Preventing disease, promoting and protecting health

Prevention and Management of NCDs:

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*Caribbean Public Health Agency (CARPHA)*

Caribbean Conference on Ageing
Panel 3 Age-Friendly Health Care and NCDs
Roseau, Dominica
November 30 – December 01, 2015
ORGANISATION OF PRESENTATION

- NCDs: Major development challenge, people who are older at higher risk

- Factors driving the epidemic: Demographic shift & Risk Factors

- What can be done?
  - Prevention
  - Treatment
  - Rehabilitation

- Concluding Comments

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NCDs: What are they?
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### Modifiable causative risk factors for NCDs

<table>
<thead>
<tr>
<th>Noncommunicable diseases</th>
<th>Tobacco use</th>
<th>Unhealthy diets</th>
<th>Physical inactivity</th>
<th>Harmful use of alcohol</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart disease and stroke</td>
<td>✓</td>
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<tr>
<td>Diabetes</td>
<td>✓</td>
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<tr>
<td>Cancer</td>
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<tr>
<td>Chronic lung disease</td>
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4 x 4 + Obesity

The Americas: Fattest Region In the World
NCDs: 4x4 + Obesity + Mental ill-health, e.g., AD

• AD belongs among the “diseases of civilization,” primarily caused by modern Western diets and lifestyles at odds with how God made us.

… create a perfect storm for stress in the brain, ultimately resulting in severe cognitive decline that renders nearly impossible the tasks involved in everyday living…diabetes of the brain; Type 3

http://www.westonaprice.org/modern-diseases/type-3-diabetes-metabolic-causes-of-alzheimers-disease/#sthash.4Fs90WpH.dpuf
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PYLL per 100,000 population for select Diseases by age group

- Diabetes Mellitus
- Malignant Neoplasms
- Trachea, Bronchus and Lung Cancers
- Cerebrovascular Disease
- Ischemic Heart Disease
- HIV/AIDS
- Road Traffic Accidents
- Violence

Age groups:
- 15-24 years
- 25-44 years
- 45-64 years
Drivers for NCDs: Ageing, Widespread Risk Factors, Access to quality services

NCDs are driving unhealthy ageing
8th Actuarial Review of NIS in T&T

• Demographic pressure

• The total population of Trinidad and Tobago will increase from 1,317,714 in 2010 to 1,431,642 in 2036, then slowly decrease to 1,341,694 in 2060

• Number of persons at pensionable age (60 and over) will grow from 161,051 in 2010 to 412,423 in 2060, while the population aged 16 to 59 (the contributory base) will decrease by 18%

• The number of working-age persons for each person aged 60 and over will thus fall dramatically from 5.4 to 1.7…
Risk Factors for NCDs

... are the same risks for dementia and other major health problems among persons who are elderly.
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Source: STEPS surveys 2006-2013

Prevalence of current smokers and current daily smokers, including 95% confidence intervals

Source: STEPS surveys 2006-2013

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HARMFUL USE OF ALCOHOL

Alcohol burden also
Mental health, injuries, violence, productivity

Risk for older persons alone

Source: STEPS surveys 2006-2013
Mean daily servings of fruits and vegetables

Source: STEPS surveys 2006-2013
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Levels of physical activity

High levels of physical activity (≥3000 MET-Minutes/week)

Low levels of physical activity (<600 MET-Minutes/week)
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Obesity: A “War” we are not winning:

Adult overweight/obesity trends in the Caribbean

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Trends in Sugar Availability in 10 Selected Caribbean Countries, 2000-2009 (Grams Sugar/Day)


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Cheap cars, traffic jams, global warming, hard to walk/exercise, stress
The widespread risks of poor diets, physical inactivity, tobacco exposure, harmful use of alcohol affect two key intermediate risks in the population, DIABETES and HIGH BLOOD PRESSURE

METABOLIC SYNDROME”
A Costly Consequence of “Sugar and Pressure”
What can be done to better prevent and treat?

- Shotgun and rifle approaches
FRAMEWORK FOR ACTION ON NCDs

**Healthy Public Policies:**
- agriculture, trade, education, transport, finance, environment, and health sectors

**Health Promotion and Health Education**

**Healthy Environments:**
- healthy cities, healthy schools, workplace health

**Social Protection for Health; Health System Financing**

**Access and quality health services, medicines and technologies**

**Social Determinants**
- income, education, environment, urbanization, globalization

**Risk Factors**
- Tobacco, physical inactivity, unhealthy diet, harmful use of alcohol,

**Non-communicable diseases**
- Cardiovascular diseases, cancer, diabetes, chronic respiratory diseases

NCDs lead to premature mortality and poverty
The CARICOM Heads Summit on NCDs, 2007.

