

A young child with light-colored hair is shown in profile, blowing bubbles. The background is a soft, greenish-yellow color with many bubbles of various sizes floating around. The child is wearing a green shirt and a red collar is visible. The overall mood is joyful and carefree.

Results of Utah's Family High Risk Program

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Today's Roadmap

- Overview of the Family High Risk Program
- Interventions
- Evaluation results
- Limitations
- Lessons learned





Family High Risk Program

- 1983-1999
- 10th grade high school students
- Used as part of a four day curriculum
- Three consent options





Health Family Tree

1 YOU

Name

Year of birth _____ Age _____ Male
 Female

Has he/she ever been told BY A DOCTOR that he/she suffers from any of the following health problems?

YES	NOT SURE	AGE AT FIRST DIAGNOSIS	Condition
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Heart Attack (hospitalized)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Coronary bypass surgery
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Rheumatic or other heart disease
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Stroke
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Breast cancer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Colon cancer
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Hip fracture
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Asthma
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Alzheimer's disease
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	High blood pressure (on medication)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	High blood cholesterol
<input type="checkbox"/>	<input type="checkbox"/>	<input type="text"/>	Diabetes

CIGARETTE SMOKING

Smoker: Has smoked cigarettes regularly for at least 1 year
 Ex-smoker: Stopped for at least 1 year after smoking regularly
 Non-smoker: Never smoked cigarettes regularly
 Not Sure

IF SMOKER OR EX-SMOKER mark average amount smoked

Less than 1 pack a day
 About 1 pack a day
 More than 1 pack a day

USUAL WEIGHT

Slender or average 10-49 lbs. overweight
 50-99 lbs. overweight Over 100 lbs. overweight
 Not Sure

ALCOHOLIC BEVERAGES (beer, wine, liquor)?

Regularly Sometimes
 Never Former
 Not Sure

Vigorous ROUTINE EXERCISE at least 3 times per week?

Yes No Not Sure

- Collected health and lifestyle information
- Three generations (parents, siblings, grandparents, aunts and uncles)
- Transferred to scanner forms and analyzed by University of Utah Cardiovascular Genetics Research Clinic

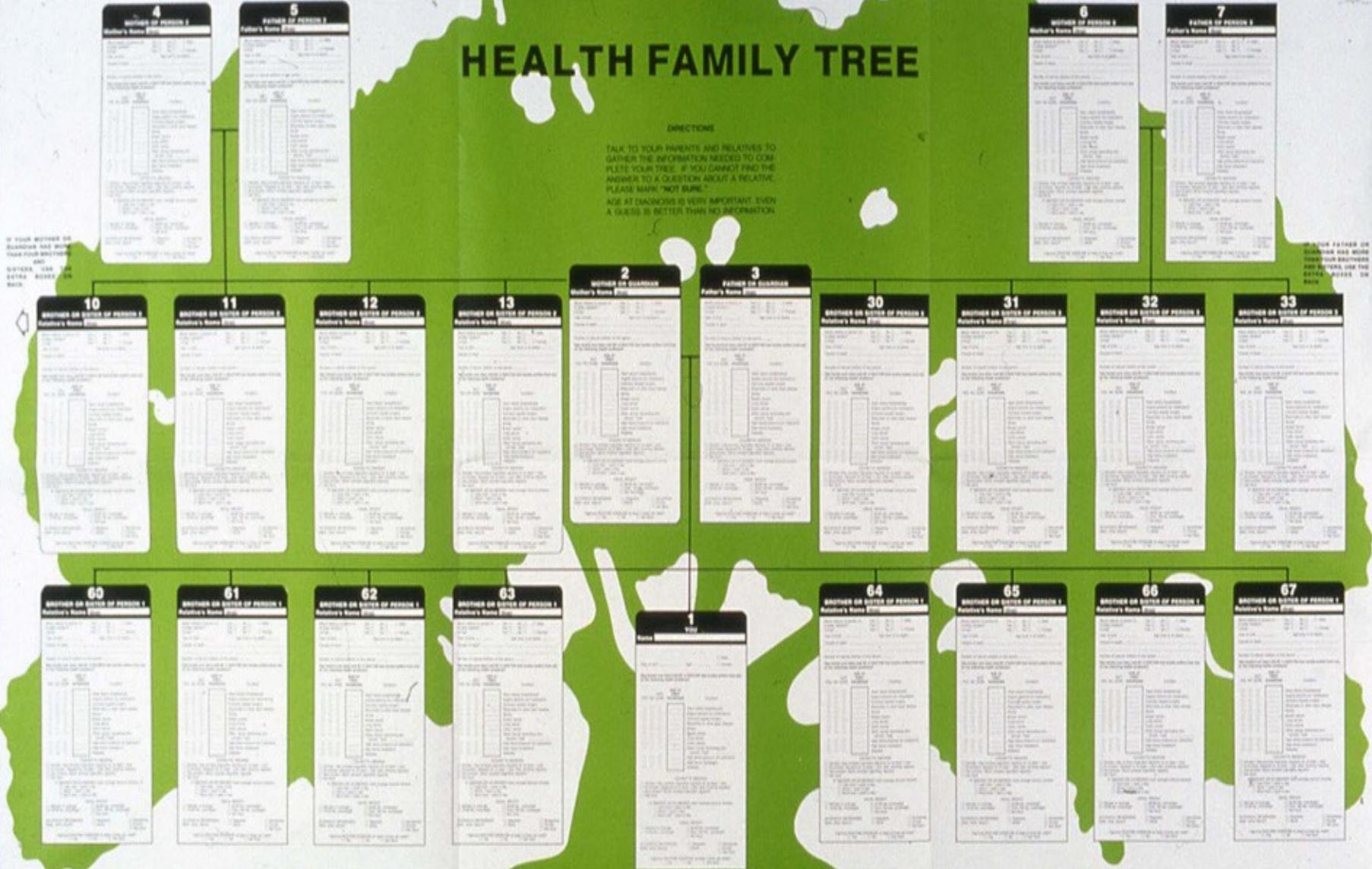
HEALTH FAMILY TREE

DIRECTIONS

TALK TO YOUR PARENTS AND RELATIVES TO GATHER THE INFORMATION NEEDED TO COMPLETE YOUR TREE. IF YOU CANNOT FIND THE ANSWER TO A QUESTION ABOUT A RELATIVE, PLEASE MARK "NOT SURE."
AGE AT DIAGNOSIS IS VERY IMPORTANT. EVEN A GUESS IS BETTER THAN NO INFORMATION.

