

Research on In SHAPE Integrated Health Promotion for Persons with Serious Mental Illness

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Disclosures

- NIMH
- CDC
- New Hampshire Endowment for Health
- SAMHSA/NASHPD
- HRSA

The Epidemic of Premature Death in Older Persons with Serious Mental Illness

The average life expectancy in the US has steadily increased to 77.9 years (increasing by almost 5 years since the 90s alone)
At the same time.....

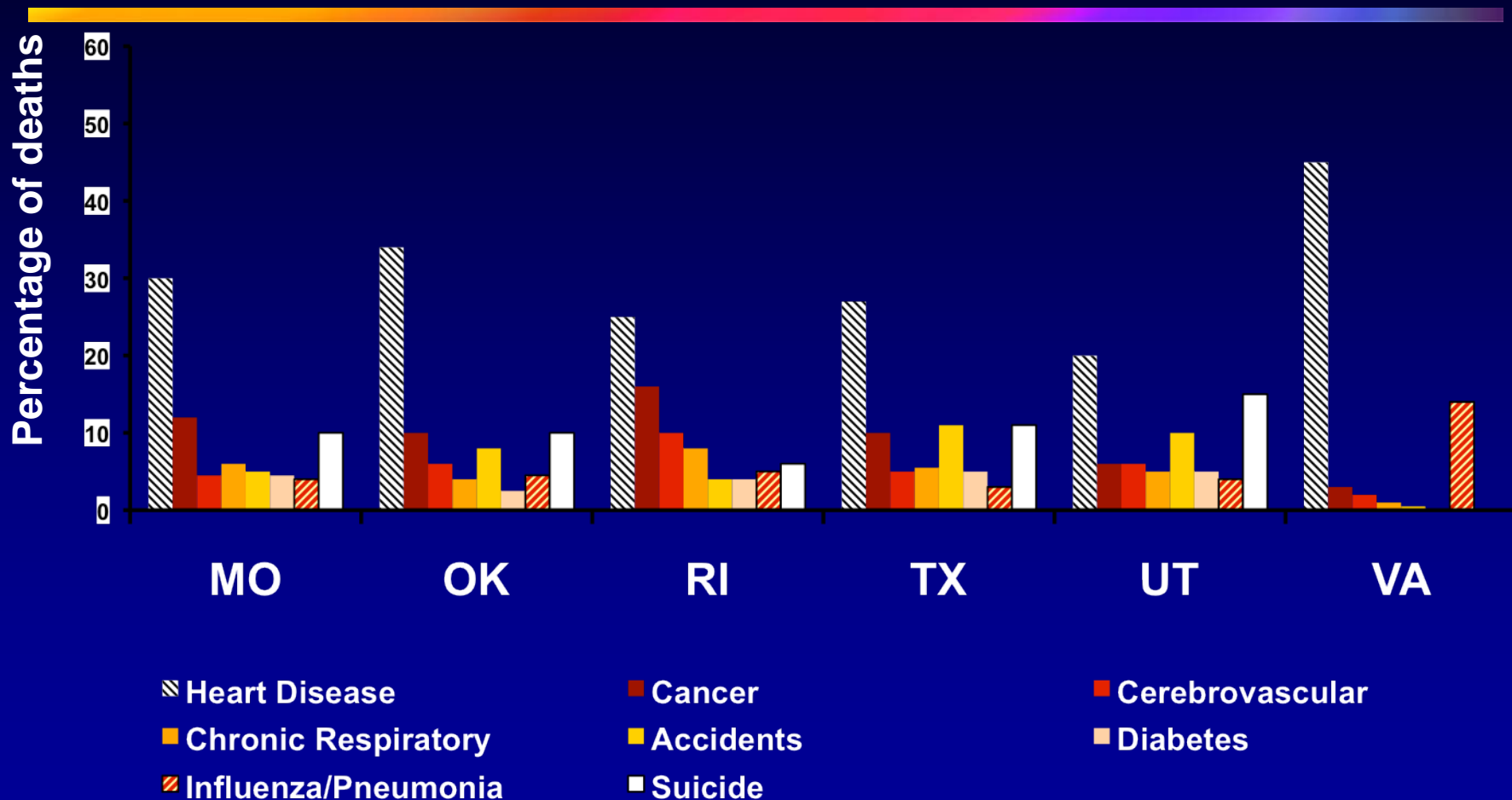
Mentally ill die 25 years earlier, on average

By Marilyn Elias, USA TODAY

Adults with serious mental illness treated in public systems die about 25 years earlier than Americans overall, a gap that's widened since the early '90s when major mental disorders cut life spans by 10 to 15 years, according to a report due Monday.

**For people with serious mental illness:
The average life expectancy is 53 yrs.
“50 is the New 75”**

Cardiovascular Disease Is Primary Cause of Death in Persons with Mental Illness*



*Average data from 1996-2000.

Colton CW, Manderscheid RW. Prev Chronic Dis [serial online] 2006 Apr [date cited].

