

Title of Intervention: The Pawtucket Heart Health Study

Intervention Strategies: Campaigns and Promotions, Provider Education, Group Education, Individual Education, Supportive Relationships, Environments and Policies

Purpose: To modify cardiovascular disease risk factors to reduce cardiovascular morbidity and mortality

Population: Blue-collar community

Setting: Suburban Pawtucket, Rhode Island; school-based, worksite-based, faith-based, community-based

Partners: Local hospital, health agencies, schools, worksites, community organizations and businesses, churches, newspapers, television stations, grocery stores, restaurants, radio stations, local physicians, parade organizers

Intervention Description:

- Campaigns and Promotions: The “Look for Labels” healthy eating campaign included posters, taste samples and recipe cards. The “Rate your Plate” healthy eating campaign featured restaurants with healthy options on the radio and on posters. The “Lighten Up” weight loss contest awarded prizes for successful weight loss. Recipe cook-off contests challenged participants to prepare healthier versions of recipes. Labels were placed in grocery stores near items that were low-fat, low-sodium, both, and/or had a healthy fat ratio. The “Know your Cholesterol” campaign targeted men with high risk for cardiovascular disease with mailings, screening, counseling and referrals. A six-week local newspaper column was written regarding cholesterol knowledge and program promotion. The “Quit and Win” program offered incentives for successful tobacco cessation. A regular column was written for the local newspaper to inform, motivate, teach, reinforce and promote the program. Short articles were also placed in numerous church, company and organization publications. Coupons for cholesterol tests at screening, counseling and referral events (SCORES) were passed out at the local St. Patrick's Day parade. Program announcements, healthy cooking demonstrations and behavior change programs were delivered on free public access television. Community-wide weigh-ins were held.
- Provider Education: Risk factor-related materials were sent to 300 local physicians to help them counsel at-risk patients. Risk factors included nutrition, physical activity, tobacco, cholesterol and blood pressure.
- Group Education: Small weight loss education groups were formed both in the community and at worksites.
- Individual Education: Participants were given self-help materials. They were urged to obtain a follow-up measure of risk factors after attempts at behavior modification were made.
- Supportive Relationships: SCORES events provided on-the-spot counseling sessions.
- Environments and Policies: SCORES screened participants for risk factors like weight, blood pressure or cholesterol. The SCORES events increased access to screening activities.

Theory: Social Action, Social Learning Theory, Collective Efficacy

Resources Required:

- Staff/Volunteers: Lay community volunteers
- Training: Training for lay volunteers, training for store employees to promote healthy foods, SCORES training (three 1.5-hour sessions) for employees on how to measure blood pressure and guidelines for counseling and referrals in worksites
- Technology: Media creation technology, audiovisual equipment
- Space: Meeting space for program activities, space for SCORES events
- Budget: Not mentioned
- Intervention: Posters, banners, bumper stickers, contest prizes, recipe books, pamphlets and other mailings; blood pressure, weight, and cholesterol measurement tools; weight loss kits; radio and print messages; mobile SCORES units; radio and TV time (free public access); newspaper space
- Evaluation: Call center manned by volunteers; contact cards; blood pressure, weight, and cholesterol measurement tools; questionnaires/surveys; telephones

Evaluation:

- Design: Quasi-experimental design
- Methods and Measures:
 - Community:
 - Content analysis of newspapers to track health-related articles
 - Annual reviews with health agencies to document trends for heart disease risk factors
 - Morbidity and mortality rates of heart disease and stroke assessed via a systematic hospital record abstraction process and EKG recoding for all related hospital discharges
 - Out of hospital deaths were reviewed and coded in a similar manner with information being obtained through telephone interview
 - Volunteer:
 - Questionnaires regarding socio-demographic information, reasons for volunteering, medical history and skills/experiences
 - Face-to-face volunteer interviews
 - Individual:
 - Contact cards completed by all individuals who participated in any intervention activity to determine participation rates as well as the socio-demographic makeup of participants of different activities
 - Telephone interviews with participants who completed cards to assess immediate (4-6 weeks) and long-term (6-12 months) changes in risk factor status, behavior and knowledge relating to heart disease
 - Baseline data on behaviors (e.g., tobacco, nutrition, physical activity) and knowledge of heart disease was obtained from telephone interviews with adults
 - Sample of population completed step test to measure oxygen uptake
 - Diet assessed by questionnaire
 - Total cholesterol, systolic/diastolic blood pressure, smoking %, BMI, and projected heart disease rates were all measured through screening at baseline, during intervention, post intervention, and 8-9 years later
 - Heart disease knowledge, smoking status, BMI, diabetes status, cholesterol, alcohol use, exercise behavior, postmenopausal hormone use, antihypertensive use, beta-blocker use, and lipid lowering drug use were all measured by telephone questionnaire every 2 years for 12 years

Outcomes:

- Short Term Impact: Heart disease and physical activity knowledge generally increased. There were no significant changes in total cholesterol, systolic/diastolic blood pressure or BMI. Estrogen and lipid lowering drug use increased, but antihypertensive and beta-blocker use did not change. Regular exercise increased. No significant changes were found for smoking. A subsample of people (ages 1-12 and 19+) who participated in community-wide weight loss programs showed significant reductions in body weight. Students with elevated cholesterol levels had significantly lower cholesterol levels after participating in a school-based heart healthy cook-off.
- Long Term Impact: The percentage of individuals with diabetes increased. No significant changes were found for heart disease rates.

Maintenance: Many of the intervention components were designed to be useable even after the 11-year study was over. Community lay health educators were responsible for a majority of the program activities.

Lessons Learned: The program experienced inertia and lack of concern for heart disease from the Pawtucket community. Many participants mentioned that the number and variety of intervention components was too complex and overwhelming.

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