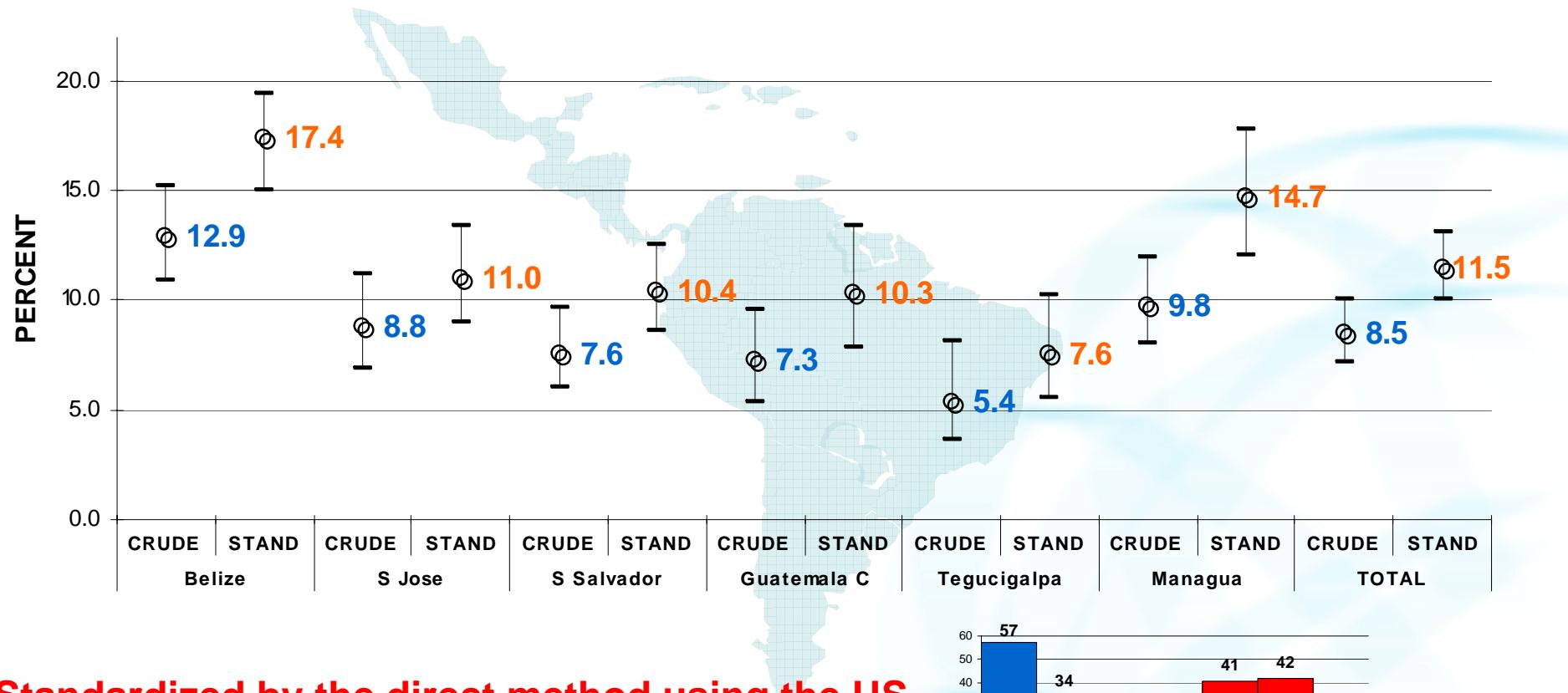
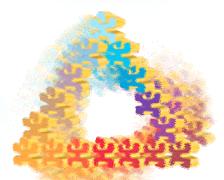
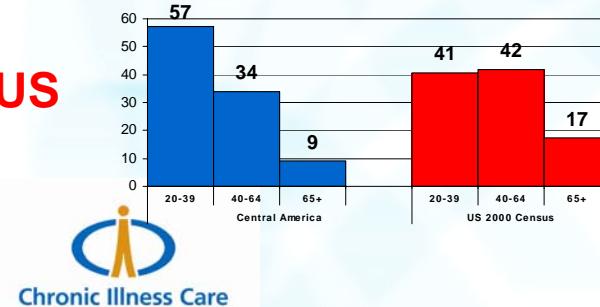