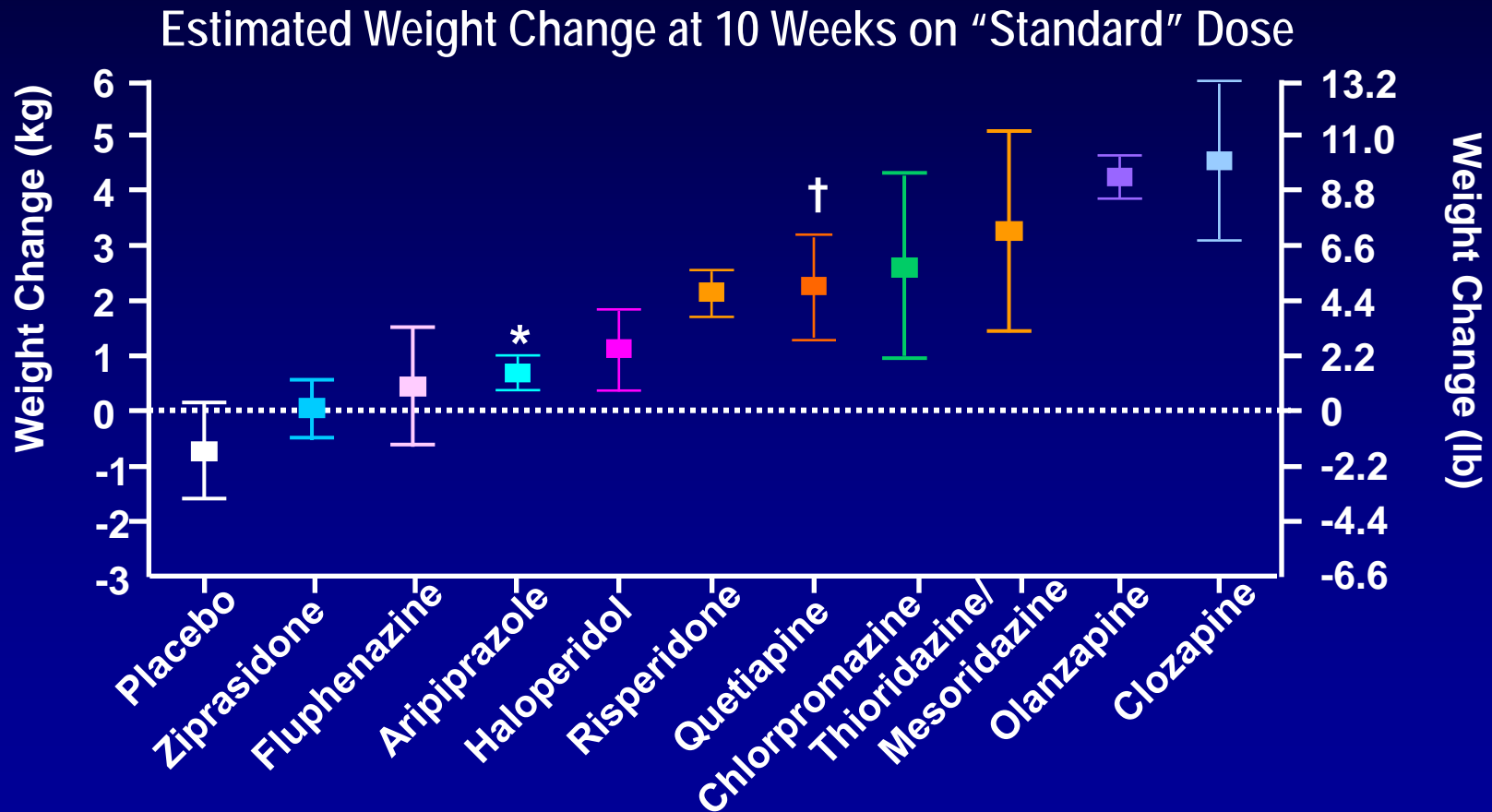
Available at URL: http://www.cdc.gov/pcd/issues/2006/apr/05_0180.htm

Cardiovascular Disease (CVD) Risk Factors

Modifiable Risk Factors	Estimated Prevalence and Relative Risk (RR)	
	Schizophrenia	Bipolar Disorder
Obesity	45–55%, 1.5-2X RR ¹	26% ⁵
Smoking	50–80%, 2-3X RR ²	55% ⁶
Diabetes	10–14%, 2X RR ³	10% ⁷
Hypertension	≥18% ⁴	15% ⁵
Dyslipidemia	Up to 5X RR ⁸	

1. Davidson S, et al. *Aust N Z J Psychiatry*. 2001;35:196-202. 2. Allison DB, et al. *J Clin Psychiatry*. 1999; 60:215-220.
 3. Dixon L, et al. *J Nerv Ment Dis*. 1999;187:496-502. 4. Herran A, et al. *Schizophr Res*. 2000;41:373-381.
 5. MeElroy SL, et al. *J Clin Psychiatry*. 2002;63:207-213. 6. Ucok A, et al. *Psychiatry Clin Neurosci*. 2004;58:434-437.
 7. Cassidy F, et al. *Am J Psychiatry*. 1999;156:1417-1420. 8. Allebeck. *Schizophr Bull*. 1999;15(1)81-89.

Mean Change in Weight With Antipsychotics



*4-6 week pooled data (Marder SR et al. *Schizophr Res.* 2003;1;61:123-36; †6-week data adapted from Allison DB, Mentore JL, Heo M, et al. *Am J Psychiatry.* 1999;156:1686-1696; Jones AM et al. *ACNP*; 1999.

Integrated Health Promotion and Health Behavior Change: In SHAPE

- Initial Fitness Assessment
 - Individualized fitness and healthy lifestyle assessment
- Individual Meetings with a “Health Mentor”
- Membership Vouchers to Local Fitness Centers
 - YMCA; Dance-exercise center; Women’s fitness center
- Smoking cessation referral
- Motivational rewards
- Group Health Education/Motivational “Celebrations”
- Nurse Evaluation and Consultation

Promoting Health and Functioning in Persons with SMI: CDC - R01 DD000140 (PI: Bartels)

Health Promotion and Fitness for Younger and Older Adults With SMI: R01 MH078052-01 (PI: Bartels)

The In SHAPE Health Promotion Intervention

Participants spend time each week with personal mentors working out, taking walks, in classes or working on nutrition plans.



Mentors help participants to track their progress, set goals, and stay motivated.



