



Burden of the NCD Epidemic in the Caribbean: Implications for Universal Health Coverage

Universal Health Coverage Meeting

October 22-23, 2012

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Outline

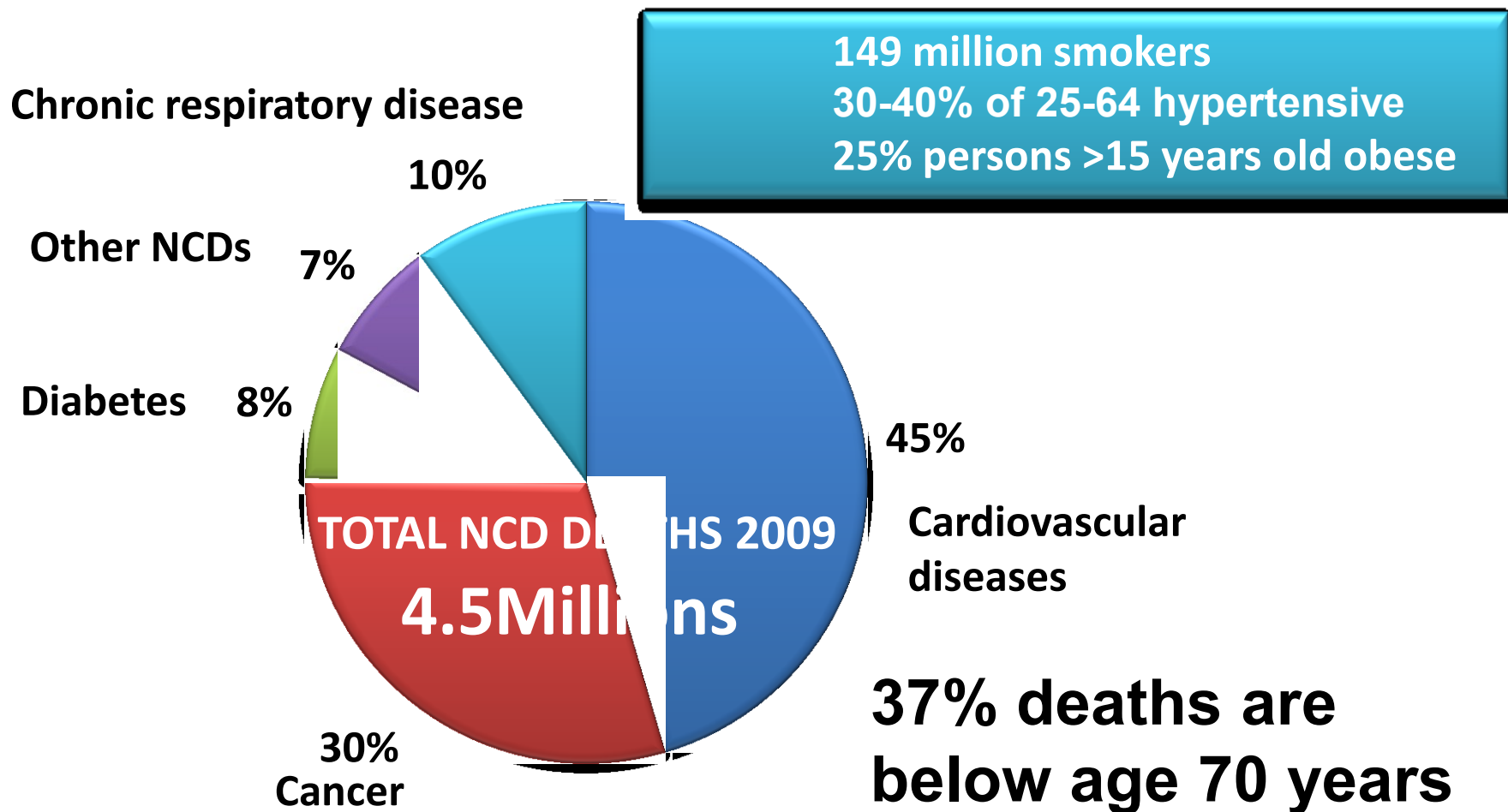
1. *NCDs and Risk Factors*
2. *CARICOM Heads Summit & UN High Level Meetings on NCDs*
3. *Characteristics of high performing chronic care systems*
4. *Caribbean Diabetes & NCD quality improvement project*
5. *Conclusions*

NCDs and Risk Factors (“4 X 4” + Obesity)

		Modifiable causative risk factors for NCDs			
		Tobacco use	Unhealthy diets	Physical inactivity	Harmful use of alcohol
Noncommunicable diseases	Heart disease and stroke	✓	✓	✓	✓
	Diabetes	✓	✓	✓	✓
	Cancer	✓	✓	✓	✓
	Chronic lung disease	✓			

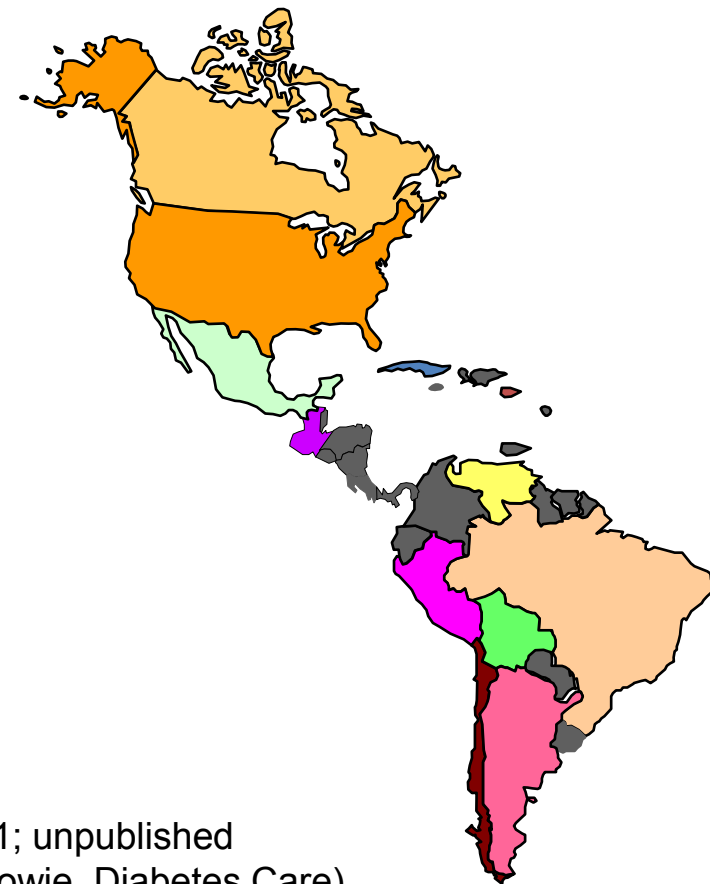
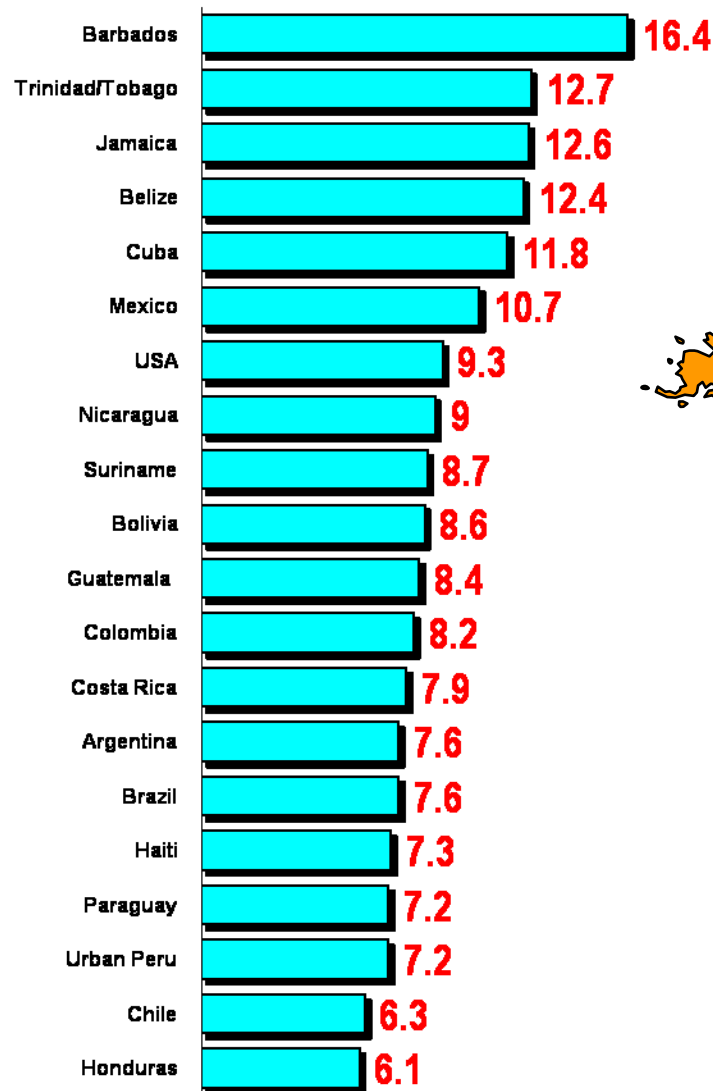
Co-morbidities and co-benefits: Mental health, oral, ocular, renal