• “We, the Heads of State of the Caribbean Community….”
• 15-point, 27 commitment “Port of Spain Declaration”; multi-sectoral
• **Tobacco** – Ratify and implement the WHO FCTC: taxes, packaging, earmark some revenue for health promotion & disease prevention, ban smoking in public places
• **Alcohol**- use alcohol taxes to finance NCD prevention and control
• **Healthy Diet** - Trade policies on food imports, agriculture policies, Healthy school meals, Food labeling, reduce or eliminate trans fats
• **Physical activity**-physical education in schools; physical activity in work places; improve public facilities for physical activity
• **Health services** - screening and management of NCDs to achieve 80% coverage by 2012; primary and secondary prevention, comprehensive health education
• **Monitoring** - Surveillance of risk factors; monitoring of the actions agreed upon in Declaration (CARICOM Secretariat, CAREC, UWI & PAHO/WHO)
• **Mobilizing Society** - National Commissions on NCDs; including public, private sector and civil society, media and communications industry
• **Caribbean Wellness Day** – Second Saturdays in September

[Link to CARICOM website] WWW.CARICOM.ORG

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CARIBBEAN NCD SCORECARD:

- 20 Countries
- 26 Indicators

- Issues
- Definitions
- Validation

- Evaluation commencing

Preventing disease,
Protect future labour force and elderly population by investing in evidence-based approaches to prevent childhood obesity

Safeguarding Our Future Development

Plan of Action for Promoting Healthy Weights in the Caribbean: Prevention and Control of Childhood Obesity

2014 - 2019

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Childhood obesity: Economic Sector Related aspects to its prevention:

Conclusions of the 41st Meeting of the CARICOM Council for Trade and Economic Development (COTED), Georgetown, Guyana, 12-13 November 2015
LIFE IN THE FAT LANE STARTS IN CHILDHOOD

Source: Dr Patrick Martin, CMO, St Kitts & Nevis
CARICOM Council Trade & Econ Dev (COTED 41)

- **Recognised** the threat to health and economic development of the Caribbean by unhealthy diets and an *obesogenic environment*, particularly rising child obesity;

- **Agreed** to review and have further consultations on adopting a suite of policy actions in a stepwise manner across the following six (6) areas -
  - Mandatory Food labelling;
  - Nutrition standards and guidelines for schools and other institutions;
  - Food marketing and Portion Sizes;
  - Nutritional quality of food supply (levels of harmful ingredients);
  - Trade and fiscal policies;
  - Food Chain incentives, particularly for fruits and vegetables;

...all very good for people of all ages!
Major treatment policy responses

• Jamaica National Health Fund: Major policy response to chronic disease epidemic; procures and provides for free medications for persons with NCDs hypertension diabetes high cholesterol asthma glaucoma cancer; funded from tobacco taxes, NIS, taxes. Treatment adherence circa 50%

• Trinidad and Tobago Chronic Disease Action Program (CDAP): launched in 2004; provides for free medications via primary care or private MD or pharmacy; for persons with NCDs hypertension diabetes high cholesterol asthma glaucoma cancer; funded from taxation; 2013 assessment suggested CDAP is making major contribution to reduced deaths from cardiovascular disease
GLOBAL FRAMEWORKS

• SUSTAINABLE DEVELOPMENT GOALS
• SDG2 NUTRITION SECURITY
• Goal 3: Ensure healthy lives and promote well-being for all at all ages
### NCD ‘Best Buys’: $9/Bn/yr investment for developing world to implement *(WHO, 2011)*

<table>
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<tr>
<th>Condition</th>
<th>Interventions</th>
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<tr>
<td>Tobacco use</td>
<td>Tax increases; smoke-free indoor workplaces &amp; public places; health information / warnings; advertising/promotion bans</td>
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<tr>
<td>Alcohol use</td>
<td>Tax increases; restrict retail access; advertising bans</td>
</tr>
<tr>
<td>Unhealthy diet &amp; physical inactivity</td>
<td>Reduced salt intake; replacement of trans fat; public awareness about diet &amp; physical activity</td>
</tr>
<tr>
<td>CVD &amp; diabetes</td>
<td>Counselling &amp; multi-drug therapy (including glycaemic control for diabetes) for people with &gt;30% CVD risk (including those with CVD); treatment of heart attacks with aspirin</td>
</tr>
<tr>
<td>Cancer</td>
<td>Hepatitis B immunization to prevent liver cancer; screening &amp; treatment of pre-cancerous lesions to prevent cervical cancer</td>
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Many Good Buys: tobacco cessation counseling, alcohol screening and short interventions, diabetic foot care…
“90:90:90” Drive