The In SHAPE Health Mentor Program



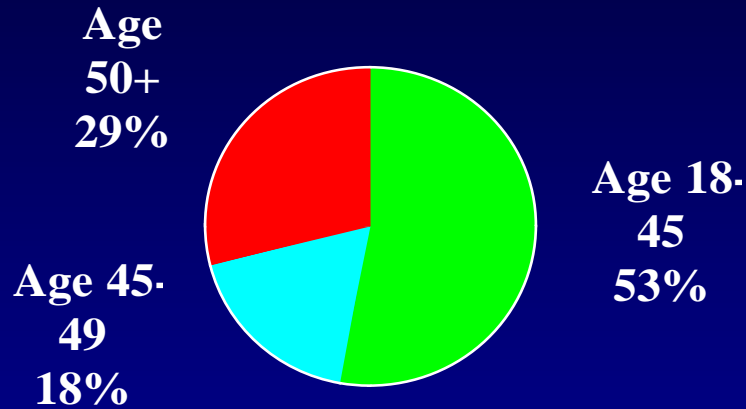
RWJ & Endowment for Health

“Evaluation of a Pilot Health Promotion Intervention for Persons with Severe Mental Illness” (Bartels, PI)

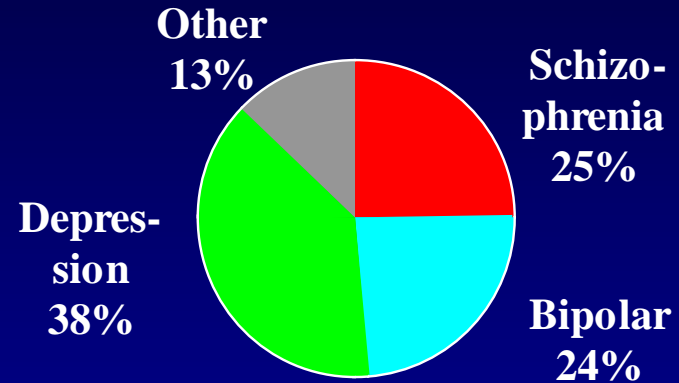
- Pre-post Design
- Two Year Award
- Assessments at baseline, 3, 6, 9, & 12 mo.
- N=98
- Final 18 month assessments continue
- Preliminary 9 month outcomes to follow
- Site: Monadnock Family Services, Keene, NH

