INTERVENTION TABLE 25

School Wellness Policies (Physical Activity)

Source	Intervention Components	Study Design and Execution	Reach	Adoption, Implementation and Process Evaluation	Enforcement/ Sustainability	Impacts and Outcomes
United States						
Economos, Hyatt (2007); Goldberg, Collins (2009); Economos, Folta (2009) Massachusetts	Shape –Up Somerville – Expanded pedestrian safety and environmental policies ***OTHER INTERVENTION COMPONENTS:*** *Multi-component:* 1. School wellness & community policies to increase the availability of foods of low energy density (emphasis on fruits, vegetables, whole grains and low fat dairy) and decrease the consumption of foods high in fat through modification to the school food service (e.g., vegetarian recipes, salads made daily, fresh food available daily, ice cream available once per week, change in a la carte to meet nutrition standards) 2. Safe Routes to School [SR2S] (school maps, city ped/bike coordinator, bike racks in all elem. schools) 3. Policy change initiatives (Expanded pedestrian safety and environment policies, healthy meeting and event policies, and city employee fitness wellness benefit policies) *Complex:* 1. Class component: HEAT club in-class curriculum and after-school curriculum (26 lessons) 2. Parent/community outreach: Monthly newsletters, community events, local media outlets and parent forums; Shape Up approved restaurants (must meet criteria on fat, portion size, serving of F&V and healthy food options)	***DESIGN:*** Non-randomized trial ***DURATION:*** Sept. 2002 - Aug. 2005; data presented for the intervention period conducted over one school year ***SAMPLE SIZE:*** 1,178 children from 30 elementary schools in 3 communities -385 exposed, 561 unexposed A, 232 unexposed B ***PRIMARY OUTCOME:*** Overweight/obesity ***MEASURES:*** 1. Height and weight (body mass index [BMI]) 2. 68-item questionnaire (demographic and behavioral data) 3. Student surveys (attitudes) 4. Food service staff survey (impression of school food service, skills, knowledge) 5. Direct observation (menu changes) 6. Site visits to restaurants including evaluation surveys ***DATA COLLECTION:*** Questionnaires were mailed to parents /caregivers. Study personnel measured student height and weight and distributed surveys at baseline and after one year. Site visits were conducted 3-6 months after initial restaurant approval. ***LIMITATIONS:*** The study was controlled but not randomized; only a subset of the entire eligible population was followed-up due to failure to obtain parental consent for all eligible children.	Urban, 6-9 year olds (target population) Exposed - 49.6% White, 7.5% Black, 18.2% Hispanic, 9.1% Asian, 15.6% Other Unexposed A - 37.8% White, 25.1% Black, 11.8% Hispanic, 2.3% Asian, 13% Other Unexposed B - 51.7% White, 6.9% Black 22.8% Hispanic, 7.3% Asian, 11.2% Other Community demographics - 28-36% non-English speaking in the home, 12.5-14.5% living below the poverty level ***ELIGIBILITY:*** Study was presented to 4 communities. The first two socio-demographically matched cities that provided a written commitment to participate were chosen as controls. One other community was chosen as the intervention. Students had to have parental consent to participate. ***EXPOSURE/PARTICIPATION:*** All students in the intervention schools were exposed to the school environment changes; students near the SR2S routes (within 1/2 mile from school) were exposed to the SR2S component; community members visiting Shape-Up approved restaurants were exposed to the healthier menus. The parent newsletters reached 811 families and the community newsletters reached 353 community partners. A monthly media piece reached over 20,000 subscribers each month.	