NCDs #1 KILLER IN AMERICAS REGION



Approx 250,000,000 people live with an NCD in the Americas region

Prevalence (%) of diabetes among adults in the Americas



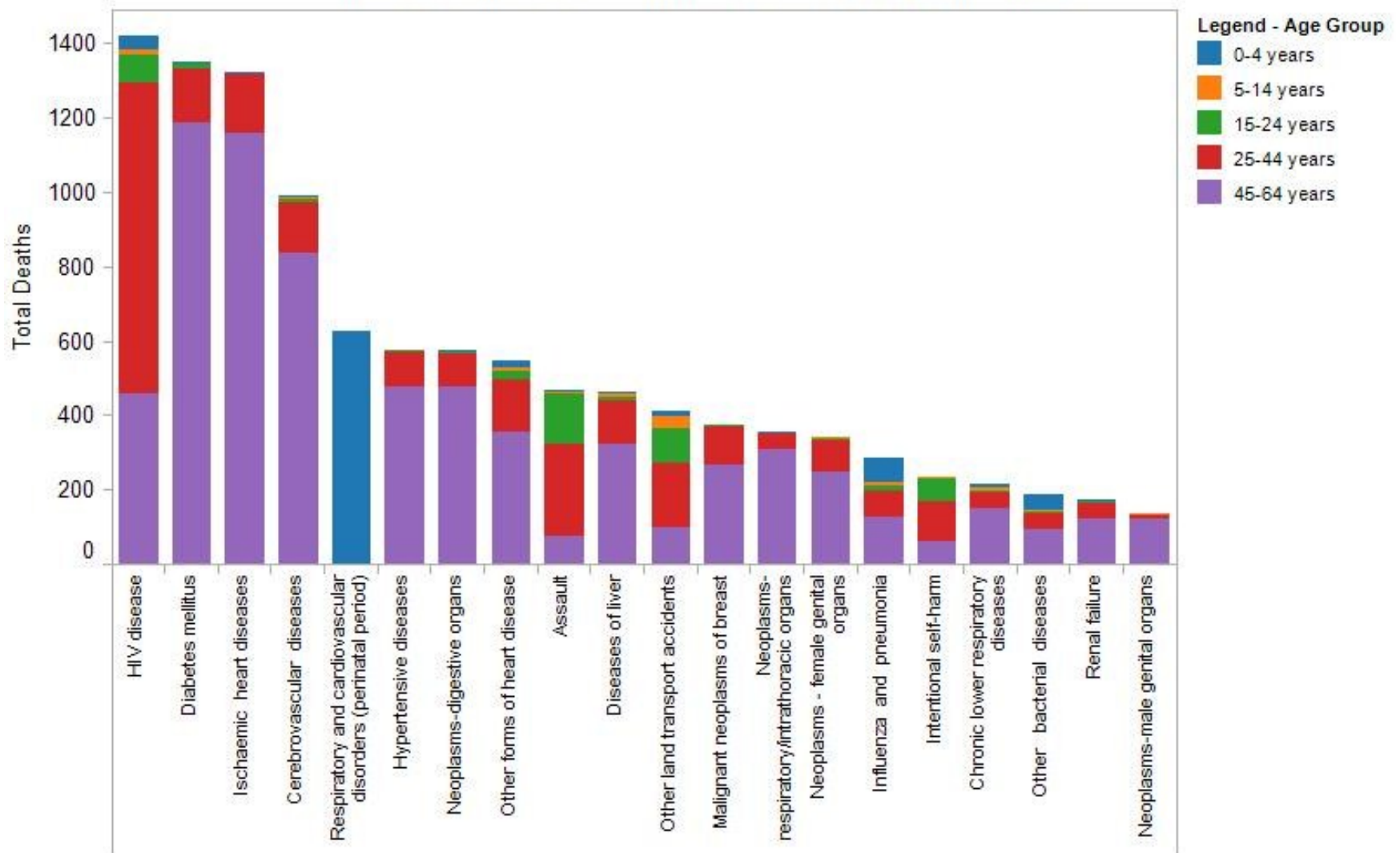
Source: *Pan Am J Public Health* 10(5), 2001; unpublished (CAMDI), Haiti (Diabetic Medicine); USA (Cowie, Diabetes Care)

All is not well in Paradise: “Diabesity” and NCDs



Premature Mortality in the Caribbean

Graph showing leading causes of death* for persons <65 years in CAREC Member Countries** in 2006 by age grouping



Notes:

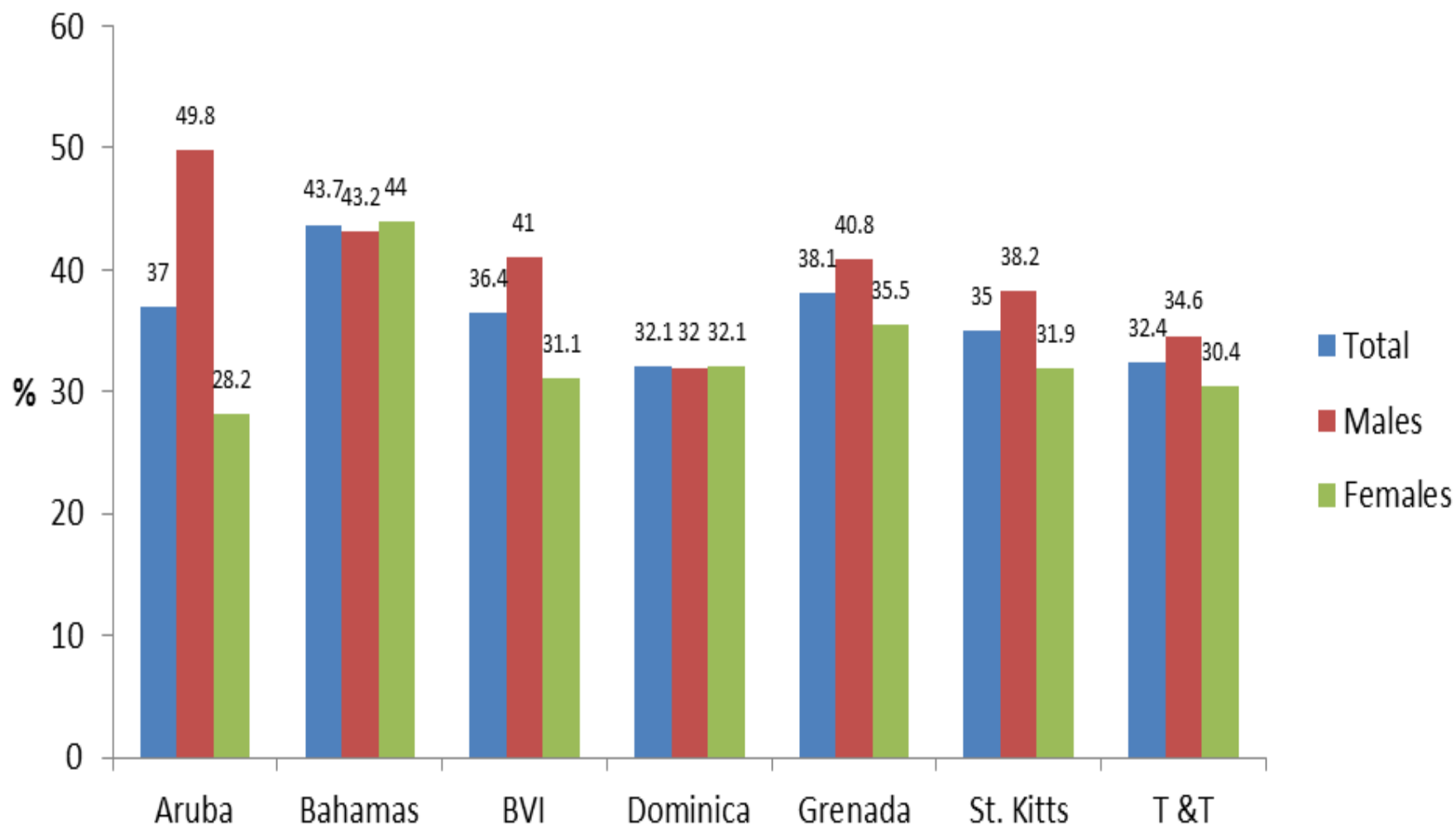
* Underlying causes of death classified using ICD-10 Volume 1 Block classifications

