Lessons Learned from the National High Blood Pressure Education Program

Institute of Medicine

April 9, 2009

Edward J. Roccella Ph.D., M.P.H
“Natural History” of 35 yr old White male
No Hypertension Treatment

Build/Bp Study: 1935-1954; Metropolitan Life
Risk ?
Veterans Administration Hypertension Clinical Trial
Edward D. Fries, M.D.

JAMA 202: 1028-1034, 1967
JAMA 213: 1143-1152, 1970
Apply what we know!
What is the National High Blood Pressure Education Program?

- Mass Media Campaigns
- Community Capacity Building Programs
- Population Based Approaches
- Advocacy Building Programs
- Patient Education Programs
- Professional Education Programs
National High Blood Pressure Education Program

- Cooperative Arrangements
- Coalitions
- Partnerships
NHBPEP VEHICLES

- Coordinating Committee
- HIN Virtual Community
- State Health Departments
- Community Based Programs
- Civic Organizations
- Industry
- Advocacy Groups
National High Blood Pressure Education Program Coordinating Committee

- Agency for Health Care Research and Quality
- American Academy of Family Physicians
- American Academy of Insurance Medicine
- American Academy of Neurology
- American Academy of Ophthalmology
- American Academy of Physician Assistants
- American Association of Occupational Health Nurses
- American College of Cardiology
- American College of Chest Physicians
- American College of Occupational and Environmental Medicine
- American College of Physicians
- American College of Preventive Medicine
- American Dental Association
- American Diabetes Association
- American Dietetic Association
- American Heart Association
- American Hospital Association
- American Medical Association
- American Nurses’ Association, Inc.
- American Optometric Association
- American Osteopathic Association
- American Pharmaceutical Association
- American Podiatric Medical Association
- American Public Health Association
- American Red Cross
- American Society of Health-System Pharmacists
- American Society of Hypertension
- Association of Black Cardiologists
- Citizens for Public Action on High Blood Pressure and Cholesterol, Inc.
- Council on Geriatric Cardiology
- Health Resources and Services Administration
- International Society on Hypertension in Blacks
- National Black Nurses’ Association, Inc.
- National Center for Health Statistics, Centers for Disease Control and Prevention
- National Heart, Lung, and Blood Institute
- Health Care Financing Administration
- National Hypertension Association
- National Institute of Diabetes and Digestive and Kidney Diseases
- National Kidney Foundation
- National Medical Association
- National Optometric Association
- National Stroke Association
- NHLBI Ad Hoc Committee on Minority Populations
- Society for Nutrition Education
- U.S. Department of Veterans’ Affairs
NHBPEP Coordinating Committee

- Achieving Consensus-LESSON
What is Hypertension?

- 160/95 mm Hg?
- 140/90 mm Hg?
- K4? K5?
Joint National Committee Reports

- JNC 1 through 7
- Clinical Guidelines
- Public Health Guidelines
- Recommendations Based on Evidence
- Guide not Proscriptive
- Consensus from Coordinating Committee
NHBPEP Coordinating Committee

- Leverage Resources-LESSON
Leveraging Strategies

Increase Reach and Distribution

- Others reproduce NHBPEP products
- Others assume activities
- Convince others to become involved
- Involve others in planning and ownership
- Build Capacity of other Organizations
- New Organizations ISHIB, COSEHC,
High Blood Pressure

You work an honest day...you get an honest deal at SAFEWAY.

Treat It for Life.

For more information write
National High Blood Pressure Education Program
Box 5-12089
Bethesda, Maryland 20092

Printed Courtesy of Safeway Stores, Inc.
HIGH BLOOD PRESSURE SUNDAY

The National High Blood Pressure Education Program Coordinating Committee has declared the first Sunday of May "High Blood Pressure Sunday". A number of faith-based organizations will be conducting high blood pressure education activities on that day. In many communities, "Month" and "First Sunday" activities can be combined and might include blood pressure screenings, health education articles in community newspapers, demonstrations of low-salt cooking, the serving of heart-healthy meals at community social functions, an exchange of heart-healthy menus, and media interviews with physicians and nurses.

For assistance in planning your activities, download "Working with Religious Congregations: A Guide for Health Professionals." The guide is designed to assist healthcare agencies in working with religious congregations and provides suggestions for implementing programs to reduce the risk of cardiovascular disease, especially high blood pressure and stroke.
NHBPEP Partnership With the Alliance For Aging Research
NHBPEP Coordinating Committee

- Constantly Monitor the Science Which Drives the Program-LESSON
Of All Forms of Injustice, Inequality in Health is the Most Shocking and Inhumane.

