

CATCH

A Coordinated Approach To Child Health

formerly

Child and Adolescent Trial for Cardiovascular Health



“Schools have more influence on the lives of youth than any other social institution except the family, and provide a setting in which, friendship networks develop, socialization occurs and norms that govern behavior are developed and reinforced.”

Healthy People 2010

<http://web.health.gov/healthypeople>

What is CATCH?

CATCH is a School Health Program designed to prevent sedentary behavior, poor dietary choices, and tobacco use through changes at the elementary school level



Rationale

- **High prevalence of CVD and early onset among adults**
- **Prevent risk factors for type 2 diabetes in children**
- **Lifestyle related risk factors potentially modifiable:**
 - **Diet**
 - **Physical Activity**
 - **Smoking**

Unique Features

- **First trial to integrate school, child, and family**
- **Ethnically diverse population**
- **Four geographic areas of the U.S.**
 - **California**
 - **Louisiana**
 - **Minnesota**
 - **Texas**
- **Large number of schools (N=96)**



Design

- **Pilot and Feasibility (1987-1991)**
- **Main Trial (1991-1994)**
 - 96 schools randomized to three treatment arms
- **Tracking and Follow-up (1994-1997)**
- **Institutionalization (1998-2000)**
 - Former CATCH schools and 12 unexposed schools
- **Homocysteine and Diet (2000-02)**

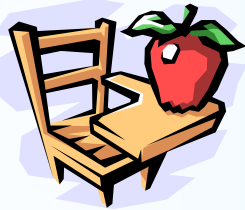
CATCH Components

It's All About Healthier Kids

**Classroom
Curriculum**



**Physical
Education**



**Food
Service**



Family



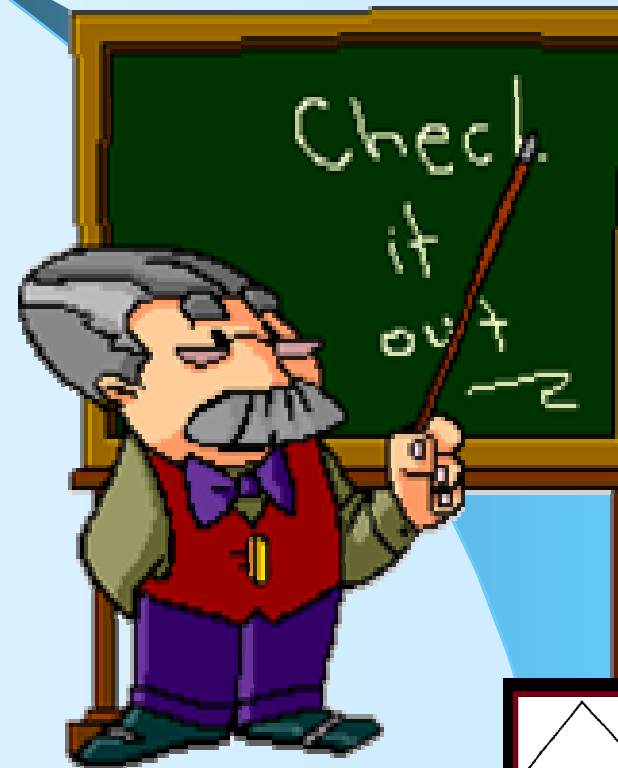
Physical Education



- **Students are involved in MVPA for 50% of class time**
- **Students are provided many opportunities to participate and practice skills**
- **Students enjoy physical activity**
- **Students are encouraged to be physically active outside of school**

Classroom Curricula

- 3-5th grades (15-24 sessions/year)
- Objectives are for students to :
 - **Identify, Practice, and Adopt** healthy eating and physical activity behaviors
- Focus on:
 - Knowledge
 - Modeling by cartoon and peers
 - Skills training and self-monitoring
 - Social skills (tobacco refusal)
 - Social norm setting