Demographic Characteristics n=98

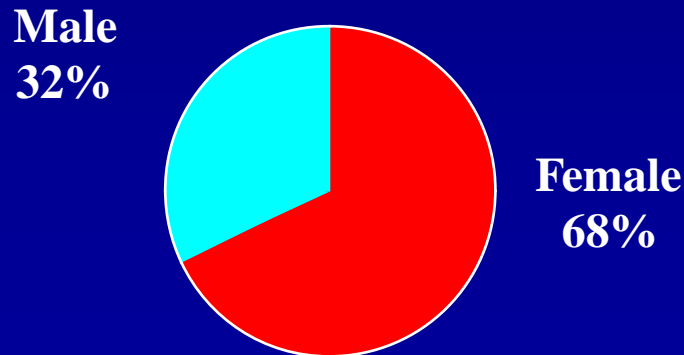
Age



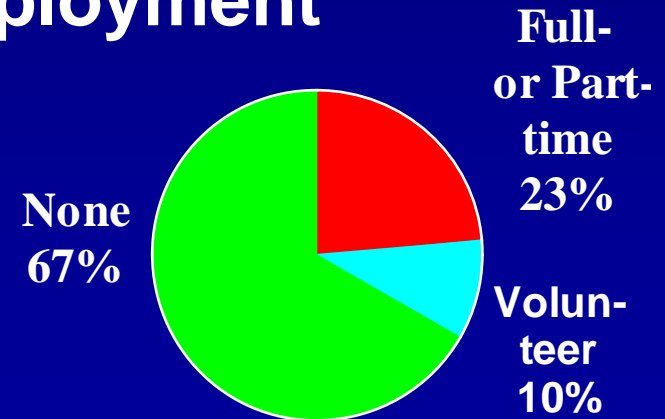
Diagnosis



Gender



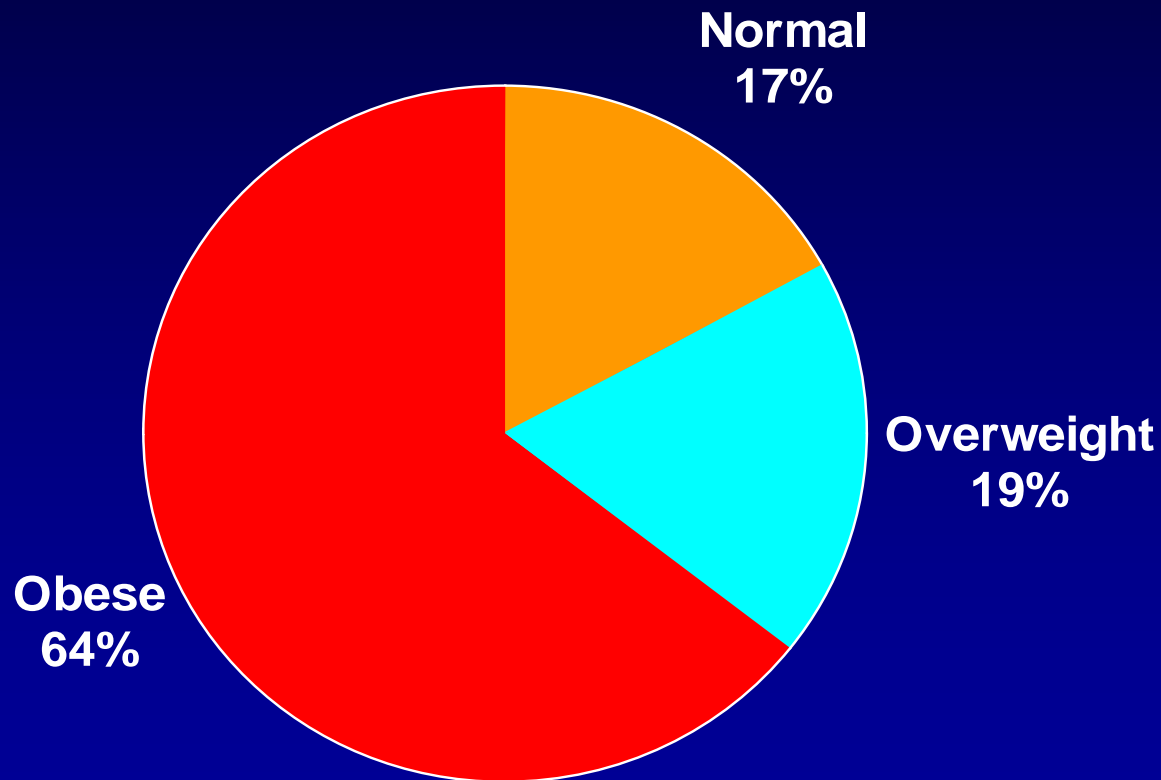
Employment



Baseline Health Status

- **Medical diagnoses**
 - 40% Arthritis
 - 26% Asthma
 - 17% High blood pressure
 - 13% Angina or chest pain on exertion
 - 12% Thyroid disease
 - 11% Diabetes
 - 9% COPD
- **At-risk for heart disease**
 - 50% At risk
- **Flexibility**
 - 71% Below Average

Body Mass Index

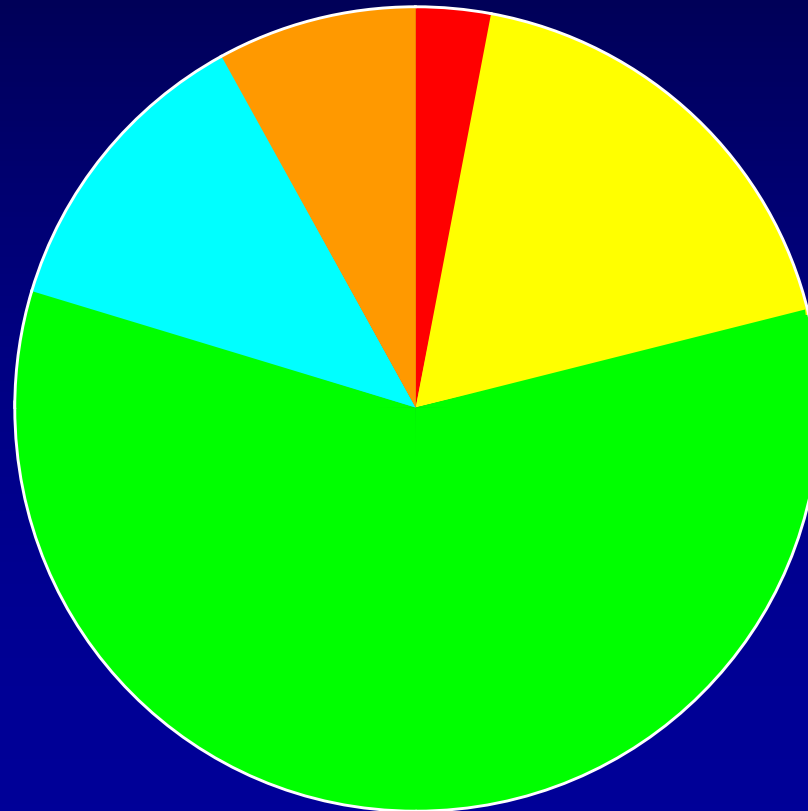


Average weight = 204 pounds

Do you Exercise Regularly?

