

The University of California Division of Agriculture and Natural Resources has launched a 5-year program to promote healthy lifestyles, science literacy, and positive youth development. By combining research, education, and community partnerships the Healthy Families and Communities Strategic Initiative aims to improve youth, family, and community health across California.

Promoting Healthy Behaviors for Childhood Obesity Prevention

An Urgent Problem for California: Nearly one-third of California's school children are overweight or obese,¹ and according to the Centers for Disease Control, low income and ethnic minority children are at especially high risk.² This crisis comes at a cost, as California leads the nation in health care costs associated with obesity, estimated at \$52.7 billion yearly.³

Evidence-based solutions: Experts agree that the solution to this health care crisis calls for both education and environmental changes to promote healthy eating and active lifestyles. While many programs focus on giving children and families information and encouragement to change behaviors, lasting change also requires that schools and communities make healthy food and physical activity environments more widely available.

Our guiding questions: Can a multifaceted integrated school and community-centered program that targets culturally diverse children promote healthful dietary and physical activity habits among children and reduce their risk of obesity? How can programs such as these also support regional agriculture?

Youth Science Literacy

An Urgent Problem for California: California students score well below national averages in science literacy and often lack the knowledge and skills necessary not only for scientific careers, but to participate fully in today's knowledge-centered society.⁴ Within this crisis, we also see that boys outperform girls, whites outperform African Americans and Latinos, and high-income youth outperform low-income youth.

Evidence-based solutions: To improve science performance we need to build the capacity of formal *and* non-formal educators to engage children in learning that involves inquiry and discovery.⁵ The UC 4-H Youth Development Program and its 4-H SET Initiative are recognized national leaders in providing innovative out-of-school program models, curricula, and professional development.

Our guiding questions: What are the impacts of participation in community-based, out of the classroom programs on the science knowledge, science process skills, and attitudes toward science among K-12 youth? What are the impacts of professional development in science on educators?

Promoting Positive Youth Development

An Urgent Problem for California: Each year, approximately 80,000 California youth do not graduate from high school⁶ and approximately one of every six 16-24 year olds in the state is out of school and out of work.⁷ Promoting healthy pathways to college and work are urgent concerns, not only for individual youth and their families, but also for the state's effort to remain economically competitive in the global economy.

Evidence-based solutions: UC Cooperative Extension's 4-H Youth Development programs are at the cutting edge of positive youth development knowledge and practice. Positive youth development addresses the broader developmental needs of youth, in contrast to deficit-based models, which focus solely on youth problems.⁸ Research shows that participants in community programs to support youth development are more likely to contribute to their families, themselves, and their communities; more likely to see themselves going to college; and significantly less likely to engage in risk/problem behavior.⁹

Our guiding question: How can the 4-H Youth Development Program and other similar programs best promote positive youth development with real impacts on individuals, families, and communities?

How will we know if we are succeeding?

The bottom line is measureable change at the individual, organizational, and community level.

Key success indicators include:

- Increased fitness levels, improved dietary outcomes and decreased obesity rates;
- Improved science test scores;
- Improved graduation, college enrollment, and young adult employment rates;
- More healthful school and community environments;
- Greater equity in outcomes for different racial and ethnic groups.
- Public funding support for effective programs;
- Citizens able and empowered to use research to improve conditions in their own community;

UC Partners

We are drawing on UC Cooperative Extension's historic strengths in nutrition education, youth development, food systems and community development along with other UC resources including:

- UC Expanded Food and Nutrition Education Programs (EFNEP) and UC Davis Food Stamp Nutrition Education Program (FSNEP), also known as SNAP Ed
- UC Davis Center for Nutrition in Schools
- UC Berkeley Atkins Center for Weight & Health (CWH)
- UC Berkeley School of Public Health
- UC Cooperative Extension Master Gardeners
- UC Davis and UC Berkeley School of Education
- UC Davis School of Medicine
- California After-School Network
- UC Berkeley's Lawrence Hall of Science

For a more detailed look at our plans for Healthy Families and Communities please visit our web site at: <http://ucanr.org/sites/HFC/> .

¹ Madsen, Weedn, and Crawford, Pediatrics, 2010;

² Centers for Disease Control and Prevention, 2008

³ California Center for Public Health Advocacy, 2009

⁴ National Academy of Sciences, 2007

⁵ National Research Council, 2009, 2010

⁶ California Department of Education, 2010

⁷ Benner, et.al. 2010; Lamming, Lemp, and Campbell, 2006; Sum, 2003

⁸ National Collaboration for Youth Members, 1998

⁹ Bernard, 2004; National Research Council and Institute of Medicine, 2002