“The Caribbean Chronic Disease Epidemic: What We Know… and what we need to know”

C. James Hospedales
Coordinator, Chronic Disease Prevention and Control
PAHO/WHO, Washington, DC
Overview

- **Public Health Surveillance framework and Data Sources**
- **Situation**
  - Mortality
  - Morbidity: obesity, hypertension, heart disease, diabetes, cancer
  - Risk factors: physical activity, diet/nutrition, tobacco, alcohol
  - Determinants
  - Costs of the epidemic
- **Response**
  - Review of Port-of-Spain Declaration
  - Policies & Programs, from 2007 National NCD capacity survey
  - Coverage and quality of care
- **Conclusions and way forward**
Complex interplay of risk factors or determinants

Underlying socioeconomic, cultural, political, environmental determinants

Common modifiable risk factors

Non-modifiable risk factors

Intermediate risk factors
- Raised blood pressure
- Blood glucose
- Abnormal blood lipids
- Overweight / obesity

Main chronic diseases
- Heart disease
- Stroke
- Cancer
- Chronic respiratory diseases
- Diabetes

Poverty
Education
Agriculture
Trade
Access to health services

Diet
Physical Activity
Tobacco
Alcohol

Private sector forces
Urbanisation
Built environment
Mass Transport

Age
Sex
Race
It wasn’t always so …

• ‘In 1952 I was appointed resident cardiologist in the new University College Hospital at Mona. I saw my first case of Coronary Artery Disease in a native Jamaican in 1956, four years after I arrived, though I had seen CAD in tourists – that was merely 50 years ago. What has happened?’….  

_Sir Kenneth Stuart, Dean Emeritus, UWI School of Medicine at Crowne Plaza, Port of Spain, Sept 15, 2007_
Public Health surveillance

“... the systematic and ongoing compilation, analysis and interpretation of data of specific events used for planning, executing and evaluating of public health practice”.


- More than just counting cases and risk factors, public health surveillance includes monitoring policies, program performance, coverage, etc
SOURCES OF DATA

- Vital Statistics Mortality or death rates – Ministries, CAREC, PAHO/WHO
- Population and Demographic data – Ministries, CSOs
- Risk Factors
  - Pan Am STEPS: Risk factors and prevention practices surveys: Adults 20+ years – CAREC/PAHO & Ministries of Health
  - Global School Health Survey (GSHS), Children 13-15 years; PAHO/WHO
  - Global Adult & Youth Tobacco Surveys (GATS, GYTS); PAHO/WHO
  - National food consumption patterns (CFNI)
- Morbidity
  - Administrative/Hospitalisation data, Amputations, Blindness, End stage renal failure -- Ministries of Health
  - Registries
    - Cancer Trinidad & Tobago, Jamaica
    - Diabetes and/or Hypertension (Some ministries, some NGOs
    - Stroke – Barbados CHRC/MOH
- National capacity and policy response survey; 2005, 2007 PAHO
- Costs and economic impact, special studies – UWI and ?others
- Coverage & quality of care; few special studies, CHRC, UWI, PAHO but No System
- NCD Knowledge and Attitudes ?NO SYSTEM
1. Demographics
2. Behavioral Risks, e.g., tobacco & alcohol, diet, physical activity
3. Biochemical – Glucose and Cholesterol
4. Anthropometry – Height, Weight, Waist Circumference
Mortality and Morbidity
## Leading causes of death in CAREC countries, latest 3 years available, around 2005

<table>
<thead>
<tr>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Ischemic heart disease</td>
<td>1. Cerebrovascular disease</td>
</tr>
<tr>
<td>2. Cerebrovascular disease</td>
<td>2. Ischemic heart disease</td>
</tr>
<tr>
<td>3. Diabetes</td>
<td>3. Diabetes</td>
</tr>
<tr>
<td>4. HIV/AIDS</td>
<td>4. Hypertensive disease</td>
</tr>
<tr>
<td>5. Malignant neoplasm of Prostate</td>
<td>5. HIV/AIDS</td>
</tr>
<tr>
<td>7. Land transport accidents</td>
<td>7. Influenza and pneumonia</td>
</tr>
<tr>
<td>8. Assault (homicide)</td>
<td>8. Malignant neoplasm of female breast</td>
</tr>
<tr>
<td>9. Certain conditions originating in perinatal period</td>
<td>9. Certain conditions originating in perinatal period</td>
</tr>
<tr>
<td>10. Influenza and pneumonia</td>
<td>10. Malignant neoplasm of uterus</td>
</tr>
</tbody>
</table>
Potential Years of Life Lost <65yrs by cause, CARICOM countries, 2000 & 2004 (minus Jamaica)