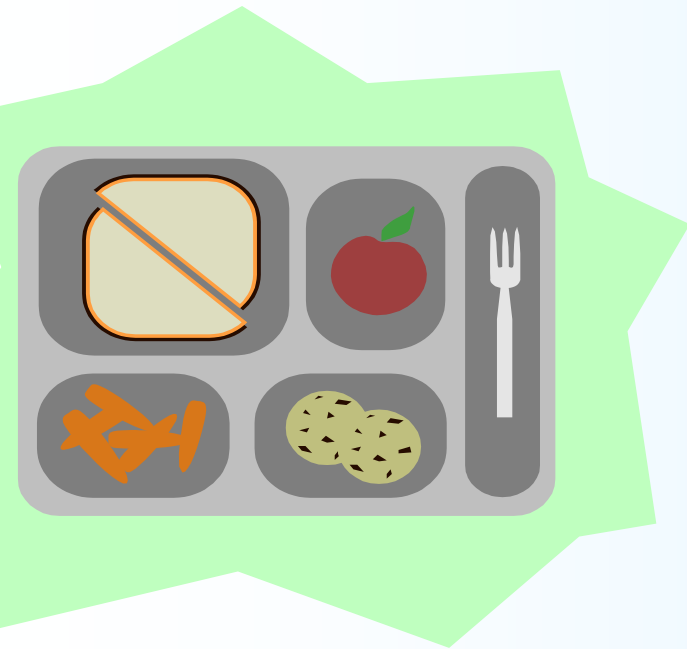
Family Program

- **Homework done by child with parent/grown-up assistance**
 - Focus on skills development & changing family norms
 - Complements the curricula
- **Family fun nights**
 - Health fairs with parent/child and community participation



Eat Smart Program (School Food Service)

CATCH Eat Smart provides children with tasty lower fat, saturated fat, and sodium school meals while maintaining required levels of essential nutrients and student participation.

