CVD in South Asians – different challenges?

Dr Kiran CR Patel
Cardiologist, Sandwell & West Birmingham NHS Trust
Clinical Lead, NHS West Midlands
Chair, South Asian Health Foundation (UK)
Format

• Epidemiology and Risk Factor Differentials?

• Prevention, Rx, Rehab

• Politics
Define

- Health

- Health Inequalities
Define

- **Health**
  - Mental, physical and social well being

- **Health Inequalities**
  - Unacceptable disparities in health based upon
    - Social class
    - Race
    - Gender
    - Literacy
1858
THE FIRST ANNUAL REPORT OF THE
CHIEF MEDICAL OFFICER

“The essential points which I deem it necessary to bring under your lordships’ consideration
... the inequality with which deaths are distributed in different districts of the country.”
‘On the State of Public Health in England’, Report of the Chief Medical Officer, 1858

“Although this country has seen increased prosperity and overall reductions in mortality over
the last 20 years, the gap between those at the top and the bottom of the social scale has widened.”
The current Chief Medical Officer’s Annual Report, 2001
• 1980 Black report
• 1998 Acheson report 39 recommendations
• 1999 Saving lives, our healthier nation
• 2000 NHS Plan
• 2000 NSF for CHD
• 2002 Cross cutting review
• 2003 Tackling Health Inequalities: A programme for action
• 2004 Wanless report
• 2004 Choosing Health
• 2006 Health Challenge England
• 2006 Our health, our care, our say
• 2008 Health Inequalities: progress and next steps
• 2009 Tackling health inequalities: 10 yrs on report
• 2010 Marmot review
• 2010 RCP conference
Relations between climate change, social determinants, and health inequity
Solid lines denote causal pathways, dotted lines indicate effect modifiers
**UK Population**

Projected total and regional change from 2001 to 2020

<table>
<thead>
<tr>
<th>Ethnic group, all ages</th>
<th>UK population 2001 Census 000’s</th>
<th>% Change 2001-2010</th>
<th>% Change 2010-2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>54118</td>
<td>+2</td>
<td>+2</td>
</tr>
<tr>
<td>Mixed</td>
<td>674</td>
<td>+41</td>
<td>+30</td>
</tr>
<tr>
<td>Black</td>
<td>1148</td>
<td>+22</td>
<td>+14</td>
</tr>
<tr>
<td>Chinese &amp; Other</td>
<td>471</td>
<td>+68</td>
<td>+28</td>
</tr>
<tr>
<td>Sum of groups</td>
<td>58747</td>
<td>+4</td>
<td>+4</td>
</tr>
</tbody>
</table>

Fig. 14. Percent of the population who are Asian in 2001 and 2020
# CHD in South Asian Diaspora

<table>
<thead>
<tr>
<th>Country</th>
<th>Period</th>
<th>Comparator</th>
<th>Age range</th>
<th>Factor increase</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Singapore</td>
<td>1980-86</td>
<td>Chinese</td>
<td>30-69</td>
<td>3.8</td>
<td>Hughes et al 1990</td>
</tr>
<tr>
<td>Fiji</td>
<td>1980</td>
<td>Melanese</td>
<td>40-59</td>
<td>3.0</td>
<td>Tuomelhito et al, 1984</td>
</tr>
<tr>
<td>Trinidad</td>
<td>1977-86</td>
<td>African</td>
<td>39-69</td>
<td>2.4</td>
<td>Miller et al 1989</td>
</tr>
<tr>
<td>S Africa</td>
<td>1985</td>
<td>WE</td>
<td>35-74</td>
<td>1.4</td>
<td>Steinberg et al 1988</td>
</tr>
<tr>
<td>UK</td>
<td>1979-83</td>
<td>WE</td>
<td>2-69</td>
<td>1.4</td>
<td>OPCS 1990</td>
</tr>
</tbody>
</table>
Some stats

- MI <40yrs is 5 times more common in S Asians

- Highest overall and premature CHD mortalities of any UK ethnic group.