** Includes data for all CAREC Member Countries except the BES Islands, Curacao and St. Maarten

Raised Blood Pressure



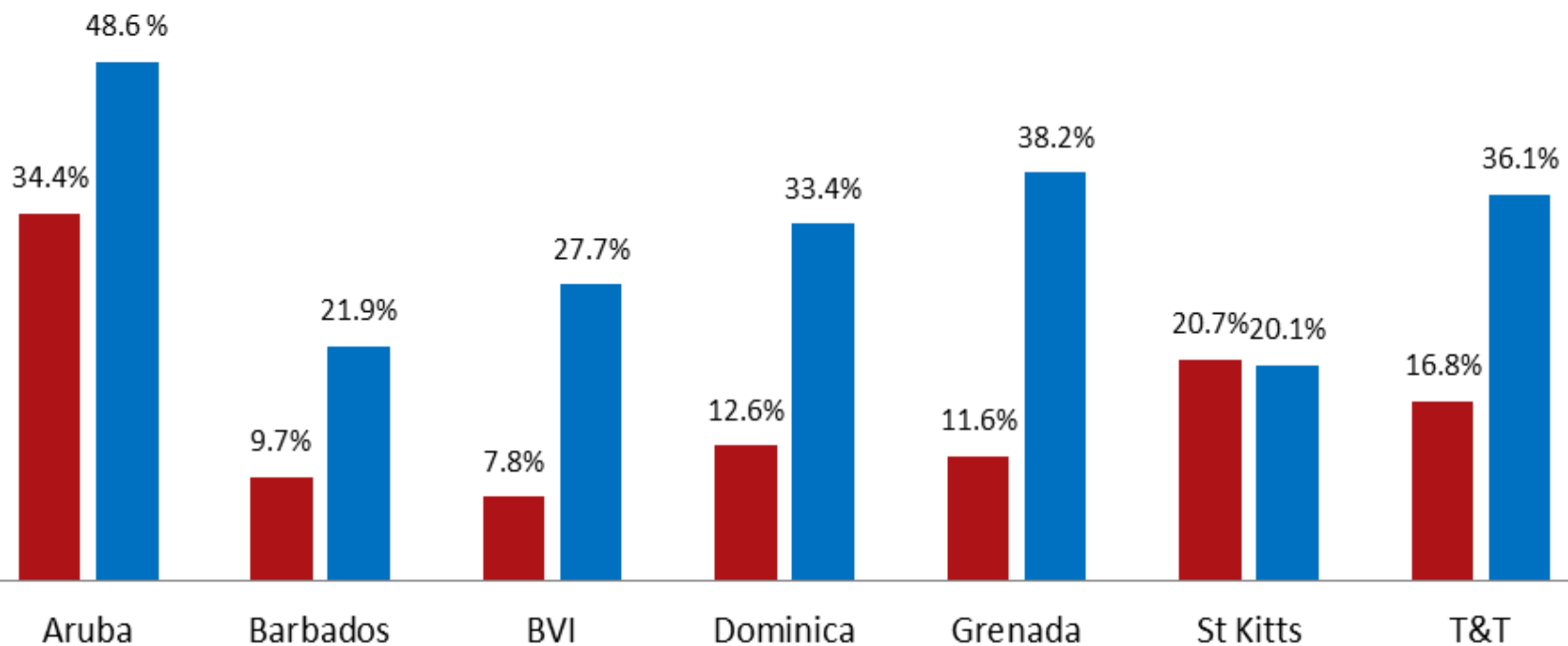
Percentage with Raised Blood Pressure



Harmful Use of Alcohol

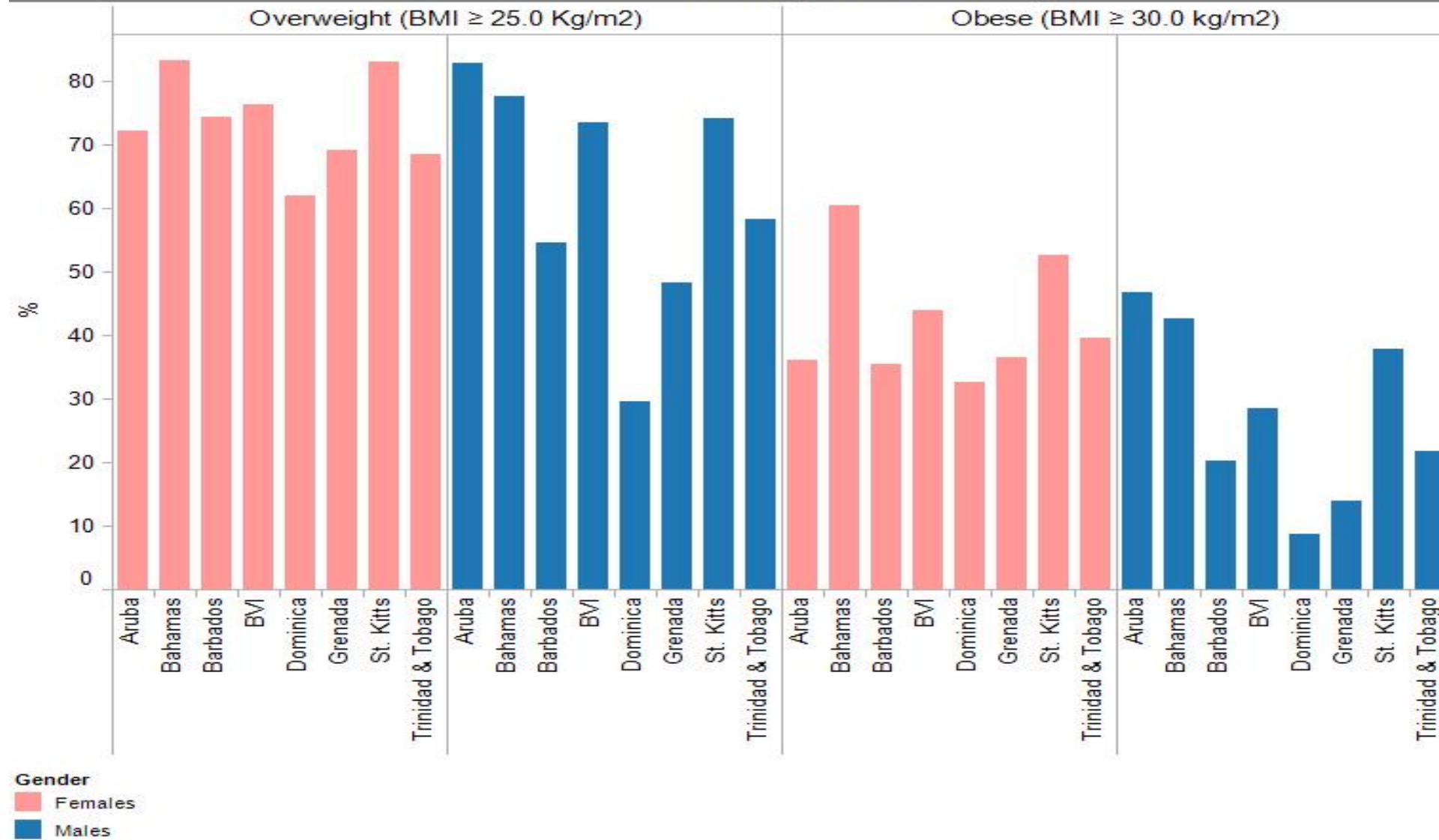
Harmful Use of Alcohol

- Females (having ≥ 4 drinks on any day in the last week)
- Males (having ≥ 5 drinks on any day in the last week)



Overweight and Obesity

Prevalence of Overweight and Obesity



Estimated Economic Burden (\$US Million, 2001)

	BAH	BAR	JAM	TRT
Diabetes	27	38	221	467
Hypertension	46	73	266	250
Total	73	111	487	717
% GDP	1.4	5.3	5.8	8.0

Abdulkadri et al. Social and Economic Studies 58: 3 & 4 (2009): 175-197

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

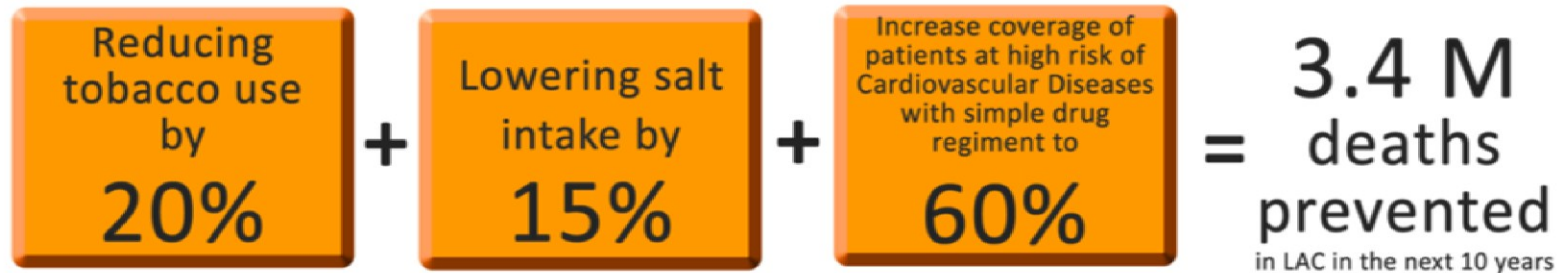
Cardiovascular diseases, cancer, diabetes, chronic respiratory diseases



NCDs lead to premature mortality and poverty

SOME OF THE OPPORTUNITIES

NCDs ARE HIGHLY PREVENTABLE



*Gaziano T, et al. Scaling-up interventions for chronic disease prevention: the evidence. Lancet, 2007;370: 1939-46; extrapolated to countries of Latin America and Caribbean countries.

The tobacco and salt intake interventions would be cost than US \$ 0.40 per person/year in low and middle income countries, and US\$ 0.50-1.00 in upper middle-income countries



1st CARICOM SUMMIT on CHRONIC NON-COMMUNICABLE DISEASES
PORT OF SPAIN, TRINIDAD AND TOBAGO — September 15, 2007

UNITE AGAINST
CHRONIC DISEASES
Stop The Epidemic

The CARICOM Heads Summit on NCDs, 2007.

- “We, the Heads of State of the Caribbean Community....”
- 15-point “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

CARIBBEAN NCD SCORECARD: CARICOM/PAHO Joint Secretariat

NCD Progress Indicator Status / Capacity by Country in Implementing NCD

Summit Declaration - Updated September 2011; September 2012:

POS NCD #	NCD Progress Indicator	A N G	A N T	B A H	B A R	B E L	B E R	B V I	C A Y	D O M	G R E	G U Y	H A I	J A M	M O N	S K N	S T L	S V G	S U R	T R T
COMMITMENT																				
1,14	NCD Plan	±	±	√	√	±	√	√	√	√	√	√	X	√	±	√	√	±	√	√
4	NCD Budget	X	±	√	√	X	X	X	√	±	√	√	X	X	X	X	√	X	√	√
2	NCD Summit convened	X	√	X	√	X	√	√	X	√	√	√	X	√	±	√	√	X	√	√
2	Multi-sectoral NCD Commission appointed and functional	±	X	X	√	±	√	√	X	±	√	√	X	√	±	X	√	X	±	√
TOBACCO																				
3	FCTC ratified	*	√	√	√	√	*	√	√	√	√	√	X	√	±	√	√	√	√	√
3	Tobacco taxes >50% sale price	X	X	X	√	X	X	X	±	X	√	√	X	√	X	±	√	X	√	X
3	Smoke Free indoor public places	X	√	±	√	±	√	√	√	±	√	√	X	±	X	X	√	X	±	√
3	Advertising, promotion & sponsorship bans	X	X	X	√	X	√	√	√	X	X	±	X	√	X	X	X	X	±	√
NUTRITION																				
7	Multi-sector Food & Nutrition plan implemented	√	√	√	√	±	X	√	X	√	√	√	X	√	√	√	X	√	X	±
7	Trans fat free food supply	X	X	X	X	X	±	X	X	X	X	X	X	±	X	X	X	X	X	X
7	Policy & standards promoting healthy eating in schools implemented	±	√	√	√	±	√	X	√	±	X	±	X	√	±	±	X	X	X	±
8	Trade agreements utilized to meet national food security & health goals	X	X	X	X	X	X	X	X	X	±	X	X	X	X	X	X	X	X	√
9	Mandatory labeling of packaged foods for nutrition content	X	X	X	X	X	±	X	±	±	X	±	X	X	X	X	X	X	±	X
PHYSICAL ACTIVITY																				
6	Mandatory PA in all grades in schools	√	√	X	√	√	±	±	√	√	X	±	X	±	X	±	X	X	X	√
10	Mandatory provision for PA in new housing developments	X	√	X	√	√	±	*	X	X	X	X	X	X	±	±	X	X	X	X
10	Ongoing, mass Physical Activity or New public PA spaces	X	√	√	√	√	√	X	√	√	√	√	X	√	±	√	√	√	√	√
EDUCATION / PROMOTION																				
12	NCD Communications plan	X	X	±	±	X	√	X	√	±	±	√	X	±	X	±	X	±	√	√
15	CWD multi-sectoral, multi-focal celebrations	√	√	√	√	√	√	√	√	√	√	√	X	√	√	√	√	√	√	√
10	≥50% of public and private institutions with physical activity and healthy eating programmes	X	X	X	X	X	±	X	±	X	±	X	±	X	±	X	±	X	±	√
12	≥30 days media broadcasts on NCD control/yr (risk factors and treatment)	X	√	X	√	X	√	X	√	±	±	√	X	√	X	√	±	X	√	√
SURVEILLANCE																				
11, 13, 14	Surveillance: - STEPS or equivalent survey	X	X	√	√	√	√	√	√	√	√	±	X	√	±	√	±	±	±	√
	- Minimum Data Set reporting	X	√	√	√	√	√	√	√	√	√	±	X	√	√	√	√	√	√	√
	- Global Youth Tobacco Survey	X	√	√	√	√	X	√	±	√	√	√	X	√	√	√	√	√	√	√
	- Global School Health Survey	√	√	√	√	√	X	√	√	√	√	√	X	√	±	√	√	√	√	√
TREATMENT																				
5	Chronic Care Model / NCD treatment protocols in ≥ 50% PHC facilities	X	√	√	±	±	±	±	±	X	√	±	X	√	±	√	±	±	±	√
5	QOC CVD or diabetes demonstration project	±	√	√	√	±	±	±	√	X	√	√	±	√	X	±	√	X	√	√
		A N G	A N T	B A H	B A R	B E L	B E R	B V I	C A Y	D O M	G R E	G U Y	H A I	J A M	M O N	S K N	S T L	S V G	S U R	T R T

√ In place ± In process/partial

X Not in place * Not applicable

□ No information

◼ Recent update

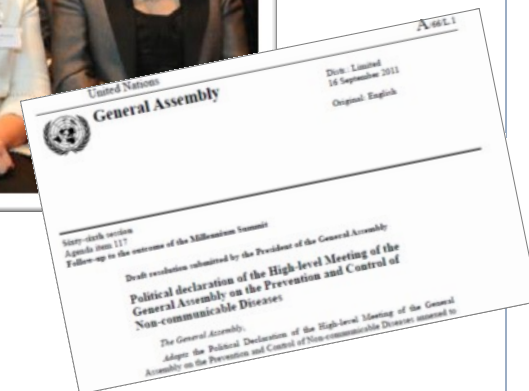
NCD COUNTRY CAPACITY Preventative Health Services		A N G	A N T	B A H	B A R	B E L	B E R	B V I	C A Y	D O M	G R E	G U Y	H A I	J A M	M O N	S K N	S T L	S V G	S U R	T R T
PRIMARY LEVEL of CARE																				
CVD Risk ASSESSMENT																				
	BMI																			
	Blood Pressure																			
	Blood Glucose																			
	Blood Lipids										*									
	Individual Risk Management with a validated CV risk score																			
DM AND CVD MANAGEMENT																				
	Blood pressure Monitoring																			
	Blood Glucose Monitoring																			
	Blood Lipids Monitoring										-									
	HbA1C										*									
	Diabetic Foot Examination																			
	Electrocardiogram										*									
CERVICAL CANCER																				
	Cervical Cytology or PAP																			
	HPV DNA Testing																			
	Visual Inspection Techniques																			
	VIA & Cryotherapy in a single visit																			
BREAST CANCER																				
	Clinical Examination																			
	Mammography																			
COLORECTAL CANCER																				
	Fecal Occult Blood test																			
	Digital Exam																			
KEY		<div> <div>Available to all patients</div> <div>Available - Limited Resources</div> <div>Not Available</div> <div>Available but not specified whether available to all patients or limited resources</div> <div>* Not Free</div> </div>																		

UNHLM on NCDs: an Intersectoral Issue



■ STRENGTHEN NATIONAL POLICIES AND HEALTH SYSTEMS

- ✓ **HEALTH SYSTEMS THAT SUPPORT PRIMARY HEALTH CARE**, effective, sustainable coordinated responses.
- ✓ Improving alliances and the accessibility to **MEDICINES , TECHNOLOGIES and DIAGNOSTIC SERVICES**
 - ✓ Make full use of TRIPS flexibilities
- ✓ Importance of **UNIVERSAL COVERAGE**
- ✓ Increase and prioritize NCDs in **BUDGETARY ALLOCATIONS**
- ✓ Strengthen **INFORMATION SYSTEMS**
- ✓ Promote **MULTISECTORAL & MULTI-STAKEHOLDER ENGAGEMENT** and GENDER-BASED approaches
- ✓ Promote the **PRODUCTION, TRAINING AND RETENTION OF HEALTH WORKERS**
- ✓ Ensure the **SCALING-UP** of **COST-EFFECTIVE INTERVENTIONS** **Best Buys**



NCD 'Best Buys': \$9/Bn/yr investment for developing world to implement (WHO, 2011)

Condition	Interventions
Tobacco use	Tax increases; smoke-free indoor workplaces & public places; health information / warnings; advertising/promotion bans
Alcohol use	Tax increases; restrict retail access; advertising bans
Unhealthy diet & physical inactivity	Reduced salt intake; replacement of trans fat; public awareness about diet & physical activity
CVD & diabetes	Counselling & multi-drug therapy (including glycaemic control for diabetes) for people with >30% CVD risk (including those with CVD); treatment of heart attacks with aspirin
Cancer	Hepatitis B immunization to prevent liver cancer; screening & treatment of pre-cancerous lesions to prevent cervical cancer

Many Good Buys: tobacco cessation counseling, alcohol screening and short interventions, diabetic foot care...

