GRAND ROUNDS

Improving Chronic Illness Care

Dr. Alberto Barceló, MD, MSc,
Advisor on Non-communicable Diseases, Pan American Health Organization

University of Miami
September 25, 2013
11:45 am – 12:45pm
Clinical Research Building rm. 989
1120 NW 14th Street
Miami, FL 33136
Outline

• The problem of Chronic Diseases in the Americas
• Care for Chronic Non Communicable Diseases
• The Chronic Care Model
• Improving Chronic Care in the Americas
  • The Manual of CC Technologies
  • The Chronic Care Passport
  • Country based examples
  • Evidence Based Chronic Illness Care
I will work to enhance this Organization’s ability to work side-by-side with our Member States to develop health systems and services, and promote models of care, which advance universal access.
“Universal [health care] coverage is the single most powerful social equalizer.”

Margaret Chan, 2012
THE CHALLENGES

PREMATURE DEATH AND DISABILITY

ECONOMIC HARDSHIP

POOR-QUALITY CARE
Latin America and Caribbean Population Pyramid

1950

MUJERES

HOMBRES

0-4

15-19

30-34

45-49

60-64

75-79

90-94

2005

MUJERES

HOMBRES

0-4

15-19

30-34

45-49

60-64

75-79

90-94

245

Population Pyramid
Epidemiologic transition in the Region

model 1

Model 2

model 3

Uruguay   México   Guatemala

Fuente: Sistema de Información de Mortalidad, PAHO/WHO
Public Health Expenditure
Health systems with Universal access and coverage have at least 6% of GDP (2004-2006)

Trends in Public Expenditures in Health as % of GDP in Canada, Latin America and the Caribbean (LAC) and the United States of America; Selected periods 1960-2006
Approx. 200 million people living with an NCD in the Americas

TOTAL NCDDEATHS 2008

3,9 M

- Cardiovascular diseases: 45%
- Cancer: 30%
- Other NCDs: 7%
- Diabetes: 8%
- Chronic respiratory disease: 10%

149 million smokers
25% persons >15 years old obese

36% deaths are below age 70 years
Focus of the POA 2013-19

**4 Diseases:** CVD, Cancer, Diabetes, COPD

**4 Risk Factors:** Tobacco, Diet, Alcohol, Physical Inactivity

**Other regional issues:** Obesity, Mental Health, CKD, Oral health

- Monitor advances
- Change of model of care within PHC
- Protective factors and determinants of health
- Access to technology and medicines
- Whole of government, whole of society approach

NCDs in social protection schemes and UHC

Protective factors and determinants of health
Adult population by CNCD status in Central America, 2000-2005.

- Diagnosed 21%
- Undiagnosed 17%
- Pre CNCD 34%
- Risk Factors 14%
- High Risk 5%
- Healthy 9%
- <10%
Patients (%) with DM and at least 1 A1c by country

- **ACCADEMIC US**: 98%
- **PRIVATE C-SA**: 71%
- **US**: 69%
- **CARIBBEAN**: 23%
- **CENTRAL AMERICA**: 11%

Source: US (Grant, CDC); Central-South America (Lopez et al); Caribbean Central America (PAHO)
Patients with Good Control of Diabetes, Population Based Estimates, 2010-2012

Source: Chile (health survey 2011); Barceló et al (CAMDI)
Patients with Good Control of Diabetes. Clinical Series, 2010-2012

Source: PAHO unpublished, 2013
The Chronic Care Model
<table>
<thead>
<tr>
<th>OUTDATED CARE</th>
<th>EFFECTIVE CARE</th>
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<tbody>
<tr>
<td>Disease-centered</td>
<td>Patient-centered</td>
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<tr>
<td>Specialty care/hospital-based</td>
<td>PHC–based</td>
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<tr>
<td>Focus on individual patients</td>
<td>Focus on population needs</td>
</tr>
<tr>
<td>Reactive, symptom-driven</td>
<td>Proactive, planned</td>
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<tr>
<td>Treatment-focused</td>
<td>Prevention-focused</td>
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FIGURE 5. Innovative Care for Chronic Conditions Framework

Innovative Care for Chronic Conditions Framework

Positive Policy Environment
- Strengthen partnerships
- Support legislative frameworks
- Integrate policies
- Provide leadership and advocacy
- Promote consistent financing
- Develop and allocate human resources

Links
- Community
  - Raise awareness and reduce stigma
  - Encourage better outcomes through leadership and support
  - Mobilize and coordinate resources
  - Provide complementary services
- Community Partners Informed
- Health Care Team Motivated

Health Care Organization
- Promote continuity and coordination
- Encourage quality through leadership and incentives
- Organize and equip health care teams
- Use information systems
- Support self-management and prevention

Patients and Families

Better Outcomes for Chronic Conditions
Expert’s recommendations

Evidence based recommendations

Tools
Implementing Quality Care for Chronic Conditions:
A Regional Working Group.
University of Miami, July 9-11, 2013
### Technology: Risk Stratification, Population Management

#### Concept/Description:
A system that classifies or stratifies patient population by risk allowing the most qualified clinical personnel to dedicate more time to those patients with the most complex diseases.

#### Expected Effect:
1. Support patients with chronic diseases according to their care needs
2. Use available resources
3. Provide supported self-care for patients with well controlled stable conditions
4. Provide regular contact with multidisciplinary team to ensure effective management to patient fairly controlled conditions.
5. Use a case management approach to anticipate, coordinate, and link health and social care for patients with complex conditions.