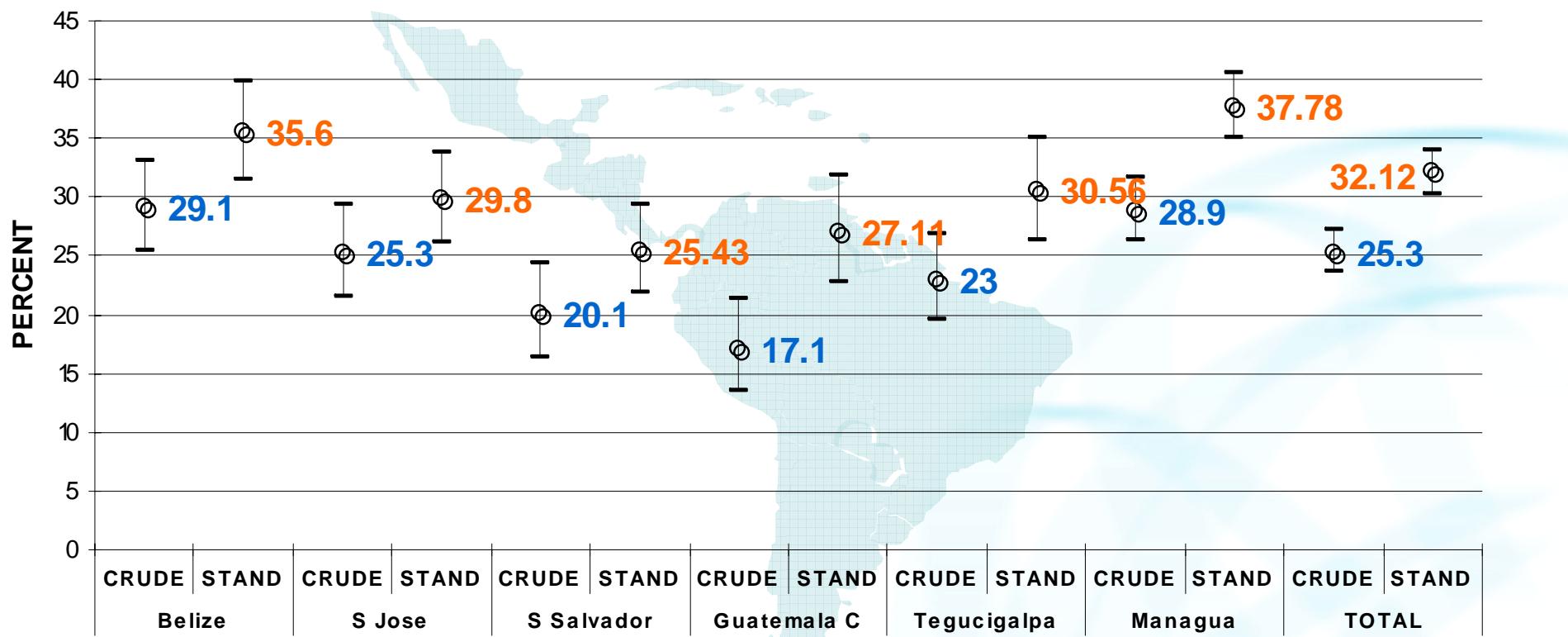
# Crude and Standardized Prevalence (%, 95%-CI) of Diabetes by site. The CAMDI Survey, 2002-2005