10 characteristics of the high-performing chronic care system

Chris Ham

Prof. Health Policy & Health Services Management

University of Birmingham,

Health Economics, Policy and Law (2010), 5, 71–90

Context

- Populations ageing & burden of disease changing
- Health care systems need to adapt
- New paradigm needed; less emphasis acute/episodic care
- Wagner's chronic care model points the way
- Progress in implementing slow and uneven
- 2/3 hospital bed days from unplanned admissions
- A high % of these admissions involve people with exacerbation of one or more chronic conditions
- Proactive management of these people could help to avoid admissions and help them remain independent

Chronic care - a new approach is advocated

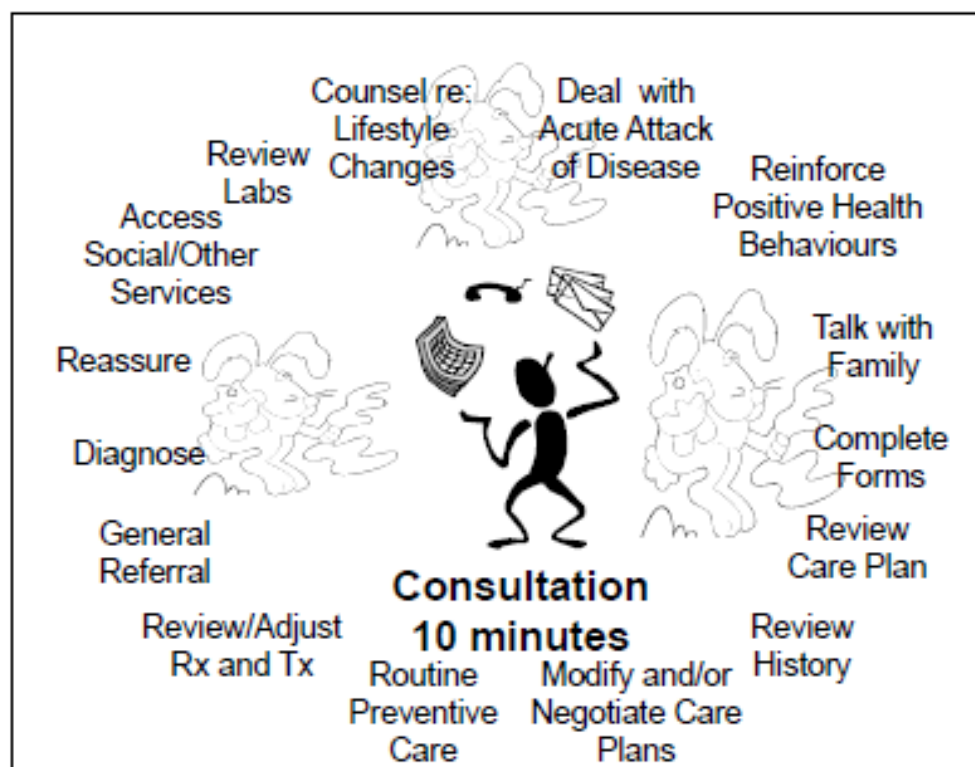
Traditional Model



Chronic Care Model

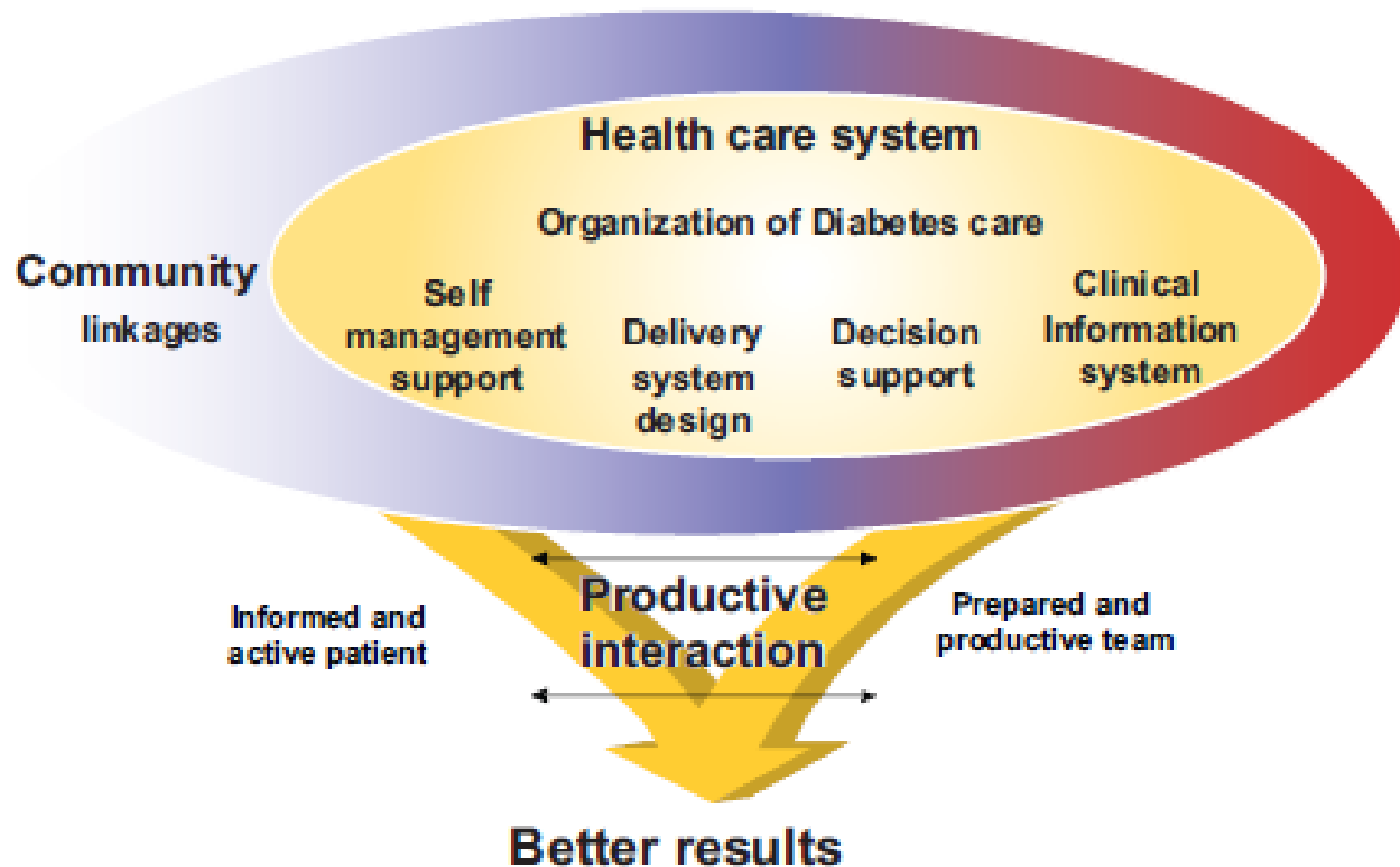
SICKNESS CARE MODEL

(Current Approach - Physician Centric)



