Increasing Awareness of Hypertension in Africa: Road to Success

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President of International Society of Hypertension 2016 – 2018

World Heart Federation: African Summit
Khartoum, Sudan: October 2017
Deaths attributed to 19 leading factors, by country income level, 2004

- High blood pressure
- Tobacco use
- High blood glucose
- Physical inactivity
- Overweight and obesity
- High cholesterol
- Unsafe sex
- Alcohol use
- Childhood underweight
- Indoor smoke from solid fuels
- Unsafe water, sanitation, hygiene
- Low fruit and vegetable intake
- Suboptimal breastfeeding
- Urban outdoor air pollution
- Occupational risks
- Vitamin A deficiency
- Zinc deficiency
- Unsafe health-care injections
- Iron deficiency

Mortality in thousands (total: 58.8 million)

- High income
- Middle income
- Low income
Hypertension: Size of the Problem - Global Prospects

Number of people with hypertension (millions)

2000

- Established market economies: 116.2 (Men), 123.3 (Women)
- Former socialist economies: 40.6 (Men), 52.5 (Women)
- India: 60.4 (Men), 57.8 (Women)
- Latin American and the Caribbean: 60.0 (Men), 54.3 (Women)
- Middle eastern crescent: 35.9 (Men), 37.9 (Women)
- China: 98.5 (Men), 83.1 (Women)
- Other Asia and islands: 38.4 (Men), 33.0 (Women)
- Sub-Saharan Africa: 38.2 (Men), 41.6 (Women)

2025

- Established market economies: 147.9 (Men), 161.8 (Women)
- Former socialist economies: 44.0 (Men), 59.7 (Women)
- India: 107.3 (Men), 106.2 (Women)
- Latin American and the Caribbean: 102.1 (Men), 98.5 (Women)
- Middle eastern crescent: 72.2 (Men), 80.4 (Women)
- China: 151.7 (Men), 147.5 (Women)
- Other Asia and islands: 67.3 (Men), 62.1 (Women)
- Sub-Saharan Africa: 73.6 (Men), 77.1 (Women)

## Development and Risk Factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>RISES</th>
<th>FALLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Exercise</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Alcohol intake</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Salt intake</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Potassium intake</td>
<td></td>
<td>✔</td>
</tr>
<tr>
<td>Body weight</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoking</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Sat fats</td>
<td>✔</td>
<td></td>
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</tbody>
</table>
Optimal CVD Prevention

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The prevention of (aspects of) development
Hypertension: Awareness, Treatment & Control†

<table>
<thead>
<tr>
<th>Income level</th>
<th>n</th>
<th>Aware (%)</th>
<th>Treated (%)</th>
<th>Controlled (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>6263</td>
<td>49.0</td>
<td>46.7</td>
<td>19.0</td>
</tr>
<tr>
<td>Upper Middle</td>
<td>18123</td>
<td>52.5</td>
<td>48.3</td>
<td>15.6</td>
</tr>
<tr>
<td>Lower Middle</td>
<td>23269</td>
<td>43.6</td>
<td>36.9</td>
<td>9.9</td>
</tr>
<tr>
<td>Low</td>
<td>10185</td>
<td>40.8</td>
<td>31.7</td>
<td>12.7</td>
</tr>
<tr>
<td>Total</td>
<td>57840</td>
<td>46.5</td>
<td>40.6</td>
<td>13.2</td>
</tr>
</tbody>
</table>

† <140/90

Chow et al. JAMA 2013
# Awareness Treatment and Control of Hypertension. Health Survey for England (HSE) 1994 - 2011

<table>
<thead>
<tr>
<th>Year</th>
<th>Awareness %</th>
<th>Treated %</th>
<th>Controlled %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>46</td>
<td>32</td>
<td>11</td>
</tr>
<tr>
<td>1998</td>
<td>53</td>
<td>39</td>
<td>15</td>
</tr>
<tr>
<td>2003</td>
<td>62</td>
<td>48</td>
<td>22</td>
</tr>
<tr>
<td>2006</td>
<td>66</td>
<td>54</td>
<td>28</td>
</tr>
<tr>
<td>2011</td>
<td>71</td>
<td>59</td>
<td>37</td>
</tr>
</tbody>
</table>

SBP ≥ 140mmHg or DBP ≥ 90mmHg or on treatment for hypertension
May Measurement Month (MMM) is an initiative led by the International Society of Hypertension (ISH) aimed at raising awareness around blood pressure worldwide and took place for the first time during May 2017.
2. Aims:

• To highlight the importance of measuring blood pressure.
• To identify and reduce the BPs of participants from over 100 countries who require intervention according to current guidelines.