**Standardized by the direct method using the US 2000 Census population as standard**

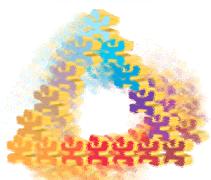


# Crude and Standardized Prevalence (%), 95%-CI) of Hypertension by site. The CAMDI Survey, 2002-2005



**Standardized by the direct method using the US  
2000 Census population as standard**





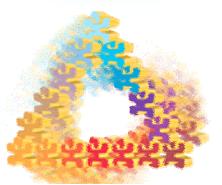


Pan American  
Health  
Organization

Regional Office of the  
World Health Organization

Cuidados Crónicos

Chronic Illness Care



# Proportion of participants (%) with diabetes reporting the use of specific medication

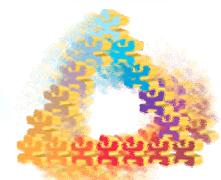
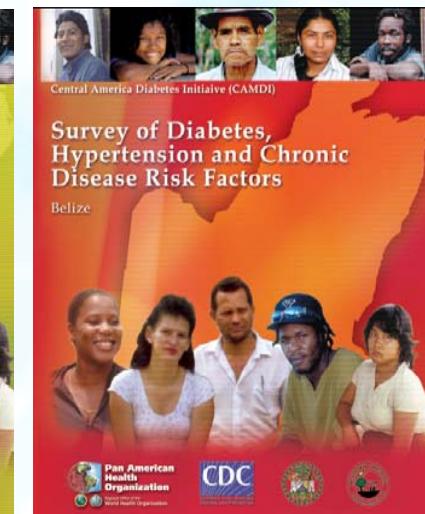
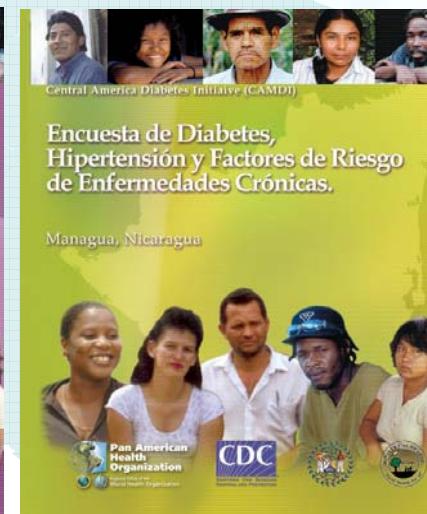
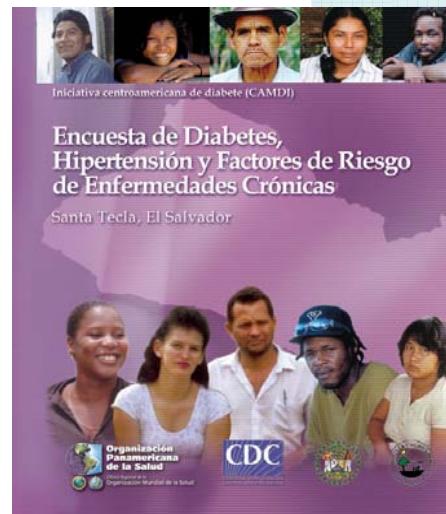
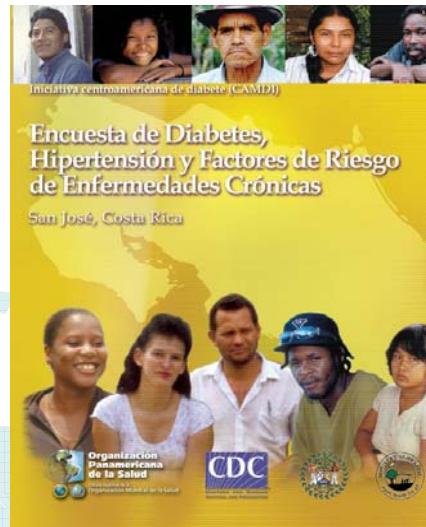
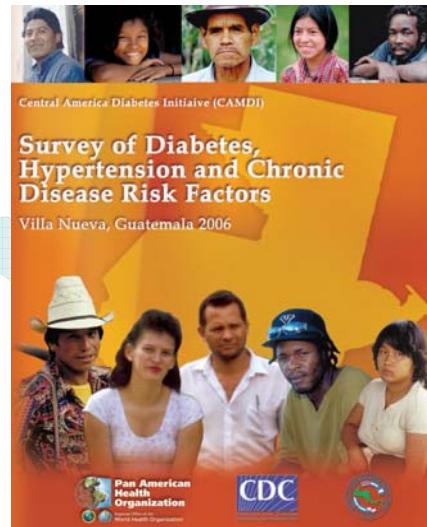
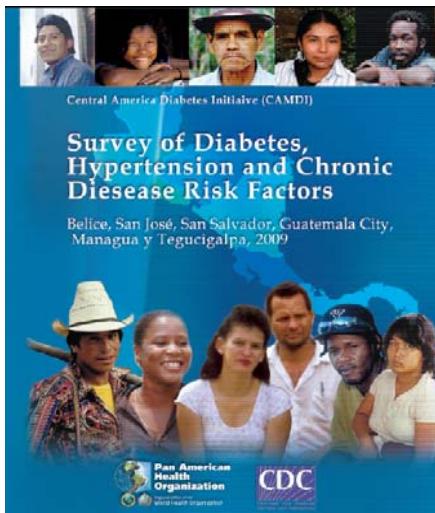
Medicines	Belize	San Jose	San Salvador	Guatemala City	Tegucigalpa	Managua	Total
<b>Among those with Diabetes</b>							
n	299	110	108	85	62	118	782
Insulin	8.2	19.1	4.3	7.0	17.6	11.0	14.1
Sulfonilureas	30.4	38.3	46.3	50.2	56.6	73.1	50.5
Metformin	26.6	29.0	24.3	9.9	18.7	1.3	18.5
Diuretics	2.7	9.6	.9	1.1	14.8	0.0	5.8
Ca Blockers	5.1	10.9	11.7	1.2	12.3	0.0	6.9
Alpha Agonist	.4	3.2	3.7	0.0	1.1	1.3	2.0
Beta Blockers	5.0	26.0	3.6	0.0	1.1	0.0	11.2
ACE Inhibitors	14.7	21.0	9.9	17.5	37.7	33.4	25.0
Aspirin	2.2	7.5	6.0	*	0.0	0.0	3.5
Statins/Fibrate	1.9	4.6	8.6	3.8	4.6	1.3	3.6
Total treated	54.1	76.1	62.5	63.5	84.7	79.0	74.3