- Care is **Proactive**
- Care delivered by a **health care team**
- Care **integrated** across time, place and conditions
- Care delivered in **group appointments, nurse clinics, telephone, internet, e-mail, remote care technology**
- **Self-management** support a responsibility and integral part of the delivery system

Figure 3. The Chronic Care Model

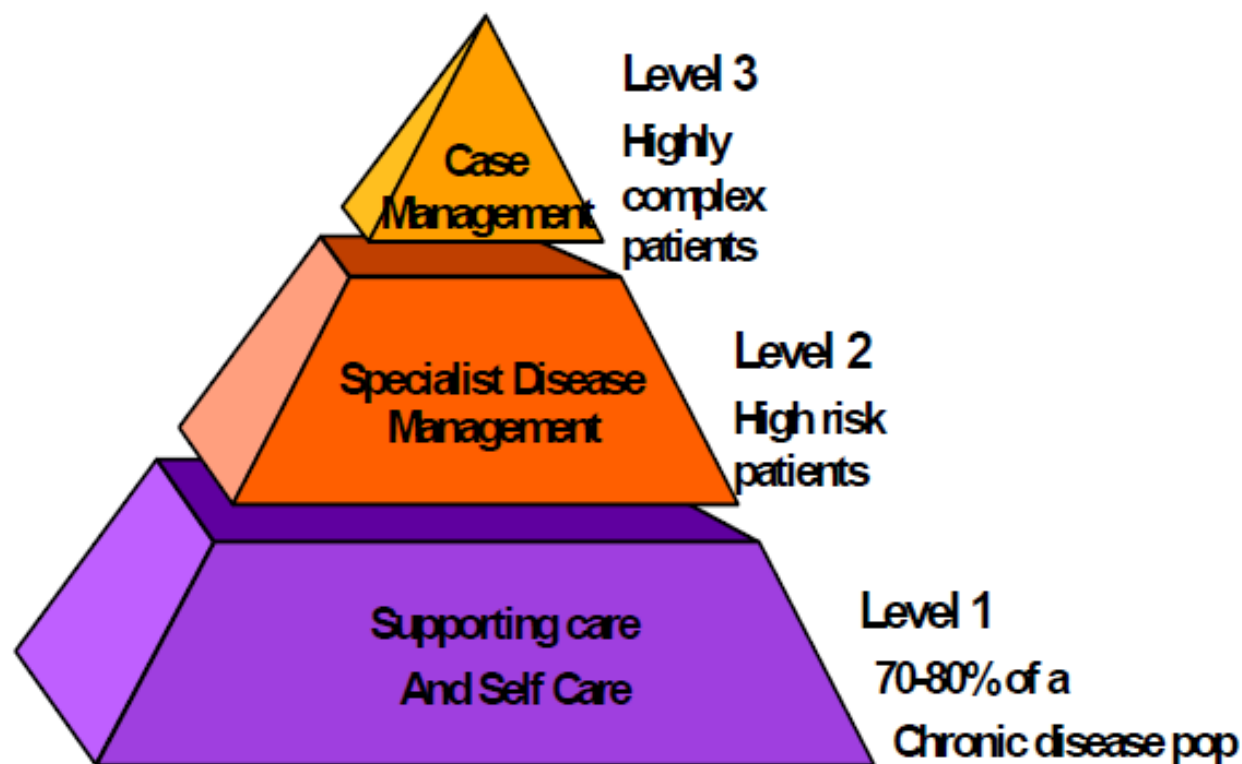


Wagner EH. Chronic disease management: What will it take to improve care for chronic illness? Effective Clinical Practice. 1998;1:2-4

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

Understanding the population



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** should be used to improve chronic care
 - Care for individual patients needs to be **coordinated** effectively
- 10
 - These 9 **characteristics need to be in a coherent whole** as part of a strategic approach to change
 - The evidence shows that it is the cumulative effect of different interventions and actions that makes a difference



Diabetes and NCD Quality Care Improvement Project

COUNTRIES
Antigua & Barbuda
Anguilla
Barbados
Belize
Grenada
Guyana
Jamaica
St. Lucia
Suriname
Trinidad & Tobago