Source: CAREC, based on mortality data from countries
Age adjusted death rates/100,000 population - 2000 (PAHO / Alleyne)

Death Rate/100,000

- Hypertension
- Isch. Heart Disease
- Diabetes
Caribbean trends in Diabetes Mortality

Rate/100,000

Male
Female
<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>Country</th>
<th>Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anguilla</td>
<td>1973-2006&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Haiti</td>
<td>1977-2004&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Antigua and Barbuda</td>
<td>1960-2004&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Jamaica</td>
<td>1960-1991&lt;sup&gt;a&lt;/sup&gt;</td>
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<td>Aruba</td>
<td>1987-2006&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Martinique</td>
<td>1960-2005&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Bahamas</td>
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<td>Montserrat</td>
<td>1960-2003&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Barbados</td>
<td>1960-2000&lt;sup&gt;a&lt;/sup&gt;</td>
<td>St. Kitts and Nevis</td>
<td>1960-1972&lt;sup&gt;a,b&lt;/sup&gt;</td>
</tr>
<tr>
<td>Belize</td>
<td>1960-2004&lt;sup&gt;a&lt;/sup&gt;</td>
<td>St. Lucia</td>
<td>1960-2002&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Bermuda</td>
<td>1960-2002&lt;sup&gt;a&lt;/sup&gt;</td>
<td>St. Vincent and</td>
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<td></td>
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<td>Grenadines</td>
<td>1960-2003&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Cayman Islands</td>
<td>1973-2004&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Suriname</td>
<td>1961-2005&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Dominica</td>
<td>1960-2004&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Trinidad and Tobago</td>
<td>1960-2004</td>
</tr>
<tr>
<td>French Guiana</td>
<td>1960-2005&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Turks &amp; Caicos</td>
<td>1973-2005&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Grenada</td>
<td>1960-2002&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Virgin Islands (UK)</td>
<td>1960-2003&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>Guadeloupe</td>
<td>1960-2005&lt;sup&gt;a&lt;/sup&gt;</td>
<td>Virgin Islands (US)</td>
<td>1960-2005&lt;sup&gt;a&lt;/sup&gt;</td>
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<tr>
<td>Guyana</td>
<td>1960-2005&lt;sup&gt;a&lt;/sup&gt;</td>
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</tbody>
</table>

<sup>a</sup> Incomplete series with data not available for some years

<sup>b</sup> Includes Anguilla
NCD Risk Factors in Caribbean
(based on national STEPS RF studies on adults 25-64 yrs, 2006-07)

- Overweight (BMI>25)  45.1% - 80.9%
- Obese (BMI>30)  20.2% - 53.0%
- Alcohol consumption (daily)  28.7% - 55.7%
- Smoking (daily)  6.6% - 26.7%
- Low levels of Physical activity  24.0% - 52.3%
- Raised Blood pressure (160/100)  6.9% - 25.8%
- Raised Blood glucose  7.2% - 14.9%
- Percentage with Low risk  0.6% - 2.8%
- Percentage with raised risk 28.7% - 67.5%

Source PAHO/CAREC/Countries STEPs surveys
Trends in Adult Overweight/Obesity in the Caribbean

Prevalence (%)