- Average age of index MI increased by 10 years in general population but decreased by 10 years in South Asians (Enas, JIMA 2000)

- 50% of MI’s occur under 55 years of age and 25% under 40 years of age – rates unheard of in any other population

- Mean age of MI
  - 50yo (Barnett et al, Diabetologia 2006)
  - 52 yrs (vs 58yrs in non-SA and 62 yrs in Whites) in INTERHEART (JAMA 2007)
CHD Rates in UK

Percentage change in CHD death rates in England and Wales

A Men, 30–69 years

- England and Wales
- Jamaica
- Other Caribbean
- West Africa
- East Africa
- India
- Pakistan
- Bangladesh

Change in death rate (%)

% change in first decade (between 1989–93 and 1979–83)
% change in second decade (between 1999–2003 and 1989–93)
Scale of the problem – Global

- 20% of CV deaths currently are S Asian, but this will increase to 40% in 2025
- 10% of urban Indians have CHD
- Rare in rural areas
- Increasingly common in urban areas
## Mortality rates (1989-1992) for men 45-74 years for IHD by country of birth and sex

<table>
<thead>
<tr>
<th>Region of Birth</th>
<th>Number of deaths</th>
<th>Rate per 100,000/4 yrs</th>
<th>SMR ** (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>2561</td>
<td>3206</td>
<td>141 (136, 147)</td>
</tr>
<tr>
<td>Pakistan</td>
<td>842</td>
<td>3062</td>
<td>144 (134, 154)</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>366</td>
<td>3276</td>
<td>153 (137, 169)</td>
</tr>
<tr>
<td>China</td>
<td>99</td>
<td>1077</td>
<td>45 (37, 55)</td>
</tr>
<tr>
<td>Caribbean</td>
<td>816</td>
<td>1419</td>
<td>62 (58, 67)</td>
</tr>
<tr>
<td>W &amp; S Africa</td>
<td>83</td>
<td>1301</td>
<td>56 (44, 69)</td>
</tr>
<tr>
<td>England and Wales</td>
<td>151953</td>
<td>1971</td>
<td>98 (98, 99)</td>
</tr>
</tbody>
</table>

(Wild S and Bhopal R)
Prevalence Studies

FHS (Framingham (USA)), CADI (CAD in Indians (USA)), CUPS (Chennai Urban Population Study (India))

- FHS: 2.5%
- CADI: 10.2%
- CUPS: 11.0%
## Premature CHD by ethnicity in Sandwell

<table>
<thead>
<tr>
<th>CHD</th>
<th>Factor increase for SA relative to WE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MINAP total</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.4</td>
</tr>
<tr>
<td>Female</td>
<td>1.8</td>
</tr>
<tr>
<td>MI</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>3.1</td>
</tr>
<tr>
<td>Female</td>
<td>1.5</td>
</tr>
<tr>
<td>ACS</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>4</td>
</tr>
<tr>
<td>Female</td>
<td>3</td>
</tr>
</tbody>
</table>

Patel KCR et al 2006
Genetically increased risk

• ?
• Disease-related mutations specific to South Asian populations
• Increased prevalence of susceptibility alleles
• Adverse gene-environment interactions
Foetal origins?
In western populations, reduced fetal growth is consistently associated with higher adult:-

- Blood pressure
- Insulin resistance
- Impaired glucose tolerance and type 2 diabetes
- Serum triglycerides
- Truncal obesity (SS/TR)
- CHD and stroke mortality
Relative insulin resistance (HOMA)
8-year-old children, Pune, India (n=477)

Birthweight p=0.7
Current weight p<0.001
Birthweight p=0.03
Current weight p<0.001
Birthweight x current weight p=0.004

Bavdekar et al. Diabetes 2000;48:2422-9

South Asian Health Foundation (UK)
Risk increases further if:

- Poor infant growth (up to 1 year)
- Rapid weight gain in childhood
- Adult obesity
# Fat in Food

This table shows the amount of fat there is in one serving of some foods, along with the fat content of some lower fat alternative choices.

