



WIN the Rockies:

Reflections on a Health-Improvement Project in Three States . . . and Beyond!



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I've actually been thinking about the secret to life. And it's variety and moderation. Food and fitness and physical activity. Everything has to deal with variety and moderation.

WIN the Rockies narrative interviewee, male in his 20s

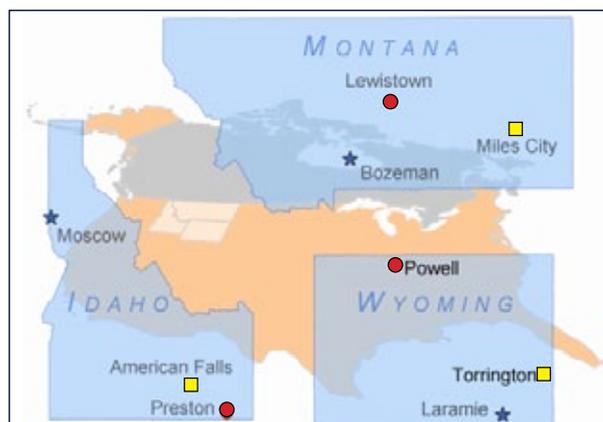
People have responsibilities for their own health, but communities need to create environments that foster good health and provide healthy options.

Overview

This philosophy guided Wellness IN the Rockies (WIN the Rockies), a community-based research, intervention, and outreach project funded in Wyoming, Montana, and Idaho from 2000 through 2004 (see **Project Map**, below, and **Key Project Points**, below). Overall project goals were the following:

- enhance the well being of individuals by improving their attitudes and behaviors related to food and eating, physical activity, and body image; and
- help build communities' capacity to foster and sustain these changes.

Lifestyles based on healthy attitudes and behaviors related to food and eating, physical activity, and body image offer many benefits, including improved psychological well-being and reduced risk for conditions such as heart disease, high blood pressure, and osteoporosis. These lifestyles also can help people achieve and maintain a healthy weight².



Project Map

- = Demonstrator community (interventions carried out 2001-2003)
- = Comparator community (delayed interventions in 2004)
- ★ = Location of state's land-grant university and project's coordinating center in each state

Key Project Points

- Carried out through the WWAMI (Washington, Wyoming, Alaska, Montana, and Idaho) Medical Education Program and the Cooperative Extension Service of each state's land-grant institution – University of Wyoming, Montana State University, and University of Idaho³
- Research and intervention components in six communities in Wyoming, Montana, and Idaho
- Funded by award #0004499 through the Initiative for Future Agriculture and Food Systems (IFAFS) competitive grants programs, U.S. Department of Agriculture
- www.uwyo.edu/winterockies



FOCUS ON
HEALTH,
NOT
WEIGHT

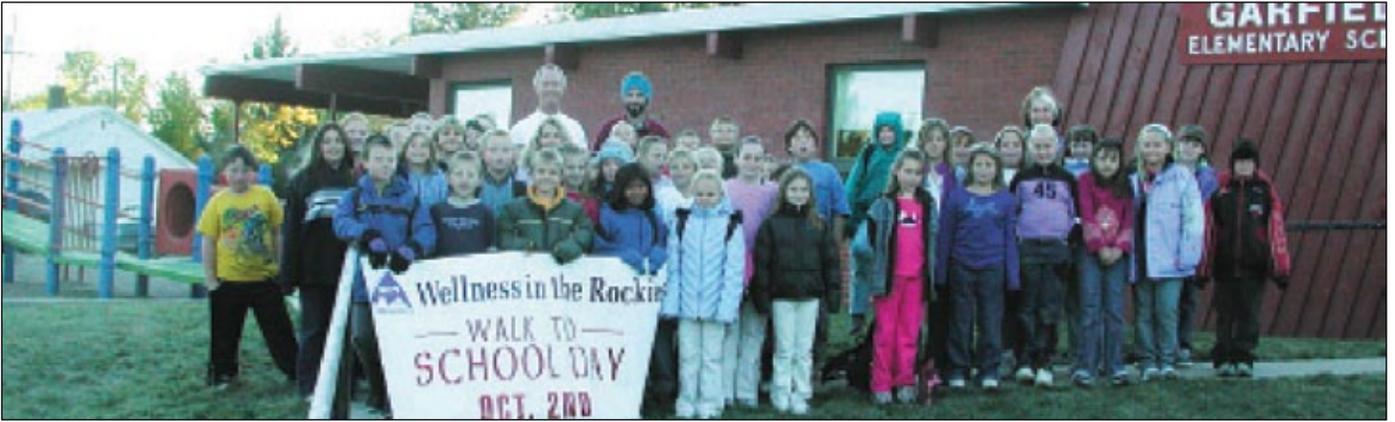


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In early 2001, we met with other team members and consultants (primarily those listed in **Other Project Team Members and Consultants**, right) to develop detailed plans based on the funded proposal. At the outset, the assembled team found a shared voice by developing the project philosophy, mission statement, and guiding principles (see **Mission and Guiding Principles**, below.)

Additional Project Perspectives (page 4) highlights other key perspectives and concepts reflected in the project.

The graphic titled **Time Frame of Major Activities and Events** (page 4) was developed early in the project to provide a single overview of key project research and engagement activities, collectively termed “interventions.” The project design in each of the three states included

- a demonstrator community, within which the interventions were introduced and data were collected during the research study time period at pre-, mid-, and post-intervention; and
- a comparator community, which functioned as a control community and within which data were collected at the same time points as in the demonstrator community; comparator communities received the interventions on a delayed basis.

Other Project Team Members and Consultants*:

Idaho: Julie Harker Buck, Michael Laskowski, Audrey Liddil, Martha Raidl

Montana: Phyllis Dennee, Lynn Paul, Dwight Phillips, Barbara Wheeler

Wyoming: Shelley Hill, Kim Puls, Kathy Tatman

Project consultants: Al Berg, David Buchanan, Tim Byers, Joanne Ikeda, Sandra Shepherd, Allen Steckler

* For most or all of the project



Mission and Guiding Principles

Mission*

WIN the Rockies (Wellness IN the Rockies) assists communities in educating people to

- Value health
- Respect body-size differences
- Enjoy the benefits of self-acceptance
- Enjoy physically active living
- Enjoy healthful and pleasurable eating

Guiding Principles**

Principles of Body-size Differences and Size Acceptance

- Accept and value every body, whatever size or shape
- Help people feel good about their bodies and about who they are
- Recognize that people of all sizes and shapes can reduce their risk of poor health by adopting a healthy lifestyle
- Challenge your own size-prejudice beliefs

Principles of Positive Self-acceptance

- Value yourself regardless of your size or shape
- Identify your strengths and abilities, and build on your assets
- Be critical of messages that focus on unrealistic body images as symbols of success and happiness

Principles of Physically Active Living

- Enjoy physical activity every day
- Participate in activities for the joy of feeling your body move
- Make physical activity fun

Principles of Healthful and Pleasurable Eating

- Take pleasure in eating
- Take control – Eat when hungry and stop when satisfied
- Follow the Food Guide Pyramid (U.S. Department of Agriculture’s dietary guidance system until MyPyramid was released in 2005)
- Honor the gift of food

* Adapted from the mission of WIN Wyoming (multi-state, multi-agency network focused on promotion of healthy lifestyles)

** Adapted from the guiding principles of WIN Wyoming, the approach of Vitality (Canada’s national health promotion program), and the “tenets of size acceptance” (University of California, Berkeley, and the Weight Realities Division of the Society for Nutrition Education)



I started dieting when I weighed 250, and I dieted myself up to 350. It’s just what happens.

- WIN the Rockies narrative interviewee, male in his 60s





Community Engagement and Interventions

In the demonstrator communities, project coordinators worked with local Extension educators, teachers, health-care professionals, business owners, and others to plan and initiate a wide range of programs, media campaigns, and other educational activities, and to award mini-grants to community groups. All of these intervention efforts promoted healthy and enjoyable lifestyles related to food, physical activity, and body image. For example,

- *Educational programs* included in-class and extracurricular lessons for 10- to 13-year-old youths (*WIN Kids*); an adult curriculum (*A New You: Health for Every Body*); pedometer-based physical activity programs (*WIN Steps*); healthy lifestyles screening and prescription tools used by physicians and other health-care providers; and several DVD resources used in conjunction with these intervention programs (see **Educational Programs**, pages 5-6, for a more complete list of materials).

