Overview

- Chronic disease situation
  - Epidemiology and burden
  - National NCD Response capacity
  - What works in prevention and control?

- Regional Strategy and Plan of Action

- Discussion
Chronic Diseases and Causes

- **Chronic Diseases** – Heart Disease, Stroke, Cancer, Diabetes, Chronic Respiratory Disease
- **Physiological Risk Factors** – Hypertension, raised blood sugar, hyperlipidemia, overweight/obesity
- **Behavioral Risk Factors** – Unhealthy diet, physical inactivity, tobacco use, alcohol excess
- **Social Determinants** – Knowledge; Attitude; Beliefs; Culture; Poverty; Policies – taxation, pricing, trade, agriculture, education, mass transport, access to health services; private sector marketing

- **Globalization**, **Urbanization**, **Technology**
Projected Annual Global Deaths by Cause x1000, 2006

- HIV
- TB
- Malnutrition
- CVD
- Cancer
- Respiratory
- Diabetes
Top 10 Causes of Death LAC in 2001 (% of Total Deaths)  
World Bank

- CVD: Ischemic heart disease
- CVD: Cerebrovascular disease
- Diabetes mellitus
- Perinatal conditions
- Lower respiratory infections
- Violence
- Chronic obstructive pulmonary disease
- CVD: Hypertensive heart disease
- Road traffic accidents
- HIV/AIDS

0.0% 2.0% 4.0% 6.0% 8.0% 10.0% 12.0%
Cancer in LAC

Males
- Breast: 377,000 cases, 231,000 deaths
- Prostate
- Cervix uteri
- Stomach
- Lung
- Colon/Rectum
- Leukaemia
- Non-Hodgkin lymphoma
- Bladder
- Brain nervous system
- Pancreas
- Ovary
- Kidney
- Liver
- Oesophagus
- Oral cavity

Females
- Breast: 408,000 cases, 220,000 deaths
- Prostate
- Cervix uteri
- Stomach
- Lung
- Colon/Rectum
- Leukaemia
- Non-Hodgkin lymphoma
- Bladder
- Brain nervous system
- Pancreas
- Ovary
- Kidney
- Liver
- Oesophagus
- Oral cavity

Incidence and Mortality

Source: Globocan 2002
Prevalence (%) of diabetes among adults in the Americas

Source: Pan Am J Public Health 10 (5), 2001; unpublished (CAMDI), Haiti (Diabetic Medicine); USA (Cowie, Diabetes Care)
Projected global distribution of chronic disease deaths
by World Bank income group, all ages, 2005

- High income countries: 20%
- Low income countries: 35%
- Upper middle income countries: 8%
- Lower middle income countries: 37%
Projected National Income Lost from Heart Disease, Stroke, Cancer, Diabetes, 2005–2015, $USBN
Annual Deaths in Millions Attributable to Selected Risk Factors

- High BP: 7 millions
- Tobacco: 4.5 millions
- High cholesterol: 4 millions
- Obesity: 2 millions

WHO – Preventing Chronic Diseases, A Vital Investment
Prevalence of smoking
By gender

- Females
- Males

Both sexes
- 5.00 - 10.00
- 10.01 - 20.00
- 20.01 - 26.00
- 25.01 - 30.00
- 30.01 - 43.00
- Not considered
Recorded Adult (15+) Per Capita Alcohol Consumption in Central and South America by Beverage Type

Year

Litres absolute alcohol per adult

Beer
Spirits
Wine
Total

Pan American Health Organization
Obesity % among women 16-55 yr

Pan American Health Organization

National representative data, Elaboration E Jacoby
...and the number of official publications calling for action against obesity in the Americas
Food pyramid recommendations

Fats, Oils & Sweets
USE SPARINGLY

Milk, Yogurt & Cheese Group
2-3 SERVINGS

Vegetable Group
3-5 SERVINGS

Meat, Poultry, Fish, Dry Beans, Eggs & Nuts Group
2-3 SERVINGS

Fruit Group
2-4 SERVINGS

Bread, Cereal, Rice & Pasta Group
6-11 SERVINGS

KEY
- Fat (naturally occurring and added)
- Sugars (added)

These symbols show fats and added sugars in foods.
Marketing Dollars

Actual Food Pyramid at the Marketplace
Options beyond Individual Recommendations

- Quality over yield as agriculture #1 objective
- Improve relative prices of fresh produce
- Incentives for produce and fish industries
- No marketing of food to children
- Better information (not publicity) and consumer’s participation
People in Latin America walk a lot (health benefits included) ...