YEARS

1970s 1980s 1990s

Male

Female

YEARS
Prevalence (%) of diabetes among adults in the Americas

- Barbados: 16.4%
- Trinidad/Tobago: 12.7%
- Jamaica: 12.6%
- Belize: 12.4%
- Cuba: 11.8%
- Mexico: 10.7%
- USA: 9.3%
- Nicaragua: 9%
- Suriname: 8.7%
- Bolivia: 8.6%
- Guatemala: 8.4%
- Colombia: 8.2%
- Costa Rica: 7.9%
- Argentina: 7.6%
- Brazil: 7.6%
- Haiti: 7.3%
- Paraguay: 7.2%
- Urban Peru: 7.2%
- Chile: 6.3%
- Honduras: 6.1%

Source: Pan Am J Public Health 10(5), 2001; unpublished (CAMDI), Haiti (Diabetic Medicine); USA (Cowie, Diabetes Care)
### Prevalence of Hypertension in Adults 25 - 64 years

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Barbados</td>
<td>27.2 %</td>
</tr>
<tr>
<td>Jamaica</td>
<td>24.0 %</td>
</tr>
<tr>
<td>St. Lucia</td>
<td>25.9 %</td>
</tr>
<tr>
<td>The Bahamas</td>
<td>37.5%</td>
</tr>
<tr>
<td>Belize</td>
<td>37.3%</td>
</tr>
<tr>
<td>Trinidad</td>
<td>TBD</td>
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</tbody>
</table>

Prevalence > age 40 yrs approximately doubles. Control of blood pressure would reduce the death rates from Cardiovascular Disease by about 15-20%.
Potential Impact for BP and Cholesterol Control

- Barbados: (Hennis et al, 2002)
  >40 yrs, HBP prevalence = 55%
  Awareness = 63%
  Treatment = 54%
  Control = 19%

Treatment of those with chronic disease with aspirin and simple drugs to lower blood pressure and cholesterol (18 million deaths averted at a cost of $1.10 per year)
Sedentary Activity by Area among Countries
Relation of Fitness to Risk of Death, T&T, St. James Cardiovascular Study

- 1,309 men had blood sugar, cholesterol, fitness measured at baseline and then followed up carefully for 7 years.

- **Unfit men compared with fit men** were:
  - 3.6 times more likely to die
  - 2.5 times more likely to have a heart attack
Trends in Fat Consumption in the Caribbean
1961-2003

Source: CFNI
Trends in Sugar Consumption in the Caribbean
1961-2003

Calories/caput/day

Local
Imported
GOAL
Trends in Fruit and Vegetable Consumption in the Caribbean 1961-2003

- Local
- Imported
- Goal
Tobacco Smoking in Adults in the Caribbean

St. Vincent
Jamaica
Trinidad & Tobago
St. Lucia

Male
Female

Male
Female

0%
5%
10%
15%
20%
25%
30%
35%
40%
Tobacco Prevalence

Global Youth Tobacco Survey

% currently using tobacco

- Bahamas
- Suriname
- Guyana
- Trinidad & Tobago
- Haiti
- Belize
- Jamaica

Male  Female
Tobacco control could save lives and raise revenue in CARICOM

Implement tax/other policies

Current

Revenue ($M USD)  Lives saved (000s)

Source: Jha and Alleyne, 2007
FCTC status

**SIGNED, NOT YET RATIFIED**
- Bahamas
- Haiti
- St Kitts and Nevis
- St. Vincent & Grenadines
- Suriname

**SIGNED AND RATIFIED**
- Trinidad & Tobago
- Suriname
- Guyana
- Belize
- Barbados
- Jamaica
- Antigua & Barbuda
- Grenada
- St. Lucia
# Smoking deaths in CARCIOM (in thousands, indirect estimates)

<table>
<thead>
<tr>
<th>Causes</th>
<th>Men</th>
<th></th>
<th>Women</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>Due to smoking</td>
<td>Total</td>
<td>Due to smoking</td>
</tr>
<tr>
<td>Cancers</td>
<td>3.0</td>
<td>1.5</td>
<td>2.9</td>
<td>0.6</td>
</tr>
<tr>
<td>Vascular/diabetes</td>
<td>6.7</td>
<td>1.7</td>
<td>6.4</td>
<td>1.0</td>
</tr>
<tr>
<td>Respiratory</td>
<td>1.3</td>
<td>0.5</td>
<td>1.1</td>
<td>0.2</td>
</tr>
<tr>
<td>Other NCD</td>
<td>2.7</td>
<td>0.5</td>
<td>2.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Tuberculosis</td>
<td>0.4</td>
<td>0.1</td>
<td>0.2</td>
<td>0.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>14.1</td>
<td>4.4</td>
<td>13.0</td>
<td>2.1</td>
</tr>
</tbody>
</table>

30% of male deaths due to smoking? and 15% of females?