Additional Project Perspectives

Three additional perspectives underpin the project:

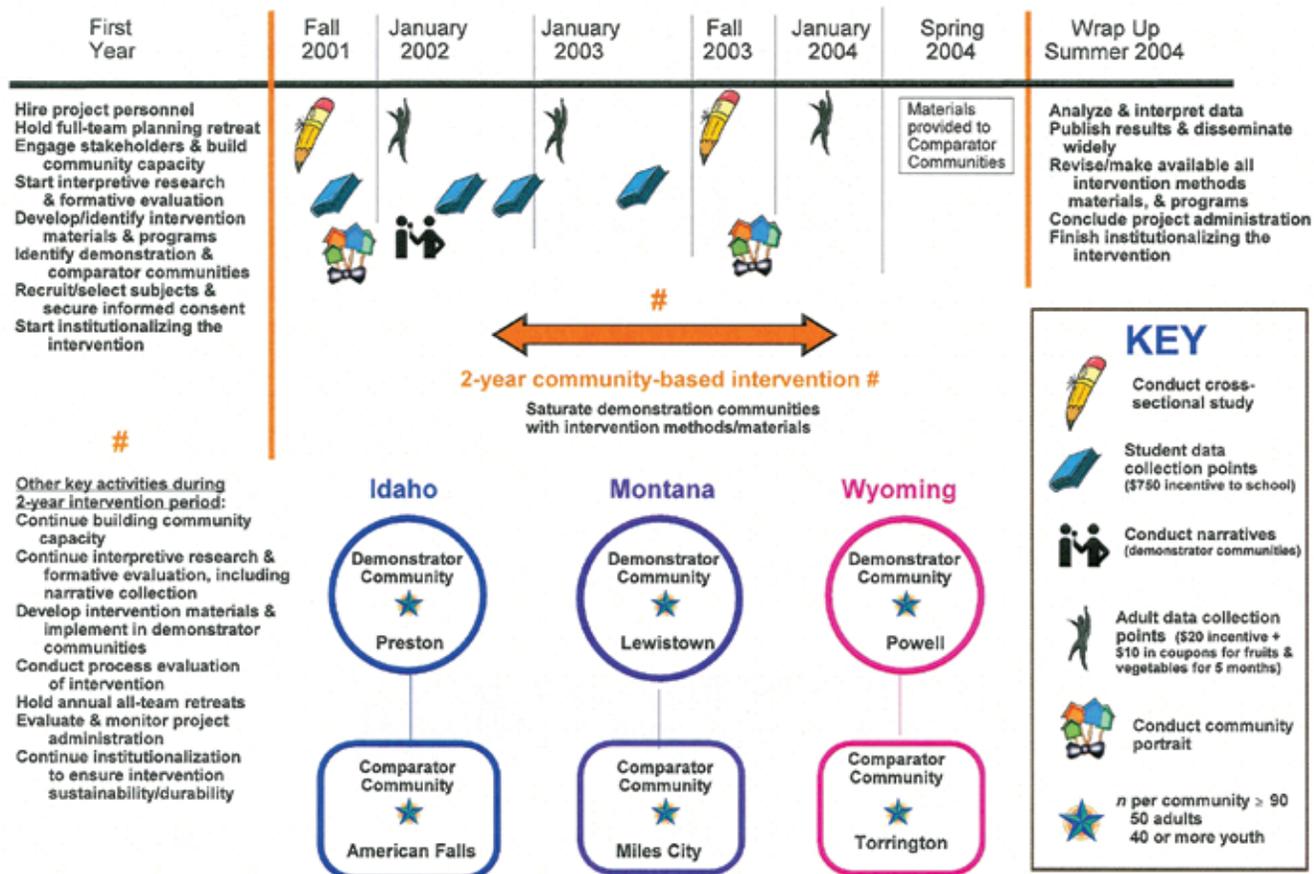
- **Public health approach.** Although WIN the Rockies received funding before release of *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity* in 2001, the project reflected many of the points called for by then-Surgeon General David Satcher:

The challenge is to create a multi-faceted public health approach capable of delivering long-term reductions in the prevalence of overweight and obesity. This approach should focus on health rather than appearance and empower both individuals and communities to address barriers, reduce stigmatization, and move forward in addressing overweight and obesity in a positive and proactive fashion (p. xiv).

- **Weight viewed as a continuum.** WIN the Rockies did not target obesity per se or focus solely on obesity prevention. Rather, the project adopted a broad perspective, seeking to promote healthier lifestyles among individuals all along the weight continuum. This approach is consistent with the view that body weight is only one indicator of well-being.
- **Body image.** The project considered body image an essential dimension to address in addition to food and physical activity because how individuals feel about their body can strongly influence their eating and physical activity habits – positively or negatively.

Time Frame of Major Activities and Events

WIN the Rockies (Wellness IN the Rockies)



- *Local media campaigns* included posters, billboards, public service announcements, radio spots and shows, and newspaper promotions (see **Media Campaigns**, page 7).
- *The project contracted with or arranged for several outside groups and individuals* to conduct train-the-trainer workshops for project team members and community leaders (e.g., planning and implementing pedometer-based physical activity programs, arranged through The Cooper Institute in Dallas, Texas), and delivering public education programs (e.g., motivating adults and youths to engage in walking programs, arranged through Creative Walking, Inc., in McCall, Idaho).
- *Community mini-grants* were offered as a way to help local groups further embrace the project's philosophy, mission, and principles. In the demonstrator communities, the project awarded 13 grants totaling \$17,300. Examples of funded projects included purchase and installation of a milk vending machine in a high school, a walk-at-recess pedometer program at an elementary school, development of a community walking path, support for "salsa aerobics" to promote healthy lifestyles and positive body image among Hispanic women, installation of equipment at a senior center to allow more seniors to participate in physical activities, installation of a 20-station community fitness trail, and an interactive wellness fair for all fourth-grade students in one community, which was



(continued on page 7)

Educational Programs

	Program Title	Description	Methodology	Unique Features
Youth				
	WIN Kids Lessons Highlight: Kids take what they learn home and share it with their parents	13 lessons for youths 10 to 13 years of age Address food and eating, physical activity, and respect for body-size diversity	Appropriate for classroom and non-classroom situations as a series or as stand-alone lessons Hands-on activities, independent work, group discussions, and writing options offer a variety of learning techniques	Through WIN the Home and WIN the Community activities, kids are encouraged to share their knowledge Three lessons incorporate videos produced in consultation with 12-year-olds Health Education Standards identified
	WIN Kids Fun Days Highlight: Kids of all shapes, sizes, and abilities are able to participate and learn	Collection of 40 activities for youths 8 to 13 years of age	Short action-oriented activities for use in day camp, after school, or other youth settings Activities can be selected and combined to meet local needs	Take-home slips reinforce messages Designed to introduce concepts related to food, physical activity, and body image
	WIN the Rockies Jeopardy	Answer-and-question game for youths 10 to 13 years of age Electronic slides with hyperlinks	Designed to introduce and/or reinforce the WIN Kids lessons Four rounds with double and final Jeopardy answers	My Choice answers prompt kids to apply what they have learned A blank round is provided for customization
	3 DVD programs developed: <i>Portion Investigators</i> <i>Choose to Move</i> <i>As If</i>	Each DVD is about 10 minutes long and includes an accompanying WIN Kids lesson on CD	<i>Portion Investigators</i> illustrates how super-sized portions can contribute to overeating <i>Choose to Move</i> features youths enjoying a variety of physical activities, including sports, chores, and hobbies <i>As If</i> reveals body-image myths underlying media messages and their unreal portrayal of perfection	Each program was developed with involvement from upper elementary school-aged youths in terms of planning, script-writing, and acting

Educational Programs (continued)