## Starchy Foods

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes (140 g or 5 oz serving)</td>
<td>17 g</td>
</tr>
<tr>
<td>thin-cut chips</td>
<td>17 g</td>
</tr>
<tr>
<td>thick-cut chips</td>
<td>8 g</td>
</tr>
<tr>
<td>oven chips</td>
<td>7 g</td>
</tr>
<tr>
<td>roast potatoes</td>
<td>8 g</td>
</tr>
<tr>
<td>baked potatoes</td>
<td>0.1 g</td>
</tr>
<tr>
<td>boiled potatoes</td>
<td>0.1 g</td>
</tr>
<tr>
<td>Rice (85 g or 3 oz raw weight)</td>
<td>8 g</td>
</tr>
<tr>
<td>fried</td>
<td>8 g</td>
</tr>
<tr>
<td>boiled</td>
<td>1 g</td>
</tr>
<tr>
<td>Chapatis</td>
<td></td>
</tr>
<tr>
<td>made with fat</td>
<td>8 g</td>
</tr>
<tr>
<td>made without fat</td>
<td>0.5 g</td>
</tr>
</tbody>
</table>

## Meat and Meat Products

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pork chop (85 g or 3 oz serving)</td>
<td>16 g</td>
</tr>
<tr>
<td>fried with fat left on</td>
<td>16 g</td>
</tr>
<tr>
<td>grilled with fat removed</td>
<td>6 g</td>
</tr>
<tr>
<td>Sausages (2 large)</td>
<td></td>
</tr>
<tr>
<td>ordinary</td>
<td>21 g</td>
</tr>
<tr>
<td>'low fat'</td>
<td>11 g</td>
</tr>
<tr>
<td>Beefburgers, grilled (2)</td>
<td></td>
</tr>
<tr>
<td>ordinary</td>
<td>18 g</td>
</tr>
<tr>
<td>'low fat'</td>
<td>9 g</td>
</tr>
</tbody>
</table>

## Poultry

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roast chicken (85 g or 3 oz serving)</td>
<td>12 g</td>
</tr>
<tr>
<td>skin left on</td>
<td>12 g</td>
</tr>
<tr>
<td>skin removed</td>
<td>5 g</td>
</tr>
</tbody>
</table>

## Dairy Products

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk (284 ml or ½ pint)</td>
<td></td>
</tr>
<tr>
<td>whole</td>
<td>11 g</td>
</tr>
<tr>
<td>semi-skimmed</td>
<td>5 g</td>
</tr>
<tr>
<td>skimmed</td>
<td>0.3 g</td>
</tr>
<tr>
<td>Cheese (60 g or 2 oz serving)</td>
<td></td>
</tr>
<tr>
<td>Cheddar</td>
<td>20 g</td>
</tr>
<tr>
<td>Edam</td>
<td>14 g</td>
</tr>
<tr>
<td>low fat Cheddar</td>
<td>8 g</td>
</tr>
<tr>
<td>Cream (30 g or 1 oz serving)</td>
<td></td>
</tr>
<tr>
<td>double cream</td>
<td>14 g</td>
</tr>
<tr>
<td>single cream</td>
<td>6 g</td>
</tr>
<tr>
<td>yoghurt (low fat plain)</td>
<td>0.3 g</td>
</tr>
<tr>
<td>fromage frais (low fat)</td>
<td>0.3 g</td>
</tr>
</tbody>
</table>

## Fats and Oils

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spreads (10 g or ½ oz serving)</td>
<td></td>
</tr>
<tr>
<td>butter</td>
<td>8 g</td>
</tr>
<tr>
<td>margarine (all types)</td>
<td>8 g</td>
</tr>
<tr>
<td>low fat spread</td>
<td>4 g</td>
</tr>
<tr>
<td>ghee</td>
<td>10 g</td>
</tr>
<tr>
<td>oil (all types)</td>
<td>10 g</td>
</tr>
</tbody>
</table>

## Sweet Snacks

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>small chocolate bar</td>
<td>15 g</td>
</tr>
<tr>
<td>halva</td>
<td>11 g</td>
</tr>
<tr>
<td>sevaiyan</td>
<td>7 g</td>
</tr>
<tr>
<td>burfi</td>
<td>5 g</td>
</tr>
<tr>
<td>2 digestive biscuits</td>
<td>6 g</td>
</tr>
</tbody>
</table>