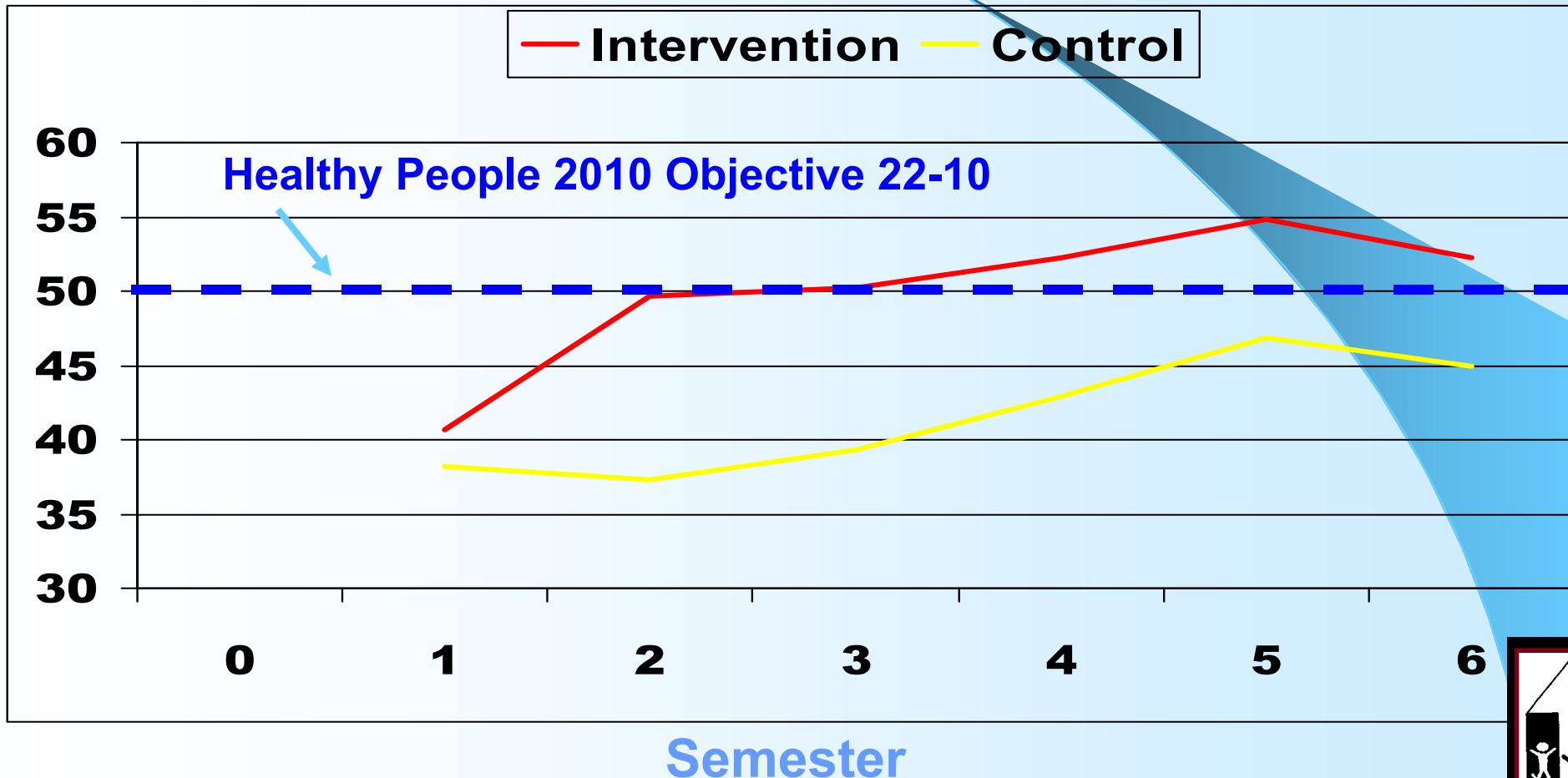


Four Target Areas of Eat Smart

- **Menu Planning**
- **Food Purchasing**
- **Food Production**
- **Promotion**

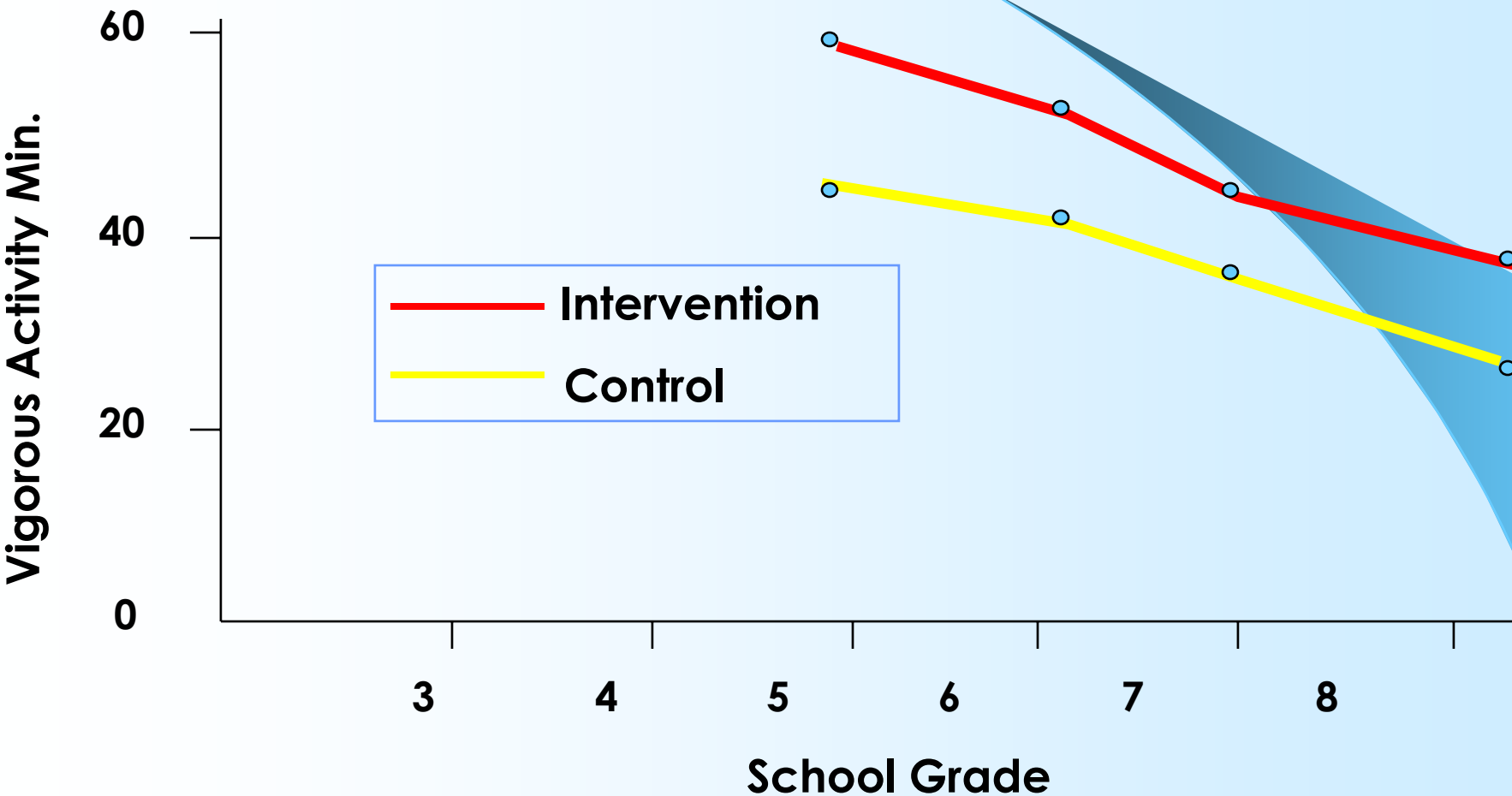


Moderate to Vigorous PA (Percent of Lesson Time)



