

COST-EFFECTIVENESS OF A COMMUNITY-BASED, DIABETES PREVENTION PROGRAM TARGETING A LOW SES MEXICAN-ORIGIN POPULATION

THE INTERVENTION: BEYOND SABOR

- What: 12-week community-based program
- Goal: To reduce behavioral risk factors associated with overweight, obesity, diabetes, and cardiovascular disease.
- Specific Aims: To reduce or maintain BMI, modify current dietary and cooking practices, and increase physical activity
- Location: 16 intervention sites / 16 control sites in Lower Rio Grande Valley of South Texas
- Target Population: Mexican-origin adults overweight / obese or at-risk

Weekly classes met for 2 hours each including:

- Provision of information about obesity, diabetes, risk factors (*20-minutes*)
- Cooking demonstration & food sampling (*60-minutes*)
- Group physical activity (*40-minutes*)
- Follow-up healthy action reminder postcards and newsletters

Data Collected

- 3 time points: Baseline, end of intervention and 6-7 month follow-up
- Height, weight, blood pressure, cholesterol, triglycerides, FPG
- Demographic information
- 24-hour food and activity recall used sample containers to increase accuracy of quantities consumed

COST-EFFECTIVENESS ANALYSIS METHODS

- Societal perspective taken in calculating intervention costs
- Administrative and evaluation-related costs were *not* included because cost-effectiveness is concerned with the cost to achieve outcomes if a program's activities were to be replicated.
- Commercial modeling program used to project health care cost differentials and QALYs gained for the intervention group and a simulated matched control group receiving "standard care."
 - Sample created from demographic and physiologic data collected at baseline.
- Two simulation trials:
 - Portion of sample losing at least 2% weight
 - Portion of sample losing at least 5% weightbetween baseline and 6-7 month follow-up
- Direct intervention costs calculated manually and added to discounted health costs to determine cost-effectiveness ratio numerator.
- 3% discount rate applied to costs and quality-adjusted life years (QALYs)
- Outcomes projected to 5, 10 and 20 years
- Outcomes segmented by weight class at baseline: normal, overweight, obese, morbidly obese to assess weight-specific differences in cost-effectiveness
- Sensitivity analysis: projected long-term weight loss based on changes in sugar-sweetened beverage (SSB) consumption using a validated formula from Wang et al., 2012.

REFERENCE

Wang YC, Coxson P, Shen Y-M, Goldman L, Bibbins-Domingo K (2012). A Penny-Per-Ounce Tax on Sugar-Sweetened Beverages Would Cut Health and Cost Burdens of Diabetes. *Health Affairs*, 31(1): 199-207.