

Diabetes Summit for Latin America.

Salvador de Bahia, Brazil June 30- July 2, 2010

Regional Diabetes Care Centers. CUBA

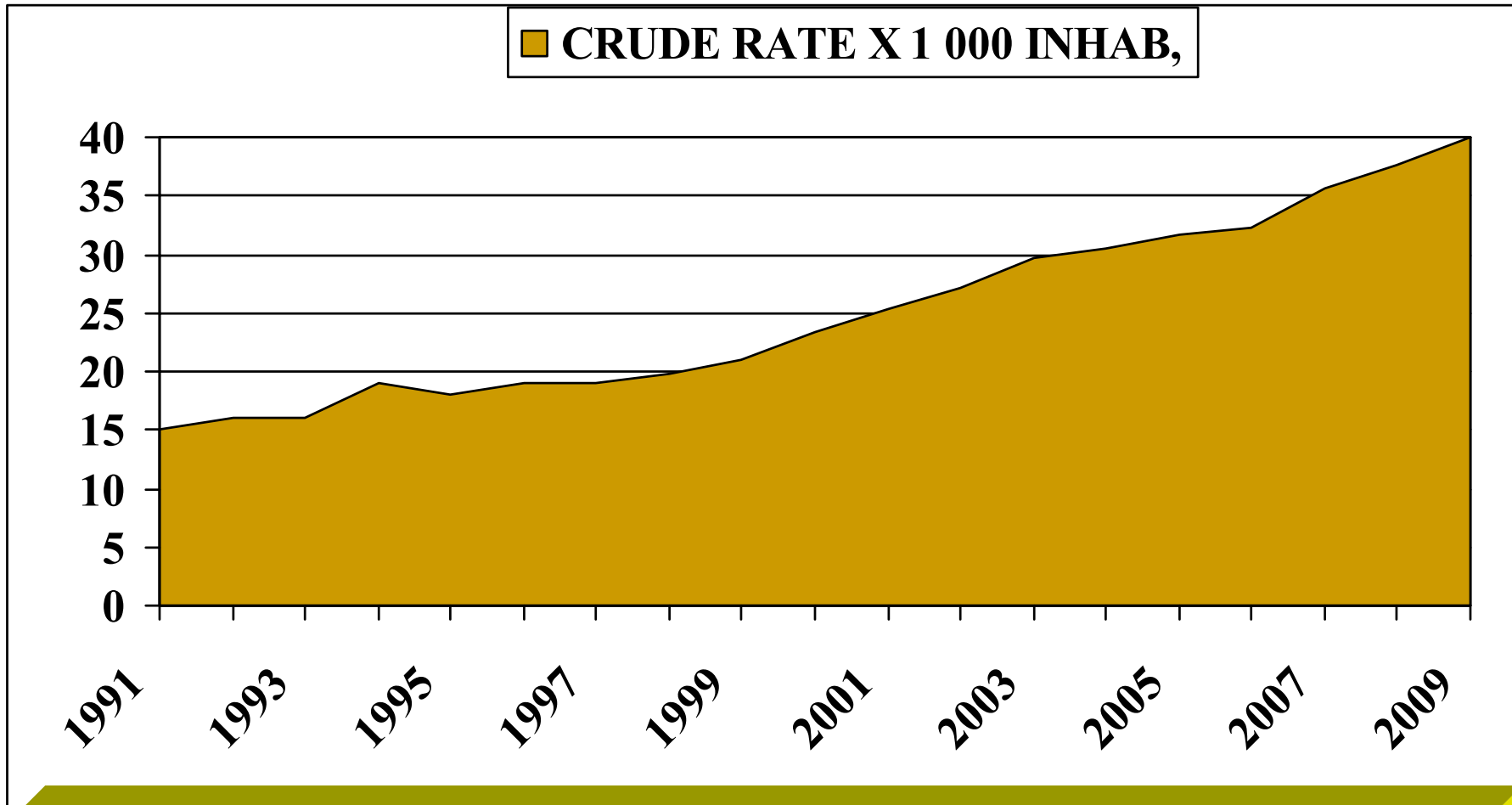
Prof. Oscar Díaz Díaz

Director National Institute of Endocrinology

Head Diabetes Technical Advisory National Commission

diazdiaz@infomed.sld.cu

KNOWN DIABETES PREVALENCE RATE CUBA 1991-2009



SOURCE: Statistics National Direction. Ministry of Public Health.