# Proportion of participants (%) with hypertension and hyper cholesterololemia reporting the use of specific medication

Medicines	Belize	San Jose	San Salvador	Guatemala City	Tegucigalpa	Managua	Total
<b>Among those with Hypertension</b>							
n	568	302	388	203	229	383	2,073
Diuretics	3.8	22.1	6.8	4.0	9.3	0.2	9.9
Ca Blockers	3.8	22.1	6.8	4.0	9.3	0.2	9.9
Alpha Agonist	3.8	22.1	6.8	4.0	9.3	0.2	9.9
Beta Blockers	4.6	37.7	9.3	5.6	9.9	3.7	16.6
ACE Inhibitors	22.1	35.7	29.6	24.8	40.5	54.4	40.7
Aspirin	2.8	11.3	5.6	*	0.0	0.8	4.6
Statins/Fibrate	1.8	2.6	4.3	10.0	11.1	1.2	3.9
<b>Total treated</b>	<b>26.3</b>	<b>47.7</b>	<b>42.8</b>	<b>34.9</b>	<b>51.3</b>	<b>42.6</b>	<b>44.2</b>
<b>Among those with Hyper Cholesterolemia</b>							
n	365	-	394	182	332	234	1,507
Statins/Fibrate	5.8	*	5.6	8.2	6.0	4.3	5.8





# Building Blocks in Diabetes Education and Control



## Algoritmos para la prevención, diagnóstico, tratamiento y seguimiento de la Diabetes y sus complicaciones

### Escenario 1

#### Diagnóstico y clasificación de Diabetes Mellitus en el adulto

**Observar:**  
Estado general  
- Hidratación

**Determinar:**

- Peso y talla (IMC)
- Presión arterial
- Glucemia

**Síntomas y Signos:**  
Polidipsia, poluria, pérdida de peso, polifagia, visión borrosa, disuria, punto genital o dérmico, paroxismos y/o parestesias. Síntomas de infección urinaria, candidiasis, hipotensión.

Evaluar factores de riesgo (FR):  
Edad > 45 años, IMC > 25 kg/m<sup>2</sup>, dislipidemias, antecedente de glucemia alterada o Diabetes, tabaquismo

Medir glucemia y evaluar signos de deshidratación y cetoacidosis

GLUCEMIA AYUNAS >100 mg/dl  
Remitir al siguiente

Glucometría casual < 200 mg/dl;  
De ayunas < 100 mg/dl

Iniciar hidratación con suero fisiológico.  
Referir con URGENCIA al segundo nivel



Cuidados Crónicos

### Escenario 2

#### Diagnóstico y clasificación de Diabetes Mellitus en el adulto

**Observar:**

- Estado general

- Hidratación

**Determinar:**

- Peso y talla (IMC)

- Presión arterial

- Hemograma completo

- Hemoglobina glucosilada

- Colesterol (HDL/LDL)

**Síntomas y Signos:**

Polidipsia, poluria, pérdida de peso, polifagia, visión borrosa, disuria, punto genital o dérmico, paroxismos y/o parestesias. Síntomas de infección urinaria, candidiasis.