***LEAD AGENCY:*** The research team, schools, and community walking committee ***THEORY/FRAMEWORK:*** Not reported ***EVIDENCE-BASED:*** Not reported ***REPLICATION/ ADAPTATION:*** Not reported ***ADOPTION:*** Shape Up Somerville (SUS) Advisory Councils and various other community partnerships were formed. ***IMPLEMENTATION:*** The research team organized training for program leaders of after school programs, food service staff and teachers; developed/sent newsletters; organized community events; and worked with local restaurants to change menus. Schools delivered the curriculum component and changed foods offered in schools. A community walking committee hired pedestrian/bike coordinator and created/distributed SR2S maps. ***FORMATIVE EVALUATION:*** Interviews with key informants, 13 focus groups, and meetings which led to formation of SUS Advisory Councils. ***PROCESS EVALUATION:*** Measurement tools not specified	***RESOURCES:*** 1. Personnel/ funds/ time to carry out the intervention activities 2. Materials for community events 3. Materials to help recruit restaurants 4. Thermoplastic paint for sidewalks 5. Bike racks 6. Newsletters 7. Posters 8. Tabletop tents 9. Incentives for control schools 10. New kitchen equipment 11. Media placements 12. Pedestrian coordinator 13. SR2S maps ***FUNDING:*** Centers for Disease Control and Prevention, Blue Cross Blue Shield of MA, Inc., Blue Cross Blue Shield of MA HMO Blue, Inc., United Way of MA Bay, the United States Potato Board, Stonyfield Farm, Dole Food Company ***STRATEGIES:*** Research team helped the community secure $1.5 million from other funding sources to continue activities.	***OVERWEIGHT/OBESITY:*** 1. The average change in BMI z-score in the intervention community was -0.1307 (95% CI -0.1836, -0.0778, p=0.02) compared with control 1 and -0.1048 (95% CI -0.1541, -0.0555, p=0.02) compared with control 2 after controlling for baseline BMI z-score, sex, grade, age, race, primary language spoken at home, school and community. 2. When the controls were pooled, the average change in BMI z-score was -0.1005 in the intervention community compared with the control communities (p=0.001, 95% CI -0.1151, -0.0859), after controlling for the same covariates. ***POLICY CHANGE:*** 3. Various community-wide policies were developed including: school wellness policy, policies and union contract negotiations that led to enhancements of the school food service, expanded pedestrian safety and environmental policies, healthy meeting and event policy and a city employee fitness wellness benefit 4. 21 restaurants became Shape Up Approved.

Source	Intervention Components	Study Design and Execution	Reach	Adoption, Implementation and Process Evaluation	Enforcement/ Sustainability	Impacts and Outcomes
Jordan, Erickson (2008) Utah	The Gold Medal Schools Program – School wellness policy included designated physical activity programs such as Walk Your Child to School Day and the President's Challenge for physical fitness. ***OTHER INTERVENTION COMPONENTS:*** *Multi-component:* 1. School wellness policies to promote fruits and vegetables at school meals *Complex:* 1. Promotion of fruits and vegetables at breakfast and lunch. 2. The Gold Medal Schools designations (bronze, silver, gold, platinum) represent increasing levels of achievement in implementing school wellness criteria.	***DESIGN:*** Non-randomized trial ***DURATION:*** June 2005 – May 2006 ***SAMPLE SIZE:*** 411 students from 4 elementary schools (2 intervention, 2 control) ***PRIMARY OUTCOME:*** Overweight/obesity, dietary intake, and physical activity (PA) ***MEASURES:*** 1. Student anthropometric data (height and weight [body mass index]) 2. Parent survey (child demographics, eating habits, physical activity, parent perceptions of school nutrition policies) 3. Third & Fifth grade student survey (dietary habits, physical activity, sedentary activity, and dietary and exercise self-efficacy) ***DATA COLLECTION:*** Research team collected the data. All surveys and anthropometric data were collected at baseline and follow-up. ***LIMITATIONS:*** Students in the intervention group were already walking or biking to school at a higher rate; study sample was small and not representative of a diverse population; data were self-reported and some were incomplete or lost to follow-up.	5-10 year olds in grades 1, 3 and 5 at elementary schools Gold Medal Schools-85.8% White, 7.6% Hispanic, 0.4% American Indian/ Alaska Native, 2.8% Native Hawaiian/Pacific Islander, 0.7% Asian, 2.8% Other Non-Gold Medal Schools-86.7% White, 7.0% Hispanic, 0.7% American Indian/Alaska Native, 0.4% Native Hawaiian/Pacific Islander, 0.7% Asian, 2.1% African American, 2.5% Other (evaluation sample) 331 Utah elementary schools have participated in the Gold Medal Schools program. ***ELIGIBILITY:*** Schools needed to have similar demographics & interest by the Superintendent ***EXPOSURE/ PARTICIPATION:*** All children in the intervention schools were exposed to the intervention.	