## Savoury Snacks

<table>
<thead>
<tr>
<th>Food</th>
<th>Fat Content (g)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 samosa</td>
<td>26 g</td>
</tr>
<tr>
<td>chips (small bag)</td>
<td></td>
</tr>
<tr>
<td>1 ordinary</td>
<td></td>
</tr>
<tr>
<td>1 'low fat'</td>
<td></td>
</tr>
<tr>
<td>Peanuts (small bag)</td>
<td></td>
</tr>
<tr>
<td>1 Chinese pastry with bean filling</td>
<td></td>
</tr>
</tbody>
</table>
## Dietary transitions

<table>
<thead>
<tr>
<th>Then</th>
<th>Now</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple foods</td>
<td>Processed foods</td>
</tr>
<tr>
<td></td>
<td>XS cooked, not greens</td>
</tr>
<tr>
<td>Water</td>
<td>Soft drinks</td>
</tr>
<tr>
<td>Low fat</td>
<td>High fat</td>
</tr>
</tbody>
</table>
Prevention: Healthy eating

• Set goals, not just advice
• Sustained personal contact
• Feedback to participants on changes in behaviour and risk factors
• Promote changes in local outlets and catering

• Focus
  • Ethnic groups
  • Low income
  • Schoolkids

• Address barriers to change
  • Availability
  • Access
  • Affordability
  • Cooking skills
  • Social influences
Global DM Projection

King et al, Diabetes Care 1998
South Asians carry more fat

# Obesity & Waist definitions

<table>
<thead>
<tr>
<th></th>
<th>Overweight (BMI)</th>
<th>Obese (BMI)</th>
<th>Waist circ (male)</th>
<th>Waist circ (female)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White European</td>
<td>25-30</td>
<td>&gt;30</td>
<td>40”</td>
<td>35”</td>
</tr>
<tr>
<td>Asian</td>
<td>23-25</td>
<td>&gt;25</td>
<td>36”</td>
<td>32”</td>
</tr>
</tbody>
</table>

Increases incidence of metabolic syndrome from 20 to 29% in females and 22 to 32% in males

WHO Asia Pacific Criteria
Epidemiology in SA

• DM starts 10 yrs younger

• DM starts at BMI 5 units lower and WHR 5% higher

• 1.5 fold greater insulin resistance for same BMI
Lipid profiling in South Asians

- Low HDL
- High Lp(a)
  - Atherogenic
  - Thrombogenic
  - Nicotinic acid is the only agent lowering Lp(a)
- High TG
# Hypertension – no difference in incidence

