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Introduction

• Hypertension has long been among the leading causes of illness and death in the Bahamas

• In 2011, it was the leading cause of death (3rd in males, 1st in females)
  – 200 deaths overall
  – 10% of deaths
  – 60 mortality rate per 100,000 population

• In 2001, it was the 3rd leading cause (8% deaths; 151 deaths)

• Comprised around 3% of hospital visits (~ 500 visits annually)

• Leading cause of public health general clinic visits
  – 16% of visits
  – ~ 38,000 visits per year
Hypertension Mortality Rate per 100,000 Population

Rate per 100,000
Prevalence from Past Surveys (Self-Reported)

<table>
<thead>
<tr>
<th>Survey</th>
<th>Percent (%)</th>
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</thead>
<tbody>
<tr>
<td>1989 National Health and Nutrition Survey (15-64 Yrs)</td>
<td>13 (Total), 14.5 (Males), 11.6 (Females)</td>
</tr>
<tr>
<td>2001 Bahamas Living Conditions Survey (All Persons)</td>
<td>9.3 (Total), 6.1 (Males), 12.3 (Females)</td>
</tr>
<tr>
<td>2005 CNCD and Risk Factor Survey (15-74 Yrs)</td>
<td>22.9 (Total)</td>
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</tbody>
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Legend:
- Total
- Males
- Females
Objective

• To determine the prevalence of raised blood pressure and hypertension in The Bahamas
Design and Methods

• Data from the 2012 Bahamas STEPS Survey was used
  – Population based stratified multi-stage cluster sample
  – Adults 25 to 64 years
  – Islands included
    • New Providence
    • Grand Bahama
    • Cat Island
    • Inagua
Design and Methods

• Data collected using Personal Digital Assistants (PDAs)
  – entered on-site

• Analyzed using Epi-Info 3.43

• Complex sample taken into account for weighting and variance estimation
**STEPS Approach**

**STEP 1:** To measure self-reported hypertension, questionnaire used to measure 3 questions:

1. Have you ever had your blood pressure (BP) measured by a doctor or other health worker?
2. Have you ever been told by a doctor or other health worker that you have raised blood pressure or hypertension?
3. Have you been told in the past 12 months?

**STEP 2:** Physical measurements on a sub-sample by interviewer

- height, weight
- blood pressure
Results – Self-Reported (n=1,632)

- 27% had been told they had raised blood pressure/hypertension
  - 7% not within past 12 months
  - 20% diagnosed within past 12 months
  - 62% measured but not diagnosed
  - 11% were never measured

- 22% men, 31% women
Results – Self-Reported (n=1,632)

- Never measured: 11%
- Diagnosed within past 12 months: 20%
- Diagnosed NOT within past 12 months: 7%
- Measured but not diagnosed: 62%
Self-Reported Prevalence by Age Group

<table>
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<th>Age Group</th>
<th>Percent (%)</th>
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<tbody>
<tr>
<td>25-34 Yrs</td>
<td>15.3</td>
</tr>
<tr>
<td>35-44 Yrs</td>
<td>21.2</td>
</tr>
<tr>
<td>45-54 Yrs</td>
<td>33</td>
</tr>
<tr>
<td>55-64 Yrs</td>
<td>52.3</td>
</tr>
</tbody>
</table>
Among those Diagnosed
Lifestyle Advice (n=136)

- Advised to reduce salt intake – 76%
  - 77% men
  - 76% women

- Advised to lose weight – 59%
  - 62% men
  - 57% women

- Advised to stop smoking – 15%
  - 24% men
  - 8% women

- Advised to start/do more exercise – 70%
  - 76% men
  - 66% women
Among those Diagnosed Medication (n=136)

• Currently taking blood pressure drugs – 58%
  – 54% men
  – 61% women

• Seen a traditional healer – 13%
  – 14% men
  – 13% women

• Currently taking herbal/ traditional remedy – 11%
  – 10% men
  – 11% women
Results – Physical Measurements

• Mean systolic blood pressure, including those currently on medication – 127.4
  – 129.3 men
  – 125.6 women

• Mean diastolic, including those on medication – 81.6
  – 82.7 men
  – 80.5 women
**Results – Physical Measurements**

- Percent with raised BP or currently on medication
  - 34%
    - 36% men
    - 33% women

- Percent with raised BP NOT currently on medication – 24%
  - 28% men
  - 19% women
Comparisons with Previous Surveys

- 1989 National Health and Nutrition Survey (15-64 Yrs)
  - Total: 13%
  - Males: 14.5%
  - Females: 11.6%

- 2001 Bahamas Living Conditions Survey (All Persons)
  - Total: 9.3%
  - Males: 6.1%
  - Females: 12.3%

- 2005 CNCD and Risk Factor Survey (15-74 Yrs)
  - Total: 22.9%

- 2012 Bahamas STEPS Survey (25-64 Yrs)
  - Total: 27%
  - Males: 22.2%
  - Females: 31%
Risk Factors from STEPS Survey

- Mean BMI 30.5 (no sex difference)
- 80% overweight (including obese)
- 49% obese
- 90% ate less than 5 servings of fruits and/or vegetables on average daily
- 73% do not engage in vigorous physical activity
Limitations

• Somewhat low response rate of 54%
Conclusions

• Around one out of three adults have raised blood pressure or hypertension

• A notable proportion may have hypertension but never been measured by health practitioner ~ 10%

• Ongoing screening and interventions should continue, especially for at-risk groups as defined by findings from available research

• Further research is recommended
Acknowledgements

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- Ms. Camille Deleveaux, Epidemiologist, Ministry of Health
Thank you