***LEAD AGENCY:*** University of Utah Division of Nutrition research team ***THEORY/FRAMEWORK:*** Not reported ***EVIDENCE-BASED:*** Not reported ***REPLICATION/ ADAPTATION:*** Not reported ***ADOPTION:*** The Utah Department of Health and the State Office of Education collaborated in developing the Gold Medal Schools program ***IMPLEMENTATION:*** The Gold Medal Schools program was developed by the Utah Department of Health and the State Office of Education, and incorporates the state core curriculum for health, the CDC's school health indicators, the Healthy People 2010 Objectives, and the Division of Adolescent and School Health's school health index. Schools were responsible for promoting fruits and vegetables at breakfast and lunch and participating in physical activity programs such as Walk Your Child to School Day and the President's Challenge for physical fitness. ***FORMATIVE EVALUATION:*** Not reported ***PROCESS EVALUATION:*** Not reported	***RESOURCES:*** 1. Funds for additional fruits and vegetables ***FUNDING:*** Evaluation funded by Utah Department of Health and Children's Health Research Center at the University of Utah ***STRATEGIES:*** Not reported	***OVERWEIGHT/OBESITY:*** 1. There was a non-significant rise in BMI z-scores from baseline to follow-up for students in the intervention group ($\Delta = 0.21 \pm 0.47$; $p=0.484$). 2. Conversely, there was a significant increase in BMI z-scores baseline to follow-up for the control group ($\Delta = 0.53 \pm 0.38$; $p<0.05$). ***PHYSICAL ACTIVITY:*** 3. Both groups increased the days/ week they walked or biked to school over 1 year. However, a significant improvement was observed only for the control group ($p<0.001$). ***NUTRITION:*** 4. Parent surveys at year one indicated that children in the intervention group drank fewer soft drinks per day than the control group ($p=0.008$). 5. Student surveys revealed that the intervention students drank fewer "soft drinks yesterday" ($p=0.085$) and ate "more fruits and vegetables yesterday" ($p=0.094$) than the control students, but results were not statistically significant.

Source	Intervention Components	Study Design and Execution	Reach	Adoption, Implementation and Process Evaluation	Enforcement/ Sustainability	Impacts and Outcomes
Belansky, Cutforth (2009) Colorado	Implementation of the federally mandated school wellness policy in rural, lower-income elementary schools in Colorado ***OTHER INTERVENTION COMPONENTS:*** *Multi-component:* Not reported *Complex:* 1. Technical assistance provided to school districts by several state level organizations to aid in compliance. 2. Implementation guide distributed and training offered to Colorado school personnel.	***DESIGN:*** Time series study ***DURATION:*** 2 years ***SAMPLE SIZE:*** 45 rural elementary schools from 40 school districts in Colorado ***PRIMARY OUTCOME:*** Changes in school physical activity (PA) policies ***MEASURES:*** 1. School environment and policy survey - included items from the Centers for Disease Control and Prevention's School Health Index, the Michigan Healthy School Assessment Tool, and the School Health Policies and Programs Study (changes in physical activity and nutrition features of a school) 2. Key informant interviews with district-level personnel and principals (policy development, level of school involvement, resources for policy implementation, barriers/facilitators to policy implementation and enforcement) 3. Local wellness policies coding tool - developed by the Robert Wood Johnson Foundation's Healthy Eating