Evaluación de factores de riesgo (FR):  
Edad > 45 años, IMC > 25 kg/m<sup>2</sup>, dislipidemias, antecedente de glucemia alterada o Diabetes, tabaquismo

Medir glucemia y evaluar signos de deshidratación y cetoacidosis

Glucometría > 200 mg/dl,  
algun grado de deshidratación  
Glicosuria y cetonuria positivas; Cetoacidosis

Re-evaluar al año si FR +  
a los 2 años si FR -

Iniciar hidratación con suero fisiológico.  
Referir con URGENCIA al segundo nivel

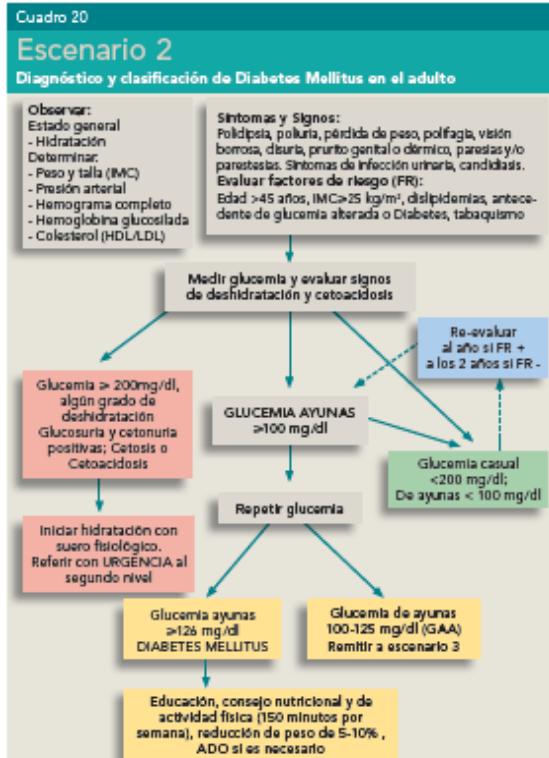
GLUCEMIA AYUNAS >100 mg/dl  
Repetir glucemia

Glucometría casual < 200 mg/dl;  
De ayunas < 100 mg/dl  
Iniciar hidratación con suero fisiológico.  
Referir con URGENCIA al segundo nivel

Glucemia ayunas >126 mg/dl  
DIABETES MELLITUS

Glucemia de ayunas  
100-125 mg/dl (GAA)  
Remitir a escenario 3

Educación, consejo nutricional y de actividad física (150 minutos por semana), reducción de peso de 5-10%, Metformina si GAA-TGA combinada más otro factor de riesgo de Diabetes (obesidad, hiperlipidemias, hipertensión, historia de glucemia >126 mg/dl)



### Cuadro 21

#### Escenario 3

#### Diagnóstico y clasificación de Diabetes Mellitus en el adulto

**Observar:**

- Estado general

- Hidratación

**Determinar:**

- Peso y talla (IMC)

- Presión arterial

- Hemograma completo

- Hemoglobina glucosilada

- Colesterol (HDL/LDL)

- Triglicéridos

- Urea

- Creatinina sérica

- Peptido C

**Síntomas y Signos:**

Polidipsia, poluria, pérdida de peso, polifagia, visión borrosa, disuria, punto genital o dérmico, paroxismos y/o parestesias. Síntomas de infección urinaria, candidiasis.

Evaluación de factores de riesgo (FR):

Edad > 45 años, IMC > 25 kg/m<sup>2</sup>, dislipidemias, antecedente de glucemia alterada o Diabetes, tabaquismo

Medir glucemia y evaluar signos de deshidratación y cetoacidosis

Glucometría > 200 mg/dl,

algun grado de deshidratación  
Glicosuria y cetonuria positivas; Cetoacidosis

Re-evaluar al año si FR +  
a los 2 años si FR -

100-125 mg/dl GLUCEMIA EN AYUNAS ALTERADA

Iniciar hidratación con suero fisiológico. Referir con URGENCIA al segundo nivel

Glucometría en Ayunas >126 mg/dl o

PTG-2h > 200 mg/dl  
DIABETES MELLITUS

Educación, consejo nutricional y de actividad física (150 minutos por semana), reducción de peso de 5-10%, Metformina si GAA-TGA combinada más otro factor de riesgo de Diabetes (obesidad, hiperlipidemias, hipertensión, historia de glucemia >126 mg/dl)

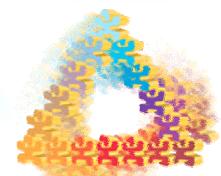
PTG-2h < 140 mg/dl  
TOLERANCIA A LA GLUCOSA ALTERADA  
PRE-DIABETES MELLITUS