Exercising > 6
months
8%

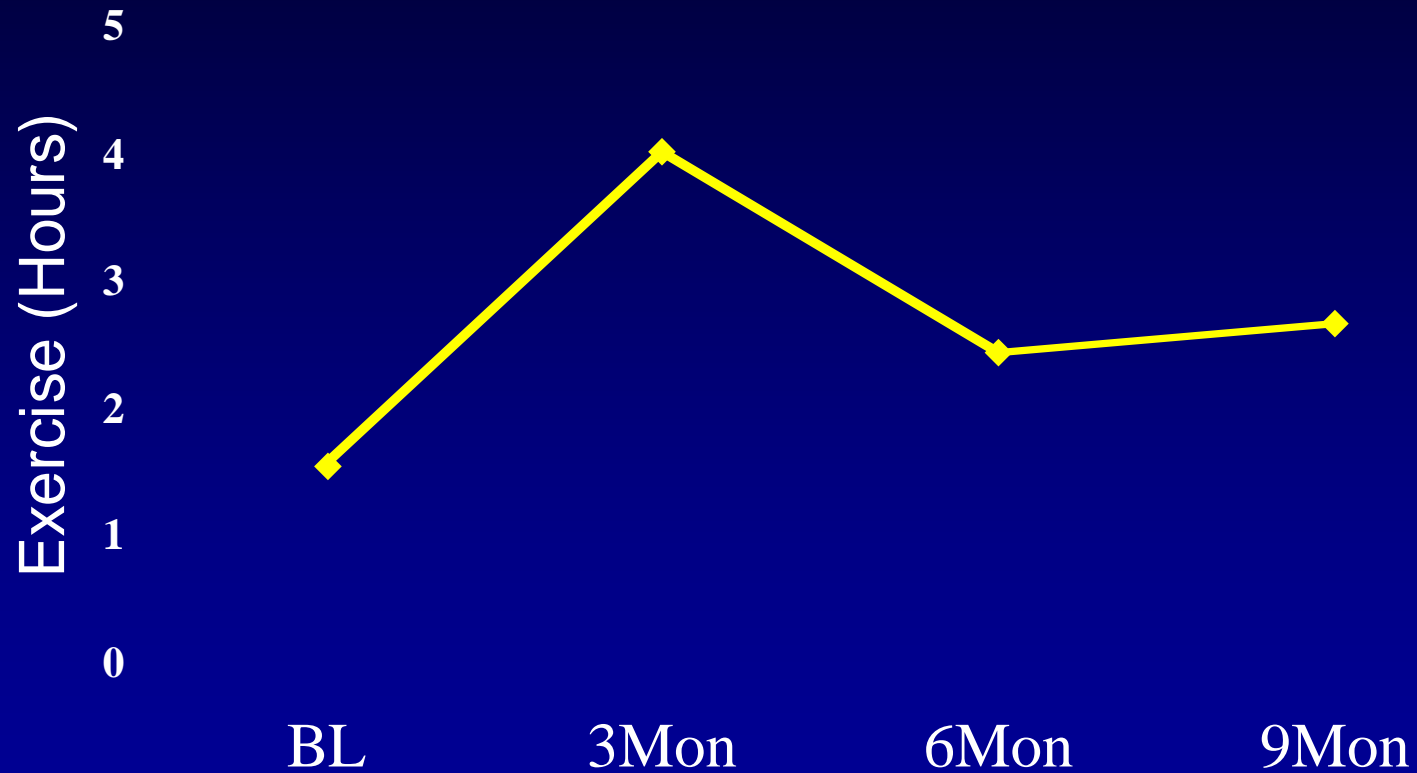
Exercising < 6
months
12%



Pre-
contemplation
3%
Thinking about
it
18%

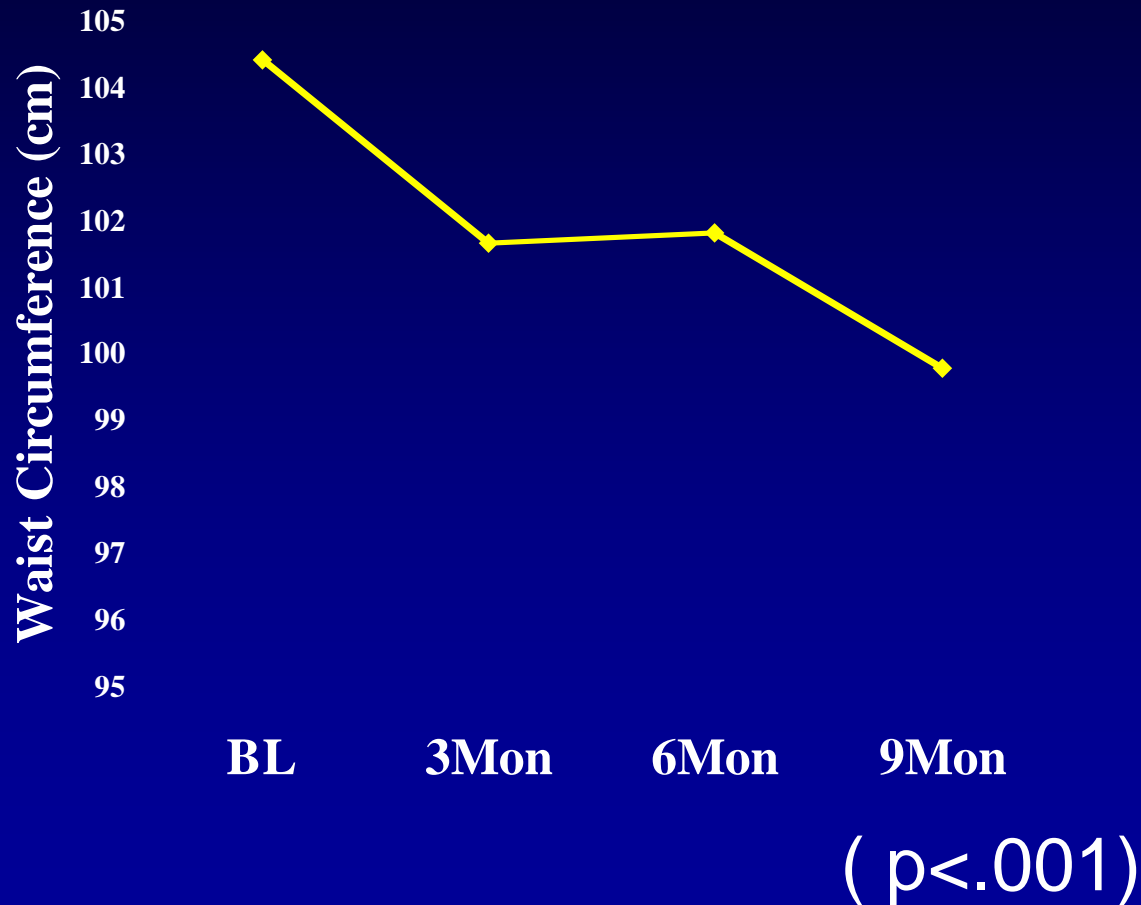