8th Grade Follow-up

Min/day of Vigorous Physical Activity*

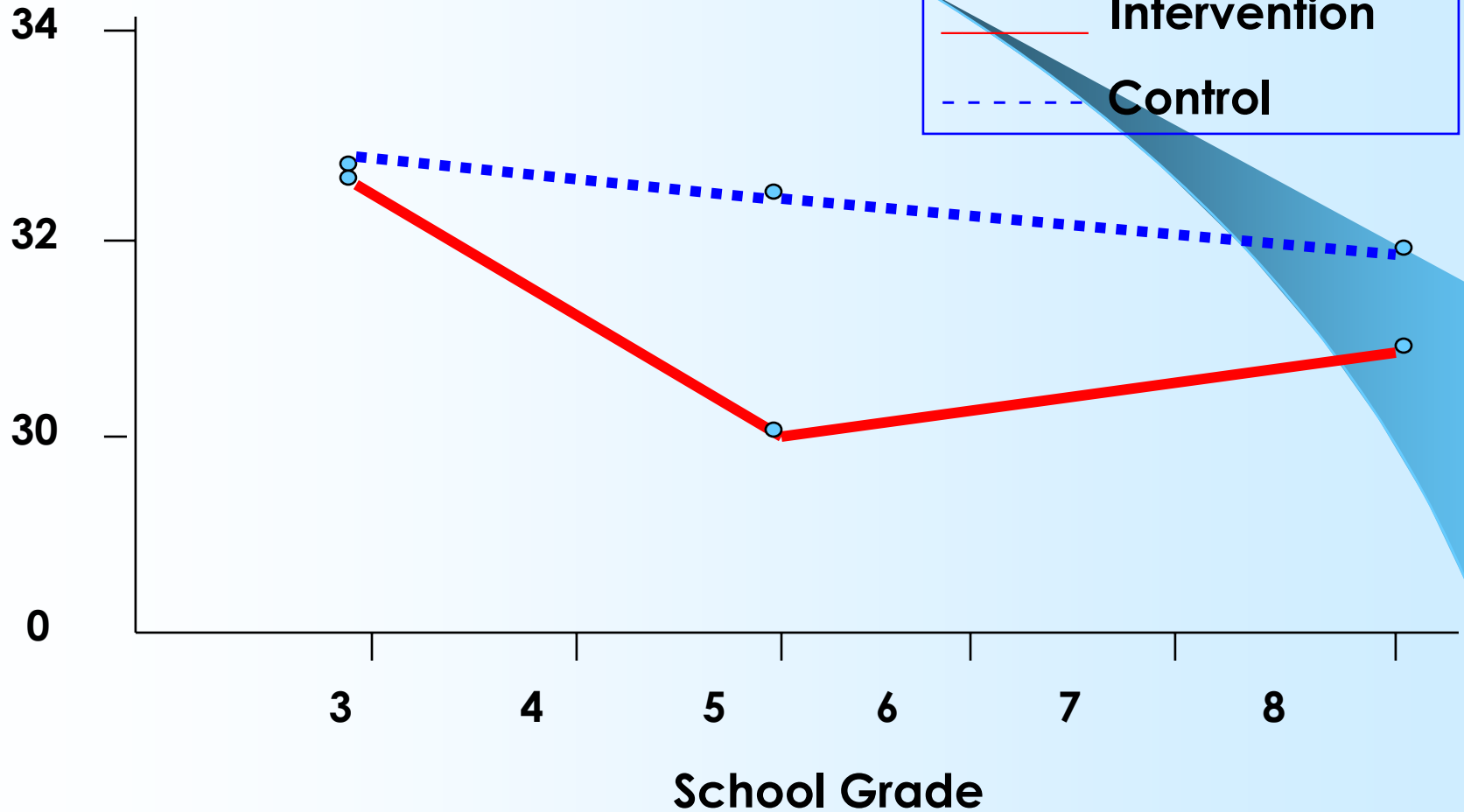


* Not measured at baseline



8th Grade Follow-up Dietary Fat Intake

Dietary Fat, % of Energy



Institutionalization of CATCH in Schools

- **5 years post-intervention**
- **50% of former intervention cafeterias met guidelines for fat**