	Program Title	Description	Methodology	Unique Features
Adult				
	<p>A New You: Health for Every Body</p> <p>Highlight:</p> <p><i>"I'm less concerned about having a 'perfect' body and more interested in being healthy."</i></p> <p>- A New You participant</p>	<p>Adult curriculum adapted and expanded from a University of Missouri Extension program</p> <p>Designed to move people toward a health-centered versus weight-centered approach to well-being</p>	<p>10 one-hour sessions for small groups (12-18 participants)</p> <p>Flexible structure: sessions can be mixed, combined, or taught independently</p> <p>Supplemental lesson and video focus on the human body as an art form</p> <p>Encourages journaling, setting goals, and tracking progress</p>	<p>Physical activity in each lesson</p> <p>Curriculum is complete with marketing tools, evaluations, handouts, scripts, and slides</p> <p>OYOL – On Your Own Learning activities introduce and reinforce concepts between sessions</p> <p>Follow-up newsletters and ideas for reunions provide options for continued contact</p>
	<p>Search for the Real</p>	<p>12-minute DVD featuring body casts by artist and culture critic Larry Kirkwood, with commentary about contemporary media pressures related to body image</p>	<p>Incorporates footage from the artist's 2002 exhibit, lecture, and interview at the University of Wyoming</p>	<p>Encourages artistic appreciation of all human bodies in terms of shape and form instead of comparison to unreal media images. Makes clear statements against racism, weightism, sexism, and ageism – that is, against judging people on the basis of their appearance instead of their actions</p>
Family				
	<p>Cook Once: Eat for Two Weeks</p>	<p>Family mealtime program</p> <p>Outline for making main dishes ahead to save time and money while improving nutrition, food safety, and meal enjoyment</p>	<p>Do-it-yourself or class options</p> <p>Includes recipes and directions for purchasing supplies, preparing, and storing 2 weeks of main dishes</p> <p>Offers ideas and tools to make family mealtimes enjoyable</p>	<p>WINNING Conversation Cards (also in Spanish) are based on topics from WIN the Rockies' principles</p> <p>Low-cost and nutritious recipes were developed through the University of Wyoming Cent\$ible Nutrition Program</p>
Community				
	<p>WIN Steps</p> <p>Highlight:</p> <p>Community walking programs involved more than 20% of adults and nearly every school in the project demonstrator communities</p>	<p>Community walking promotion programs for youths and adults in a variety of settings using a pedometer</p>	<p>Enroll through school, work, civic group, or community organization or agency</p> <p>Log sheets available for setting and tracking goals (also in Spanish)</p> <p>Pedometers provide instant and ongoing motivation</p>	<p>Creates and encourages walk-friendly communities and environments</p> <p>Role modeling is a powerful motivation</p> <p>Feedback on weekly progress from an organized and enthusiastic walk coordinator provides additional support</p>
Health-care				
	<p>Prescriptions for Health</p>	<p>Health prescription process for adult patients and their health-care providers</p>	<p>Patients complete a short questionnaire and then consult with a health professional to set health-improvement goals</p>	<p>Addresses food and eating, physical activity, and body image</p> <p>Focuses on multiple health measures rather than weight alone</p>

Except for DVDs, all materials are available for download at www.uwyo.edu/wintherockies; click on Educational Materials. DVDs available for purchase on a cost-recovery basis; an order form is available on this same website.

Media Campaigns

WIN the Rockies' concepts were broadly promoted through many avenues:

- Set of four messages and corresponding images* were produced in large quantities and widely distributed as separate posters and postcards and reproduced as billboard images
 - ♦ "Fruits and Veggies – the original fast foods!"
 - ♦ "Eating – one of life's great pleasures"
 - ♦ "Physical Activity – your way every day"
 - ♦ "Health – many sizes, many shapes"
- Winter and spring media campaigns titled "12 Ways in 12 Days"* consisted of seasonally targeted messages available to incorporate in a variety of settings to promote healthy lifestyles
- Public service announcements
- Radio spots
- Newspaper promotions
- Online informational video
- Miscellaneous small reinforcement items for distribution to individuals, for example, fortune cookies, grocery shopping list pads, water bottles, balloons, winkers (small battery-operated blinkers clipped onto backpacks), etc.

*These items available at www.uwyo.edu/wintherockies; click on Educational Materials.



Remember sitting at your desk in elementary school, waiting for the recess bell? Didn't it feel great to run outside? Recapture that zest for joyful physical activity. Participate in activities for the sheer pleasure of feeling your body move. WIN the Rockies and the community of Powell encourage everyone to be active – your way, every day.



(continued from page 5)

planned and conducted by the students. After the intervention period in the demonstrator communities, 37 additional grants were awarded – 14 in the comparator communities and 23 in Wyoming, Montana, and Idaho communities not involved in the project, with the goal of promoting WIN the Rockies philosophy and principles beyond the designated project communities. Overall, the project awarded more than \$55,000 via 50 community grants; grants ranged from \$100 to \$2,500, with \$1,100 as the mean award value.

Most of the above components were made available as a delayed intervention to the three comparator communities after the final project data collection period in January 2004.

Research Components³

Project team members conducted research and carried out related activities in five areas (also shown in **Time Frame of Major Activities and Events**, page 4):

- *Cross-sectional surveys* were completed by approximately 1,800 and 1,900 adults across the six project communities in fall 2001 and fall 2003, respectively, with response rates of 53 percent in 2001 and 57 percent in 2003. Data collected included self-reported height and weight (to calculate body mass index or BMI⁴) and questionnaire responses related to food and eating, physical activity, and body image attitudes and behaviors.
- *Student assessments* were conducted with almost 400 youths over a two-year period; these students started the project as 10- and 11-year-olds and completed the project as 12- and 13-year-olds. Data collected included anthropometric measurements (height and weight for comparison to Centers for Disease Control and Prevention growth charts), an indicator of fitness (timed one-mile walk/run), and questionnaire responses related to food and eating, physical activity, and body image attitudes



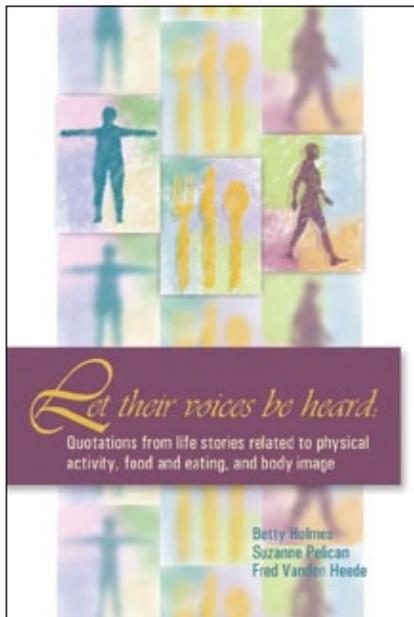
Unavoidable developments can and will happen:

The first WIN the Rockies cross-sectional surveys were scheduled to be mailed out on September 11, 2001. After the terrorist attacks that day, we postponed the mailing for several days.



My daughter is totally not built the same way I am...and she eats regular meals. And she is called 'anorexic' to her face and to others. Very, very painful for her.... It's the same for her being called skinny as it is for fat people who take it to heart being called fat.

- WIN the Rockies interviewee, female, early 40s



You'll be walking through the store and you'll hear a little kid say, 'Now that guy is pretty fat.'...I mean, they're not meaning to do harm. They're just little kids.... But being teased about it would force me to go home and have some ice cream or something. Kind of kill the pain with food.

- WIN the Rockies narrative interviewee, male, early 20s

and behaviors. In the demonstrator communities, of the 198 fifth-grade students who completed the first assessment in the fall of 2001, 187 (94 percent) completed the fourth and final assessment as 6th graders in the spring of 2003.

- *Assessments of nearly 300 adult participants in the longitudinal research component* (termed the “adult cohort”) were carried out in the six communities pre-, mid-, and post-intervention. These assessments consisted of anthropometric measurements (height and weight to calculate BMI); indicators of fitness (heart rate and six-minute walk test); blood values including cholesterol (measurement of total cholesterol and HDL, or high-density lipoprotein, often called “good” cholesterol, with calculation of LDL, or low-density lipoprotein, often called “bad” cholesterol), triglycerides, fasting glucose, and fasting insulin; and questionnaire responses related to food and eating, physical activity, and body image attitudes and behaviors. In the three demonstrator communities, of the 145 members of the adult cohort who completed the first assessment in January 2001, 106 (73 percent) completed the third and final assessment in January 2004. All adult cohort members received \$50 worth of coupons to redeem toward the purchase of fresh fruits and vegetables at local grocery stores (\$10 worth of coupons each month for five months). Of the 2,160 coupons issued to adult cohort members in the demonstrator communities, 1,650 (76 percent) were redeemed, and 94 percent of the cohort members redeemed one or more coupons.
- *Narratives* were collected from just over 100 adults via in-depth interviews and focus groups, with the objective of gathering life stories related to food and eating, physical activity, and body image.
- *Community-level assessments* were conducted, including development and use of a draft community portrait tool. The purpose of this tool was to assess policies, practices, programs, and facilities related to food, physical activity, and body image. Specifically, these assessments included the following:
 - *Food availability.* These measures included the number and type of restaurants (e.g., sit-down, fast-food, etc.) and linear feet in local grocery stores for milk, soft drinks, sweetened drinks, and juices.
 - *Physical activity opportunities.* Options for physical activity were surveyed (pools, tennis courts, bowling alleys, private gyms, archery



ranges, walking paths, dancing groups, skating rinks, competitive sport leagues, golf courses, biking paths, etc.), and the cost for each option was recorded.