Research Program (policy comprehensiveness and strength) ***DATA COLLECTION:*** Surveys along with a $50 gift card to Target retail stores were mailed to selected elementary schools. School personnel completed the survey one year before the local wellness policy went into effect (Fall 2005) and twice after the policy went into effect (Fall 2006 and Fall 2007). School districts were asked to provide their local wellness policy to the research team (30 provided). Two reviewers independently rated each policy statement (inter-rater agreement=85%), then met to reach 100% agreement on ratings. The research team conducted key informant interviews with 13 of the 45 schools. Schools were compensated $300 each for participating in the interviews. ***LIMITATIONS:*** Self-reported data; insufficient sample size to determine statistical significance	5-10 year olds Rural Lower- income Among the 45 schools, students receiving free or reduced lunch rates ranged from 40 - 82%; student body ethnicity ranged from 0 - 72% Hispanic. ***ELIGIBILITY:*** Schools were selected if they were located in a rural area and if at least 40% of students qualified for free or reduced-cost lunches. ***EXPOSURE/ PARTICIPATION:*** All children in the Colorado schools were potentially exposed to the local wellness policy.	***LEAD AGENCY:*** The Rocky Mountain Prevention Research Center, University of Colorado-Denver, and the University of Denver ***THEORY/ FRAMEWORK:*** Not reported ***EVIDENCE-BASED:*** Not reported ***REPLICATION/ ADAPTATION:*** Not reported ***ADOPTION:*** Colorado State Bill 05-81 encouraged school boards to adopt a wellness policy meeting the federally mandated guidelines. Several state-level organizations provided technical assistance to school districts to help them comply with the federal mandate. ***IMPLEMENTATION:*** The Colorado Physical Activity and Nutrition Program School Site Taskforce/ Colorado Action for Healthy Kids Team, in coordination with the Colorado Department of Education, created a wellness policy implementation guide based on the state bill and federal requirements. This guide was distributed and training was offered to all Colorado school food service personnel, health coordinators, nurses, physical education teachers, and school health teams. ***FORMATIVE EVALUATION:*** Not reported ***PROCESS EVALUATION:*** Not reported	***RESOURCES:*** 1. Implementation guide 2. Personnel for technical assistance ***FUNDING:*** Robert Wood Johnson Foundation's Healthy Eating Research Program and the Centers for Disease Control and Prevention ***STRATEGIES:*** Not reported	***POLICY CHANGE:*** 1. The number of minutes spent in physical education (PE) each week increased by a mean of 14 minutes from 2005 to 2007 (β=14.2; $p<0.10$). 2. Reported time spent in recess decreased by 3.8 min per day (19 min per week) from 2005 to 2007, ($p<0.10$). 3. The number of principals requiring teachers to allow students to participate in physical education or recess despite bad classroom behavior, missed work or other activities did not increase after the local wellness policy went into effect. 4. Schools whose districts mentioned PE quantity in their wellness policy had no change in PE minutes over time (98.2 min/week in 2005 vs. 98.4 min/week in 2007), whereas schools whose districts did not mention PE quantity increased their PE time by 18 min/week, standard deviation (SD)=45.9. 5. All schools decreased the amount of recess time whether or not recess quantity was included in the local wellness policy. However, the decrease was greater in schools whose districts mentioned recess quantity (-4.5 minutes per day vs. -2.5 minutes per day). 6. Local wellness policies had low "strength" scores in all dimensions and particularly in nutrition guidelines and physical activity, indicating that policies did not include strong wording such as "require" or "mandate." 7. Schools who developed a committee of individuals from within and outside the school tended to have stronger and more comprehensive policies than those that relied on one lead person to draft the policy.