Source: Jha and Alleyne, 2007
GLOBAL SCHOOL HEALTH SURVEY
13-15 YEARS OLD

Pan American Health Organization

Bahamas
Cayman Islands
Anguilla
Saint Kitts and Nevis
Montserrat
Dominica
St. Lucia
St. Vincent and the Grenadines
Grenada
Trinidad and Tobago
Guyana
Argentina
Uruguay

Mexico
Nicaragua
Colombia
Venezuela
Ecuador
Chile
## Percentage of Students Who Had at Least 1 Drink in the Past 30 Days

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>Boys</th>
<th>Girls</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECU (Quito)</td>
<td>2007</td>
<td>32.0</td>
<td>30.5</td>
</tr>
<tr>
<td>CHI (Metropolitan)</td>
<td>2004</td>
<td>31.1</td>
<td>37</td>
</tr>
<tr>
<td>GUY (2004)</td>
<td></td>
<td>46.9</td>
<td>25.9</td>
</tr>
<tr>
<td>VEN (Lara)</td>
<td>2003</td>
<td>38.9</td>
<td>37.7</td>
</tr>
<tr>
<td>CAY (2007)</td>
<td></td>
<td>41.4</td>
<td>36.9</td>
</tr>
<tr>
<td>TRI (2007)</td>
<td></td>
<td>39.0</td>
<td>41.7</td>
</tr>
<tr>
<td>ARG (2007)</td>
<td></td>
<td>55.4</td>
<td>49</td>
</tr>
<tr>
<td>TOB (2007)</td>
<td></td>
<td>54.6</td>
<td>49.1</td>
</tr>
<tr>
<td>SVC (2007)</td>
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<td>52.6</td>
<td>53.5</td>
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<tr>
<td>SLC (2007)</td>
<td></td>
<td>59.2</td>
<td>52.2</td>
</tr>
<tr>
<td>COL (Bogotá)</td>
<td>2007</td>
<td>56.8</td>
<td>59.7</td>
</tr>
<tr>
<td>URU (2006)</td>
<td></td>
<td>62.0</td>
<td>57.7</td>
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We know …

• We have a very serious problem with Chronic diseases in the Caribbean, with worsening risk factors … but we need more timely info on mortality, risk factors, social determinants, espec links to poverty
Costs of Chronic Disease Epidemic
Costs of NCDs

- Household: hits working-age adults
  - Direct: medical expenses, lost wages
  - Indirect: foregone time of caregivers, diminished development of human capital
- Firm: absenteeism, productivity
- Public sector
  - NCDs more complex and costly to treat
  - Drives costly technology and drugs trajectory
## Estimated Economic Burden ($US Million, 2001)

<table>
<thead>
<tr>
<th>Condition</th>
<th>BAH</th>
<th>BAR</th>
<th>JAM</th>
<th>TRT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>27.3</td>
<td>37.8</td>
<td>208.8</td>
<td>494.4</td>
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<tr>
<td>Hypertension</td>
<td>46.4</td>
<td>72.7</td>
<td>251.6</td>
<td>259.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>76.7</td>
<td>110.5</td>
<td>460.4</td>
<td>753.9</td>
</tr>
</tbody>
</table>
Economic Burden of Diabetes and Hypertension in Selected Caribbean Countries (2001)

These data were provided by Dr. O. Abdullahi Abdulkadri
Complications of Diabetes and Hypertension

• Amputations?
• Blindness?
• End Stage Renal Disease?
• Largely avoidable, very expensive in human and economic terms – we need to know more
A consequence of Diabetes
We Know ...

