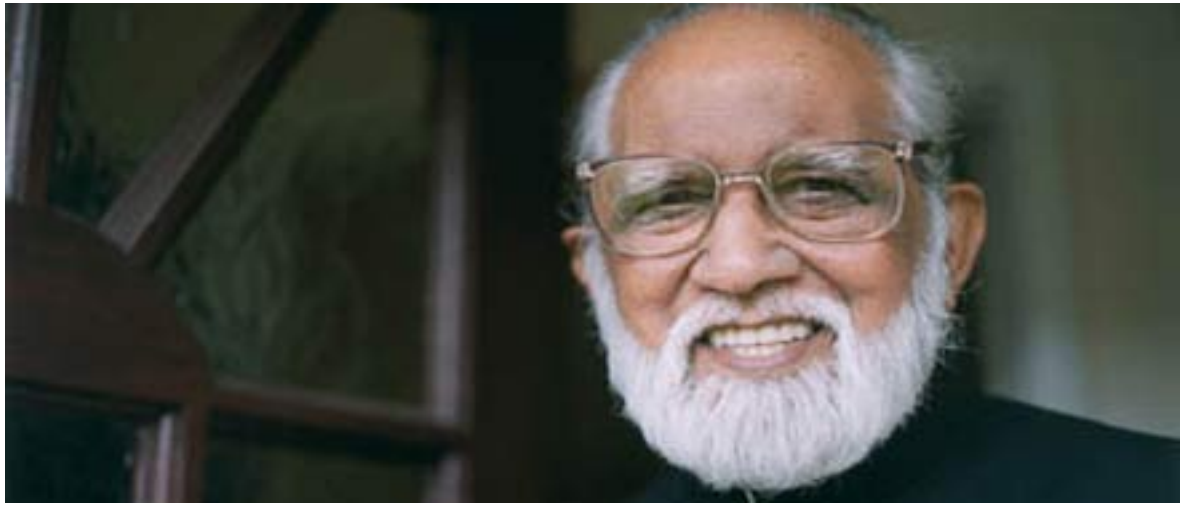
9. Local commissioners should engage with BME communities and local providers to ensure that services are in place to meet local needs. This can be **through traditional and social media, community events, employment venues and places of worship**.

10. Empowering patients by ensuring that they can access their own healthcare records is only useful if patients can fully understand the information that they have. Health and social care professionals **must explain technical information to patients**. This will help to **build trust** between healthcare professionals and different ethnic groups and communities.

Referenced from: Diabetes in BME Communities. Raising awareness, improving outcomes and sharing best practice: April 2014

Thank you!





Job number: PHGB/VOK/0515/0029 Date of preparation May 2015