Source	Intervention Components	Study Design and Execution	Reach	Adoption, Implementation and Process Evaluation	Enforcement/ Sustainability	Impacts and Outcomes
Heard-Longley, Sneed (2009) United States	School wellness policy development in school districts following the 2004 federal Reauthorization Act ***OTHER INTERVENTION COMPONENTS:*** *Multi-component:* Not reported *Complex:* Not reported	***DESIGN:*** Cross-sectional study ***DURATION:*** Not applicable ***SAMPLE SIZE:*** *Phase 1:* 50 states reviewed for their regulatory environment for wellness policy formation *Phase 2:* 21 foodservice directors from randomly selected strong and weak states *Phase 3:* 847 foodservice directors from medium-sized or larger public school districts ***PRIMARY OUTCOME:*** School policy changes ***MEASURES:*** 1. State policy audit tool (presence of guidelines for school foods, statewide trainings) 2. Foodservice director telephone interviews using a qualitative questionnaire (wellness policy committee development, barriers and support for the wellness policy, status of the wellness policy, demographics) 3. Quantitative survey (wellness policy components, other school based activities, policy implementation and monitoring) ***DATA COLLECTION:*** In Phase 1 all 50 states were reviewed for their regulatory environment for wellness policy formation before (2004) and after (2006) the wellness policy enactment. States were evaluated for policy for fat, energy, and sugar content of a la carte foods; beverage portion and nutrition standards, time and place rules for food sales, and statewide training on the development of wellness policies. Each criterion was assigned one point. States scoring five points or greater were classified as strong legislative environments. Telephone interviews for Phase 2 were conducted during January and February 2007. The constructs and issues found in phase 2 were used to develop the quantitative survey conducted in phase 3. The national survey (Phase 3) was conducted during April 2007. ***LIMITATIONS:*** Self-reported data; the sample was not very heterogeneous and did not sample small schools (limiting generalizability); education level of participants was higher than the general population of food service directors; some data was recollected from June 2004 reflecting a long time to have accurate recall of information; low response rate (43%)	***ELIGIBILITY:*** *Phase 2:* food service directors from selection of strong and weak schools *Phase 3:* school foodservice directors in medium-sized (2,500-9.999 students) or larger public school districts ***EXPOSURE/ PARTICIPATION:*** Not applicable	***LEAD AGENCY:*** Researchers from Texas Women's University, Iowa State University, and Sneed Consulting. ***THEORY/ FRAMEWORK:*** Not reported ***EVIDENCE-BASED:*** Not reported ***REPLICATION/ ADAPTATION:*** Not applicable ***ADOPTION:*** Not applicable ***IMPLEMENTATION:*** Not applicable ***FORMATIVE EVALUATION:*** The qualitative survey administered in phase 2 was used as a formative evaluation to determine information (constructs and issues) that were then used to develop the quantitative survey in phase 3. ***PROCESS EVALUATION:*** Not reported	***RESOURCES:*** Not applicable ***FUNDING:*** Not reported ***STRATEGIES:*** Not applicable	***POLICY CHANGE:*** 1. In phase 1, thirty states scored zero and only three states: CA, TN, and MS scored five or greater to meet the criteria for a state with a strong environment for wellness policy development in 2004. In 2006, 22 states scored 5 or greater to meet the criteria. 2. Prior to the federal wellness legislation, foodservice directors reported that 37.4% of the wellness components were in place, while following legislation 72.4% of the wellness components were in place. 3. Foodservice directors noted after the law's enactment the integration of nutrition into the curriculum increased from 56.5% of districts to 81.3% of districts, use of the foodservice department for nutrition education increased from 52.1% to 75.8%, nutrition education for all grades increased from 33.6% to 61.2%, requirements for professional standards for nutrition educators increased from 21.8% to 49%, and nutrition education offered to adults increased from 16% to 46.6%. 4. The incorporation of physical education in the classroom increased from 31.7% to 60.6% and required daily minutes of physical education increased from 46% to 68.3%. 5. Staff wellness policies in school districts increased from 20.4% to 70.8%. 6. Wellness teams were designated by 60.3% of school districts for implementing and by 63.4% of school districts for evaluating the progress of the wellness policy.