- The human and economic cost burden is very high, is increasing, and not sustainable .... we need more/better cost data to make the case; more about relationship of NCDs as cause of poverty
HOW IS THE REGION RESPONDING?
Caribbean history of cooperation in health

The Caribbean Cooperation in Health Initiative (CCH) for health development through increasing collaboration and technical cooperation among countries CCH2 for 1997-2001; CCH3 for 2008-2013

Regional Strategy and Plan of Action on an Integrated Approach to Prevention and Control of Chronic Diseases
CARICOM Heads of Government Summit 15 September 2007

Declaration of Port of Spain - “Uniting to Stop the Epidemic of Chronic Non-communicable Diseases”
DECLARATION OF PORT-OF-SPAIN: UNITING TO STOP THE EPIDEMIC OF CHRONIC NCDs:

• burdens of NCDs can be reduced by
  – comprehensive and integrated preventive and control strategies
  – at the individual, family, community, national and regional levels
  – through collaborative programmes, partnerships and policies
  – supported by governments, private sectors, NGOs and our other social, regional and international partners;
NCD Policy Directions: Summit Declaration

• Comprehensive, Inter Sectoral approach; 14 points

• Structure and coordination, legal affairs, finance and taxes, food & agriculture, trade & consumer affairs, education & schools, public information, tobacco control, physical activity, Caribbean Wellness Day, and HEALTH – only 2 direct points

• “… Ministries of Health, in collaboration with other sectors, will establish by mid-2008 plans for the screening and management of chronic diseases and risk factors so that by 2012, 80% of people with NCDs would receive quality care and have access to preventive education based on regional guidelines;

• That we will establish, as a matter of urgency, the programmes necessary for research and surveillance of the risk factors for NCDs with the support of our Universities and the Caribbean Epidemiology Centre/Pan American Health Organisation (CAREC/PAHO)”
We know ...

- We have high level political commitment from the CARICOM Heads of Government; a 5-10 year agenda ... response/capacity in countries lags behind

- Our ability to measure coverage and quality of care urgently needs attention

- Good progress with finalizing regional plan, involvement of Private sector (CAIC), CWD very good, Ministers of Agriculture; some progress with National commissions, national summits

- Finance?
# Caribbean Responses Summarised

<table>
<thead>
<tr>
<th></th>
<th>ANG</th>
<th>ANT</th>
<th>BAH</th>
<th>BAR</th>
<th>GUY</th>
<th>HAI</th>
<th>JAM</th>
<th>SUR</th>
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<td>National focal point, Department or Unit</td>
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<td>National law, legislation, decree</td>
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<td>National Objectives</td>
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<td>Implementation of FCTC</td>
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<td>Implementation of DPAS</td>
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<td>National system of Health reports, survey and surveillance</td>
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<td>Demonstrative community-based programs</td>
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<td>Financial resources</td>
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</table>

Source: PAHO Survey of NCD National Response Capacity, 2005
The 2007 survey showed a greater number of countries reporting progress and several countries reported significant involvement of NGO and private sector organizations in many aspects of NCD prevention and control.
Coverage and Quality of care

- No system of measuring

- Some research studies, Mahabir & Gulliford, Andall, Barcelo
Proportion of patients with good glycemic control* in clinics by country

- Jamaica: 25%
- Mexico: 27%
- St. Lucia: 27%
- Chile: 29%
- Honduras: 30%
- Guatemala: 31%
- El Salvador: 36%
- Nicaragua: 38%
- Bahamas: 39%
- Trinidad & Tobago: 40%
- Costa Rica: 42%
- United States: 59%

*Fasting glucose < 130 mg/dL or A1c < 7%

Source: Bahamas, Costa Rica, Guatemala, Jamaica, Mexico, Nicaragua, St. Lucia: PAHO unpublished; Chile, Ministerio de Salud; United States: CDC; T&T: Gulliford MC
Conclusions & Way Forward

• We have a very serious problem with Chronic diseases in the Caribbean, with worsening risk factors ... but we need more timely info on mortality, risk factors, social determinants, espec links to poverty