Planning to do
it
59%

Hours of Exercise

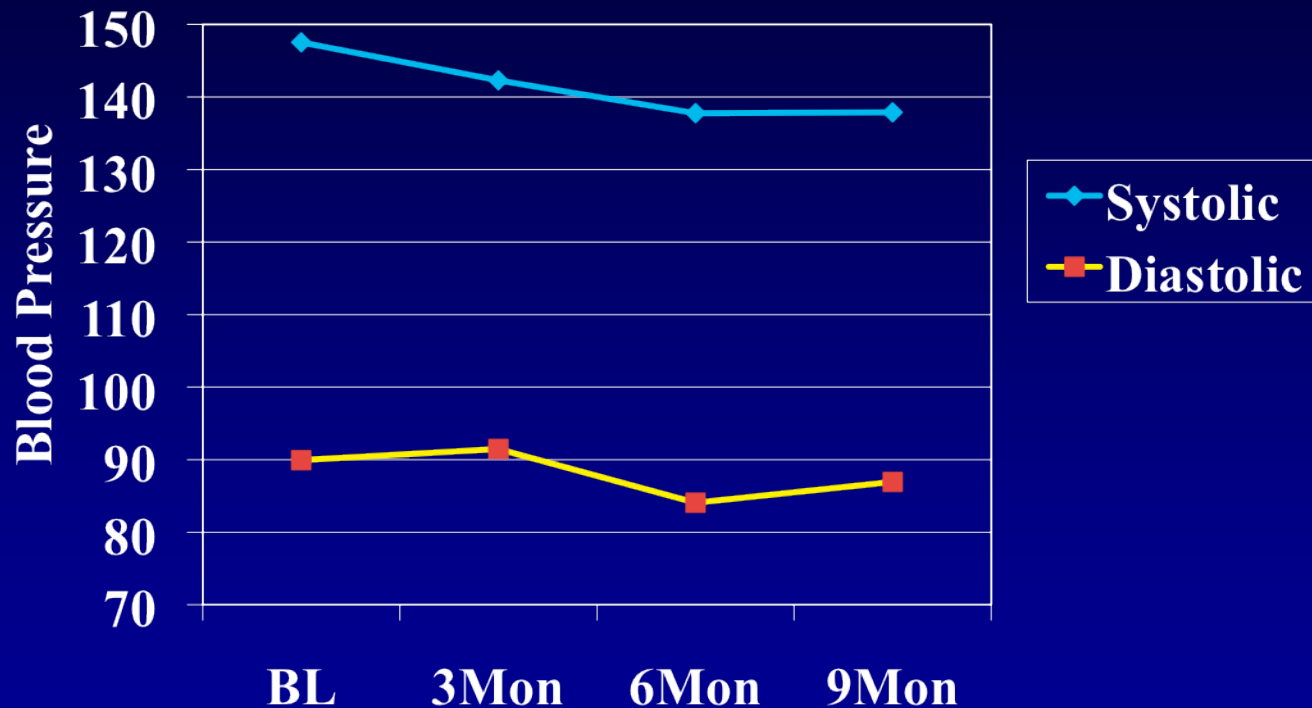


($p < .01$)

Waist Circumference



Among People with High Blood Pressure* at Baseline (n=17)