- *Local clothing stores.* These were surveyed to assess availability of clothing sizes and location of clothes by size.
- *Physical activity and food profile compiled for each school.* This assessment included number of minutes allotted for physical education, recess, and lunch; number and types of vending machines; sale of competitive foods (i.e., foods or beverages sold in competition with a federally reimbursable school meal program to children in food-service areas); and school-sponsored breakfast/lunch programs.

Interviews also were conducted with key community leaders and other stakeholders at the conclusion of the project.

Project Outcomes

Based on a reporting model used within the U.S. Department of Agriculture (USDA), we offer examples of outcomes from the WIN the Rockies project in three broad categories:

- *Short-term outcomes* (below) = what has been learned
- *Medium-term outcomes* (page 12) = what has been developed
- *Long-term outcomes* (page 12) = what has changed or improved.

Short-term outcomes

Examples of what has been learned, including, where appropriate, the source of published findings (see **Project Research Publications**, right) are as follows:

• Food and eating

- ♦ *Food pushers:* Several men and women who shared life stories described food being “pushed” on them by other individuals, such as parents and grandparents, and by institutions, such as the military (*source:* project research publication #7).
- ♦ *Values-related influences can be negative:* Valuing frugality or thrift can drive many people to overeat in the process of trying to get their money’s worth or not waste food (*source:* project research publication #9).
- ♦ *Gender differences:* Compared to men, women reported higher intakes of fruits and vegetables (except for potatoes), higher intakes of high-fiber cereals, and lower intakes of milk and sweetened beverages such as soft drinks (*source:* project research publication #6).



Project Research Publications

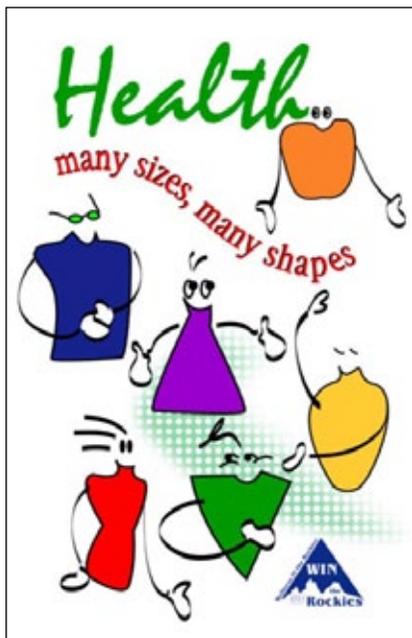
Quantitative project research findings: Refereed journal articles

1. Blakely F, Dunnagan T, Haynes G, Moore S, Pelican S. Moderate physical activity and its relationship to select measures of a healthy diet. *The Journal of Rural Health.* 2004;20:160-165.
2. Eisenmann JC, Milburn N, Jacobsen L, Moore SJ. Reliability and convergent validity of the Godin Leisure-time Exercise Questionnaire in rural 5th-grade school-children. *Journal of Human Movement Studies.* 2002;43:135-149.
3. Laurson K, Eisenmann JC, Moore S. Lack of association between television viewing, soft drinks, physical activity and body mass index in children. *Acta Paediatrica.* 2008;97:795-800.
4. Liebman M, Pelican S, Moore SA, Holmes B, Wardlaw MK, Melcher LM, Liddil AC, Paul LC, Dunnagan T, Haynes GW. Dietary intake, eating behavior, and physical activity-related determinants of high body mass index in rural communities in Wyoming, Montana, and Idaho. *International Journal of Obesity.* 2003;27:684-692.
5. Liebman M, Pelican S, Moore SA, Holmes B, Wardlaw MK, Melcher LM, Raidl M, Wheeler B, Haynes GW. Dietary intake-, eating behavior-, and physical activity-related determinants of high body mass index in the 2003 Wellness IN the Rockies cross-sectional study. *Nutrition Research.* 2006;26:111-117.
6. Liebman M, Propst K, Moore SA, Pelican S, Holmes B, Wardlaw MK, Melcher LM, Harker JC, Dennee PM, Dunnagan T. Gender differences in selected dietary intakes and eating behaviors in rural communities in Wyoming, Montana, and Idaho. *Nutrition Research.* 2003;23:991-1002.

Qualitative project research findings: Book and refereed journal articles

7. Holmes B, Pelican S, Vanden Heede F. *Let Their Voices Be Heard: Quotations from life stories related to physical activity, food and eating, and body image.* Chicago: Discovery Association Publishing House; 2005.
8. Pelican S, Vanden Heede F, Holmes B, Melcher LM, Wardlaw MK, Raidl M, Wheeler B, Moore SA. The power of others to shape our identity: body image, physical abilities, and body weight. *Family and Consumer Sciences Research Journal.* 2005;34:56-79.
9. Vanden Heede F, Pelican S, Holmes B, Moore SA, Buchanan D. Values, body weight, and well being: The influence of the Protestant ethic and consumerism on physical activity, eating, and body image. *International Quarterly of Community Health Education.* 2005-06;25:239-270.





- ◆ *Food and eating factors associated with high BMI among adults.* These include
 - Distracted eating, that is, eating while doing another activity such as watching TV
 - Excessive soft drink consumption
 - Regular intake of super-sized portions
 (sources: project research publications #4 and #5).

- ◆ *Distracted eating among youths.* Early in the project, 78 percent of students surveyed reported doing something else while eating (source: WIN the Rockies survey results, unpublished).

• Physical activity

- ◆ *Moderate physical activity may act as a positive gateway behavior,* defined as a behavior that – if adopted – can lead to other healthy behaviors (source: project research publication #1).
- ◆ *Values-related influences can be positive:* For many adults, physical activity needs to have a productive purpose for them to participate (e.g., chopping wood, mopping floors, walking to pick up mail), and holding that value can motivate them to be active (source: project research publication #9).
- ◆ *An individual's identity relative to his or her physical abilities can be strongly influenced by other people,* both positively and negatively (source: project research publication #8).
- ◆ *Physical activity factors associated with high BMI include*
 - Lower frequency of participation in physical activity
 - Perception of not getting as much physical activity as needed
 (sources: project research publications #4 and #5).
- *Low levels of physical activity among youths.* Early in the project, 14 percent of students reported having physical education every school day, and 44 percent reported watching TV or playing video games for three or more hours a day (source: WIN the Rockies survey results, unpublished).

• Body image

- ◆ *An individual's identity relative to his or her body image can be strongly influenced by other people,* both positively and negatively (source: project research publication #8).
- ◆ *Weight as a shield:* Several women who shared life stories referred to gaining weight as a shield or a form of protection from unwelcome advances or attention – in a physical or emotional sense (source: project research publication #7).
- ◆ *Gender differences:*
 - Females were more likely to report that thoughts about body size, shape, or weight keep them from eating in a public setting (source: WIN the Rockies survey results, unpublished).
 - Male and female bodies were stereotyped differently on the basis of body size. A slender male image was identified as more unfit, unhealthy, inactive, and weak compared to heavier male bodies, but a slender female image was identified as stronger, healthier, and more motivated than heavier female images (source: WIN the Rockies survey results, unpublished).

- ♦ *Benefit of positive body image:* For some individuals, a more positive body image may provide an avenue for relying less on inappropriate dieting practices and more on adoption of a healthier lifestyle (*source:* WIN the Rockies survey results, unpublished).

• **Community level**

- ♦ *Population size of demonstrator communities* ranged from nearly 4,700 to approximately 5,800; one community had a relatively large senior population (23 percent), and one community had a relatively large Hispanic population (7 percent).
- ♦ *Examples of information gathered through the community portrait tool:*
 - *In one demonstrator community*
 - One grocery store had more than five times as many linear feet of soft drinks available for sale as it did milk: 197 vs. 38.5 linear feet.
 - Dining-out options consisted of nine fast-food and seven non-fast-food restaurants.
 - *Over the three demonstrator communities*
 - Elementary schools offered 30 minutes of physical education from two to four times a week. Lunch times varied from 25-40 minutes.
 - All communities offered clothing in sizes extra small to 3X, but selections of extra small and plus sizes were very limited. Clothing in small sizes tended to be near the front of the store, and large-sized clothing tended to be near the back of the store.