- **Former intervention schools met Healthy People 2010 goal of 50% of class time spent in MVPA**
- **About 30% of PE class time at former intervention school based on CATCH activities**

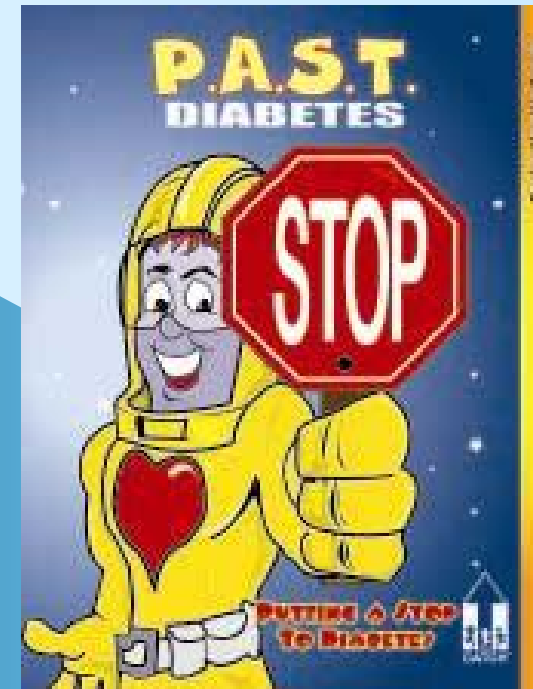
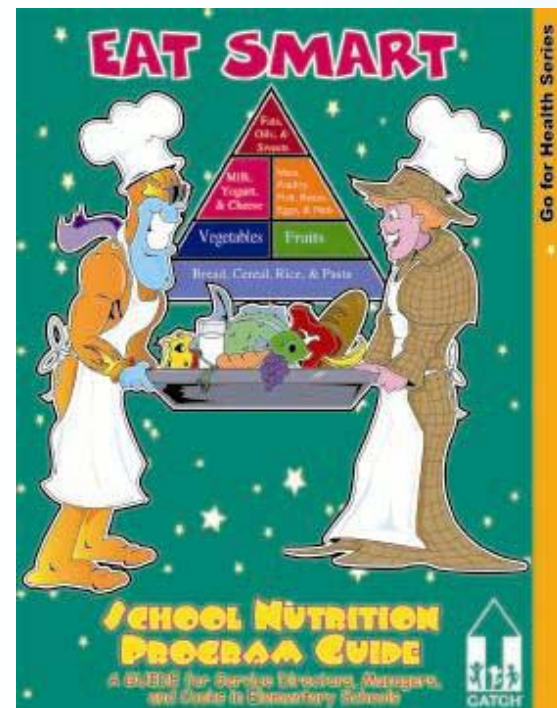
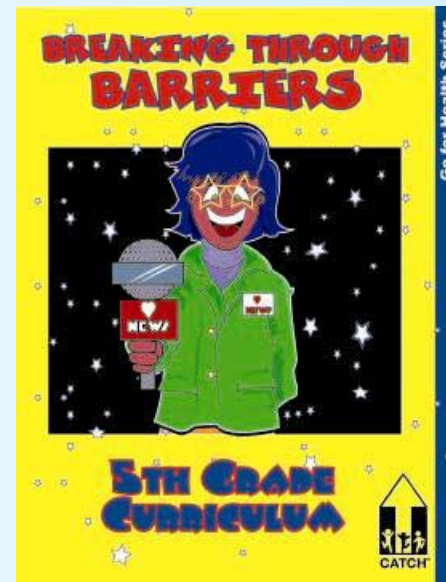
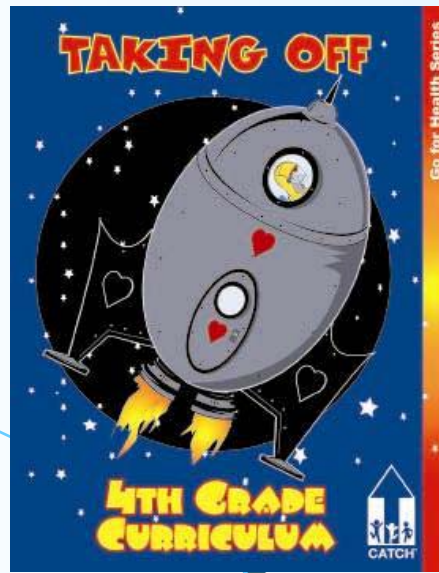
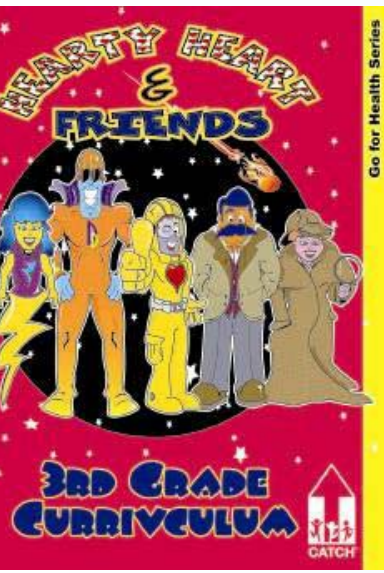
Dissemination