CENTERS 142

PHYSICIANS 180

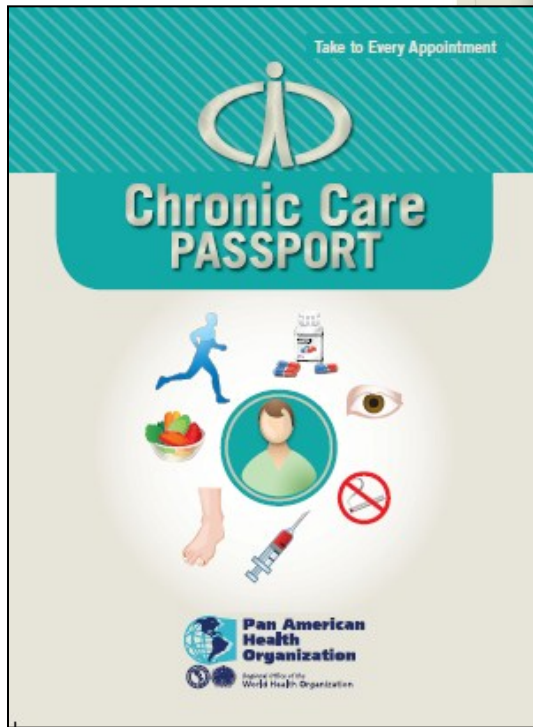
NURSES 405

OTHER 67

PATIENTS 41,200

**PAHO/WHO
World Diabetes Foundation**

Some Elements



Pliego into cuadrático

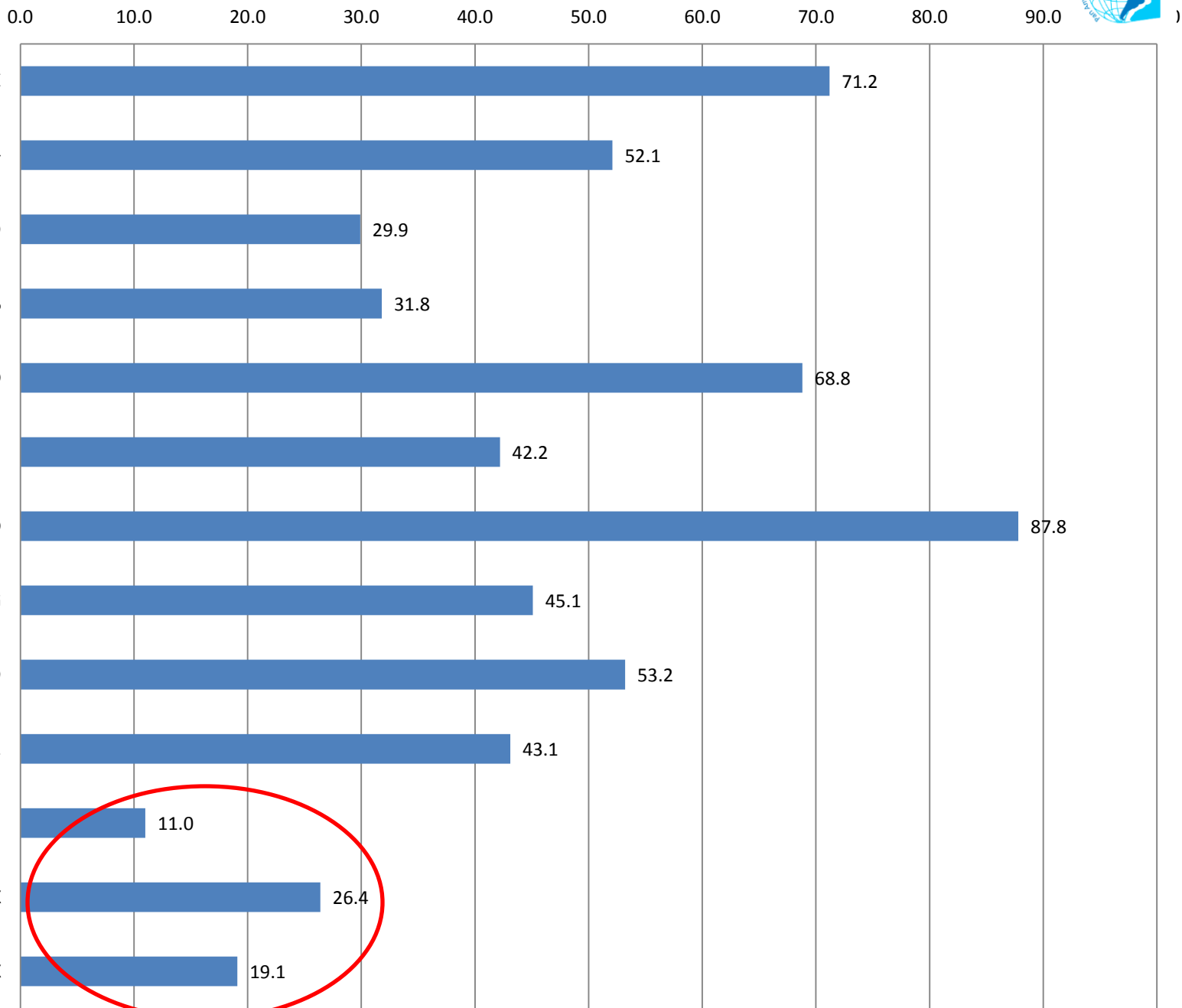




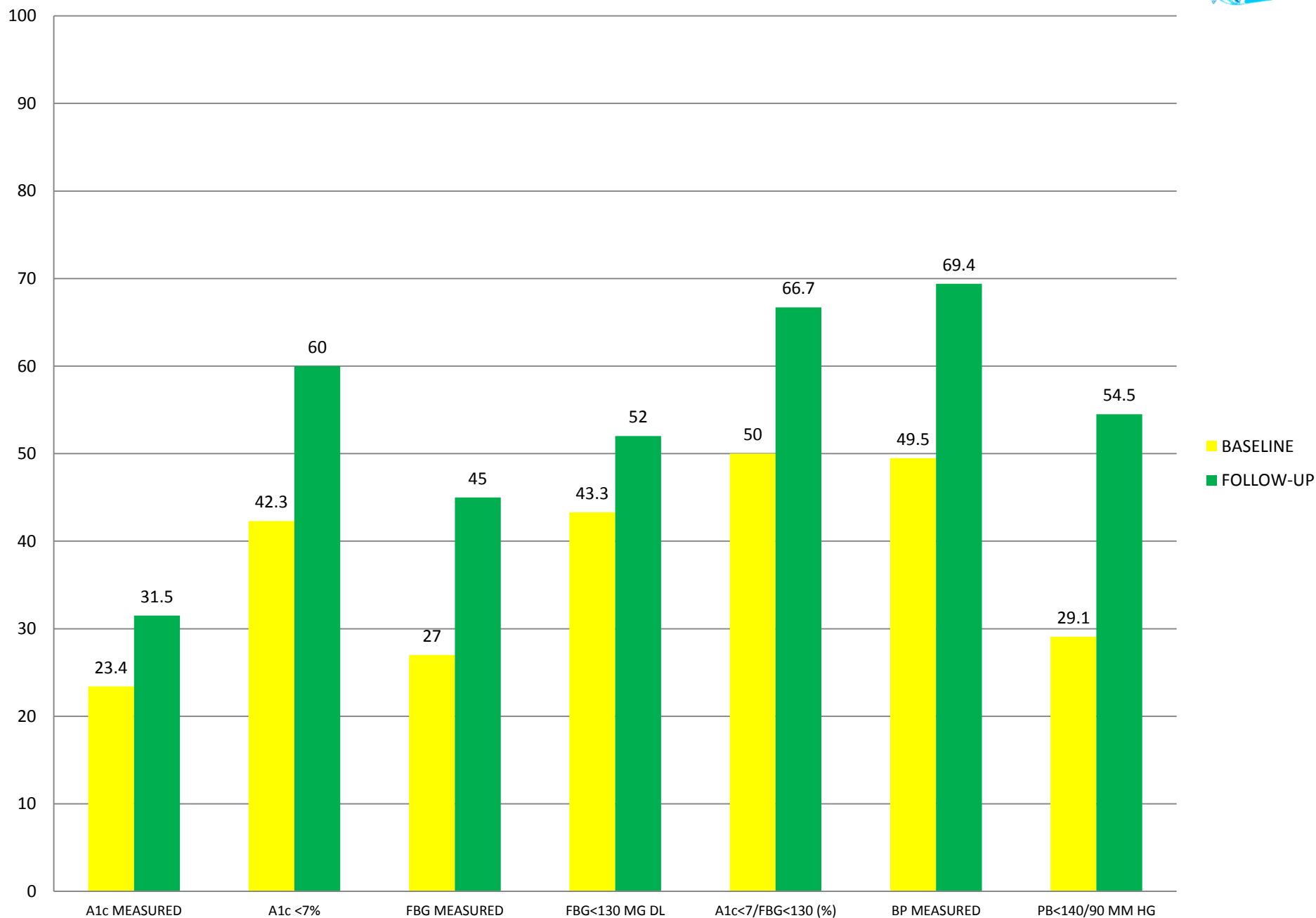
Chronic Care Passport in 8 Countries

1,063 patients randomly selected

Patient Characteristics & Quality of Care Indicators (n=1,063)



QI Improvement Indicators, n=111 (Baseline and Follow-up)



Quality of Care Project conclusions

- The Chronic Care Passport was useful in improving quality of diabetes care
 - Most indicators improved when compared follow-up to baseline
 - Still few patients get meal plans, foot or eye exams
- Use Planned visit & the Risk Pyramid to define visit frequency
- Define roles and responsibility among team members
- Prepare a Care Plan for patient-centered care
- Strengthen capacity for chronic disease management
 - Height, weight, BMI
 - Count calories, prepare meal plan
 - Estimate overall CVD Risk
 - 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 at high risk

OVERALL CONCLUSIONS



- **We have a very serious problem – getting worse, especially obesity**
- **Cost wise, it is not sustainable - especially low & middle income**
- **There are cost-effective solutions - healthy public policy & health policy interventions for prevention and control**
- **Chronic care improvements needed, especially for secondary prevention, and prevention of expensive complications**
- **Universal health coverage is the #1 characteristic of high performing chronic care systems**
- **Many issues around implementation and sustainability; self-care critical**
- **Partnership with public, private and civil society needed**

THANK YOU

MERCI BEAUCOUP

MUCHAS GRACIAS