If you don't keep your body healthy, you're not going to live very long, and if you want to enjoy life and live life and feel good about yourself... Your healthy habits are going to carry on longer than anything else. ”

- WIN the Rockies narrative interviewee, male in his 40s

Other Project Publications

Articles in refereed journals

- Liebman M. Promoting healthy weight: Lessons learned from WIN the Rockies and other key studies. *Journal of Nutrition Education and Behavior.* 2005;37:S95-S100.
- Wardlaw MK. *A New You: Health for Every Body: Helping adults adopt a health-centered approach to well-being.* *Journal of Nutrition Education and Behavior.* 2005;37:S103-S106.

Refereed journal supplement

- Pelican S, Vanden Heede F (guest editors). Shaping a Healthy Future III: A Rocky Mountain Conference on Weight Realities. *Journal of Nutrition Education and Behavior.* 2005;37:S85-S156.

Other University of Wyoming Cooperative Extension Service bulletins in the "Focus on Health, Not Weight" series:

- Pelican S, Vanden Heede F. *Consumerism: How it fosters unhealthy lifestyles and what we can do to live differently.* MP 112-6; 2008. <http://www.wyomingextension.org/agpubs/pubs/MP112-6.pdf>
- Johnson D, Pelican S. *The Last Orange on Earth: An activity to teach mindful eating.* MP 112-5; 2008. <http://www.wyomingextension.org/agpubs/pubs/MP112-5.pdf>
- Pelican S, Vanden Heede F, Getz M. *The ABCs of Health-Focused Well-Being.* MP 112-4; 2008. <http://www.wyomingextension.org/agpubs/pubs/MP112-4.pdf>
- Augustin S, Bertonecelj K, Cook J, Gupton M, Hamilton A, Pelican S. *Fresh approaches: Ideas for enjoyable and healthy foods at social events and other gatherings.* MP 112-3; 2007. <http://www.wyomingextension.org/agpubs/pubs/MP112-3.pdf>
- Pelican S, Vanden Heede F. *The Power of Others: Recommendations to help create environments in which every body can be healthier and happier.* MP 112-2; 2005. <http://www.wyomingextension.org/agpubs/pubs/MP112-2.pdf>
- Pelican S, Vanden Heede F. *The Clean Plate Club: Tips for dropping out . . . or never joining!* MP 112-1; 2005. <http://www.wyomingextension.org/agpubs/pubs/MP112-1.pdf>



Project Graduate Students*

Montana State University:
Frank Blakely and Marc Schure

Idaho State University:
Julie Harker Buck

University of Idaho:
Tawn Corcoran and Katie Nelson-Miner

University of Wyoming:
Krystal Damori-Morwood and Nathan Sassano

*Helped gather and used project data or used a project data set as part of their master's degree theses



◆ Other insights

- Walking programs proved to be easiest for communities to embrace.
 - School programs helped mobilize students to be educators within their own families and communities.
 - Examples of barriers to physical activity included unsafe street crossings and inadequate access to walking paths.
 - Local groups most likely to sustain project efforts included Extension, health-care providers and hospitals, public health agencies, schools, and local governments.
- In addition to the previously listed examples of what has been learned from the project in relation to its original goals, we also identified some lessons learned (see **Challenges and Shortcomings**, page 13) that we share with the hope of providing insights to other individuals and groups seeking to undertake a large community-based health-improvement project.

Medium-term outcomes

In terms of what has been developed, the separate lists of **Educational Programs** (pages 5-6) and **Media Campaigns** (page 7) identify the major materials and resources developed through the project. Most of these are available at www.uwyo.edu/wintherockies. Additionally, **Project Research Publications** (page 9) and **Other Project Publications** (page 11) list other items developed as a result of the project. In terms of university student training and research across the three states, one medical student taught and evaluated *WIN Kids* lessons in a demonstrator community as part of a course outreach assignment, and seven master's degree students helped gather and then used project data or used an already gathered project data set as the basis for their theses. (See **Project Graduate Students**, above left).

Long-term outcomes

Examples of what conditions have changed or improved:

Within the project communities:

- Awareness about and involvement in project-related activities after the two-year intervention period was significantly greater in demonstrator

(continued on page 15)



I'm at peace with my weight. I don't own a scale. I don't need numbers to tell me that my body weight's okay. I'm just okay with who I am. And I think that when I let go of worrying what everybody else thought, that's when I realized I am an okay person, I don't have to be skinny. I'm healthy and...I'm at peace with that.

- WIN the Rockies narrative interviewee, female, late 40s





Challenges and Shortcomings

The advantages of implementing community-based health-improvement projects are many, and we were grateful for the generous funding WIN the Rockies received to carry out such an undertaking. We offer, however, the following reflections for others to consider and learn from when addressing the complexities of implementing large community-based projects:

Examples of challenges and other lessons learned related to multi-site, multi-institution projects:

- *Employment structure and salaries.* Staff members hired for the project were under the different employment policies of each of the three universities. (See **Project Team Positions**, page 14). One state coordinator was classified as non-exempt (40-hour work week), and the others were classified as exempt (salaried with no compensation for work weeks longer than 40 hours). Although the budget allowed for pay increases over the duration of the grant, these were not implemented uniformly due to regulations that varied among the universities. Additionally, due to budget constraints, not all university faculty team members received salary release dollars from the grant, which limited the time commitment they could make to the project.
- *Distances and communication.* WIN the Rockies involved three universities, six project communities, and 20 team members housed in eight different locations. Hundreds of miles separated team members. Communication was key to smooth functioning and success. Electronic communication links among all team members included a project website, a listserv, monthly conference calls, and regular email correspondence. All project staff members wrote monthly reports, and those reports along with minutes from the staff and all-team conference calls were posted to the listserv. Because electronic communications could not replace face-to-face meetings, the project budget included yearly retreats for all team members and mini-retreats two to three times a year for staff members. Distances were a particular challenge for the state/community coordinators, who viewed face-to-face gatherings as essential to minimize their sense of isolation and to provide them the opportunity to easily and meaningfully share ideas, questions, challenges, and solutions.
- *Problems with blood samples.* Challenges arose with standardizing the collection, cold storage, transport, and analysis of blood samples from the cohort of study adults in all six of the project's very rural communities. Despite many efforts to the contrary, we were unable to overcome problems, and many of the samples ended up being unusable. To other project teams faced with similar challenges, we suggest the following: Perform blood draws in only one or two communities, thereby allowing project staff members to directly supervise and better manage the environment; engage a service that provides a mobile collection unit to project communities; or team up with a rural medical clinic that already sends out samples successfully via overnight carrier.

Other shortcomings

In addition to the challenges noted above, we acknowledge additional major hurdles for the possible benefit of projects being planned by other groups, especially those that seek to change attitudes and behaviors related to food and eating, physical activity, and body image:

- *Intervention period too short.* The team did its best in a two-year period to help foster substantial change at the community level. From the outset, however, we knew – from our own experiences and from the community-change literature – that two years would not be nearly long enough to build substantial community capacity to make and sustain change. Despite many attempts and much hard work, we were unable to obtain further funding to extend the project.
- *Insufficient planning for data analysis and interpretation.* The project generated large amounts of quantitative data (via cross-sectional surveys, adult cohort assessments, and student assessments) and qualitative information (primarily via the collection of narratives). Although these data sets have been the basis for a number of refereed journal articles and other publications (see **Project Research Publications**, page 9, and **Other Project Publications**, page 11), much project data remains uninterpreted.
- *Assessing longer-term community changes.* The draft community portrait tool provided valuable information, but it was too cumbersome for easy use. Additionally, follow-up interviews were conducted with key community leaders and other stakeholders in two communities (one demonstrator and one comparator), but, ideally, these interviews would have been conducted in all six communities.
- *Limited assessment of individual changes that may have occurred with participation in specific programs.* Although the project intervened at the community level, it would have helped the team, the project communities, and others beyond the project if a few targeted assessments of individual-level programs had been conducted. Several smaller applied research efforts have since sought to carry out those evaluations, but WIN the Rockies would have been strengthened with inclusion of those assessments within the project.
- *Attempt to be comprehensive.* Somewhat paradoxically, the scope of WIN the Rockies reflects limitations at both ends of the comprehensiveness spectrum, in other words, reaching too broadly as well as not being able to reach broadly enough.
 - ◆ In terms of too broad a reach, we tried to foster change at two different levels (individual and community) through many different avenues and using a wide range of materials and methods. The resulting limitation is, perhaps, attempting to do too much with too many individuals and groups, resulting in interventions being too shallow and too short. Because, however, the food, physical activity, and body-image factors that influence weight and well-being inundate most Americans throughout their daily lives, we view a comprehensive approach as essential in helping people achieve healthy lifestyles in these areas.
 - ◆ At the other end of the spectrum is the fact that, despite the project's already broad attempted reach, the project hardly began to counter the strong influences of popular American culture and the mass media, which – to a great extent – encourage and support unhealthy attitudes and behaviors related to food and eating, physical activity, and body image. It is probably unrealistic to expect a single project to be broad enough to make a societal difference, and yet, without that type of broad shift, widespread change is highly unlikely.