IF YOUR MOTHER OR BROTHER HAS ALZHEIMER AND YOU'RE FROM FOUR BRANCHES AND DOWN, USE THE EXTRA BOXES ON BACK.

IF YOUR FATHER OR BROTHER HAS ALZHEIMER AND YOU'RE FROM FOUR BRANCHES AND UPWARD, USE THE EXTRA BOXES ON BACK.



SAVE THIS TREE!!

SHOW IT TO YOUR PHYSICIAN. KEEP IT TO HELP YOUR PARENTS AND YOUNGER BROTHERS AND SISTERS WHO MAY PARTICIPATE IN THIS PROJECT.



Family High Risk Program



- Risk assessment sent to consenting families
- Over 444,900 individuals identified as “high risk” for one or more diseases
- 8,546 high risk families offered tailored interventions from 1983-1999



Family High Risk Program

- 151,188 Utah families participated
- 80% of families fully participated
- 80,611 Health Family Trees collected





Interventions



- Local health department public health nurses
- Followed nursing protocols developed by FHRP staff
- Initial telephone contact
- In-home visits (family-centered)
- Reviewed HFT results, provided tailored education, medical screenings, and referrals



Evaluation

- 10 year evaluation
- Baseline and 3 follow up surveys
- Cohort of “high” (cases) and “low” (controls) risk families selected from 1983-1985, stratified by school district and semester of participation
- Measured behavior changes
- Families provided contact information for additional follow up



Protocol Used



- Introductory letter and survey
- Thank you and reminder post cards mailed 3 weeks later
- Letter and survey mailed to non-respondents 4 weeks later
- Certified letter and survey mailed to non-respondents 4 weeks later



FAMILY HIGH RISK PROGRAM
Health Survey



Utah Department of Health
Division of Community Health Services
Bureau of Chronic Disease Control

FAMILY HIGH RISK PROGRAM
HEALTH SURVEY

The Utah Department of Health, Family High Risk Program is evaluating the health behaviors in families who have participated in the Health Tree Program. Your answers are very important in helping us improve this new program in disease prevention. Please take a few minutes to carefully complete this survey and return it to us promptly in the envelope provided.

Thank you very much for your help.

ALL INFORMATION WILL BE KEPT CONFIDENTIAL.



Sample Question

- As a result of involvement in the “Tree” program, has any family member had a medical examination?
 - Yes (list family members)
 - No
 - All family members previously saw a physician regularly
 - This was not a recommendation for our family



Evaluation

- Baseline, 1986
 - Cases received interventions while controls did not
 - 681 case families randomly selected by FHRP (from all high risk from 1983-1985)
 - 671 control families randomly selected by University of Utah (from all low risk from 1983-1985)
 - 53.7% case and 62.7% control families completed the baseline





Evaluation



- 1st follow up, 1987
 - 216 case and 263 control families completed the survey
- Intent to survey families annually for four years but...