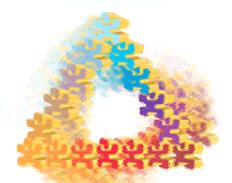
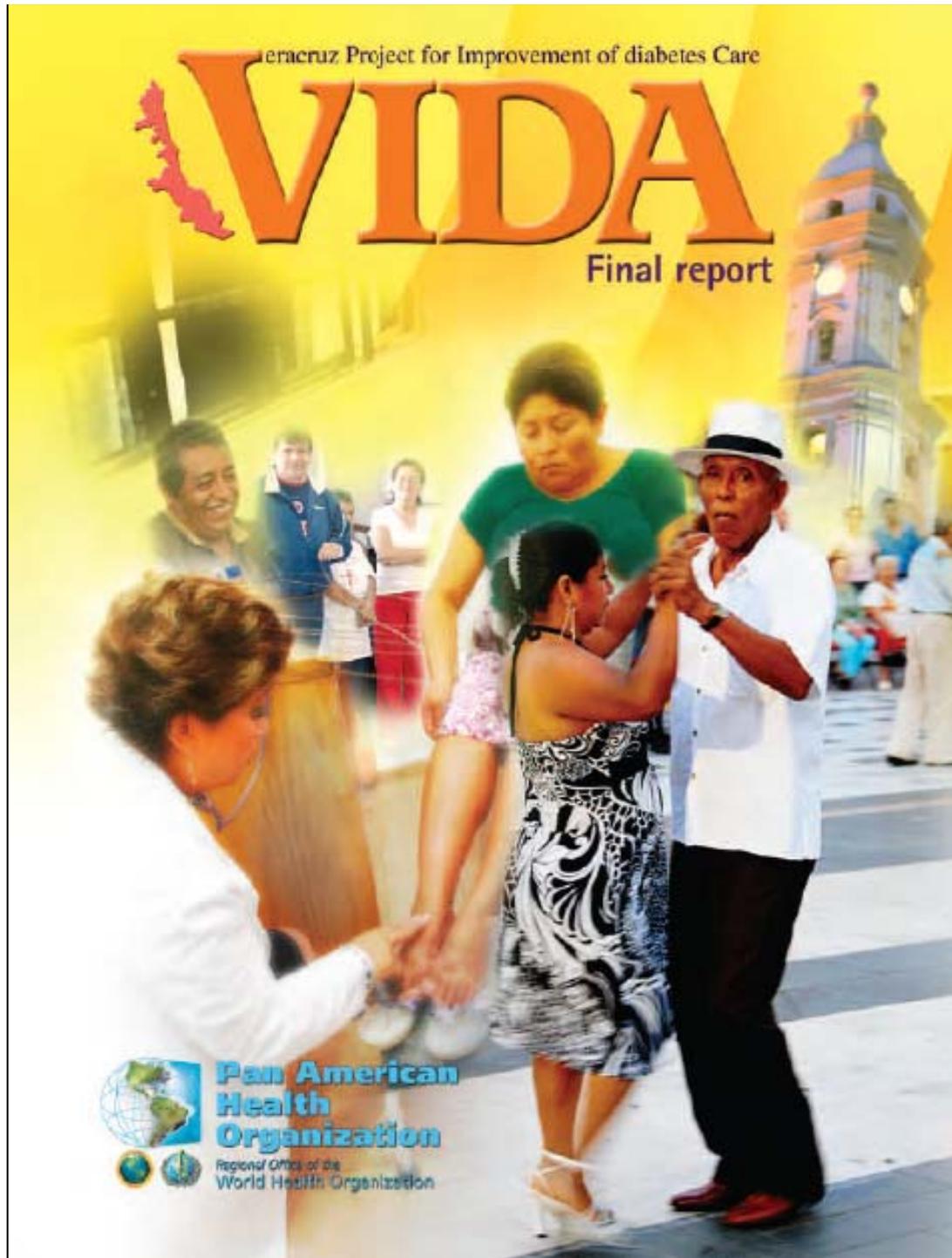
Glucometría casual < 200 mg/dl;  
De ayunas < 100 mg/dl

Educación, consejo nutricional y de actividad física (150 minutos por semana), reducción de peso de 5-10%, ADO si es necesario