Project Team Positions

Hired staff

- **Regional project coordinator*** – 1
- **Project education specialist*** – 1
- **Project office manager*** – 1 (provided support for the overall project and both Wyoming project communities)
- **Within-state coordinators** – 4 (2 full-time state project coordinators in Idaho and Montana, working in both the demonstrator and comparator communities, and 2 part-time community coordinators in Wyoming, working separately in the demonstrator and comparator communities**)
- **State support staff** – part-time positions in Idaho and Montana were budgeted and filled during part of the project

University faculty members and students

- *In each state:*
 - ♦ **Medical education program coordinator** – 1
 - ♦ **Extension specialists** – 2 in each state, representing
 - General nutrition education and/or nutrition and food safety, and
 - One or two educational programs for limited resource audiences
- *Additional team members, depending on the state, included*
 - ♦ **Nutrition science faculty member** (Wyoming)
 - ♦ **Project proposal grant writer and narrative research consultant** (Wyoming)
 - ♦ **Director of an Area Health Education Center** (Montana)
- *Several master's degree students from all three states received funding from and participated in the project*

* Housed at the University of Wyoming

** The difference in staffing between Wyoming and the two other states arose after the Wyoming state coordinator resigned shortly before the first data collection. To fill the position quickly, the only viable option was to identify two individuals, one each within the Wyoming demonstrator and comparator communities. This difference in staffing allowed some comparison between having coordinators who lived within their community (as was the case within Wyoming) versus coordinators in Idaho and Montana, neither of whom lived in a project community and traveled a distance to go to either of their state's demonstrator or comparator communities.



I like the idea that as a community, we can create a community attitude.

- WIN the Rockies narrative interviewee, male, 30s to 40s

Comparison of Community Results

Demonstrator vs. Comparator Communities: Selected Differences at Post-Intervention*

Question	Demonstrator Communities**	Comparator Communities**
Have you heard of WIN the Rockies?	41.5	30.6
Have you participated in any activities with WIN the Rockies?	11.2	4.1
Have you made any changes as a result of your participation in WIN the Rockies?	5.6	0.6
Do you know anyone who has participated in WIN the Rockies activities?	13.1	4.1
Have you noticed any of the WIN the Rockies media efforts in your area, for example, newspaper ads, radio spots, and/or billboards?	24.5	11.7
Have you participated in the adult research group for WIN the Rockies?	3.1	2.0

* Based on responses to the second cross-sectional survey, fall 2003; n = 1,913; response rate = 56%.

** Percent of respondents who answered "yes."



(continued from page 12)

than in comparator communities (see **Comparison of Community Results**, page 14).

- Monthly reports from the state/community coordinators regularly provided insights into local developments. Examples of a few of those appear in **Examples of Success Stories** (right).
- **Highlights from Follow-up Stakeholder Interviews** (page 16) lists examples of feedback from interviews conducted fall 2004/spring 2005 by project staff with stakeholders in the three demonstrator communities and one comparator community. Interviews were conducted in person or by phone when a face-to-face interview was not possible.
- The 27 mini-grants awarded in project communities funded local priorities.
- In at least one community, safety of street crossings was reported as having improved.

Beyond the project communities:

- A three-state research project sought to evaluate the combined *A New You: Health for Every Body* and *WIN Steps* programs.
- *Project website and orders for project resources* – In spring 2010, monthly activity records showed 18,000-25,000 hits by 5,000-8,000 visitors. In addition to all the intervention materials (except DVDs) being available to download from the website, more than 400 WIN the Rockies resources have been sold, on a cost-recovery basis, to individuals and groups in 37 states, two Canadian provinces, and Scotland.
- *Workshops and presentations by project team members:*
 - ◆ State and national train-the-trainer workshops at
 - Three state-level Extension conferences in Nebraska, Washington, and West Virginia
 - A national Extension health conference
 - ◆ Project presentations at many state, regional, and national meetings
 - ◆ International conferences, trainings, and/or consultation in Australia and England:
 - Presentations at the kick-off of Australia's *The Everybody Project*, which had been partly based on WIN the Rockies
 - Presentation in Victoria, Australia, to the Victoria public health annual meeting and consultation with state public health leaders on policies and practices to implement a health-focused approach to weight and well-being

Examples of Success Stories*

The pedometer walking program at one senior center had a really slow start. Finally, one senior got excited and showed his new “gadget” to several others, and in no time, the center had distributed more than 400 pedometers and the group decided to take a virtual walk to Hawaii.

One community had a history buff, and when she signed up for the pedometer walking program, she set a step goal equivalent to the distance to specific states. She mapped out a route that took her to locations of historic interest to her personally. Once she walked enough steps to get to a location, she then read about the history of the area.

Comments from community walking program evaluations included the following:

- *There are sure a lot of nice people in this community, and you find them when you're out walking.*
- *We got to see the full moon come up over the mountains, and we would have missed that if we'd been in the house watching TV.*
- *My walking logs show I average 10,000 steps a day, but what the logs don't show you is how much easier it is for me now compared to when I first started.*
- *After losing 80 pounds from the start to the end of the program, one adult cohort said people in town were always asking him how he did it. His response was simple: I just don't eat as much anymore, and I walk a lot.*
- *When the soft drink machines were removed from a school, several school personnel expressed concern over the \$6,000 annual loss in revenue. The response from the school principal swayed the group: The school budget must not take precedence over the good health of our students.*
- *Commenting on the project's fresh fruit and vegetable coupons, one member of the adult cohort said the coupons were at first a gentle push to buy more fruits and vegetables, but that over time, he actually became hungry for fruits and vegetables.*
- *One fifth-grade student wrote the following on the bottom of one of his surveys: I am really glad that you care that I am healthy.*

* Taken from state/community coordinators' monthly narrative reports



Highlights from Follow-up Stakeholder Interviews*

Community perspectives – overall

- “The total community-wide approach used by WIN the Rockies is what has made a great impact on our community. Unlike other efforts in our town, it wasn’t an isolated program for just the schools or just for seniors.”
- “I think the media efforts as far as billboards, radio, and newspaper were effective and created a lot of awareness and interest. Everywhere you went in this town, people were talking about those messages.”
- “The one thing I really liked about WIN the Rockies was the fact all ages could participate – from kindergarten to the elderly. The variety of information provided in different ways is what made the program effective – billboards, radio, newspaper, classes, and coupons for fruits and vegetables.”

Community perspectives – physical activity/nutrition

- “I think what WIN the Rockies did for our community was to take people where they were at and then bump them up at least one step as far as improved physical activity and nutrition.”
- “One thing I have noticed as a result of WIN the Rockies is that a lot more people are using the walking track at the city park.”
- “The pedometers provided by WIN the Rockies gave a final push to public support for expansion of our trail system. We had one walking trail – now there are four!”

Individual/family perspective – physical activity

- “When I was tired at the end of the day, sometimes I was surprised by how few steps were recorded on my pedometer. It made me realize my fatigue was emotional rather than physical.”

Individual/family perspectives – nutrition/health

- “Participating in the focus groups for the narratives had a profound impact on me personally. I now have a much greater awareness about my eating patterns.”
- “You want a success story about WIN the Rockies? I’ll give you one. Two diabetics in our family have been able to go off medication.”
- “I can’t speak for the entire community, but let me tell you the changes I’ve made as a result of WIN the Rockies. I changed from whole milk to skim. I no longer order combo meals and I never super-size. I haven’t had a soda for over a year now. I have lowered my total cholesterol, and I feel better and I’m happy.”
- “I’m now much more aware of how adult eating habits influence our children. Now my goal is to not only eat healthy for myself but to also model that behavior for my children.”