Organization of Cuban Diabetic Care

Family Doctor Offices 5 914 **Family Doctor Offices**



**Diabetic Health Office in network of polyclinics
(Primary Health Areas) Diabetes Units 498**



**Regional network of Diabetic Care Centers
(Provinces & some municipalities) 17**



**Network of Municipal, Provincial &
National hospitals 216
& National Health Institutes 13**

Regional Diabetes Care Centers. CUBA 2010

FUNCTIONS:

To delivery specialized medical care for people with diabetes

To develop intensive diabetes education

To teach the medical and paramedical staff

To introduce new technologies

To promote, expand and evaluate the diabetes care integral program

Regional Diabetes Care Centers. Cuba 2010

■ **ACTIVITIES:**

- Day Hospital (weekly admission)
 - Open Diabetes clinic for counseling to patients & families
 - Diabetes Education Courses (weekly)
 - Consults of diabetes (diabetologist, podiatrist, dietitian)
 - Consults of specialties related to diabetes complications
 - Ophthalmology, Nephrology, Angiology (Vascular Surgeon),
etc.
-

Regional Diabetes Care Centers. Cuba 2010

■ **ACTIVITIES (2):**

- ❑ Biochemistry laboratory facilities
 - ❑ Training courses for physicians, nurses, dieticians, educators, social workers, etc.
 - ❑ Advisory visits to polyclinic diabetes units
 - ❑ Support the diabetic and pregnancy program
-

Optimal options for level of diabetes care according to WHO 1995, comparing to Cuba 2010

Level	WHO	CUBA HEALTH SYSTEM
Primary Care	Diabetes Team A physician & a professional educator	Diabetes Team: Family Doctor & Family Nurse (Out- patient clinic) +
		Polyclinics with DIABETES UNIT : A family doctor trained in diabetes & nurses, plus podiatrist, access to rehabilitation, psychologists & visited by endocrinologists, nephrologists & ophthalmologists, - Biochemical laboratory and Rx facilities

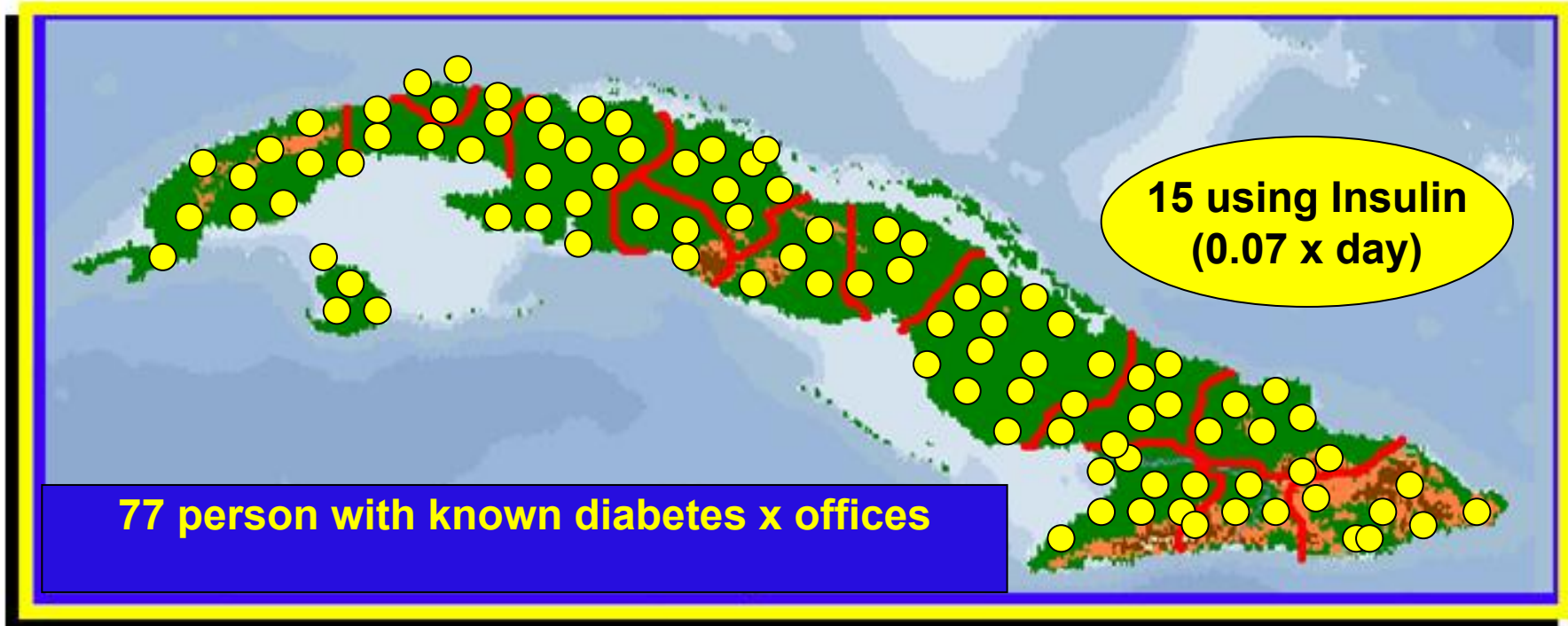
Optimal options for level of diabetes care according to WHO 1995, comparing to CUBA 2010