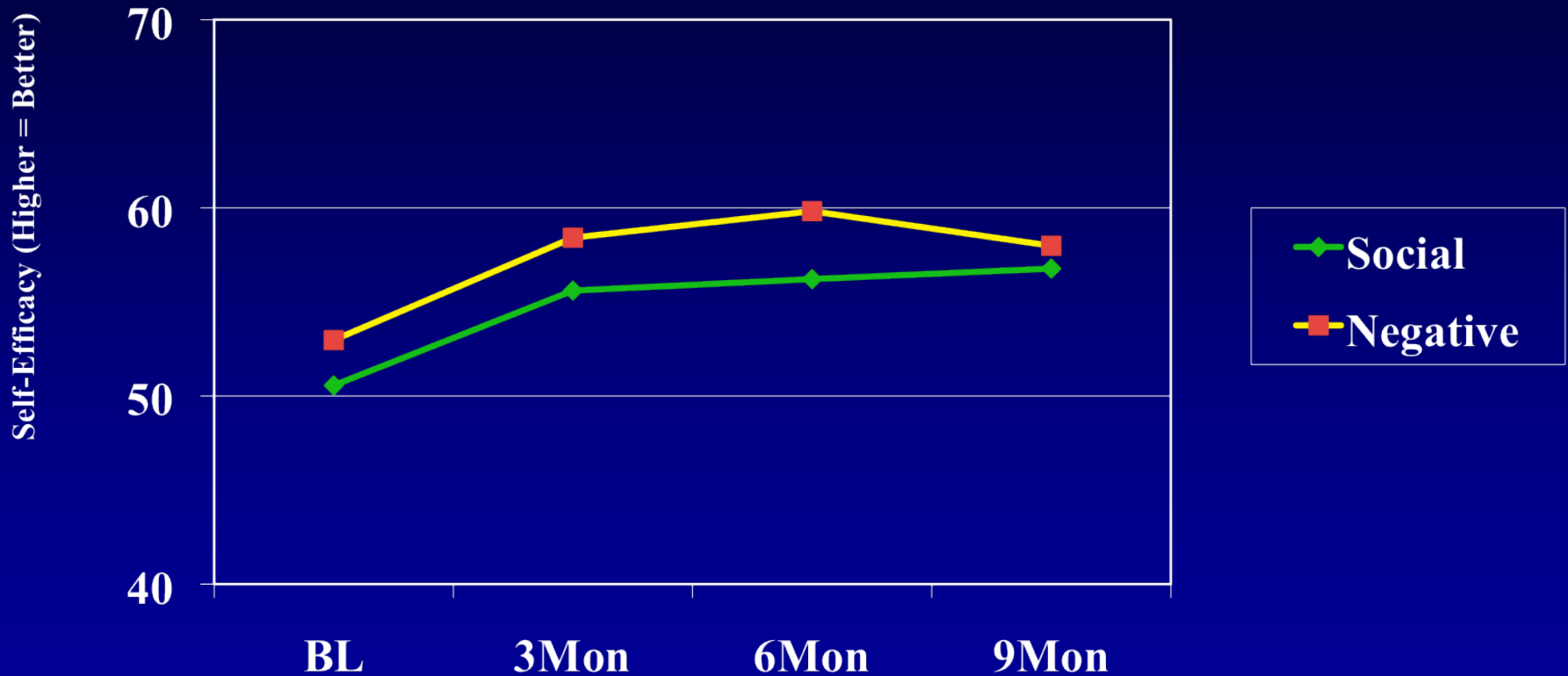


Systolic = 10 point reduction

Diastolic = 3 point reduction

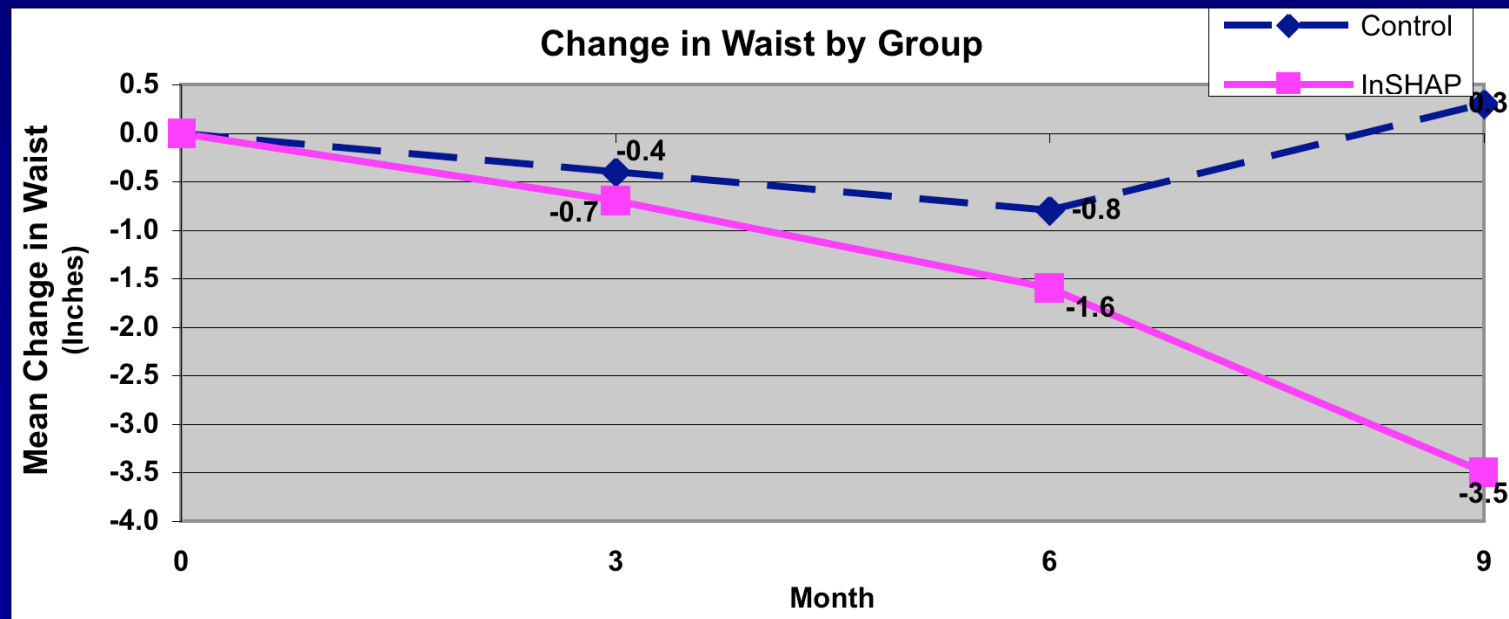
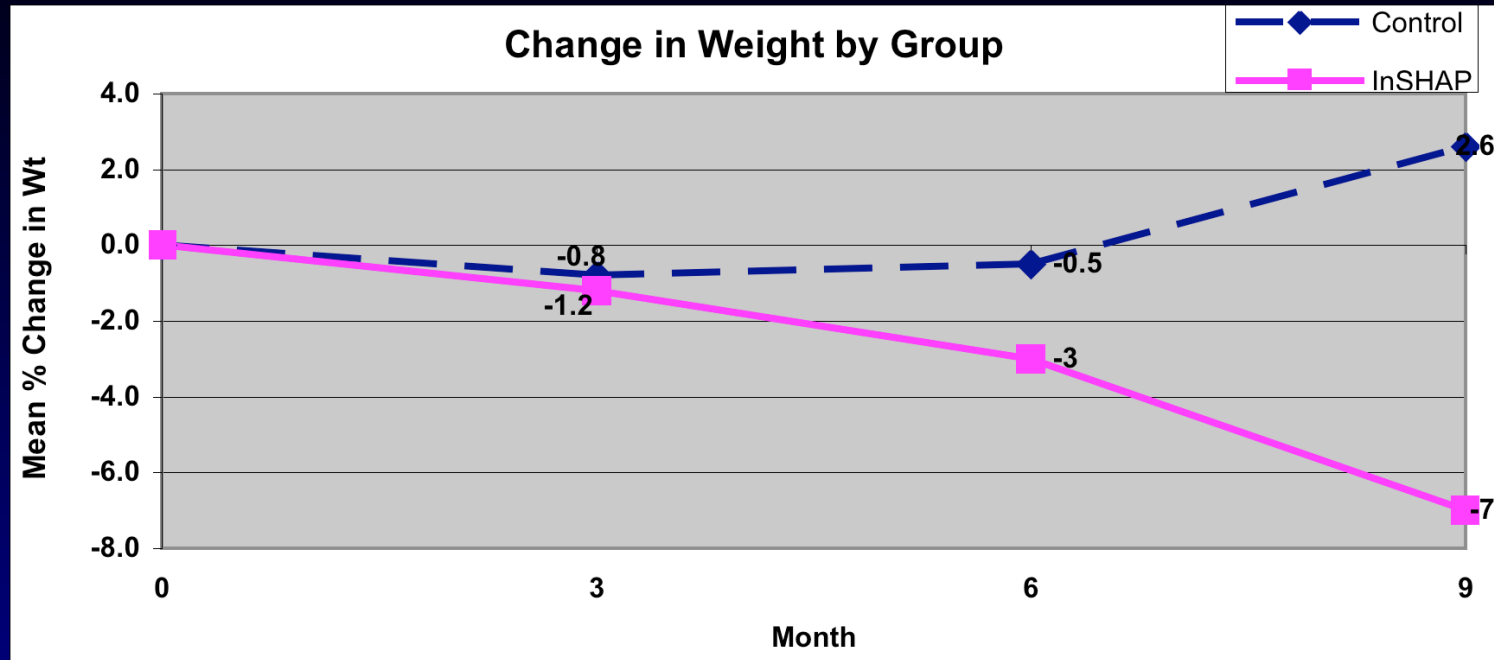
***High Blood Pressure = Systolic \geq 140 or Diastolic \geq 90 mm Hg.**