- 90% people know their numbers (BP)
- 90% of those on Treatment
- 90% of those have blood pressure controlled

=> 70% BP control at population level
=> approx 700,000 deaths avoided per year in CARICOM
=> reduce risk of expensive complications like heart attacks, strokes, renal failure, blindness, amputations, dementia
10 Characteristics of High Performing Chronic Care systems

• 1 and 2
  – Ensure universal coverage
  – Provide care free at the point of use (or patients may present late or not use services because of the costs)

• 3, 4 and 5
  – Delivery system should focus on prevention; not just treatment
  – Primary care should be at the heart of the delivery system
  – Priority should be given to patients to self-manage their conditions with support from care givers and families
10 Characteristics cont’d

• 6 and 7
  – Population health management should be emphasised – not just responding to the needs of individual patients
  – Care should be integrated to enable primary care teams to access specialist advice and support

• 8 and 9
  – Information technology use to improve chronic care
  – Care for individual patients needs to be coordinated effectively

• 10 These 9 characteristics need to be linked in a coherent whole; combined effect of different interventions and actions that makes a difference
Caribbean situation
Patient Characteristics & Quality of Care Indicators (n=1,063)

- **FEMALE**: 71.2%
- **60 YEARS+**: 52.1%
- **A1c MEASURED**: 29.9%
- **A1c<7%**: 31.8%
- **FBG MEASURED**: 68.8%
- **FBG<130mg dl**: 42.2%
- **BP MEASURED**: 87.8%
- **BP<140/90MM HG**: 45.1%
- **BMI MEASURED**: 53.2%
- **BMI>29 KG M2**: 43.1%
- **MEAL PLAN**: 11.0%
- **FOOT EX**: 26.4%
- **EYE EX**: 19.1%
Improving Quality of Care

• Improving quality of care for diabetes possible but
  – Still few patients get meal plans, foot or eye exams
• Use Planed visit
• Use the Risk Pyramid to define visit frequency
• Define roles and responsibility among team members
• Prepare a Care Plan for patient-centered care
• Take notes of patient outcomes and discuss with team members
• Develop capacity for chronic disease management and measurement
  – Height, weight, BMI, blood pressure
  – Count calories, prepare meal plan
  – Foot & Eye Exams for those with DM
• Include preventive services (Cancer) and counseling (tobacco, alcohol use, physical activity, healthy nutrition)
• Organize outreach program for patients with >3 risks
NCDs  Ageing
OVERALL CONCLUSIONS

• We have serious, growing, linked challenges in NCDs and in Ageing

• Cost wise, it is not sustainable - especially low & middle income

• Elderly particularly burdened by NCDs; prevention of NCDs central to healthy ageing; ageing and NCDs have very strong mutuality of interest

• There are cost-effective public policy & health policy interventions; Comprehensive programs of prevention and control

• CARIBBEAN COOPERATION IN HEALTH – 4: opportunity to include ageing

• involving all sectors, government, civil society and private

• Chronic care improvements needed, especially for treatment in primary care to promote health, and avoid expensive complications

• Universal health coverage is the #1 characteristic of high performing chronic care systems

• **CARPHA and regional institutions role**
NCDs: Symptoms of the failure of our development paradigm globally and regionally

Fundamental changes in way of life - sedentariness
Overconsumption – low quality food, alcohol, tobacco,, fossil fuels …
Healthy Ageing in the Caribbean blog
Age no barrier to fitness
I am an older guy, over 50, so this blog is about healthy ageing, with some focus on men’s health. But it’s for everyone, especially those who are sedentary as physical activity is central to healthy ageing. It is also about, staying injury-free, and finding ways to fit training into a busy and demanding schedule. It has always been my dream to participate once again in a triathlon and I have decided to take the leap. The last one I did was in 1993!
Pro 19:15  **Slothfulness** casteth into a deep sleep; and an idle soul shall suffer hunger

Ecc 10:18  By much slothfulness the building decayeth; and through idleness of the hands the house droppeth through

Deu 21:20  And they shall say unto the elders of his city, This our son is stubborn and rebellious he will not obey our voice; he is a glutton, and a drunkard

Proverbs 23:20-21 warns us, "Do not join those who drink too much wine or gorge themselves on meat, for **drunkards and gluttons become poor**, and drowsiness clothes them in rags."
THANK YOU

http://carpha.org/

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