* Interviews conducted in person and by phone in four project communities in late 2004/early 2005.



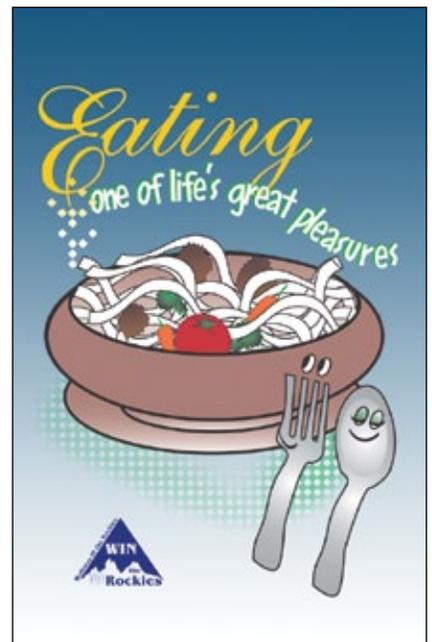
If I can speak to children, ...just to have an awareness that everyone is different, and everyone’s talents lie in different areas. And being athletic... [is only] one of those talents.... So [children need] that awareness that people are different. ”

- WIN the Rockies narrative interviewee, female, early 40s

- Presentations and a train-the-trainer workshop at a national Health At Every Size (HAES) conference in Leeds, England.
- A few other examples of WIN the Rockies’ influence beyond the originally funded project include the following, which reflect use of project components by a broad range of groups over a wide geographic area:
 - ◆ *A New You: Health for Every Body*
 - Used as the community outreach wellness program by a hospital in a mid-Atlantic state
 - Adapted for use with a Native Alaska population, with grant funding through the Department of Health and Human Services
 - Adapted for online delivery by Extension educators in a Midwestern state
 - Adapted and combined with *WIN Steps* to
 - provide a major component of a family-focused 4-H/Youth Development wellness program, part of a USDA-funded research project at a Rocky Mountain university
 - develop a one-credit course that fulfills a physical education requirement at a Rocky Mountain university.
 - ◆ *WIN Kids*
 - Offered as a 4-H/Youth Development program option in one Rocky Mountain state



- Incorporated into lessons taught to youth audiences in the educational component of the USDA's Supplemental Nutrition Assistance Program (SNAP – formerly the Food Stamp Program) in one Upper Midwestern state
- Used by a graduate student at a university in the southeastern U.S. as part of an outreach project
- *Fun Days* logo, reflective of respect for body-size diversity among youths, used by a group in Western Europe.
- ◆ Other project resources
 - *Prescriptions for Health* materials were adapted and reproduced by a national organization of family physicians as part of one of the group's continuing medical education programs.
 - Conversation cards (part of *Cook Once: Eat for Two Weeks*) were adapted for use by a SNAP-Education program in a New England state.
 - Research instruments were shared with a number of different agencies and organizations across the country.
 - In response to many requests about all aspects of the project, team members provided guidance and shared insights by phone and in writing to many individuals representing diverse groups, including universities, K-12 schools, state and local health departments, Extension offices, hospitals and health-care clinics, Indian Health Service, and other national and state government agencies.
- ◆ Overall – project philosophy and/or resources
 - Were included in a national organization's child-focused toolkit
 - Informed presentations at an international cancer conference in Far East Asia.



Reflections and Connections

In summary, we view WIN the Rockies as part of a larger context that includes other published studies, perspectives, and policy papers from a range of sources and disciplines that document the value and appropriateness of this health-centered (vs. weight-centered) approach to well-being (see **Other Relevant Literature Related to Non-dieting Approaches**, page 18, and **Examples of Other Publications Relevant to Health-focused Well-being**, page 19). We did our best to stay true to the project's philosophy, trying to help people take responsibility for their own health while assisting communities to create environments that foster good health and provide healthy options.



Other Relevant Literature Related to Non-dieting Approaches

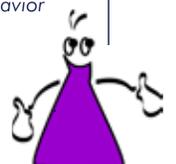
The publications below document the value of a non-dieting approach to weight and well-being, an orientation consistent with health-focused approaches.

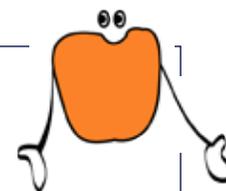
Research articles

- Bacon L, Keim NL, Van Loan MD, Derricote M, Gale B, Kazaks A, Stern JS. Evaluating a “non-diet” wellness intervention for improvement of metabolic fitness, psychological well-being and eating and activity behaviors. *International Journal of Obesity* 2002;26:854-865.
Women characterized as chronic dieters were randomly assigned to either a “health-centered” non-diet wellness program or a traditional “weight loss-centered” diet program. The programs consisted of six months of weekly group interventions, followed by six months of monthly after-care group support. Cognitive restraint increased in the diet group and decreased in the non-diet group. The non-diet approach produced similar improvements in metabolic fitness, psychology, and eating behavior, while minimizing the attrition rate. Weight loss (mean of 5.9 kg or 13.0 lbs) was observed only in the diet group.
- Bacon L, Stern JS, Van Loan MD, Keim NL. Size acceptance and intuitive eating improve health for obese, female chronic dieters. *Journal of the American Dietetic Association* 2005;105:929-936.
In a follow-up to the above study (Bacon et al., 2002), 50 percent of both groups participated in a two-year follow-up evaluation. Health At Every Size (HAES) group members maintained weight and sustained improvements in all outcome variables. Diet group participants lost weight and maintained weight loss at one year, but at two years, weight had been regained and little improvement in outcome variables had been sustained.
- Carroll S, Borkoles E, Polman R. Short-term effects of a non-dieting lifestyle intervention program on weight management, fitness, metabolic risk, and psychological well-being in obese premenopausal females with the metabolic syndrome. *Applied Physiology, Nutrition, and Metabolism* 2007;32:125-142.
Women were randomly assigned to a non-dieting lifestyle intervention group (three-month intervention) or a wait-listed control group. Compared with the control group, the lifestyle intervention group showed significant improvement in cardio-respiratory fitness and general psychological well-being. There were no significant group differences in changes in body mass index.
- Goodrick GK, Poston WSC II, Kimball KT, Reeves RS, Foreyt JP. Nondieting versus dieting treatment for overweight binge-eating women. *Journal of Consulting and Clinical Psychology* 1998;66:363-368.
Women characterized as binge eaters were randomly assigned to either a diet treatment, a non-diet treatment, or a wait-listed control. The non-diet treatment group received therapy designed to help participants break out of their dieting cycles. Treatments were administered in weekly groups for six months, followed by 26 biweekly maintenance meetings. Neither intervention was successful in producing short- or long-term weight loss, but both were associated with reductions in Binge Eating Scale scores.
- Hawley G, Horwath C, Gray A, Bradshaw A, Katzer L, Joyce J, O’Brien S. Sustainability of health and lifestyle improvements following a non-dieting randomised trial in overweight women. *Preventive Medicine* 2008;47:593-599.
Three non-dieting interventions involved a 10-week program, followed by an eight-month support phase. All three encouraged participants (all women) to break their dietary habits and shift their focus from body weight goals to developing sustainable healthy lifestyle changes. Only for participants in the intervention that included intensive relaxation response training were the reductions in psychological distress and medical symptoms achieved at one year also maintained at two years. In all three non-dieting interventions, mean weight was unchanged at two years.
- Provencher V, Bégin C, Tremblay A, Mongeau L, Corneau L, Dodin S, Boivin S, Lemieux S. Health-at-every-size and eating behaviors: 1-year follow-up results of a size acceptance intervention. *Journal of the American Dietetic Association* 2009;109:1854-1861.
Women were randomly assigned to a HAES group, social support group, or control group for a four-month intervention followed by an assessment at six-months and one-year post-intervention. Situational susceptibility to disinhibition and susceptibility to hunger significantly decreased over time in both the HAES and social support groups. Significant associations were observed between eating behavior changes and body weight changes only in the HAES group.
- Rapoport L, Clark M, Wardle J. Evaluation of a modified cognitive-behavioural programme for weight management. *International Journal of Obesity* 2000;24:1726-1737.
Women were randomly assigned to either a modified cognitive-behavioral treatment for weight management, which emphasized lifestyle change to prevent weight gain and specific goals consistent with the HAES approach, or a standard cognitive-behavioral therapy, which emphasized weight loss through energy restriction. Both involved weekly, two-hour sessions over a 10-week period. Both programs were associated with modest weight loss, improved emotional well-being, increased activity and fitness, improved dietary quality, and reduced cardiovascular disease risk factors; these improvements were maintained or continued at one-year follow-up.
- Steinhardt MA, Bezner JR, Adams TB. Outcomes of a traditional weight control program and a nondiet alternative: a one-year comparison. *Journal of Psychology* 1999;133:495-513.
Full-time employees of a company in Austin, Texas, participated in either a 10-week traditional weight control program or a non-diet alternative program. Outcome variables, including behavioral, psychological, and biomedical measures, were assessed at baseline, 10 weeks later, and again at one year. At one year, both groups had decreased their body preoccupation and increased their physical self-esteem. Participants in the traditional weight control program increased their restrained eating whereas those in the non-diet alternative program decreased their restrained eating. Neither program had an effect on biomedical outcomes including body weight, blood pressure, and blood cholesterol.