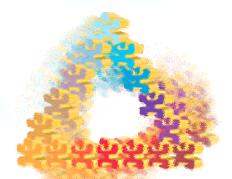


Chronic Illness Care

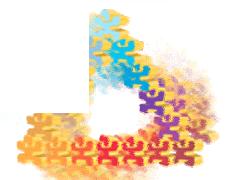
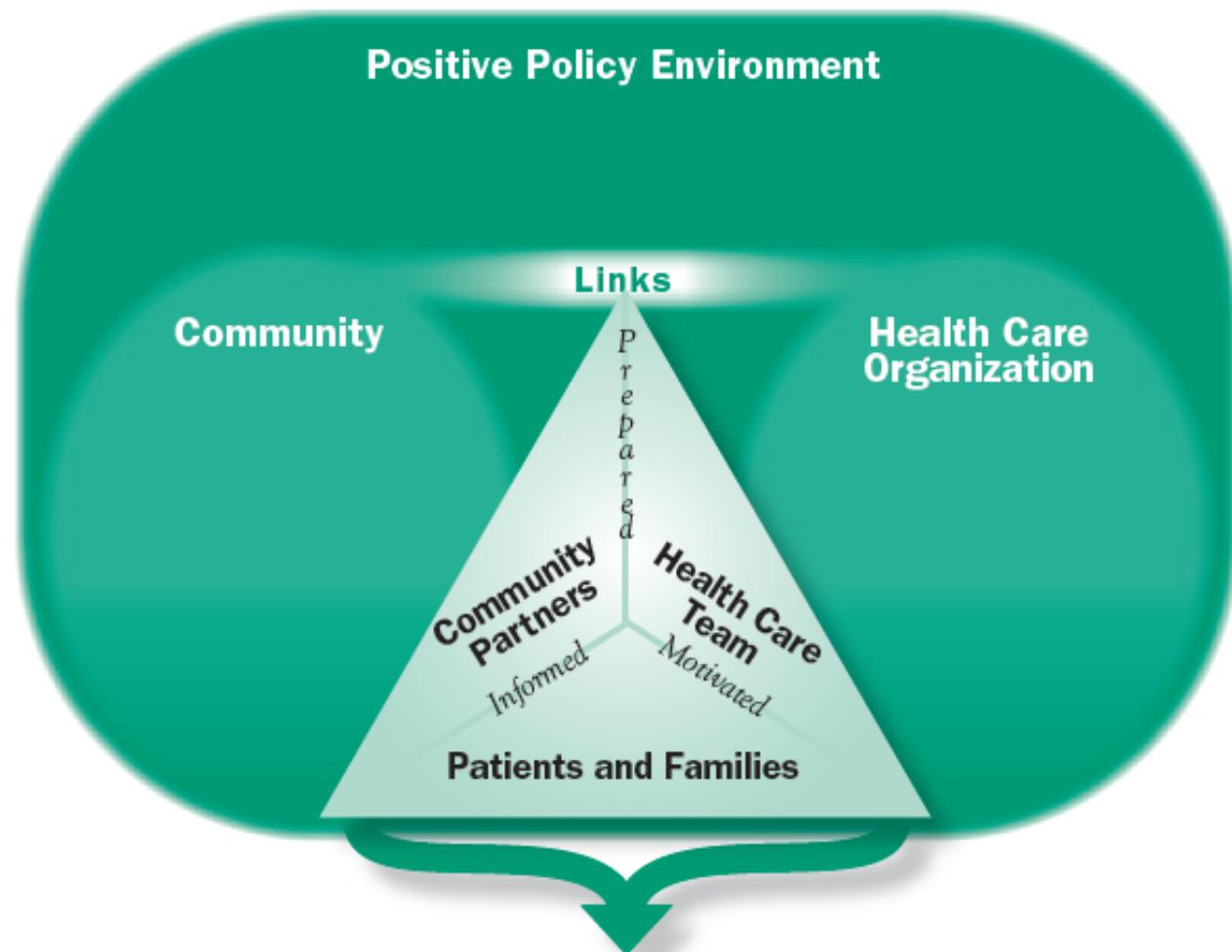