Can we preserve and multiply that behavior?
Recreational and utilitarian walking among those physically active, Pelotas, Brazil

Hallal P y col, 2005
Example: Bogotá, Colombia
Transmillennium Impact
2 Years after Operations Started

32% reduction in travel time
90% drop in transit accidents
98% passenger approval
40% reduction in pollution (4 years)
110% reduction in crime rate (5 years)
Options beyond individual recommendations

- Rapid massive transportation
- Alternative transportation (bikes)
- Road and street safety
- Build more compact communities
- Give pedestrians the “right of way”
- Traffic-calming
Prevention and Control –
What works?
Age-adjusted mortality rates of coronary heart disease in North Karelia and the whole of Finland among males aged 35-64 years from 1969 to 2001
What works?

- A small shift in average population levels of several risk factors can lead to a large reduction in chronic diseases.

- Population-wide approaches form the central strategy for preventing and controlling chronic disease epidemics but should be combined with interventions for individuals.
What Works?

“The PAHO report estimates that 40 percent of cancers and 80 percent of all heart disease, stroke, and Type 2 diabetes could be prevented. In the US, the direct and indirect costs of diabetes are close to $132 billion—yes, that's billion with a B!”

Washington Post reporter, Ceci Connolly
Review of Effective Interventions

- Laws and Regulations
- Tax and Price Interventions
- Improving the built environment for physical activity
- Advocacy, communication and information
- Community based interventions
- School-based interventions
- Workplace interventions

- Screening:
  - CVD, diabetes, HBP, some cancers
- Clinical prevention:
  - Focus on overall risk
- Disease Management
- Rehabilitation
- Palliative care
How are we doing in responding?

National Capacity Assessments/Profile Survey
(WHO/PAHO) 2001, 2005

A. National focal point/Unit
B. National Act, law, legislation, decree for NCD prevention and control
C. Policy, strategies, action plans
D. National targets
E. FCTC and DPAS implementation
F. National NCD surveillance & information system
G. Community-based demonstration projects
H. National protocols, guidelines, standards of care
I. Quality of care
J. Financing
Survey of National Capacity 2005 (28 countries)

**Particularly Weak Areas**

- Policies, Strategies, action plans
- Surveillance, especially RF surveillance
- Quality of care / monitoring of system of care

*Caribbean and Central America have least well-developed programs, but high burden*
PAHO 2006 Regular + Voluntary Expenditure vs. Burden of Disease

<table>
<thead>
<tr>
<th>Category</th>
<th>RB+EB Exp</th>
<th>Mean % burden</th>
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</thead>
<tbody>
<tr>
<td>Emergency</td>
<td>21.7%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Comm</td>
<td>20.0%</td>
<td>8.2%</td>
</tr>
<tr>
<td>Child health</td>
<td>18.9%</td>
<td>3.5%</td>
</tr>
<tr>
<td>Environ</td>
<td>12.9%</td>
<td>5.3%</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>11.1%</td>
<td>57.4%</td>
</tr>
<tr>
<td>Non comm</td>
<td>7.9%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Reproductive</td>
<td>5.3%</td>
<td>14.2%</td>
</tr>
<tr>
<td>Mental</td>
<td>1.2%</td>
<td>6.7%</td>
</tr>
<tr>
<td>Injury</td>
<td>1.0%</td>
<td></td>
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</tbody>
</table>
Regional Strategy and Plan of Action for an Integrated Approach to the Prevention and Control of Chronic Diseases, including Diet, Physical Activity, and Health

September 2006
Related WHO and PAHO Resolutions on Chronic Diseases

- WHO Global Strategy - Prevention and Ctrl of Chronic Disease (2000)
- Cardiovascular Disease, especially Hypertension (CD42.R9, 2000)
- Public Health Response to Chronic Diseases (CSP26/15, 2002)
- CARMEN Network endorsed by PAHO Directing Council 2002
- Framework Convention for Tobacco Control (WHA56.1, 2003)
- Global Strategy on Diet, Physical Activity, and Health (WHA57.17, 2004)
- Cancer Prevention and Control (WHA58.22, 2005)
- Regional Strategy on Health Promotion (CD 47/16)
How do we translate all these resolutions into action??
Goal