Dr. Martin Luther King, Jr
Stroke Mortality
by Health Service Area, 1994-96

Age-Adjusted Deaths per 100,000 Population

- <56.0
- 56.0–62.8
- 62.8–68.6
- 68.7–76.9
- 77.0+

Top 100 HSAs by Descending Age-adjusted Mortality

Introduction
Data Sources and Methods
Instructions
Small Geography Mapping

CHD Mortality among Blacks by Health Service Area, 1994-96

<table>
<thead>
<tr>
<th></th>
<th>CHD</th>
<th>Stroke</th>
<th>AMI</th>
<th>CHF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>234.3</td>
<td>65.4</td>
<td>84.5</td>
<td>16.0</td>
</tr>
<tr>
<td>Whites</td>
<td>225.7</td>
<td>61.0</td>
<td>85.7</td>
<td>16.1</td>
</tr>
<tr>
<td>Blacks</td>
<td>267.2</td>
<td>78.7</td>
<td>81.4</td>
<td>15.5</td>
</tr>
<tr>
<td>Males</td>
<td>300.4</td>
<td>70.1</td>
<td>110.7</td>
<td>17.8</td>
</tr>
<tr>
<td>Females</td>
<td>184.3</td>
<td>61.8</td>
<td>65.9</td>
<td>14.9</td>
</tr>
<tr>
<td>White Males</td>
<td>291.3</td>
<td>62.7</td>
<td>113.7</td>
<td>17.8</td>
</tr>
<tr>
<td>White Females</td>
<td>175.4</td>
<td>59.0</td>
<td>65.5</td>
<td>15.0</td>
</tr>
<tr>
<td>Black Males</td>
<td>341.4</td>
<td>96.6</td>
<td>101.0</td>
<td>17.2</td>
</tr>
<tr>
<td>Black Females</td>
<td>214.4</td>
<td>67.9</td>
<td>68.2</td>
<td>14.6</td>
</tr>
</tbody>
</table>

CHD Mortality among Whites by Health Service Area, 1994-96

Target: 166/100,000
Cumulative Incidence of Congestive Heart Failure

Source: Framingham Heart Study
Prevalence of Heart Failure, by Age, 1976-80 and 1988-91

Source: NCHS, NHANES II and III
NHBPEP Coordinating Committee

- Develop Measurable Objectives-LESSON
NHBPEP Lessons Learned

- Bring Together Different Disciplines & Views
- Use the Consensus Process (Don’t Always Get Your Way)
- Leverage Resources
- Constantly Monitor the Science which Drives the Program
- Develop Measurable Objectives
- Be Willing to Shift Program Focus
## NHBPEP Progress Indicators

### Public Knowledge

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>HBP is a cause of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>stroke</td>
<td>25</td>
<td>38</td>
<td>67</td>
<td>93</td>
</tr>
<tr>
<td><strong>HBP is a cause of</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>heart attacks</td>
<td>24</td>
<td>38</td>
<td>66</td>
<td>90</td>
</tr>
</tbody>
</table>

*In Percent*
## Awareness, Treatment, and Control of High Blood Pressure in Adults*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Awareness</strong></td>
<td>51%</td>
<td>73%</td>
<td>68.4%</td>
</tr>
<tr>
<td><strong>Treatment</strong></td>
<td>31%</td>
<td>55%</td>
<td>53.6%</td>
</tr>
<tr>
<td><strong>Control†</strong></td>
<td>10%</td>
<td>29%</td>
<td>27.4%</td>
</tr>
</tbody>
</table>

* Adults ages 18 to 74 years with SBP > 140 mm Hg or DBP > 90 mm Hg or taking antihypertensive medication.
† SBP < 140 mm Hg and DBP < 90 mm Hg.
Systolic Blood Pressure Distributions

Reduction in BP

<table>
<thead>
<tr>
<th>Reduction in BP (mmHg)</th>
<th>% Reduction in Stroke</th>
<th>% Reduction in CHD</th>
<th>% Reduction in Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>-6</td>
<td>-4</td>
<td>-3</td>
</tr>
<tr>
<td>3</td>
<td>-8</td>
<td>-5</td>
<td>-4</td>
</tr>
<tr>
<td>5</td>
<td>-14</td>
<td>-9</td>
<td>-7</td>
</tr>
</tbody>
</table>

Smoothed Weighted Frequency Distribution, Median, and 90th Percentile of SBP, United States, 1960 to 1991 Ages 60-74

Source: CDC; NCHS
The decline in age-adjusted mortality for stroke in the total population is 59.6%.

*Age-adjusted to the 2000 U.S. census population.*
The decline in age-adjusted mortality for CHD in the total population is 55.6%.

*Age-adjusted to the 2000 U.S. census population.
Age-adjusted Stroke

Regression Line (1960-71)

(r=.97)

Expected Rates from a 1960-71 Regression Line of Best Fit Projected to 2000 and Observed Rates 1972 to 1998

NHBPEP Begins

Expected Rates (1960-71 Projected)

Observed Rate

Source: National Center for Health Statistics