Self-Efficacy



Both $p < .05$

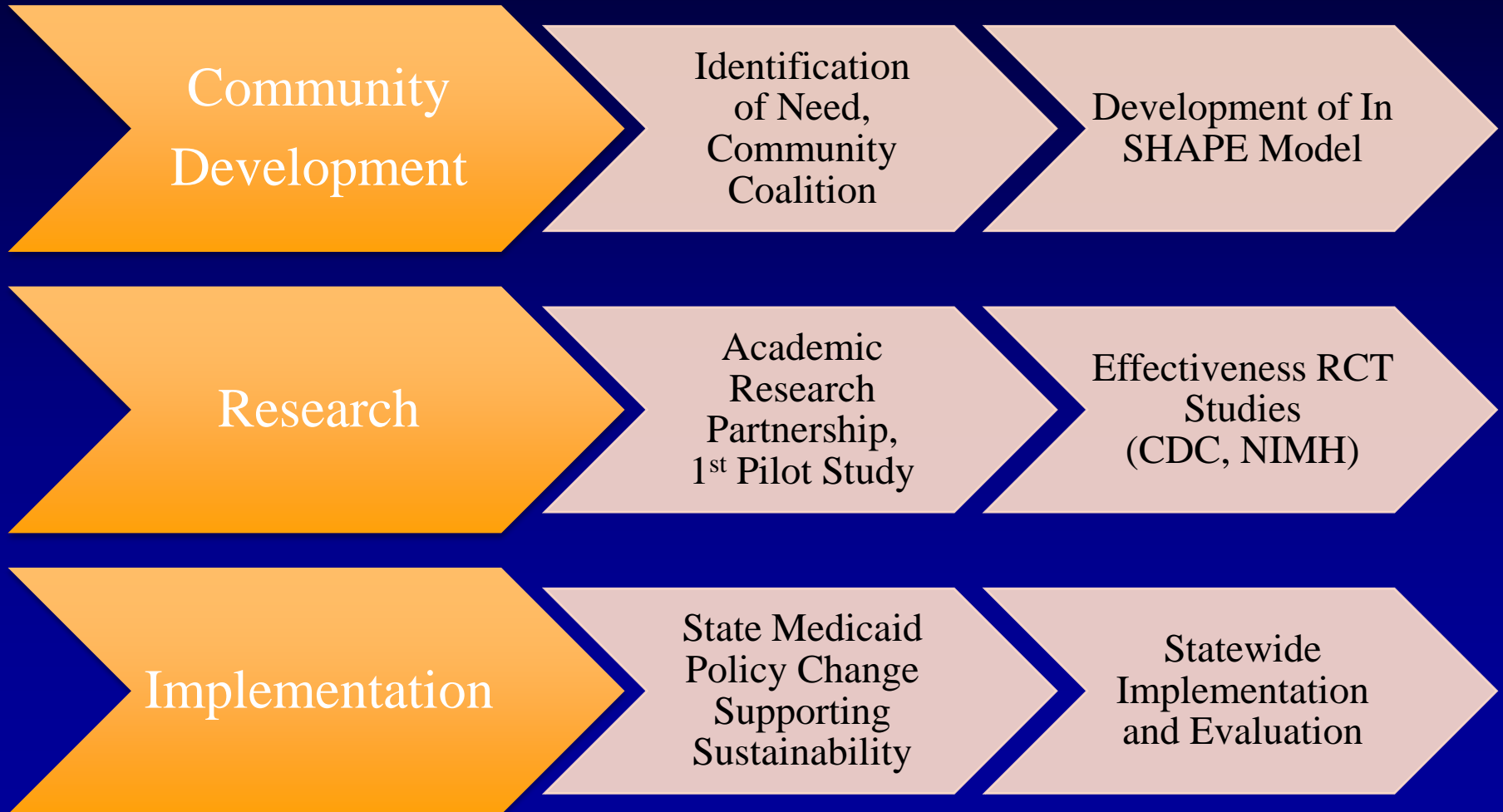
Preliminary RCT Results



Community-Based Participatory Research (CBPR) Timeline: 2003-2013

Summer 2003	Fall 2003	Spring 2004	2005-2007
Health Disparity Identified by the Community	Local Health Promotion Planning Consortium Launched RWJ/EFH funding	In SHAPE Health Promotion Program Developed & Funded	Partnership with Dartmouth EFH Pilot Study Evaluation
2007	2007-2008	2009-2011	2009-2014
Pilot study results support funding for 2 RCTs: CDC -Concord NIH -Boston	-Study of sustainability - HHS Commissioner approval of Medicaid health promotion support services	CDC Prevention Research Center Adapt and implement In SHAPE in new setting	NIMH Statewide In SHAPE & AD Implementation Study (pending): Process, Costs Outcomes

Bridging the Gap from Research to Population Health



Evaluation of a Statewide Implementation

1) **Motivational Health-Promotion**

In SHAPE targeting consumer health behaviors

2) **Academic Detailing (AD) targeting** prescribing psychiatrists

- Facilitated by Medicaid reimbursement for functional support services health promotion

Study Design

- 1) **Person-level** outcomes comparing two early-implementation and two late implementation CMHCs
 - Consumer outcomes, prescribing practices, program implementation, and costs.
- 2) **System-level** outcomes across the State
 - Health indicators, service use, prescribing practices, program fidelity, costs

What Do We Hope to Learn?

- **Can integrated health promotion be successfully implemented statewide? What are the challenges?**
- **Are outcomes for mental health case managers comparable to research trained fitness mentors?**
- **What are the critical elements of successful implementation? How does implementation vary?**
- **Are Medicaid functional support services an adequate and appropriate financing mechanism?**
- **What are the associated costs?**

Implications?

- NIMH Strategic priority to “*reduce premature mortality among persons with mental illness*”
- “10 by 10” campaign to increase the lifespan of persons with mental illness:
“by 10 years in 10 years”
- Potential model for reducing early mortality for persons SMI nationwide.

Request by NIMH for Information from State MH Leadership

1. To what extent would the results of this implementation study be valuable in making future policy decisions in your state?

1=not at all

2=a little

3= somewhat

4=moderately

5= extremely

IF SO HOW?

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Request by NIMH for Information from State MH Leadership

2. What additional questions or approaches would maximize the relevance of this implementation study to your state?

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The Health Promotion Research Team

The Center for Aging Research