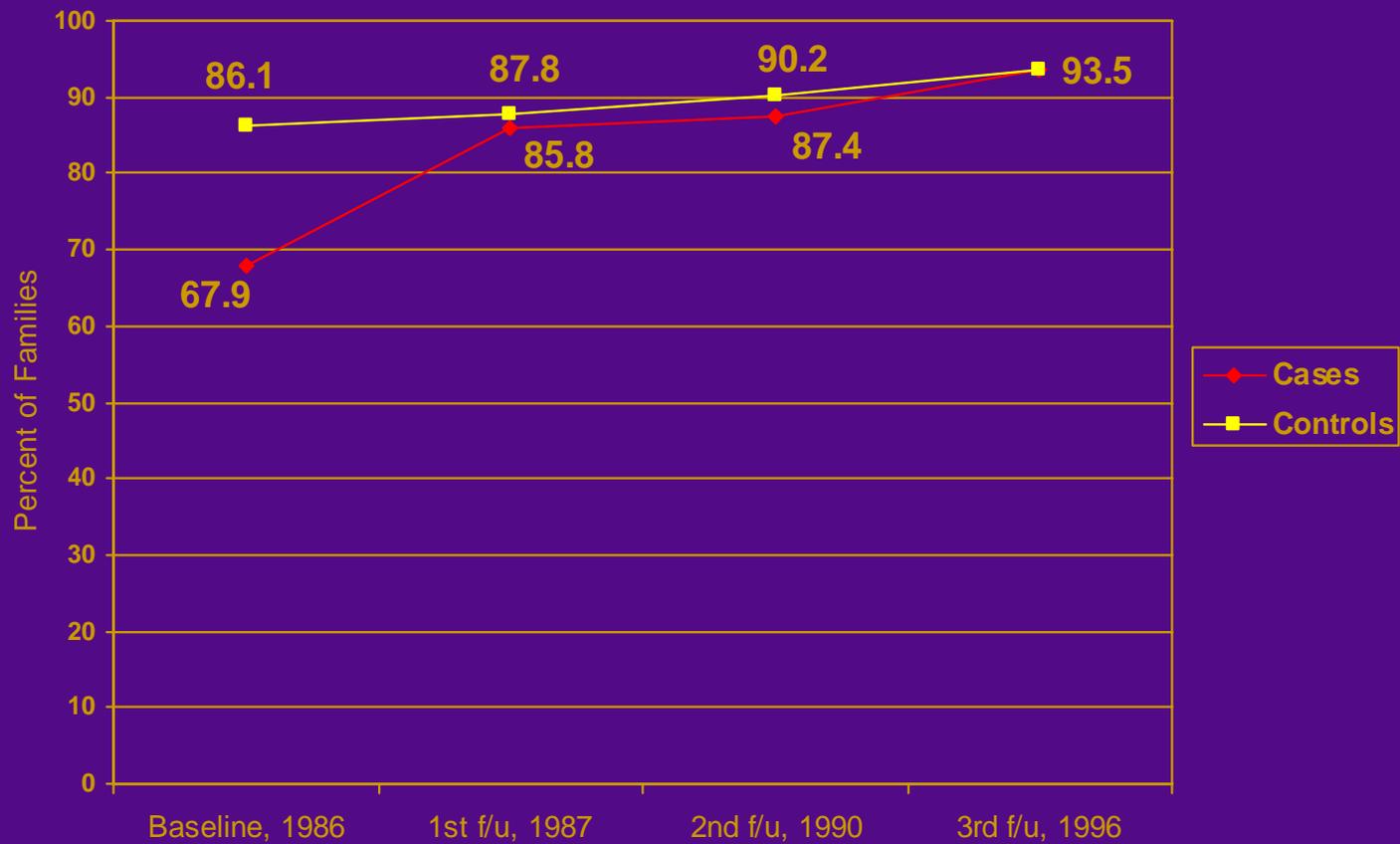
Evaluation

- 2nd follow up, 1990
 - Completed baseline and 1st follow up survey
 - 110 case and 132 control families completed the survey
- 3rd follow up, 1996
 - Completed baseline and either the 1st or 2nd follow up survey or both
 - 175 case and 199 control families completed the survey

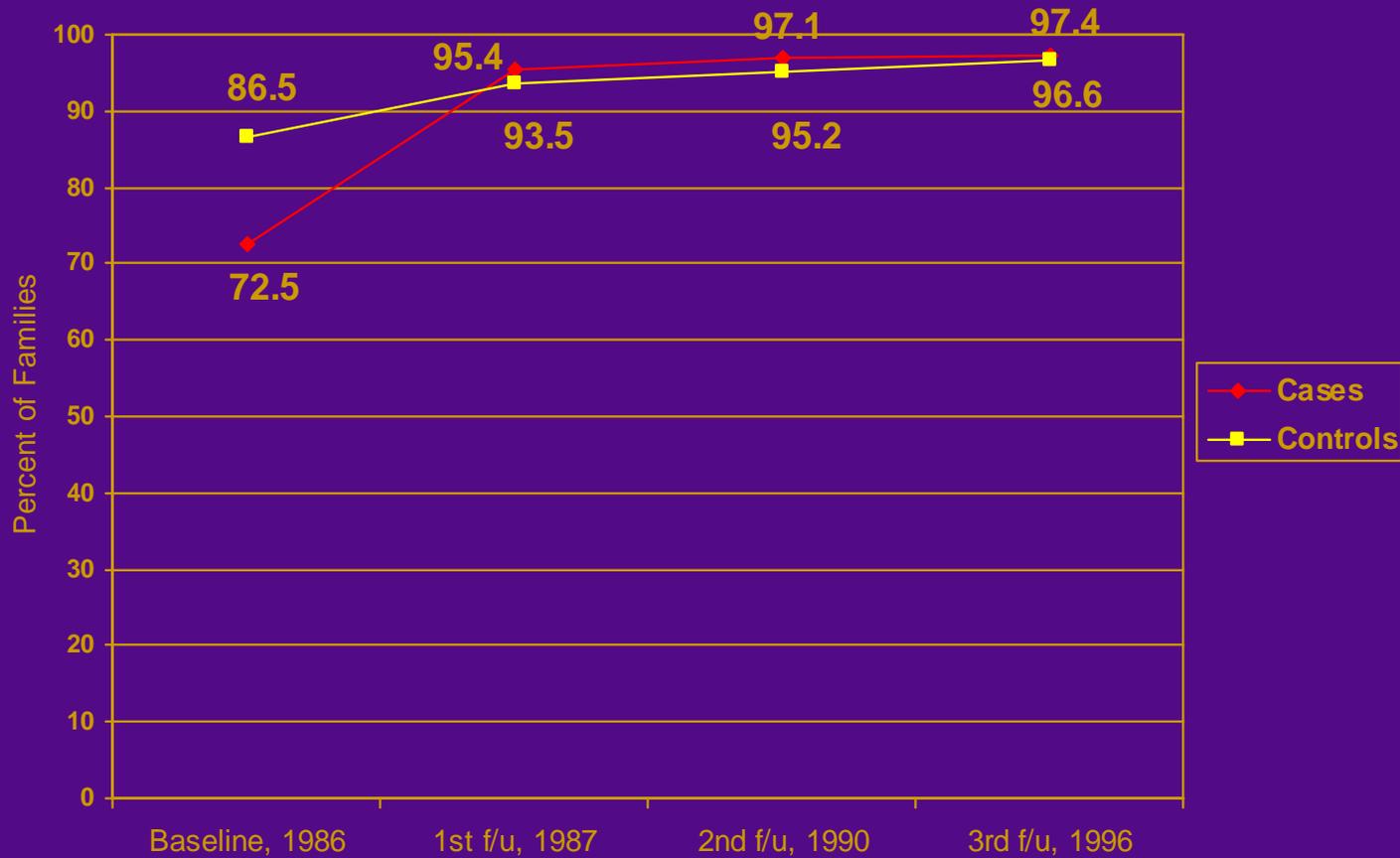


So... does knowing one's
risk based on their family
health history motivate
behavior change?