Source	Intervention Components	Study Design and Execution	Reach	Adoption, Implementation and Process Evaluation	Enforcement/ Sustainability	Impacts and Outcomes
International						
Macaulay, Paradis (1997); Horn, Paradis (2001); Potvin, Cargo (2003); Jimenez, Receveur (2003); Paradis, Levesque (2005); McComber, Macaulay (1998) Canada	Kahnawake Schools Diabetes Prevention Project (KSDPP)- Extra physical education class each week (added at 1 school); school incentives for integrating extra physical activity into daily routine ***OTHER INTERVENTION COMPONENTS:*** *Multi-component:* 1. School policies that require canteens to only offer healthy foods (low-fat, low-simple sugar, high-fiber foods) and students bring only healthy lunches and snacks to school. *Complex:* 1. Health curriculum component: taught in grades 1-6 for ten 45-min lessons/year/grade 2. Community component: 63 activities for children, teachers, families, and the community both in and out of school; creation of on-going programs; support of existing community groups. 3. Promotion component: used media to increase awareness and community mobilization	***DESIGN:*** Non-randomized trial (1994-1996), with cross-sectional follow-up measurements in 1995, 1996, 1998, 1999 and 2000. ***DURATION:*** 8 years ***SAMPLE SIZE:*** ~623 students– average 426 exposed per year from 2 elementary schools, average 197 unexposed from 1 nonequivalent comparison community used for parts of the evaluation (1994-1996) ***PRIMARY OUTCOME:*** Overweight/obesity, dietary consumption, and physical activity (PA) ***MEASURES:*** 1. Anthropometric measurements (height and weight [body mass index], triceps and subscapular skinfold thickness, waist and hip circumference) 2. 1-mile run/walk test or 0.5 mile for children in grades 1-3 (fitness) 3. 51-item self-reported food frequency questionnaire (eating habits) 4. 27 activity self-administered physical activity questionnaire (physical activity patterns, TV viewing habits) 5. In-class questionnaire (self-efficacy and perceived parental support) 6. 24-h dietary recall interview (consumption of energy, fat, sucrose, and 6 food groups) for grades 4-6 ***DATA COLLECTION:*** Children completed the run twice/session with the best time recorded. A nurse collected anthropometric measurements, and trained monitors administered questionnaires for children in grades 4-6 in class while children in grades 1-3 completed questionnaires at home with parental help. Interviewers collected information from students' 24 h recalls annually with differences in diet measured by comparing intakes of energy, fat, sucrose, and 6 food groups created as indicators of diet quality. The outcome evaluation used a mixed cross-sectional and longitudinal design with a nonequivalent comparison group. *(continued next page)*	6-12 year olds 100% Native American/ American Indian ***ELIGIBILITY:*** Those with parental consent and complete data for anthropometric measurements, questionnaires, and run/walk tests at baseline and follow-up were included in the analysis. ***EXPOSURE/ PARTICIPATION:*** All children (grades 1-6) at the 2 intervention schools were exposed to the intervention.	***LEAD AGENCY:*** Community Advisory Board, local native research staff, and academic non-native research team ***THEORY/FRAMEWORK:*** Elements from Social learning theory, Precede-Proceed model, Ottawa Charter for Health Promotion and traditional learning styles of Native children ***EVIDENCE-BASED:*** Not reported ***REPLICATION/ADAPTATION:*** Not reported ***ADOPTION:*** Kahnawake Schools Diabetes Prevention Project (KSDPP) lobbied the Kahnawake Education System for a more active enforcement of the school nutrition policy and made extensive use of the local media for advocacy. The community advisory board (CAB), formed of 40 community members, advised on intervention and evaluation objectives, activities, culture, traditions, and current concerns. The CAB has supported and helped reinforce a school-healthy nutrition policy, and initiated healthy activities. ***IMPLEMENTATION:*** Native staff made daily decisions for the intervention. Researchers provided technical expertise, counsel on the strategic direction of the project, and helped define the operational objectives. A dietitian and community health nurses created the curriculum and taught it during the first year until teachers at the community school were trained to deliver the curriculum during years 2-3. *(continued next page)*	***RESOURCES:*** 1. Dieticians 2. Nurses 3. Staff to coordinate the field intervention 4. Staff secretary 5. Newspaper and radio ads 6. Community Advisory Board 7. Healthier foods for school canteens 8. Incentives 9. Funds for community activities ***FUNDING:*** Health Canada, local community organizations, private foundations ***STRATEGIES:*** KSDPP received funding to develop a Kahnawake-based research and training center for diabetes prevention, Phase IV of the project.	