Level	WHO	CUBAN HEALTH SYSTEM
Secondary Care	DIABETES UNIT	<p>A- DIABETES CENTER</p> <ul style="list-style-type: none"> 1- Diabetes day hospital 2- Daily outpatient services for diabetics, Endocrinologists & other specialties related to (podiatrist, ophthalmologists, dieticians,) 3- Laboratory services, 4- Courses for people with diabetes and family
		<p>B- MUNICIPAL HOSPITAL</p> <ul style="list-style-type: none"> 1- To be admitted person with diabetes with complications and concurrent diseases . Ex: diabetics coma, pneumonia, infections, etc.

Optimal options for level of diabetes care according to WHO 1995, comparing to CUBA 2010

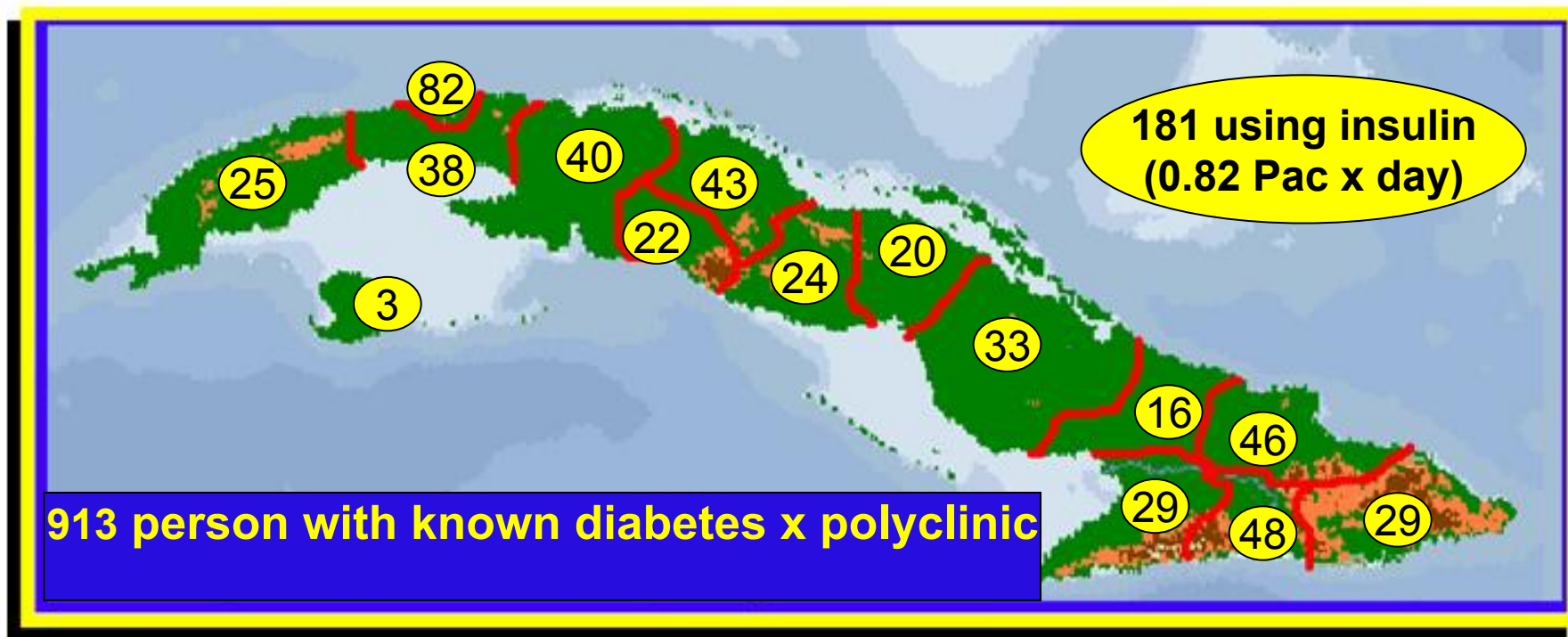
Level	WHO	CUBAN SYSTEM
Tertiary Care	DIABETES CENTER	NATIONAL HOSPITALS Outpatient & In-patients Services for severe diabetes complication
		NATIONAL INSTITUTES OF HEALTH Endocrinology. Nephrology, Ophthalmology, Angiology & Vascular Surgeon, Cardiology. Neurology. Complex cases.