#### Step 1.
Classify DM/HTN patient as

- **Level 1. Well Controlled (Usually meeting goals):** A1C < 7% / FBG < 130 mg/dl; BP < 130/80; GCR < 10%
- **Level 2. Fairly Controlled (Most of time meeting goals):** A1c 7-9% or FBG 130-199 / BB < 140/90; GCR < 30%
- **Level 3. Poorly Controlled (Usually not meeting goals):** A1C > 9% / FBG ≥ 200 mg/dl or BP ≥ 140/90 mm HG

#### Step 2.
Organize clinic visits according to risk and available resources.

#### Tools
- Risk Stratification Pyramid
- Global Cardiovascular Risk (GCR) Table

#### Responsible
PHC Team: Nurse or Physician

#### Tips
- Level 1. Consider bimonthly group visit or physician/nurse visit every three months for Well Controlled Patients
- Level 2. Consider bimonthly physician/nurse visit for Fairly Controlled Patients
- Level 3. Consider physician/nurse monthly visit for Poorly Controlled Patients
Patient (%) with good control (A1c < 7%) before and after the intervention among cases and controls

Dominican Republic: Program for the Prevention and Control of Non-Communicable Diseases (PRONCEC)

Five provinces located on the Dominican-Haiti border participate in PRONCEC. These border provinces are considered underserved populations with a high concentration of displaced persons from Haiti.

Gaps in Diabetes Care (Baseline Chart Review)
- 30% Blood Glucose Registered
- 13% Foot Exam
- 0.3% Eye Exam

Source: Ministerio de Salud Pública, Republica Dominicana, 2012
Addressing the Burden of Tuberculosis and Diabetes in the Americas

Tuberculosis screening among those with diabetes in clinics of Tijuana (Mexico) and Salvador and Sao Paulo (Brazil)

Risk (%) of Tuberculosis

Source: PAHO-El Paso, Texas, 2012
Diabetes Quality of Care Improvement in 10 Caribbean Countries
QI Improvement Indicators, n=1,063 (Baseline and Follow-up)

Source: PAHO, unpublished
Las CUENTAS de la FELICIDAD

HAY VIDA DURANTE EL CÁNCER

Sandra Ibarra

Prólogo de Josep Carreras
Epílogo de Juan Ramón Lucas

Planeta
Argentina
CARTÃO DO PACIENTE
Portador de Hipertensão e Diabetes

Nome: ....................................................
Data de Nascimento: ......................................
Nome da Mãe: ..........................................
Endereço: .............................................
Município: .............................................
Microárea: .............................................
Altura: ..................................................
Nº prontuário do Centro Integrado: ..................
Classificação de Risco: ...............................
Paraguay
Puerto Rico

PASAPORTE DE LA DIABETES

Centro de Diabetes para Puerto Rico
Edificio Decanato de Farmacia, Primer Piso (Lobby)
Recinto de Ciencias Médicas, UPR
Area de Centro Médico
PMB #87, PO Box 70344
San Juan, Puerto Rico 00936-8344
Tel. (787) 773-8283, Ext. 221 ó 222
Fax: (787) 773-8303

Puntos para examinar

- Presión Arterial
- Examen de los pies
- Peso/IMC
- A1c (rango normal 4%-6%)
- Examen de los ojos (con pupilas dilatadas)
- HDL
- Colesterol LDL
- Triglicéridos
- Prueba de Orina (Microalbúmina)
- Educación en Diabetes
- Consejería Nutricional
- Nivel de azúcar en la sangre por propio control

*Estas metas están basadas en las recomendaciones...
CHILE

CARNET DEL PROGRAMA CARDIOVASCULAR 2012

Guíe este carnet que tiene su historia de salud. Lévalo cada vez que acuda al Centro de Salud.

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<tr>
<th>FECHA</th>
<th>ACTIVIDAD</th>
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<th>Tipo de producto y condición</th>
<th>Responsable</th>
<th>Fecha</th>
<th>Comentarios</th>
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7/20/2012
Suriname
Virtual Campus: Free Diabetes Education Courses for Health Professionals and People with Diabetes

Curso Latinoamericano en Línea
APOYO AL AUTO-MANEJO EN DIABETES

Introducción

Bienvenidos
Summer Course: EVIDENCE BASED CHRONIC ILLNESS CARE
University of Miami
July 12-17, 2009

EPH EVIDENCE BASED CHRONIC ILLNESS CARE
University of Miami
March 6-11, 2011
University of Miami, 2009, 2011

- Universidad Católica de Chile, 2011
- Universidad de Buenos Aires, 2012
- Bogotá, 2012
- Maceió, Brasil, 2013

Online:
OAS, 2013;
2013: Ministerio de Salud de Argentina
Internships & Practicum at PAHO-HQ & PAHO Country Offices
Leaders in International Health Program

Summer session (June-September): Applications for the Summer Program are accepted between December 1 - January 31 each year.

Winter session (December-March): Applications for the Winter Program are accepted between September 1 - October 31 each year.

www.paho.org/internships

Keyword: Internship
Conclusions

• Chronic Non Communicable Diseases are the main causes of death & disability globally and in the Region of the Americas

• The Chronic Care Model is a framework that has shown to be effective for organizing care for chronic conditions

• Care for CNCD is problematic, especially for low and middle income countries
Recommended Readings


www.paho.org/cronicare

cronicare@paho.org
barceloa@paho.org