<table>
<thead>
<tr>
<th>First author &amp; publication date</th>
<th>Place of study</th>
<th>Ethnic groups</th>
<th>SBP</th>
<th>DBP</th>
<th>% PH</th>
<th>SBP</th>
<th>DBP</th>
<th>% PH</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cruickshank (1983)²</td>
<td>Birmingham</td>
<td>Whites Asian origin</td>
<td>134.2*</td>
<td>78.7</td>
<td>22%</td>
<td>128.7</td>
<td>79.9*</td>
<td>17%</td>
</tr>
<tr>
<td>Miller (1988)⁴</td>
<td>London</td>
<td>Europeans Indians</td>
<td>138.0</td>
<td>86.1</td>
<td>21%</td>
<td>141.3</td>
<td>88.4</td>
<td>40%</td>
</tr>
<tr>
<td>Cruickshank (1991)⁵</td>
<td>London</td>
<td>Whites Gujarati Indians</td>
<td>129</td>
<td>77</td>
<td>20%</td>
<td>137</td>
<td>77</td>
<td>32%</td>
</tr>
<tr>
<td>McKeigue et al (1991)⁶</td>
<td>London</td>
<td>Europeans South Asians</td>
<td>121</td>
<td>78</td>
<td>Not given</td>
<td>126</td>
<td>82</td>
<td>Not given</td>
</tr>
<tr>
<td>Knight (1992)⁷</td>
<td>Bradford</td>
<td>Non-Asians Asians</td>
<td>137.4 **</td>
<td>79.6</td>
<td>23.1%</td>
<td>131.4</td>
<td>79.5</td>
<td>26.6%*</td>
</tr>
<tr>
<td>Williams (1993)⁸</td>
<td>Glasgow</td>
<td>Gen. Population South Asians</td>
<td>124.5</td>
<td>80.3</td>
<td>14%</td>
<td>123.8</td>
<td>86.3**</td>
<td>22%</td>
</tr>
<tr>
<td>Cappuccio (1998)⁹</td>
<td>London</td>
<td>Whites South Asians</td>
<td>127.9</td>
<td>82.1</td>
<td>WHO</td>
<td>INC</td>
<td>131.0</td>
<td>85.4***</td>
</tr>
<tr>
<td>Bhopal (1999)¹⁰</td>
<td>Newcastle upon Tyne</td>
<td>Europeans South Asians Subgroups: Indians Pakistanis Bangladeshis</td>
<td>129.1***</td>
<td>78.1**</td>
<td>18%</td>
<td>119.2</td>
<td>70.6</td>
<td>10%</td>
</tr>
<tr>
<td>Whitby (1999)¹¹</td>
<td>London</td>
<td>Whites South Asians</td>
<td>123.4**</td>
<td>76.8</td>
<td>OR</td>
<td>1</td>
<td>121.4</td>
<td>77.4</td>
</tr>
<tr>
<td>Primastesta (2000)¹²</td>
<td>England</td>
<td>Whites 16-39 40 and above South Asians 16-39 50 and above</td>
<td>132.2**</td>
<td>70.3</td>
<td>4%</td>
<td>141.6</td>
<td>81.5</td>
<td>36%</td>
</tr>
<tr>
<td>Karlsen (2001)¹³</td>
<td>England</td>
<td>Gen. population Indians Pakistanis Bangladeshis</td>
<td>SRM</td>
<td>SRR</td>
<td>SRR</td>
<td>136.4</td>
<td>76.2</td>
<td>1</td>
</tr>
<tr>
<td>Lane (2002)¹⁴</td>
<td>England</td>
<td>Whites South Asians</td>
<td>129.5</td>
<td>127.6</td>
<td>79.5</td>
<td>16.0%</td>
<td>Not studied</td>
<td></td>
</tr>
</tbody>
</table>
Smoking in South Asian Communities

• Smoking in South Asian communities is no more prevalent than in the general population
  – 49% of Bangladeshi men; 24% of Pakistani men and 15% of Indian men reported that they are currently smokers
  – Rates of smoking are very low among South Asian women
  – Smoking cessation is a new phenomenon in South Asian communities, and is relatively unsuccessful
  – Knowledge of the diseases linked to smoking is low

Source HEA 2000
Smoking & Prevention

- October 2005: films
- October 2008: Public ban
Exercise

activity

AFFLUENZA
Exercise - Percentage of adults achieving PA score >1

PA score >1 = 30 mins at least moderate PA on 5 days/week

Newcastle Heart Project, 1995-7
Percentage of 8-9 year olds, unable to finish cycle-ergometer test (PWC 85%)
Exercise?

• Only 7% of South Asian women meet current recommended physical activity levels (30 minutes of brisk walking, cycling or swimming at least five times a week)

• Only 18% of Bangladeshi men and 7% of Bangladeshi women meet the current recommended physical activity levels (30 minutes of brisk walking, cycling or swimming at least five times each week).
Why don’t South Asians take exercise?

• Pakistani and Bangladeshi women:
  – looking after young children (29%)
  – insufficient time (26%)
  – won’t go to mixed-sex facilities (20%)
  – won’t go to places where people show parts of their bodies (19%)
  – fear of going out alone (17%)
• Language and culture otherwise rarely mentioned

BMEG, 1994 (HEA, 2000)
SES and CHD

- Higher CHD prevalence in low SES grps
  - DH, Tackling Inequalities 2007

- Low SES linked to increased M&M
  - Increased RFs
  - Increased admission to hospital for CHD
  - Reduced access to care
    - More comorbidity
    - Lower education levels
    - Less use of choice

- Less access to coronary angiography for deprived, elderly, women, S Asians, (Sekri et al 2008)
Added Value of CVD Prevention

- Blood pressure: 7 million deaths
- Obesity: 5 million deaths
- Tobacco: 4 million deaths
- Cholesterol: 5 million deaths
- Low fruit/veg intake: 2 million deaths
- Physical inactivity: 1 million deaths
- Alcohol: 1 million deaths
- Urban air pollution: 0 million deaths
- Occupational injuries: 0 million deaths
- Occupational particulates: 0 million deaths
- Lead exposure: 0 million deaths
- Illicit drugs: 0 million deaths
- Occupational carcinogens: 0 million deaths