NETWORK OF FAMILY DOCTOR (SPECIALISTS IN INTEGRAL GENERAL MEDICINE) & NURSES OUTPATIENT OFFICES



SPECIALISTS IN INTEGRAL GENERAL MEDICINE & NURSES OUTPATIENT OFFICES	5 914
Person REGISTERED AS DIABETICS	454 568

NETWORK OF POLYCLINIC WITH UNIT FOR INTEGRAL CARE TO PERSONS WITH DIABETES (2010)



POLYCLINICS WITH DIABETES UNITS
Person REGISTERED AS DIABETICS

498
454 568

Diabetes Care Center in Granma (Bayamo). CUBA

Inaugurated in 2007 (Joint Project Cuban Ministry of Public Health and the World Diabetes Foundation to complete the network of Diabetes Care Center in Cuba)

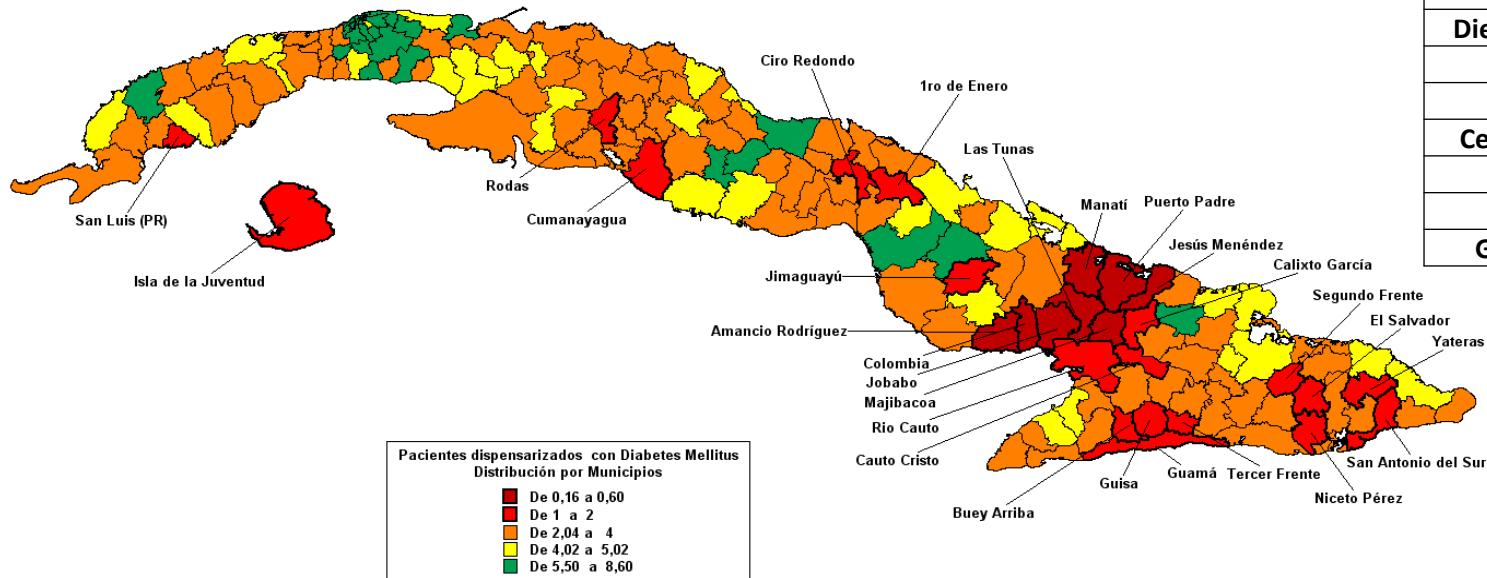
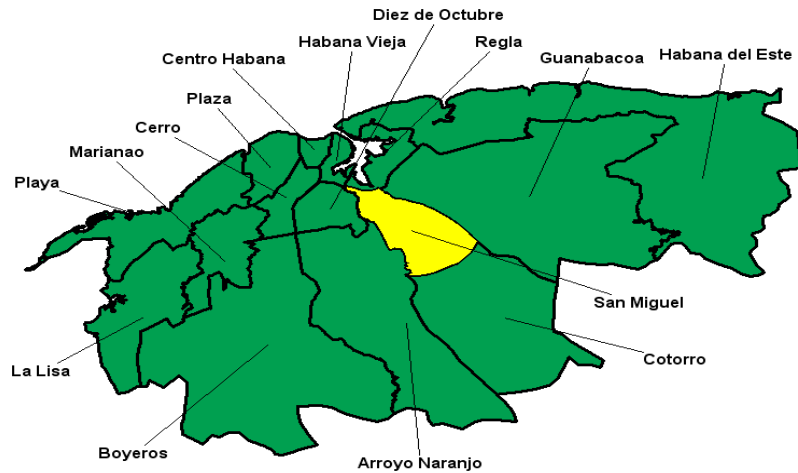