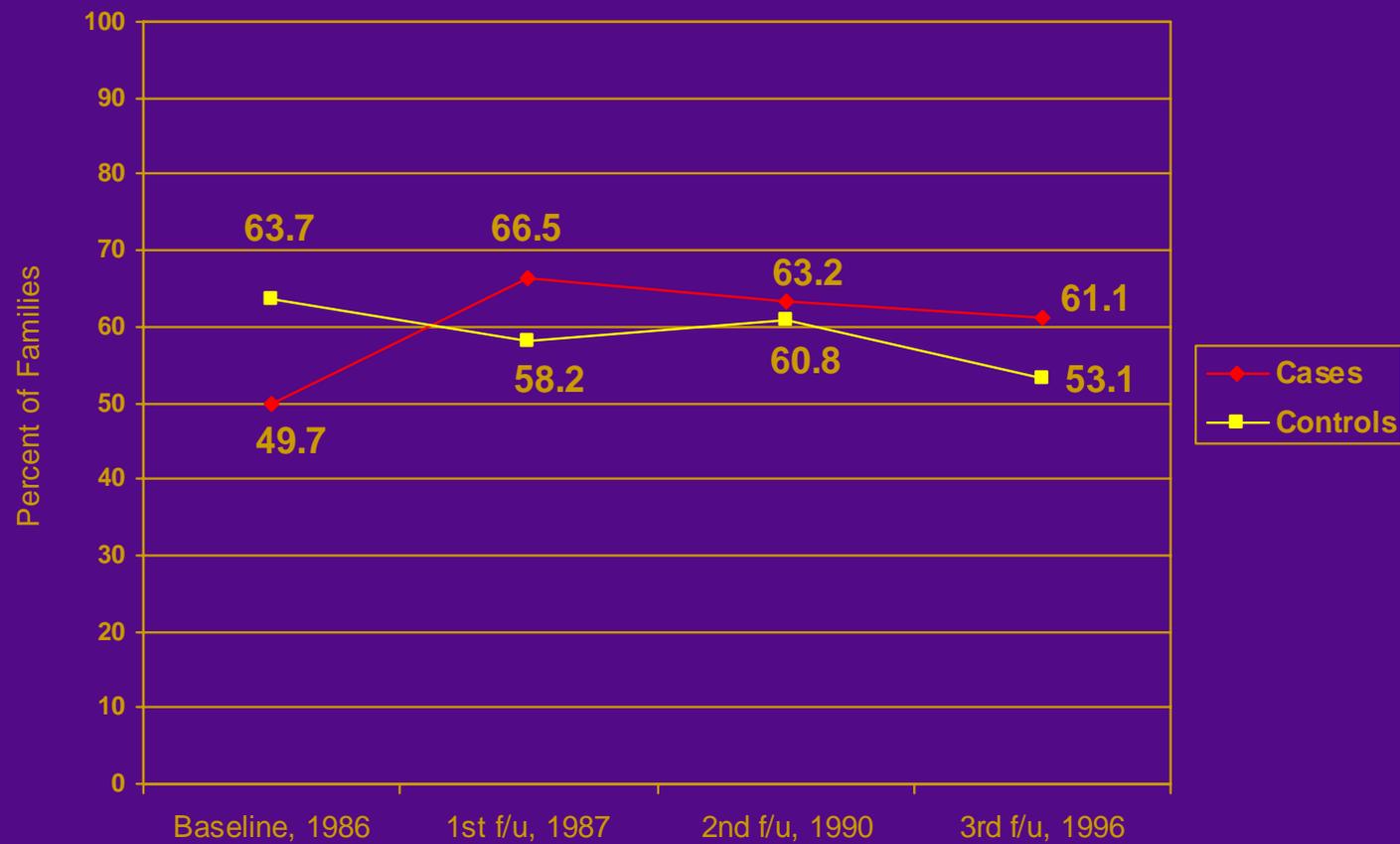
Medical Exams



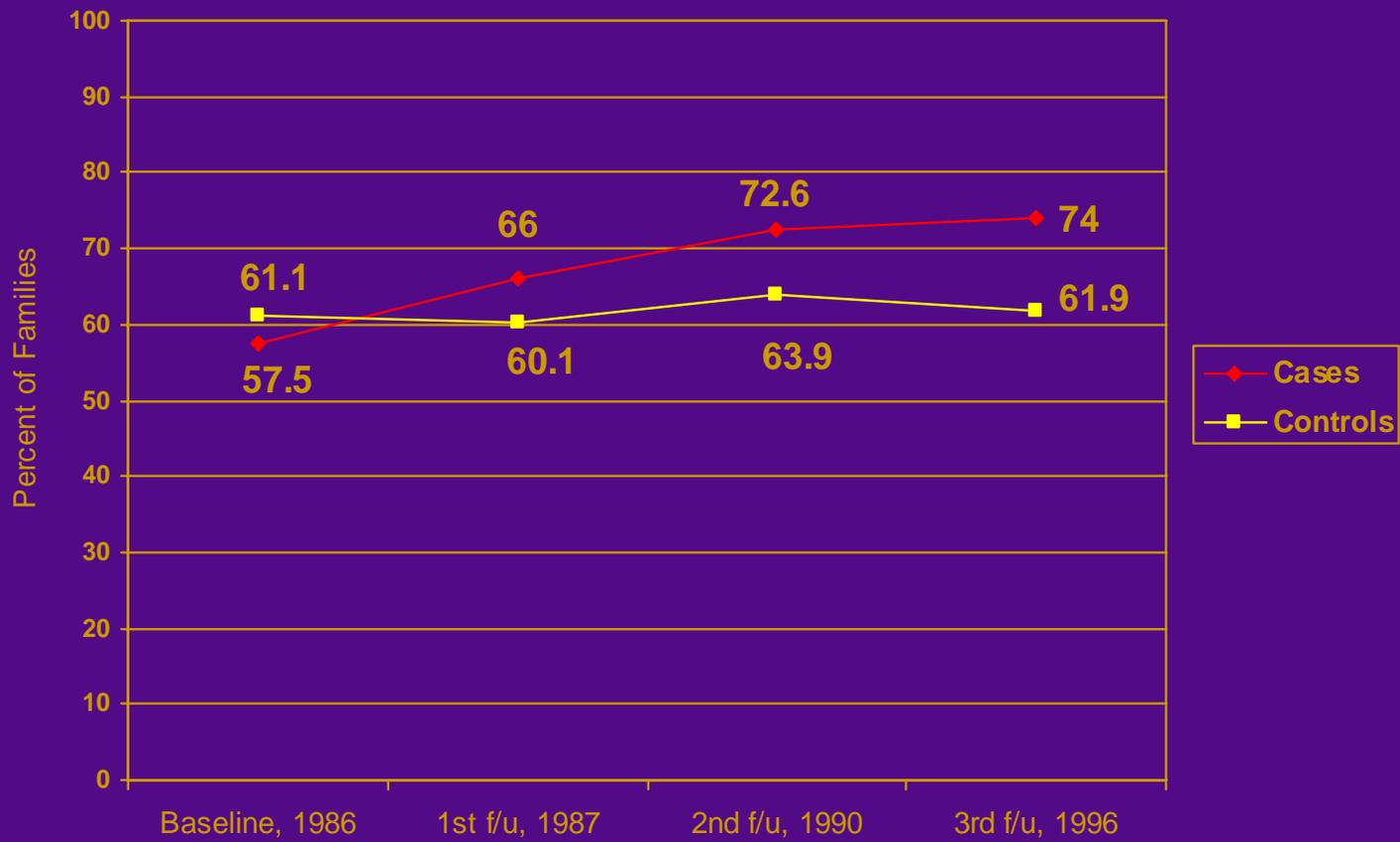
Blood Pressure Check



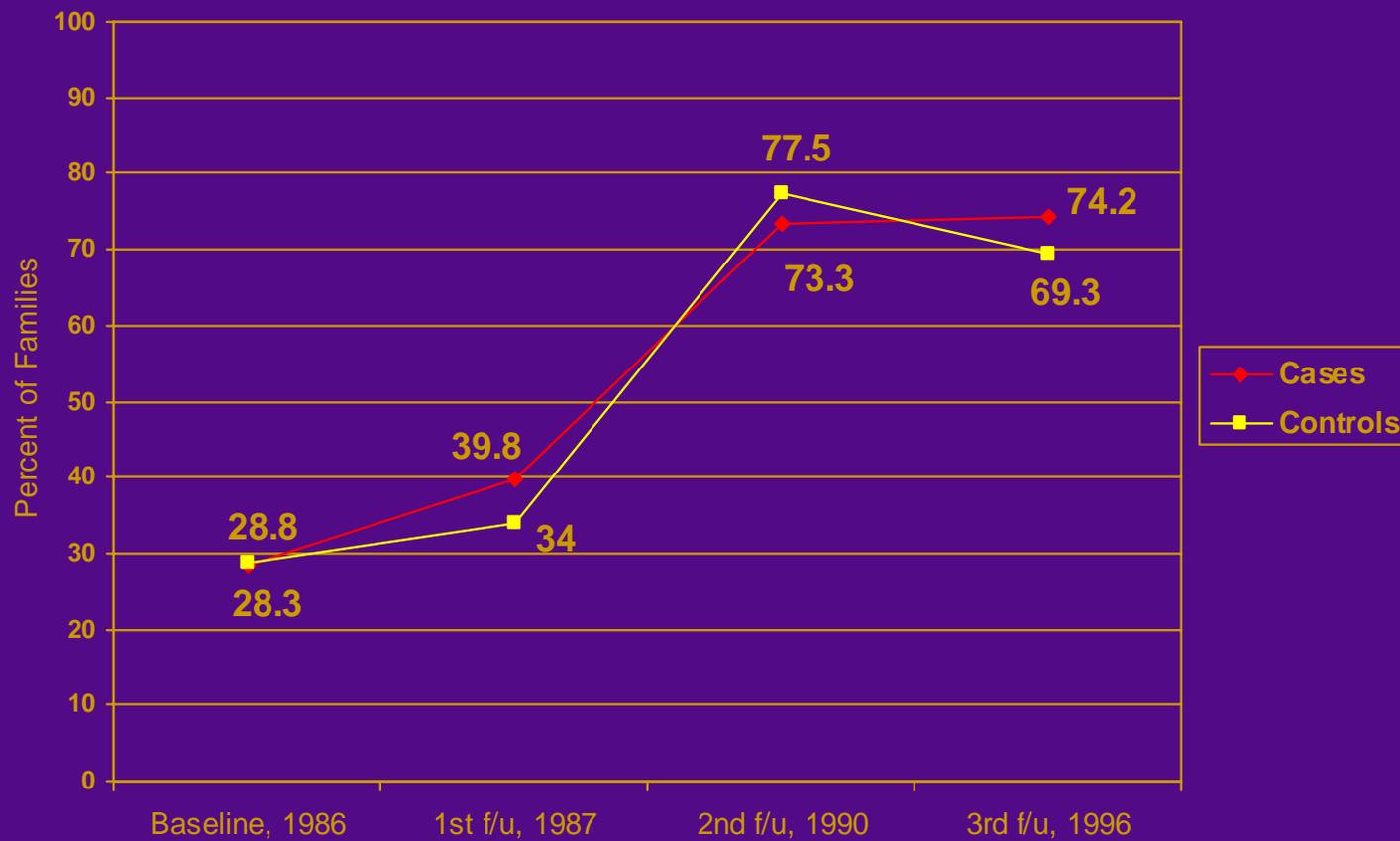
Weight Loss



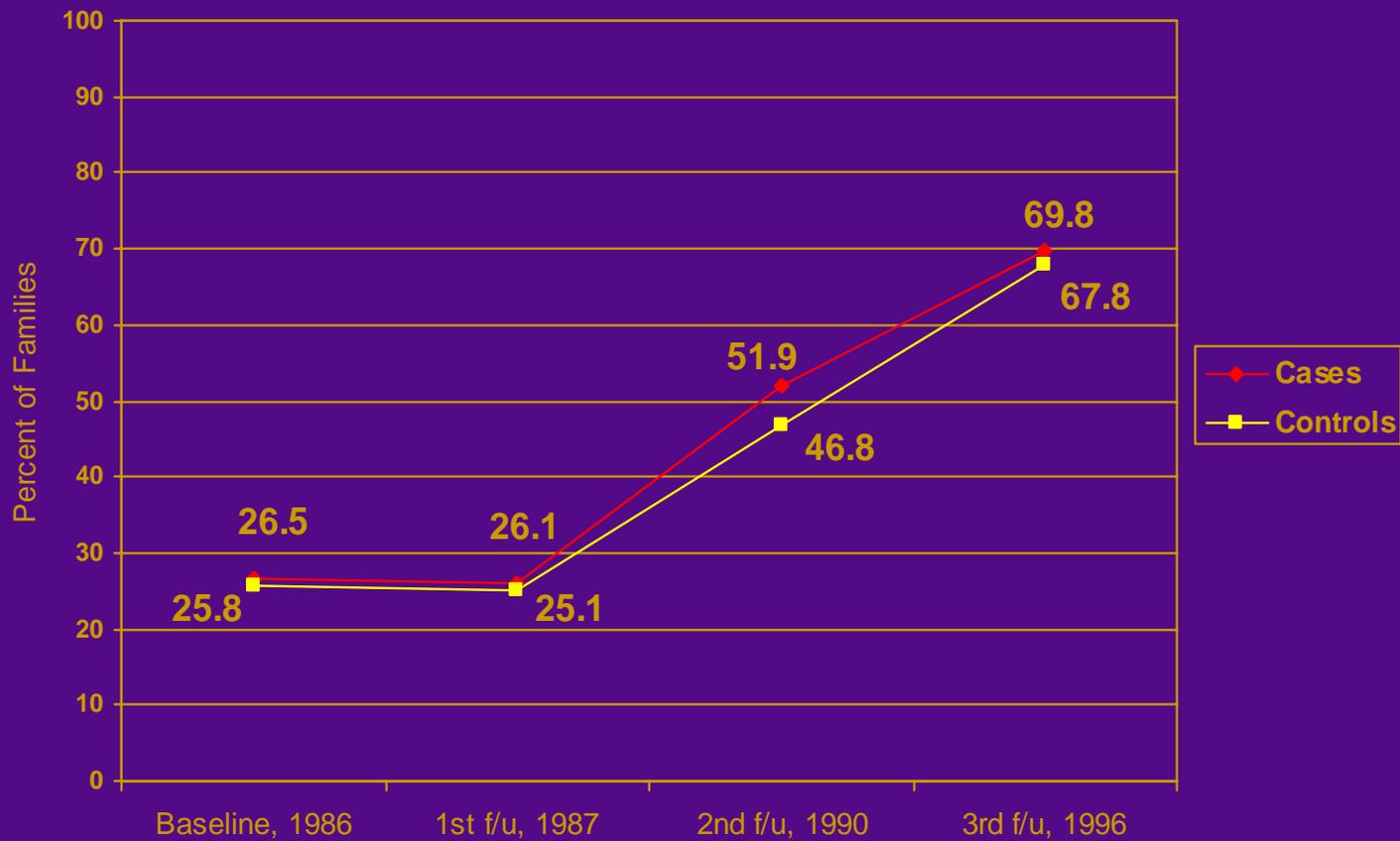
Exercise



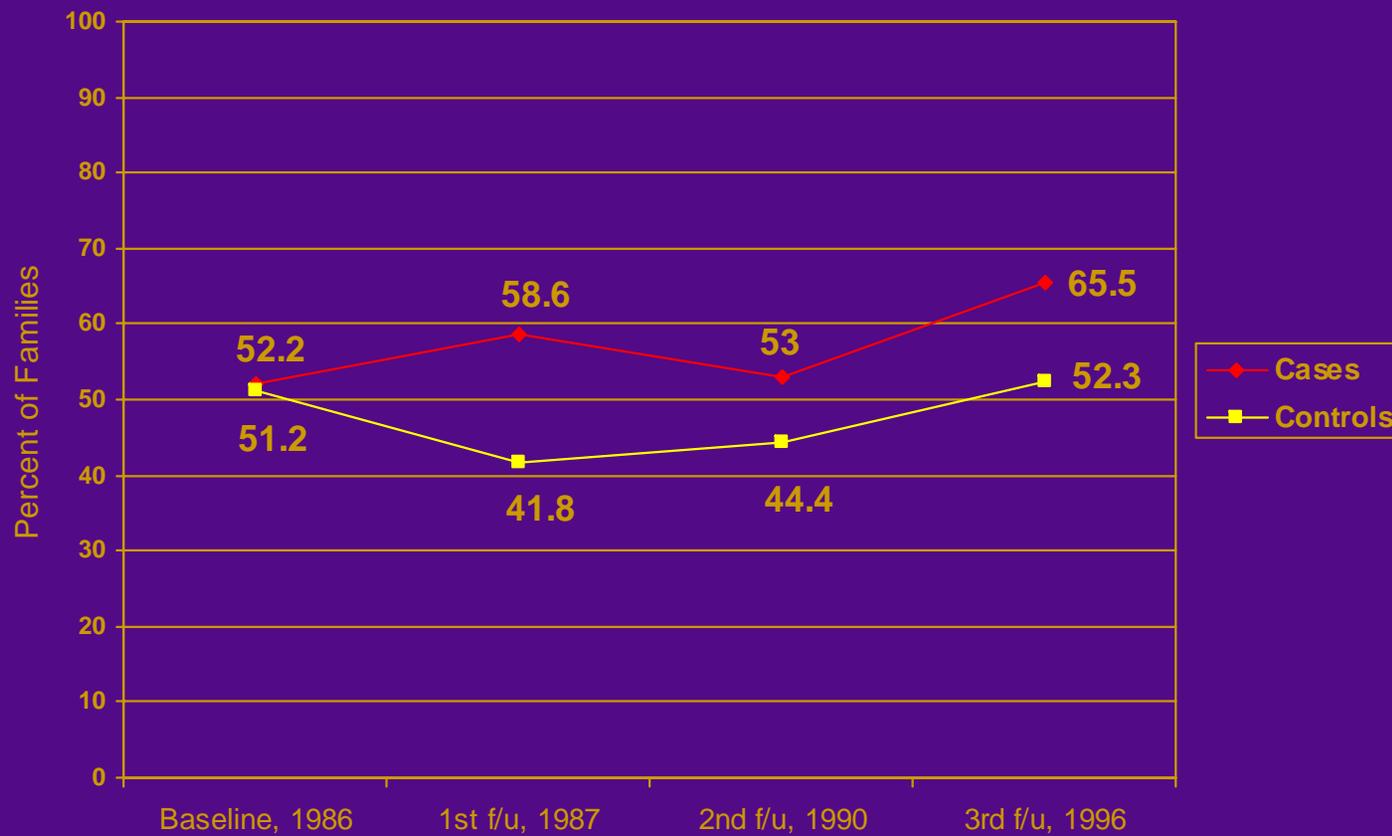
Blood Test for Cholesterol



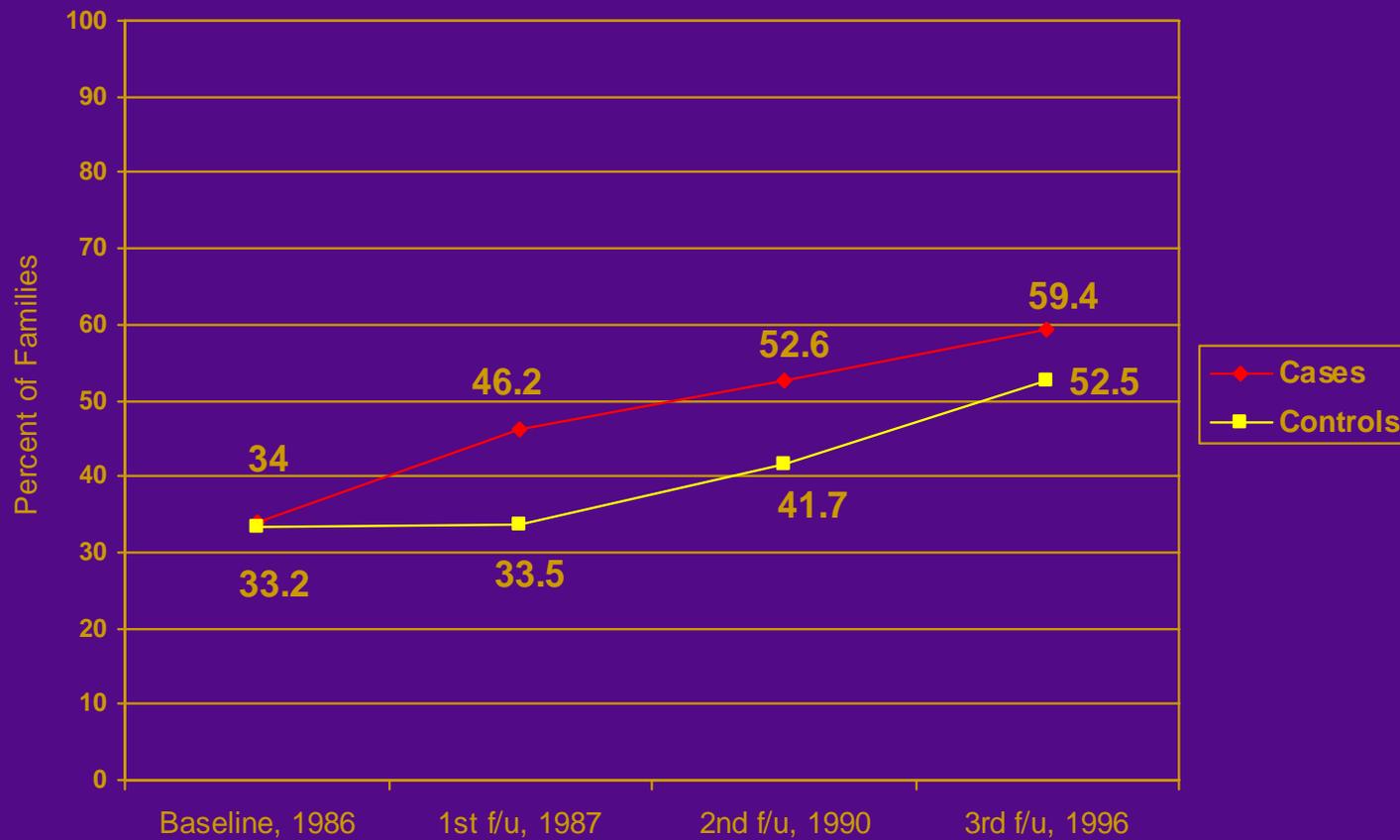
Mammograms



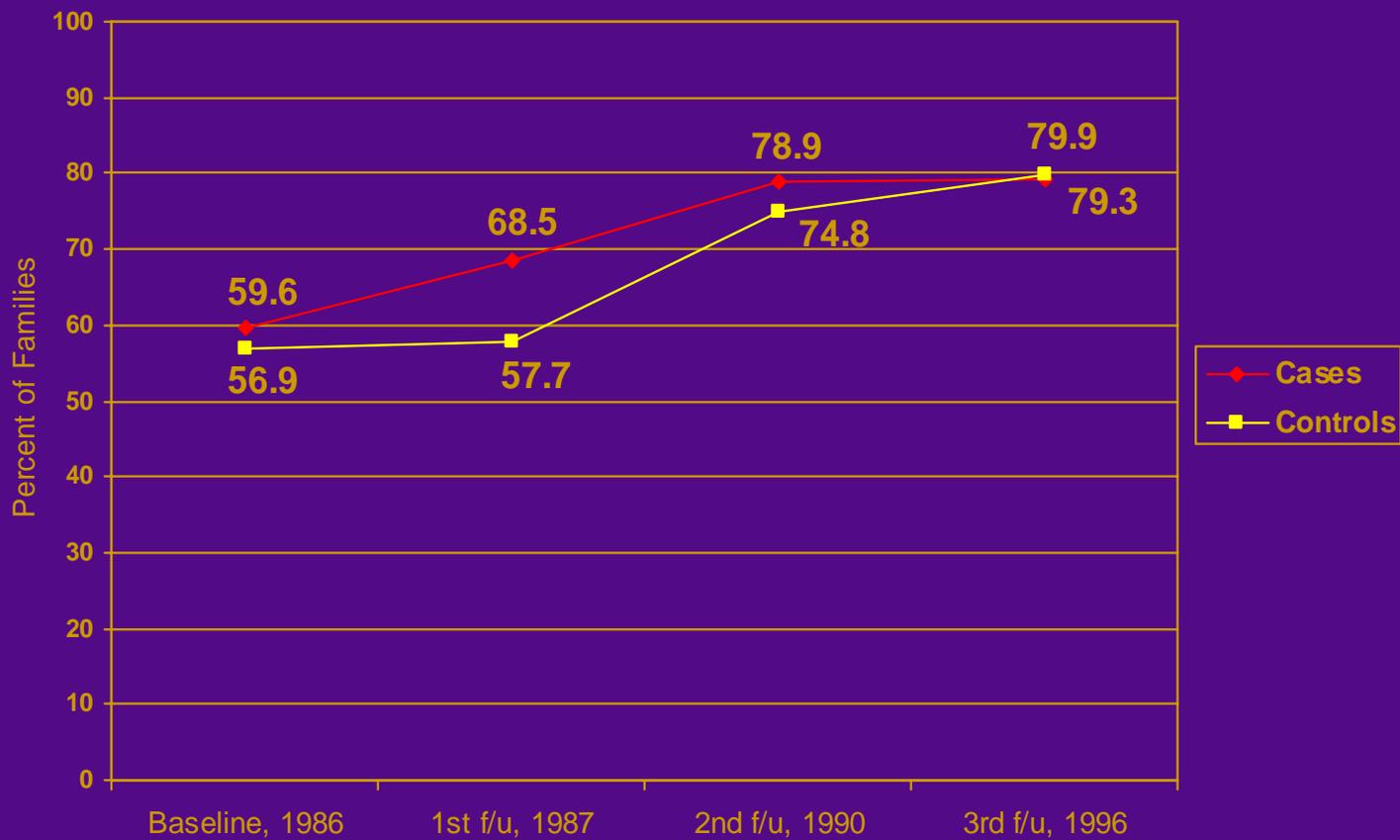
Monthly Breast Self-Exams



Blood Test for Sugar



Fats in Diet



Results

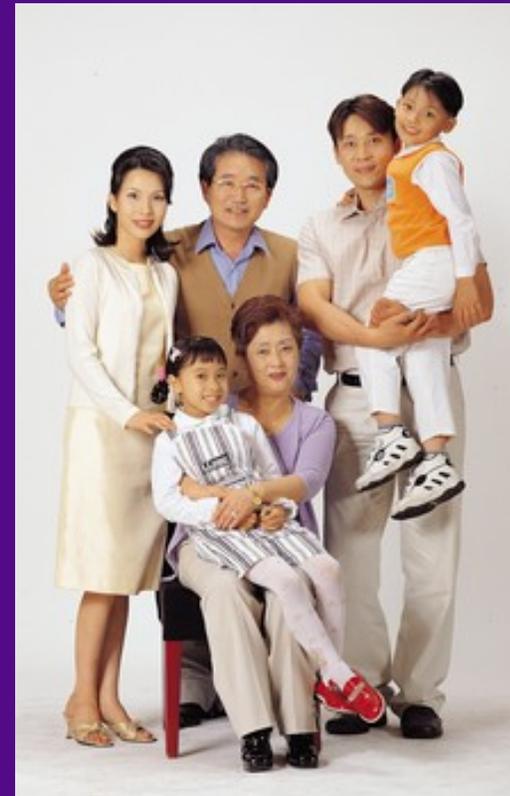