• A 2% annual reduction in chronic disease death rates from the major chronic diseases, over and above current trends (From WHO Global Plan)

• Globally, to prevent 36 million deaths in the next 10 years; Regionally, to save more than 3 million lives

Need Technical Advisory Group to assess feasibility of this target and what it would take (maybe we can do better) to have clear road map for program planning and evaluation.
Selected Objectives (SO-3 & SO-6)

- High levels of awareness that NCD is the biggest, costliest epidemic – HOW TO ACHIEVE?
- Public-private partnership established for chronic disease prevention and health promotion – HOW TO ACHIEVE?
- 90% countries have line item for NCD prevention & ctrl and Unit by 2010
- 10% decrease in total tobacco usage rate in half the countries by 2013
- 10% of countries with high burden of obesity to stop the rise in prevalence by 2013
- 75% of members collecting & using population based risk factor info
- 75% people with chronic diseases receiving quality of care & prevention
1 Policy & Advocacy

2 Surveillance

3 Health Promotion & Prevention

4 Integrated Management of NCDs

4 Lines of Action
To ensure and promote the development and implementation of effective, integrated, sustainable, and evidence-based public policies on chronic disease, their risk factors, and determinants.

**Strengthen NCD public policy development, implementation & evaluation**
What We Have: Policy and Advocacy

- NCD Policy Observatory with Public Health Agency, Canada
- NCD Policy Monitoring database (?role for UWI-SALISES)
- Qualitative and quantitative methodology to evaluate policy (case studies BRA, COR, CAN)
- Policy dialogues/advocacy: Support to CARICOM Summit of Heads of State on Chronic Diseases
  - assess applicability to Central America, Andean, and Southern Cone
- Capacity-building workshop in policy (?Caribbean interested)
- WHO Guide for Chronic Disease Advocacy
To encourage and support the development and strengthening of countries’ capacity for better surveillance of chronic diseases, their consequences, their risk factors, and the impact of public health interventions.
What We Have: Surveillance

- PAHO/WHO STEPS: Standard BRFS methodology; 12 countries completed
- 2nd Workshop on STEPs Methodology (CAREC, June 2007)
- PanAm Global School Health Survey, and Youth Tobacco Survey
- PATIOS- PAHO Tobacco Information System
- Formation and maintenance of InfoBase (Regional and Subregional at CAREC)
- CARMEN School: Evidence-Based Public Health Course (with UWI, Jamaica, 2007)
What We Have: Surveillance

- Interprogrammatic Working Group on Surveillance
  1. Minimum list of indicators (Caribbean minimum list starting point)
  2. Piloting of minimum list
- Partners: CDC AMNET, CAREC, BM, IADB
- Annual publication of basic NCD data for Region
- Periodic publication and analysis of situation in relation to economic and social development
Health Promotion & Disease Prevention

To foster, support, and promote social and economic conditions that address the determinants of chronic diseases and empower people to increase control over their health and to adopt healthy behaviors.

Tobacco, Alcohol, Diet & Physical Activity

Home, School, Community, Workplace
What We Have: Promotion & Prevention

- Signing and ratification of FCTC
- DPAS Strategy  (Subregional plans with CFNI?)
- Trans Fat Free Americas Task Force, 26–27 April 2007
- Regional Campaign “A comer sano, vivir bien y moverse América” with “Don Francisco” of Univision
- Urban Planning and development of public transport to improve physical activity, e.g. Bogota
- Physical Activity Network of the Americas (RAFA-PANA)
- CARMEN school course on PA, Social Marketing
- Cycleways Network (Red Ciclovías)
Trans Fat Free America Task Force
CHD Events Prevented for a 2% (4.5 g) Reduction in Trans Fat Intake

Based on relations with clinical risk seen in prospective studies

Based on data from:
Mozaffarian, NEJM 2006; Análisis de Mortalidad, Capítulo III SA2007; World Factbook, cia.gov.
CHD Events Prevented for a 4% (9 g) Reduction in Trans Fat Intake

Based on relations with clinical risk seen in prospective studies

Based on data from:
Mozaffarian, NEJM 2006; Análisis de Mortalidad, Capítulo III SA2007; World Factbook, cia.gov.
¡A moverse América!
Campaña contra la obesidad

¡A comer sano, a vivir bien y a moverse América!

Organización Panamericana de la Salud
Oficina Regional de la Organización Mundial de la Salud

Haz una buena inversión en el 2007

http://www.dpaslac.org/
Provide technical assistance to countries in the development, strengthening, implementation, and evaluation of their chronic disease programs.