The network of Regional Diabetes Care Centers

Annual services delivery (17)

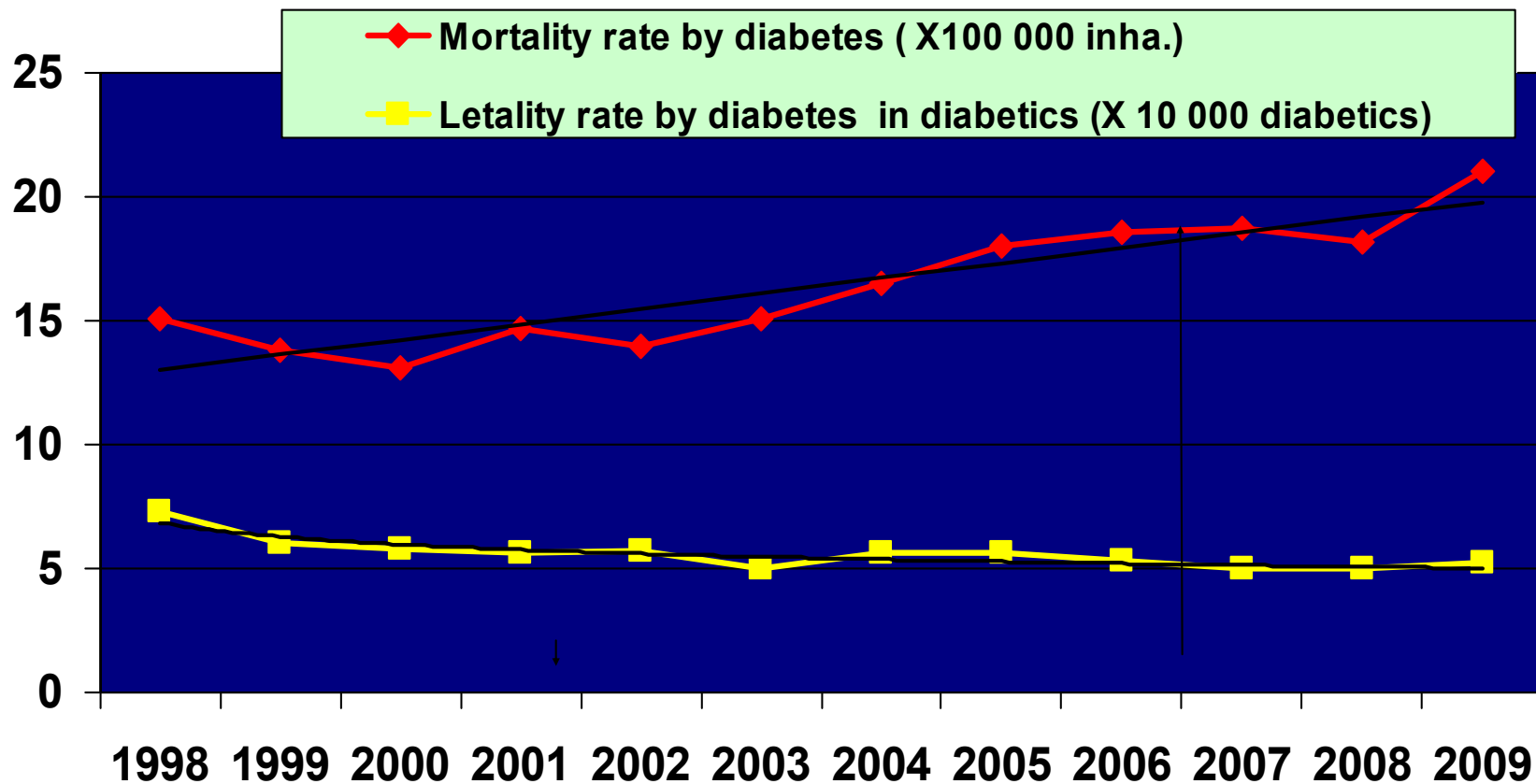
	Number of patients x year
Counseling and advise consults	102 000
Consults of diabetes	81 600
Consults of other specialties	61 300
Patients attended to Day Hospital	12 240
Patients whom received only courses	10 240
Non medical consults	40 800
Total received services	308 180
Total Biochemistry lab tests	318 000
Total family doctors & nurses trained in diabetes with diploma	1 100