Note: South Asian Health Foundation (UK) and NHS West Midlands logos are present.
Smoking Ban and AMI in England

£17m per year saving for the NHS with approx 5000 admissions per year in England
Prevention: Upstream Investment

Estimated Cumulative Return on Investment for Smoking Cessation
National Service Framework for CHD

Standard four
General practitioners and primary health care teams should identify all people at significant risk of cardiovascular disease but who have not developed symptoms and offer them appropriate advice and treatment to reduce their risks.
Who to target?

- Patients with proven CHD
- First degree relatives of patients with premature CHD
- Asymptomatic high risk individuals
### 10-year risk of CHD event (%) in 60-year-olds

<table>
<thead>
<tr>
<th>Ethnic group</th>
<th>Male nonsmoker</th>
<th>Male smoker</th>
<th>Female nonsmoker</th>
<th>Female smoker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian</td>
<td>18.5</td>
<td><strong>27.9</strong></td>
<td>6.4</td>
<td>10.0</td>
</tr>
<tr>
<td>Pakistani</td>
<td>21.3</td>
<td><strong>31.8</strong></td>
<td>9.8</td>
<td>15.3</td>
</tr>
<tr>
<td>Bangladeshi</td>
<td>21.2</td>
<td><strong>31.7</strong></td>
<td>5.3</td>
<td>8.3</td>
</tr>
<tr>
<td>All South Asians</td>
<td>19.5</td>
<td><strong>29.3</strong></td>
<td>7.1</td>
<td>11.1</td>
</tr>
<tr>
<td>Chinese</td>
<td>6.1</td>
<td><strong>9.6</strong></td>
<td>1.1</td>
<td>1.8</td>
</tr>
<tr>
<td>Caribbean</td>
<td>5.4</td>
<td><strong>8.5</strong></td>
<td>8.6</td>
<td>13.4</td>
</tr>
<tr>
<td>Black African</td>
<td>8.9</td>
<td><strong>13.9</strong></td>
<td>3.6</td>
<td>5.7</td>
</tr>
<tr>
<td>Irish</td>
<td>13.7</td>
<td><strong>20.9</strong></td>
<td>6.8</td>
<td>10.6</td>
</tr>
<tr>
<td>Framingham score</td>
<td>11.8</td>
<td><strong>18.2</strong></td>
<td>7.1</td>
<td>11.7</td>
</tr>
</tbody>
</table>

Brindle P et al. *Heart* 2006
Rehabilitation
Specific Link Services for Ethnic groups?
REHABILITATION: DEFINITION

“Rehabilitation cannot be regarded as an isolated form of therapy but must be integrated with the whole treatment of which it forms only one facet”

World Health Organisation (1993)
• The imperative of choice

• The importance of personalisation

• The potential prevention dividend

• The patterning of individual choices at group and population level
Healthcare Needs Assessment

• With what population or patients are we concerned?
• What services are currently provided?
• Are these services effective?
• Are these services cost-effective?
• What is the optimum configuration of services?
Why the need????

- High Prevalence & Incidence of CVD in Asians
- Inequalities In Healthcare Provision and Access to Services – 4A’s
- Equitable and Culturally Sensitive Service
- Primary / Secondary Care
Why should there be ethnic specific resources and prevention programmes?

• Economic and educational differences?

• The language barrier?

• Are there cultural differences in the approach to healthcare and prevention?
Rehabilitation Challenges

• Resistance to change

• Changing mindset required
  • Denial
  • Belief in destiny
Successful S Asian Rehab

- Birmingham Heartlands and Solihull (Kam Sanghera)
- New Cross, Wolverhampton (Nam Sahni)
- Leicester (Dr Sally Singh)
- Newham (Sheila Ryan)
- Walsall (HH Iqbal)
- SWBH (Ranjit Dhillon, Jacqueline Burke)

- NSF states all rehab programmes should be culturally sensitive and offer specific dedicated sessions with dedicated personnel where required
Sandwell

- Smokeless tobacco
- Passive smoking
SWBH: Provision of LRMS and Downstream Services for First degree relatives accessing primary prevention services

