Texas A&M – School of Public Health - McAllen Campus

Efforts at Population-wide Prevention of Diabetes

Ann V. Millard Ph.D.
Preventing Obesity will Prevent Diabetes

Good nutrition + Sufficient exercise
---Prevent & Reverse Type 2 Diabetes
(in 70% - 80% of cases)

“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”
Type 2 Diabetes
(aka Diabetes Mellitus or Adult-onset Diabetes)

Diabetes cases\(^\text{a}\):
5-10%, Type 1 (genetically determined)
90-95%, Type 2 (genetics, obesity, poor nutrition, low exercise level)

Type 2: main cause of blindness, non-traumatic leg amputations, kidney dialysis

Kidney dialysis 3 times/wk., $89,000 to $190,000/yr.

\(\text{a. NIDDK}\)
Collective Impact

“Large-scale social change requires broad cross-sector coordination, yet the social sector remains focused on the isolated intervention of individual organizations.”

Collective efforts across the lifespan in the valley

WIC Program: **Lactation Center** open to all women to breastfeeding
SKiP (School Kids & Play)

Created a School Park at Elementary Schools

- Public access to school playground after hours and on weekends
- Walking trail, playground equipment
- Increased physical activity during the school day
SKiP

Message to students & parents: increase physical activity to improve health & academic achievement; no message about obesity
Walking Trail Plan: Phases 1 & 2
Installed at existing playground
Ribbon Cutting Ceremonies and the Walking Trail at the two Elementary Schools
Award for Excellence in Texas School Health to Albert Lopez, Coordinator of School Health Services, ECISD, 2012
Bike Path Development from South Middle School (South, at left) to Cano St. (North, at right)
Gil Penalosa presentations, meetings with Community Members, Mayor, City Council members, School Board members, UTPA students
Off-road bike path
Early Prevention of Diabetes among Adults & Families in Colonias
Pilot Program – intervention and comparison groups
Weekly meetings (women, average age 35, obese on average)
Participatory lessons in healthy eating and exercise
Pedometers, daily recordings, walking groups
Celebratory meal at the end of 8 weeks

Results

• Intervention group: Statistically significant decline in body mass index (BMI)
• Control group: no difference in BMI

2015-2017: Continue in Weslaco area
People in colonias will take ownership of a culturally & economically appropriate program
A community-based participatory project can prevent obesity & thus, diabetes
Can active lifestyles become part of local valley culture?

Oaxaca City: Physical Activity in Public Space for Fun

~ 75 people in a group riding bicycles through the Zocalo
Oaxaca City, Zocalo

Evening Strolls to Music

Families & Balloons
Our typical approaches for addressing obesity are reaching their maximum effectiveness; we need a new paradigm:

• Go to the gym  →  Physical activity in daily tasks
• Go on a diet  →  Change way we eat
• Change your body  →  Change our mind
• Don’t do this  →  Do that
• Individual discipline  →  Policy innovations, culture change

Adapted from Brett McIff, Ph.D., Utah Department of Health
PULGA DE ALAMO, PUESTO 1125-1126, cada domingo, 9 a.m.-1 p.m.

ESTAR EN LA CUERDA FLOJA

COMO HACER PARA QUE NO SE CAIGA

LA DIABETES SE PUEDE PREVENIR

MÁS VALE PREVENIR

NORMAL MENOS DE 5.7%

PRE-DIABETES A1C 5.7% - 6.4%
CDC Working on Wellness Project

• Public Health + AgriLife Extension
• Grant program for counties with obesity: 40 %+
• 4 communities in Hidalgo County:
  Weslaco
  southwest McAllen
  San Carlos
  Penitas

Build & empower community coalitions
Improve Policy shaping Access to Healthy Food & Physical Activity

• Cost (in cash and in kind)
• How long does policy change take?
• Who decides?
• How long does implementation take?
• Is change sustained?
Walk to School

No Cost; Instant change

Low Cost; Quick to Start; Requires Personnel to Start & Sustain

Community Walking Program

Walk to School

Repairs require budget & time
THANKS!
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