**Integrated Management of NCDs**

To facilitate and support the strengthening of the capacity and competencies of the health system for the integrated management of chronic diseases and their risk factors.
Integrated Management

- Integrated Care Model of Chronic Care
- CAMDI: Central American Diabetes Initiative
- E-Learning Project on Diabetes
- Pan American Cardiovascular Initiative (PACI) with NIH/NHLBI
  - Caribbean CaCx plan
- Plans being developed: CVD, Diabetes
- Collaboration with strategic fund to reduce the cost of drugs
Characteristics of the Regional Strategy

• **COMPREHENSIVE**
  - Combining population and individual approaches

• **INTEGRATED**
  - Focusing on shared risk factors
  - Prevention and care
  - Integrated BRF Surveillance
  - PAHO/WHO Interprogrammatic working group

• **Uses Health Promotion Strategies**

• **Countries, PAHO/WHO, and Partners all have roles**
Approaches to Roll-Out

- Inclusion in strategic and operational plans and budgets – country, subregional, regional

- CARMEN Network as major implementation vehicle

- Assessing National capacity to target Action
  - Core actions in all countries
  - Special action in selected countries or sub regions
  - Cross-cutting actions, e.g., Trans Fat Free Americas Initiative

- Communication Plan in support of Regional Strategy

- Partnerships and alliances inside and outside PAHO/WHO
CARMEN as a Vehicle for Implementation of the Regional Strategy
CARMEN Network 2007

21 Members
Argentina, Anguilla, Aruba, Bolivia, Brazil, Canada, Colombia, Costa Rica, Cuba, Curacao, Chile, El Salvador, Guatemala, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Trinidad & Tobago, Uruguay

Prospective Members
Honduras, Suriname, Venezuela

Collaborating Members
SLU, USF, NHLBI, CDC, PHAC, AMNET, RAFA, ILSI, F&V, IDB

Special Projects
- USA-Mexico (border)
- CARLI (English/Dutch Caribbean)
StepWise Implementation

Step 1: Core
Step 2: Expanded
Step 3: Desirable
PAHO/WHO: Supporting Action at Different Levels

• Regional Office for PAHO/AMRO (Headquarters, Washington, DC)

• Subregions: North America, Central America, Caribbean, Andean, Southern Cone

• Centers (CAREC, CFNI, INCAP of particular relevance)

• Offices in countries and territories
Overall Implementation Framework

- TAG to provide scientific guidance to program
- Partners Forum (public-private-civil society) to build/deepen alliances
- PAHO/WHO Interprogrammatic Working Group
- Monitoring and Evaluations (M&E) framework with reports to the PAHO Directing Council
Policy Recommendations: Public Financing, Dedicated Taxes, Price incentives

**CORE**

- Ensure a line item in the health budget for health promotion and chronic disease prevention and control

- Establish a tax on all tobacco products and earmark revenue for chronic disease prevention and control

**EXPANDED**

- Use fiscal policies, such as valued added tax schedules, to influence eating of healthy foods and promote access to recreational and sporting facilities

- Develop a national benefits package to include screening, treatment, and preventive and long-term care
Policy Recommendations: Employers & Employment Stakeholders, e.g. Unions

- Ban tobacco use in all indoor workplaces and on grounds
- Offer healthy foods in vending machines and cafeterias
- Encourage PA wherever possible, including walking/cycling to work
- Promote use of stairs: posters, lighting, paint, music
- Provide risk assessment surveys to ID NCD risks in employees and provide info about healthy behaviors
- Implement office wide activities to promote healthy diet & PA
- Paths and trails in and around office buildings
- Fitness facilities in the workplace
Conclusions

- We have a very serious problem – getting worse

- Cost-wise, it is not sustainable - especially in low- and middle-income countries

- There are cost-effective solutions - healthy public policy & health policy interventions

- The Regional Strategy offers a good framework - can save >3 million lives in next 10 years

- Partnership with public, private and civil society absolutely needed
Discussion

• How do we achieve a high level of awareness at political level, among the public, among partners?

• How do we create a new type of public-private-civil society partnership to prevent chronic disease and promote health, given the major societal and economic drivers of good health?

• Implications for PAHO: How do we partner internally to achieve all the lines of action?

• How do we achieve better alignment of resources with burden of disease and cost burden on countries?