Review articles/book chapter

- Foreyt JP, Goodrick GK. Weight management without dieting. *Nutrition Today* 1993; March/April:4-9.
Discusses the psychology of dieting and describes an approach to weight management without dieting.
- Foster GD, McGuckin BG. Nondieting approaches: principles, practices, and evidence. In: Wadden TA, Stunkard AJ, eds. *Handbook of Obesity Treatment*. The Guilford Press, New York; 2002; pp. 494-512.
Describes the non-dieting view as to why dieting is ineffective and harmful; non-dieting goals and methods as well as strengths and weaknesses of this approach are also discussed.
- Miller WC. The weight-loss-at-any-cost environment: How to thrive with a health-centered focus. *Journal of Nutrition Education and Behavior* 2005;37(suppl 2):S89-S93.
Summarizes research-based support for the HAES paradigm and discusses ways to implement this approach.
- Miller WC, Jacob AV. The Health At Every Size paradigm for obesity treatment: the scientific evidence. *Obesity Reviews* 2001;2:37-45.
Describes the major tenets of the HAES paradigm as well as program outcomes and limitations.





Examples of Other Publications Relevant to Health-focused Well-being

Below are examples of review articles, policy documents, and other publications that support a health-focused (vs. weight-focused) approach to promotion of well-being, including outreach to individuals all along the weight continuum, consideration of body image in addition to food and physical activity as factors influencing weight and well-being, and efforts to address environmental levels, that is, those beyond the individual.

Key review articles

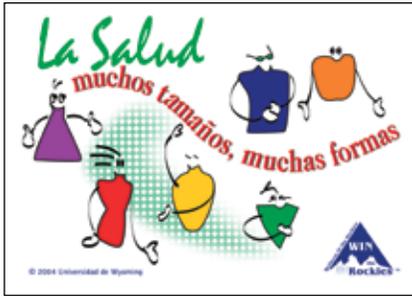
- Kahn EB, Ramsey LT, Brownson RC, Heath GW, Howze EH, Powell KE, Stone EJ, Rajab MW, Corso P, Task Force on Community Preventive Services. The effectiveness of interventions to increase physical activity. A systematic review. *American Journal of Preventive Medicine*. 2002;22(4 suppl):73-102.
Summarizes evaluation of informational, behavioral and social, and environmental and policy approaches to increase physical activity, with effectiveness measures in terms of changes in physical activity behaviors and aerobic capacity. Offers recommendations based on results.
- McFarlane T, Polivy J, McCabe RE. Help, not harm: Psychological foundation for a non-dieting approach toward health. *Journal of Social Issues*. 1999;55:261-276.
Reviews the literature on the psychological consequences of dieting. Concludes that dieting has a negative impact on psychological well-being and presents and recommends alternative non-dieting approaches toward eating to promote psychological health.
- Neumark-Sztainer D. Preventing obesity and eating disorders in adolescents: What can health care providers do? *Journal of Adolescent Health*. 2009;44:206-213.
Describes five research-based recommendations for health-care providers to help prevent both obesity and eating disorders among adolescents whom the providers see within clinical, school, and other settings.

Policy documents

- Daniélsdóttir S, Burgard D, Oliver-Pyatt W. AED (Academy for Eating Disorders) Guidelines for Childhood Obesity Prevention Programs. 2009. Accessed February 26, 2009, at www.aedweb.org/media/Guidelines.cfm
Applauds efforts to make children's environments as healthy as possible but maintains that because healthy living is important for children of all sizes, interventions should focus on lifestyles rather than weight. Offers insights and research-based guidelines for construction and implementation of "obesity prevention" programs to minimize chances of potential harm.
- Smith JP. Shared risk factors for youth obesity and disordered eating. American Psychological Association, Public Interest Government Relations Office. Accessed November 1, 2008, at www.apa.org/ppo/pi/eating_disorders.html
Highlights shared risk factors for youth obesity and disordered eating.
- Smith JP. Recommendations to prevent youth obesity and disordered eating. American Psychological Association, Public Interest Government Relations Office. Accessed November 1, 2008, at www.apa.org/ppo/pi/eating_disorders.html
Recommends prevention efforts to address the physical and mental health complications associated with obesity and disordered eating, based on the fact that these problems and their associated morbidities often co-occur over time and share both risk and protective factors.

Other thought-provoking publications

- Blair SN, LaMonte MJ. Commentary: Current perspectives on obesity and health: black and white, or shades of grey? *International Journal of Epidemiology*. 2006;35:69-72.
Examines four issues related to body weight and well-being. Calls for focusing attention in clinical interventions and public health programs on healthful lifestyle behaviors.
- Flegal KM, Graubard BI, Williamson DF, Gail MH. Cause-specific excess deaths associated with underweight, overweight, and obesity. *The Journal of the American Medical Association*. 2007;298:2028-2037.
Documents that BMI-mortality association varies by cause of death, with the categories of underweight, overweight, and obesity each associated with significant increases in mortality risk from some causes. Overweight and obesity (but not underweight), however, also were associated with significant decreases in mortality from some other causes.
- Mann T, Tomiyama AJ, Westling E, Lew A-M, Samuels B, Chatman J. Medicare's search for effective obesity treatments: Diets are not the answer. *American Psychologist*. 2007;62:220-233.
Based on a meta-analysis of 31 long-term studies, documents dieting as ineffective in yielding sustained weight loss or health benefits for the majority of adult Americans.
- Schwartz MB, Brownell KD. Obesity and body image. *Body Image*. 2004;1:43-56.
Identifies several close linkages between body image and obesity. Among a number of conclusions, underscores the need to reject the idea that body image distress is beneficial as a motivator for change.
- Wildman RP, Muntner P, Reynolds K, McGinn AP, Rajpathak S, Wylie-Rosett J, Sowers MFR. The obese without cardiometabolic risk factor clustering and the normal weight with cardiometabolic risk factor clustering: Prevalence and correlates of two phenotypes among the U.S. population (NHANES 1999-2004). *Archives of Internal Medicine*. 2008;168:1617-1624.
Based on nationally representative data, documents a high prevalence of clustering of cardiometabolic abnormalities among normal-weight individuals and a high prevalence of overweight and obese individuals who are metabolically healthy.



Notes

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- ² As defined by Joanne Ikeda, retired from the University of California, Berkeley and UC-Berkeley’s Center for Weight and Health, “A healthy weight is the weight you achieve and maintain when you have a healthy lifestyle.” Accordingly, for some people, their healthy weight will be within a so-called “normal” range of BMI while for others, their healthy weight will be outside that range. From this perspective, body weight is one important indicator of health, but there are other important indicators, too. These include blood pressure, levels of fats in the blood (e.g., triglycerides, HDL cholesterol, and LDL cholesterol), fruit and vegetable intakes, frequency and duration of physical activity, etc. Additional publications in the “Focus on Health, Not Weight” series provide information on other aspects of healthy lifestyles related to physical activity, food and eating, and body image.
- ³ WIN the Rockies received approval from the three appropriate institutional review boards (IRBs) – at University of Wyoming, Montana State University, and University of Idaho – that oversee projects conducted with individuals in their respective states.
- ⁴ Changes in BMI were not set as a project objective. They were calculated, however, to be able to assess possible changes in clinical values and/or reported behaviors and attitudes as related to or independent of changes in body weight; that is, to provide more context if there were changes in any of the variables measured.

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You can eat almost any food as long as you learn how to eat the right quantities of food...and get some physical activity with it.... And as long as you’re healthy, it really doesn’t matter...how other people think of you. It’s a matter of how you feel about yourself.”

- WIN the Rockies narrative interviewee, male in his 30s