***OVERWEIGHT/OBESITY:*** 1. From 1994-1996, children in the intervention community showed significantly less increase in subscapular (36% vs. 65 %) and triceps (35% vs. 62%) skinfold thickness than children in the comparison community (time x community interaction: $p<0.01$ for both skinfolds); this did not translate into a lower rate of increase in BMI. 2. For girls, independent predictors for skinfold change were baseline skinfold thickness ($r^2= 0.67$), younger age ($r^2= 0.01$), watching excessive television ($r^2= 0.01$), being from the comparison community ($r^2= 0.02$) and higher relative physical activity ($r^2= 0.01$), $p<0.05$ for all. 3. For boys, only baseline subscapular skinfold thickness was a significant predictor of skinfold thickness change ($r^2= 0.72$, $p<0.001$). ***PHYSICAL ACTIVITY:*** 4. From 1994-1996 children in the intervention community performed worse on the run/walk test (22% deterioration over time), compared to children in comparison community (8% improvement over time). This may be due to a significant decrease in frequency of gym class at school in the intervention community, from 2.84 to 1.85 times/week between 1994-1996, compared to students in the comparison community who reported an increase from 1.71 to 2.18 times/week ($F[1220] = 24.81$; $p<0.01$). 5. After 2 years in both communities, the frequency of self-reported episodes of at least 15 minutes of PA increased by 23%. ***NUTRITION:*** 6. No significant changes between intervention and comparison communities from 1994-96 for consumption of sugar, fat or fruits and vegetables. ***MAINTENANCE:*** 7. (n=304) No significant differences in mean intake of energy, fat, and sucrose were found after 4 years of the intervention, in 2 different groups of 4-6 grade children. *(continued next page)*

(Continued from previous study)						
		Baseline assessments were conducted in the fall of 1994 on all children grades 1-6 in the intervention and comparison communities. Follow-up cross-sectional measurements were conducted in the intervention community in the fall of 1995, 1996, 1998, 1999 and 2002 and in the comparison community in 1995 and 1996. Children in grades 1-2 at baseline in both the intervention and comparison communities formed the cohort that was followed-up annually from 1994-1996. ***LIMITATIONS:*** Parents filled out the food frequency questionnaire for younger children; study lacked validation of TV viewing measure; small sample sizes limited power for some gender/age related analyses; stronger genetic susceptibilities may make it more difficult for behavioral factors to emerge from analyses; fitness test could have been influenced by children's motivation to run as fast as possible; a diabetes prevention program was starting in the comparison community in 1996, precluding additional data collection in its elementary school		***FORMATIVE EVALUATION:*** Not reported ***PROCESS EVALUATION:*** Semi-structured interviews with teachers (intensity/extent of implementation)		8. In 2002 (after 8 years of intervention implementation), students were at a significantly higher risk of having higher BMI (OR=1.37 95% CI: 1.03-1.81) and skinfold thickness (subscapular OR=1.94 95% CI: 1.44-2.63; triceps OR=1.59 95% CI: 1.18-2.12) compared with baseline. Excess risk ranged from 37%-94%. 9. Mean number of physical activities increased, fitness measure improved, and TV watching decreased significantly in 1999 in the intervention community, but all three improvements were lost in 2002. 10. There were significant decreases in key high-sugar and high-fat food items intake from 1996 onward (65-70% reduction in risk of consumption in 2002), but consumption of fruits and vegetables also decreased significantly over the same period.

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