<table>
<thead>
<tr>
<th>LRMS &amp; Downstream referral</th>
<th>Eligible FDR No (%)</th>
<th>No of referrals to LRMS/Specialist (pmp)</th>
<th>% eligible FDR uptake</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight Management</td>
<td>65 (57)</td>
<td>20 (80)</td>
<td>31%</td>
</tr>
<tr>
<td>Medication</td>
<td>13 (12)</td>
<td>13 (52)</td>
<td>100%</td>
</tr>
<tr>
<td>Smoking cessation</td>
<td>24 (21)</td>
<td>9 (36)</td>
<td>37.5%</td>
</tr>
<tr>
<td>Investigations</td>
<td>13 (11.5)</td>
<td>13 (52)</td>
<td>100%</td>
</tr>
<tr>
<td>Specialists</td>
<td>30 (27)</td>
<td>30 (120)</td>
<td>100%</td>
</tr>
<tr>
<td>Exercise on Prescription</td>
<td>14 (56)</td>
<td>14 (56)</td>
<td>12.4%</td>
</tr>
</tbody>
</table>
Why does angina improve less in South Asians?

- Smaller coronary arteries?
- Diabetes?
- Difficulty in measuring angina

Timmis et al 2009
Solutions to access issues

• NSF
  • access must be sensitive to cultural and religious needs by using appropriately informed staff
  • Where access is an issue, barriers must be identified and tackled

• Health Equity Audit
  • Compares local services with need
  • Informs PCTs about service planning, commissioning and delivery

• Healthcare Needs Assessment
  • Funded by DoH and NICE
  • Managed by Univ of Bham Dept of Public Health and Epid.
Primary Prevention

- CVD awareness days
  - S Asian Living with Heart Disease project (Bristol)
  - Health checks at melas and in places of religious worship
  - Project Dil and Khush Dil: use peer educators
  - Bengali Bridge Project

- Smoking cessation programmes e.g. Asian Quitline

- Affordable healthy foods and physical activity

- Information e.g. BHF ethnic language leaflets
Primary Prevention

• Dietary advice and programmes e.g. 5-a-day, Food in Schools, Birmingham Food Net, to address:-
  • 13% of UK men and 15% of women eat 5 portions of fruit and veg per day.
  • 15% of Bangladeshis eat fruit 6+ time PER WEEK!

• Exercise schemes e.g. GP referral, LEAP, Sporting Equals, Walking for Health in Wolves.
• Diabetes screening e.g. Leicester STAR bus
QIPP

Partnerships
Inequalities: the Individual

• Teams can be cogniscent of risks of HI
  • Poverty
  • Deprivation
  • Health
  • Wealth
  • Opportunity
  • Illiteracy
Local inequalities

• Differences in life expectancy within countries is even more startling than differences between countries e.g MLE
  • Glasgow (Calton) 54yo
  • Glasgow (Lanzie) 82yo
  • US Washington Co blacks 63yo
  • US Montgomery Co 80yo
Fig 3.3: Proportional Mortality Ratios (all ages) for coronary heart disease by country of birth, London 1996-98
Coalition priorities: White Paper 2010

1. A patient-led NHS
2. Shift resources to promote better healthcare outcomes
3. Revolutionise NHS accountability
4. Promote better public health
5. Reform social care
Patients, public and the White Paper

• No decision about me, without me
• Patients will have access to all their information
• Choice of any provider, any team, any GP – guided by performance data
• Patients will rate hospitals, GPs and services.
• Stronger patient voice
Providers and the White Paper 2010

• Patient empowerment
  • Information – focus on quality and outcomes – not structure and process
  • Choice
• Purchaser-provider split
• Liberate provider market to promote choice – competition
• Income
  • 10% linked to outcomes
  • PROMS
  • pt satisfaction
• Regulation
  • Align authority with accountability
Commissioning

• Assessing health needs

• Assess range of health services available within cost envelope then
  • Plan
  • Secure
  • Monitor

• Levels
  • Population
  • Community
  • Individual
Ethnicity

- Celebrate similarity
- Focus on diversity
- Community engagement
- Tailored tools

www.sahf.org.uk