Objectives:

• To recruit participants, aged >18 years, who ideally have not had their BPs measured in the previous 12 months.
• To supply diet and lifestyle treatment advice to all those screened who have BPs in the Hypertensive range.
• To use the data on untreated hypertension to motivate governments to improve screening facilities and policies.
Design - Logistics & Data Collection

In less than 6 weeks...

5528 Omron devices from Netherlands to UK

4600 Omron devices from UK to 44 EMEA countries

2483 Omron devices distributed in 26 other countries

MMM data collection...

BESPOKE web app

EXCEL WORD

All collated at MMM HQ
Design – Ethics & Collateral

**MMM17 website...**
- 225 pages in 6 weeks
- 130+ PDFs
- 2 videos
- 50k+ pageviews
- 14.5K sessions

**MMM in 5 languages...**
- English, French, Portuguese, Spanish, Simplified Chinese
  - EVERY web page
  - EVERY PDF
  - BOTH videos
  - WEB app

**Ethics in 33 countries**
4. Results – Global Participation

In May 2017 over 100 countries participated in the campaign.
26 African Countries Involved:

Angola  Benin  Burundi
Cameroon  Cape Verde  Congo  Chad
DRC  Ghana  Ivory Coast  Kenya
Malawi  Mali  Mozambique
Niger  Nigeria  Rwanda
Somaliland  South Africa  Sudan
Tanzania  Togo  Tunisia  Uganda
Zambia  Zimbabwe
MMM18 & Beyond

• The ISH is committed to continuing the MMM initiative.
• Work is underway to take the lessons learnt in 2017 and build a better campaign in May 2018.
• A large proportion of the 2017 country leaders & site volunteers have already expressed a desire to participate again in future campaigns.
• Omron UK have made a commitment to support the campaign in both 2018 and 2019.

Register your interest in MMM18 at mmminfo@ish-world.com

www.maymeasure.com
WHF Roadmap to reducing premature CVD mortality caused by raised blood pressure

Adler et al. Global Heart : 2015
Patients are unaware that they are at risk of hypertension/unaware of their hypertension status

- Provide opportunistic screening
- Involve health workers at the community level
- Open health centres close to communities in rural areas
Screening:

• Opportunistic screening, any time that people present at clinics (at least once a year)

• Can also be carried out in workplaces, antenatal care, pharmacies, mobile units,

• Ideal method involves ambulatory or home based screening, but in many cases this is not available

• Minimum standard should be serial paired readings. If on the borderline should be repeated
Steps to implementing a CVD roadmap

• Create a **national (international) coalition** to achieve 25 x 25

• Situation analysis
  • Epidemiological profile (burden raised blood pressure, risk factors)
  • Health system assessment (resources, financing, governance, delivery)
    • Barriers and solutions
  • Policy mapping (national plans, laws)
  • Rapid reviews, secondary data analysis and interviews
  • **Produce a situation analysis report**

• Policy dialogues
  • Stakeholders mapping
    • Cardiovascular societies
    • Heart foundations
    • Policy makers
    • NGOs
  • Discuss roadmaps solutions (in the context of situation analysis)
  • **Produce a concrete plan of action**
PASCAR Roadmap on Hypertension

Roadmap to achieve 25% hypertension control in Africa by 2025

Anastase Dzudie, Brian Rayner, Dike Ojji, Aletta E Schutte, Marc Twagirumukiza, Albertino Damasceno, Seringe Abdou Ba, Abdoul Kane, Euloge Kramoh, Jean Baptiste Anzouan Kacou, Basden Onwubere, Ruth Cornick, Karen Sliwa, Benedict Anisiuba, Ana Olga Mocumbi, Elijah Ogola, Mohamed Awad, George Nel, Harun Otieno, Ali Ibrahim Toure, Samuel Kingue, Andre Pascal Kengne, Pablo Perel, Alma Adler, Neil Poulter, Bongani Mayosi, on behalf of the PASCAR task force on hypertension
PASCAR 10 point action plan

**No 1** All NCD national programmes should additionally contain a plan for the detection of hypertension

A KEY ROAD TO SUCCESS