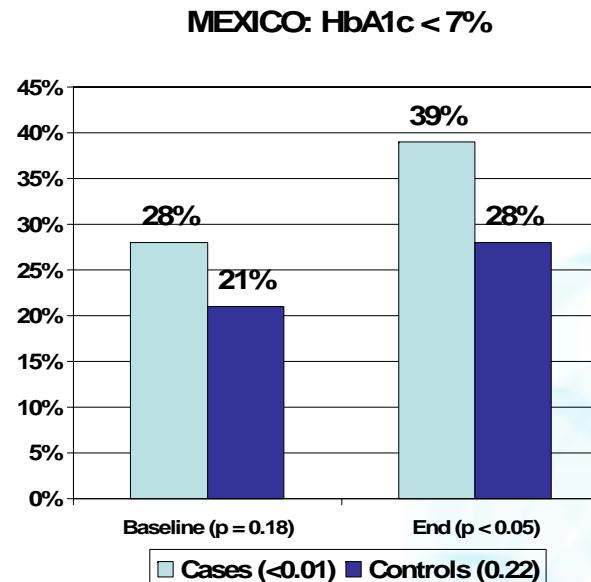
# Chronic care model



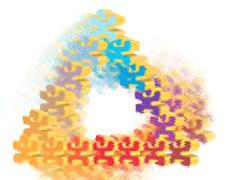
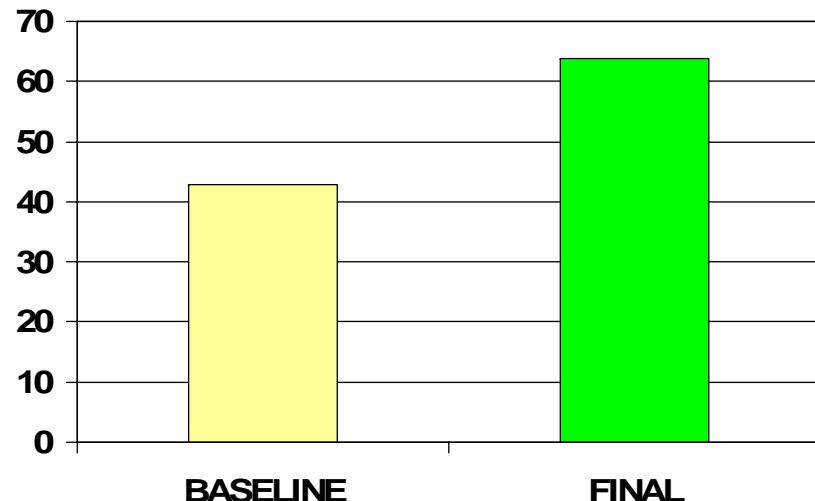
## Innovative Care for Chronic Conditions Framework



# INTERVENTION RESULTS FROM DEMMOSTRATION SITES IN MEXICO & COSTA RICA



## COSTA RICA A1c<7





**Second Learning Session**  
Veracruz, 26-28 November, 2003

During the Second Learning Session (LS2), several meetings with national and international experts were held. These experts addressed the different components of the Chronic Care Model. The participants formed working groups to discuss methodological aspects of the intervention. They reported on the objectives used for the improvement cycles and their results during Action Period I. The working groups decided on the objectives and the activities to develop during Action Period II. Clinical training conferences on endocrinology and the diabetic foot were held by national experts. The health centers created posters that reflected the advances achieved in diabetes care in their units during Action Period I. Evaluations of the Chronic Care Model carried out during the previous learning session were presented and the characteristics of the components of the Chronic Care Model and the improvement cycles were discussed.

**Experience**

**Physical Activity**

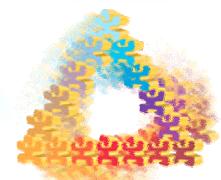
Physical activity and health have a major impact on cardiovascular and metabolic risk factors. In type 2 diabetes mellitus, there have been major benefits connected to good nutrition.

As another strategy in the treatment of type 2 diabetes, the Exercise Program for the Care of Health (known in Mexico as PROESA, el Programa de Ejercicios para el Cuidado de la Salud) was utilized with members of the support groups through the following:

- Evaluation of the physical capability of exercise, through the application of the cardiovascular response to physical activity and low-impact exercise
- Evaluation of flexibility and joint elasticity
- Evaluation of the muscular strength of arms, legs, and abdomen
- Skin fold measurement

In the support groups that participated in the VIDA project, it was possible to implement the physical activity program as a part of the non-pharmacological treatment. The impact of physical activity in the patients who frequently participated in it was reflected in better metabolic control of fasting blood glucose and, in the long-term, according to the measurement of glycosylated hemoglobin (A1c).

Veracruz Project for the Improvement of Diabetes Care (VIDA); Final Report 13



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