Person with diabetes registered in the Primary Health Areas (Polyclinics in all the country municipalities. 2009



Boyeros	5.05
Cabaiguan	5.10
Matanzas	5.17
Arroyo Naranjo	5.17
Fomento	5.23
M Matahambre	5.29
Jaruco	5.31
La Lisa	5.58
Cerro	5.62
Cotorro	5.85
Playa	5.88
Holguín	6.01
Florida	6.17
Yaguajay	6.12
San J las Lajas	6.34
Habana del Este	6.47
Camagüey	6.59
San A Baños	6.55
Marianao	6.78
Habana Vieja	6.77
Bejucal	6.98
Diez de Octubre	7.06
Güines	7.26
Batabanó	7.32
Centro Habana	7.34
Plaza	7.32
Regla	7.81
Guanabacoa	8.62

CRUDE MORTALITY RATE BY DIABETES & CRUDE LETALIDAD RATE BY DIABETES. CUBA 1997-2009



SOURCE: STATISTICS NATIONAL DIRECTION. MINISTRY OF PUBLIC HEALTH

DIABETES MORTALITY RATE IN THE AMERICAS 2009

	ADJUSTED MORTALITY RATE ACCORDING TO THE WORLD POPULATION STRUCTURE		
	MEN	WOMEN	BOTH SEX
AMÉRICA+	30.9	30.8	30.3
NORTH AMERICA *	17.8	14.6	16.1
USA	17.9	14.7	16.2
LATIN AMERICAN & CARIBBEAN	37.4	40.8	39.1
MEXICO **	77.8	81.9	80.0
CENTRAL AMÉRICA	33.6	43.3	38.5
LATINO CARIBBEAN	22.3	25.9	24.1
CUBA	9.1	15.2	12.3
CARIBBEAN NON LATINO*	79.1	75.8	77.2
ANDEAN AREA	26.7	29.4	28.0
BRASIL	28.3	32.7	30.5
CONE SUR **	24,2	21.1	22.4

SOURCE: PAHO. AMERICA HEALTH ANALISIS & INFORMATION HEALTH SITUATION IN AMERICAS .BASIC INDICATORS 1008. WASHINGTON.. DC. USA. 2009.

■ CONCLUSIONS

- To set up a regional network of Diabetes Care Centers (DCC) in an underdevelopment country is possible .
 - The role of DCC are important in the national system of health and generates horizontal expansion.
 - DCC contribute directly and through human resource training, impact on the main indicators of diabetes in the country.
 - DCC could be a new possibility to cope the growing public health problem of diabetes in the region
-

Cuba



MUITO OBRIGADO