- Department of Defense Education Association
- NHLBI & NRPA *Hearts N' Parks* Initiative
- State-Wide Initiatives in Maine, Texas, New Mexico, Florida
- 4000 schools currently



Dissemination of CATCH in Louisiana

- **Several Parishes**
- **Six schools in Avoyelles Parish-Funding from Rapides Foundation**
- **3-year program**
- **Training sessions and on-site support**



Does CATCH Work?

- Reduced total fat and saturated fat content of school lunches.
- Increased moderate-to-vigorous physical activity (MVPA) during P.E. classes.
- Improved students' self-reported eating and physical activity behaviors.
- Effects persisted over three years without continued intervention.

Luepker RV, et al (1996). JAMA, 275(10), 768-76.

Nader PR, et al (1999). Arch Pediatr Adolesc Med, 153(7), 695-704.



Why are Schools Adopting CATCH?

Advantages: Well studied, well documented. Culturally compatible for all race/ethnic groups.

Compatibility: Most schools have PE and food service and health education requirements. CATCH meets CDC and State guidelines.

Complexity: IT'S NOT – CATCH modifies rather than replaces.

Cost Effective: Program costs little to implement.

Early Impact: Visible school environmental changes.



Lessons Learned

- **Institutionalization is difficult—compliance over time was less than desired**
- **Somewhat better compliance in school cafeterias**
- **For a program to be institutionalized, it must meet the needs of the school, school district, and national norms**

Lessons Learned (2)

- **Maintenance of classroom curricula was very difficult**
 - **Teacher transfer**
 - **Accountability**
 - **Health education not as “important” as other academic subjects or not required in educational standards**
 - **Lack of time**

Lessons Learned (3)

- **CATCH-PE Activity Box very popular**
 - **Easy to use**
 - **Extensive development**
 - **Can be adapted to most classroom situations**

Recommendations

- **Training is essential**
- **Materials and strategies need to be developed to allow school districts to conduct trainings**
- **Identify and train program champions**
- **Schools must devote resources for regular staff development**
- **Research studies must be long enough to prepare for and encourage institutionalization**