- Improvements also seen in stool blood test, rectal exam, proctoscopic exam, and smoking cessation
- No substantial improvement seen in stress management, reducing cholesterol, and increasing fruit and veggies
- Salt intake increased



Summary of Results

- Family health history CAN be used to motivate behavior change!
- Changes seen in both health screening and lifestyle behaviors
- Most dramatic changes seen from baseline to 1st follow up





Limitations

- Survey may have reinforced interventions and influenced behaviors
- Other public health priorities may have influenced behaviors (confounding)
- Data wasn't analyzed by disease or individual risk
- Changes seen may be even more dramatic for high risk families if data was analyzed by disease risk



Lessons Learned



- Interventions MUST be sustained for long-term behavior change!
- Why?
 - Interventions in early years of FHRP were implemented as designed
 - As funding decreased, so did the interventions
 - Families in later years of FHRP didn't receive in-home visits, only risk assessment reports



Lessons Learned

- Risk assessments alone may not motivate behavior change
- Focusing on personal behaviors (exercise, weight loss) can make a difference
- Tailored interventions work but...
- Need support of health care providers!





Lessons Learned



- Long-term evaluation CAN be done in public health practice
- Made a difference in the lives of Utah families
 - After 10+ years, they still remembered FHRP and were willing to track down family members to do surveys!



Thank you!



- FHRP Champions
 - Roger Williams, MD
 - Joan Ware, RN, MSPH
- Utah Department of Health
 - Jess A. Agraz, MPH
 - Rebecca Giles, MPH, CHES
 - Mike Friedrichs, MS
- University of Utah
 - Steven C. Hunt, PhD
 - Ted Adams, PhD, MPH
- And... Utah's families!



Contact

- Jenny Johnson, CHES
 - Phone: (801) 538-9416
 - Email: jennyjohnson@utah.gov
 - Website: <http://health.utah.gov/genomics>
- Watch for our electronic Health Family Tree tool coming soon!