• The human and cost burden is very high, increasing, and not sustainable .... we need more/better cost data to make the case

• We have high level political commitment, but the response/capacity in countries lags behind ... we need to make them “walk the talk”

• We have a range of proven strategies and tools in PAHO, RHIs, countries, in other sectors and partners ... we need to know monitor better the extent to which they are being implemented... a KEY PUBLIC HEALTH ISSUE for health services and health NGOs is the %coverage and quality of care... we need new systems of measuring
NCD Summit Declaration # 5: Screening and integrated management: 80% by 2012

- Identification of target population to estimate undiagnosed
- Involvement of health NGOs and civil society
- Total Risk Approach recommended by CVD Experts Mtg
  - (10 year risk of a fatal or non-fatal cardiovascular event, by gender, age, smoking status, diabetes status, systolic blood pressure and total cholesterol)
Figure 2. WHO/ISH risk prediction chart for WPR B. 10-year risk of a fatal or non-fatal cardiovascular event by gender, age, systolic blood pressure, total blood cholesterol, smoking status and presence or absence of diabetes mellitus.
Simplified - Standardized care for heart attacks and strokes prevention

- Smoking cessation/PA/Diet
- Aspirin/ACEI/BB/Statins Referral
- Smoking cessation/PA/Diet
- Aspirin, HCT/ACEI/Statins
- Smoking cessation/PA/Diet
- Low dose thiazide / Aspirin (may be)
- Smoking cessation/PA/Diet

Step down

- Very High/High risk
- Medium risk
- Low risk
- Very low risk

GL: Diagnose/grade risk with simple indicators & Rx
Healthy Eating (POS # 6, 7, 8, 9)
Ministers of Agriculture of CARICOM,
St. Ann Declaration, 9 October 2007

- Implementing Agriculture and Food Policies to prevent Obesity and NCDs in CARICOM
- Use Regional and WTO agreements to ensure food security
- Support the CRNM to pursue fair trade policies
- Policies that explicitly incorporate nutritional goals
- Elimination of trans-fats from our food supply using CFNI as a focal point
- Labeling of foods to indicate their nutritional content
- Public education for increased consumption of fruits and vegetables
- Food Security Plan for prevention and control of NCDs
Promoting Physical Activity

• Education, communication and Personal individual efforts

• Change the environment;
  – Mass transport policies (good for health and environ)
  – Compulsory phys ed in schools
  – Car-free streets/Sundays, Ciclovias
  – Bike and pedestrian trails/zones (good for tourism also)
  – Fiscal incentives
  – Workplace policies and programs
  – Constant communication on benefits (e.g., walk ½ hr per day; reduce risk of heart attack by half’’)

Pan American Health Organization
The WHO Framework Convention on Tobacco Control (WHO FCTC)

UN treaty to re-invigorate tobacco control efforts

- Establishes tobacco control as a priority on the public health agenda
- Provides an evidence-based tool for adoption of sound tobacco control measures
- Introduces a mechanism for firm country commitment and accountability
Tobacco

Actions to save 150 – 300,000 lives in CARICOM:

- Implement the Framework Convention on Tobacco Control (FCTC)
- Focus on adults **stopping** as well as kids not starting
- **Triple excise tax** on cigarettes: double retail price, 30% drop consumption and raise US$150M in taxes
- Other interventions:
  - **big, local packet warnings**
  - labels with tax stamp (to counter smuggling)
  - **absolute ad ban,**
  - **complete ban on public smoking**
Involvement of Private Sector, Media and Labor (POS #12)

- CAIC / PAHO meeting May 8&9 2008, POS
  - CAIC Statement in support of NCD prevention and control issued
    - Workplace Wellness program with all components - HIV, NCDs and Injuries.
    - Healthy Products
    - Support for Caribbean Wellness Day

- Manufacturers want meeting with CROSQ to set healthy standards for foods
Involvement of the Civil Society

- Education and information
- Advocacy
- Screening and treatment services where appropriate
- Palliative care

- Health NGOs
- Churches and faith based organizations
- Labour unions
- Consumer’s associations