



TEXAS A&M

HEALTH SCIENCE CENTER

SCHOOL OF RURAL PUBLIC HEALTH

PATIENT CENTERED MEDICAL HOMES & CHRONIC DISEASE SELF MANAGEMENT

**Two Innovations in Health Care Delivery
Currently at the Forefront of National and State
Healthcare Policy.**

Jane N. Bolin, RN, JD, PhD

Director: Southwest Rural Health Research Center

Texas A&M Health Science Center

School of Rural Public Health

College Station, TX 77843

OBJECTIVES FOR THIS TALK

- **Review the emerging construct of Patient Centered Medical Homes**
- **Examine the Stanford Chronic Disease Self Management Program**

What is a medical home?

- “In broad terms, the patient centered medical home (PCMH) provides care that is “accessible, continuous, comprehensive, and coordinated and delivered in the context of family and community (AAFP, AAP, ACP, AOA)
- See joint principles of the patient-centered medical homes, at: <http://www.pcpcc.net/content/joint-principles-patient-centered-medical-home>.

Background

- **Importance: What is the problem?**
 - U.S. healthcare is programmed to respond to, and pay for acute, episodic problems.
 - Care has been reactive, not proactive.
 - Poor performance in controlling chronic illnesses.
 - Rapid growth in chronic illness - numbers and costs
 - Poor communication exists between HC providers.
 - Patients are not taught to take ownership of their own health through education & self-management.

Background (cont.)

- **What is known?**
 - Many models of medical homes and care coordination
 - We have a mixed record of success – clinically and in ROI
- **What is unknown?**
 - How can a model that fits all or most of the design features attain clinical and financial success?
 - How do specific elements of the model contribute to such success?
 - What incentives are needed for patients, providers and organizations to participate?

Background (cont.)

- **What is unknown?**
- Can we agree upon a set of metrics that accurately measure the success or failure of PCMH implementation? (*The impact of the MH model on patient and provider experiences is not well known*).
- How do practices successfully evolve and overcome challenges posed by the MH model? (*This needs to be described*).

FIGURE 4.

While other approaches have addressed some PCMH Principles, none has addressed them all.

Factor/Principle	PCMH	Non-integrated managed care*	Pay for performance	Disease management	Chronic care model
Purpose/focus	Facilitate partnership between PCP and patient	Ideally: cost, quality; Actually: control utilization	Meet operational goals with financial incentives	Meet specific management targets for chronic disease	Org. framework for chronic care mgt and practice improvement
Patient centric/ personal PCP	Yes	No	No	Maybe, often led by actors independent of primary care	Yes, for chronic illness
PCP directed medical "team"	Yes	No	No	No	Yes
Whole person orientation	Yes	No	No	No	Yes
Care is coordinated and/ or integrated	Yes	No incentive for coordination	No incentive for coordination	Maybe	Yes
Emphasis on quality and safety	Yes, evidence-based and best practice; improved outcomes rewarded	No, reduced utilization rewarded	Indirectly; process targets rather than outcome ones	Yes, particularly for diseases	Yes, for chronic illnesses
Enhanced access	Yes	No, reduced access	No	Maybe	No
Appropriate reimbursement	Yes for PCPs, unclear for others	Potential conflict in motivation	No, still volume driven	Partially, if evidence-base used	No

Alignment with PCMH principle: ■ Aligned ■ Mixed alignment ■ Not aligned

*Note: By "non-integrated managed care," we refer to the form of managed care practiced in the 1980s and early 1990s that emphasized a "gatekeeper model" with cost controls, rather than a more patient-centered focus on primary care. Most surviving forms of managed care are more integrated and incorporate more elements of the PCMH model.

Source: IBM Global Business Services and Center for Health Organization Transformation

Goals of PCMH Study

- **Goal #1** – to identify PCMH attributes and components
 - in early stages of development in different settings
 - analyze initial features and status of the evolving model
- **Goal #2** – track changes and intermediate outcomes
 - in progress toward becoming a model PCMH-CC, tier 1, tier 2
 - in improving clinical and financial outcomes
- **Goal #3** – analyze the medical home transformation
 - identify key “drivers” in attaining such transformation
 - progression toward adoption of critical medical home features
 - contributions of feature to clinical and financial outcomes
- **Goal #4** – Publish findings that can guide system change

Description of Project and Importance to the Policy of U.S. Healthcare System:

- *A medical home is a place where people can access high quality care, for most types of conditions in a coordinated manner.*
- Right now both the federal government and the state of Texas are very interested in improving healthcare by making sure all adults and children have a medical home.

Interview Format

- We will give you a set of cards listing 11 factors that CMS and other official groups have suggested are necessary for insuring a “medical home”.
- We would like your feedback and opinions about LONE STAR’s performance with respect to each of the factors.
- There are probably few health organizations that score high on all of these factors.
- We will ask you to indicate whether Lone Star “**fully meets**”, “**partially meets**”, “**doesn’t meet**” or “**I don’t know**” each of these items.

Medical Homes include... a PCP-led health care team

(for example)

1. oversight & guidance provided by PCP
2. qualified HC team with needed skills
3. trained to provide coordinated care

Medical Homes include...

Assessment & Care Plans for Care Coordination

(for example)

1. Written health assessment
2. prepare documented care plans and modifications
3. use health assessment and plans to coordinate care

Medical Homes include...

Broad access to care

(for example)

1. Clinic “walk-in” availability
2. On-call coverage nights and weekends
3. Seven days/week, 24 hour access to phone triage

Medical Homes include...

Medication safety coordination

(for example)

1. Track and approve medication changes from health benefit plans or pharmacy benefit plans.
2. Conduct medication reconciliation to avoid interactions or duplications
3. Document with patients the medications they are currently receiving

Reviewing and tracking all patient hand-offs

(for example)

1. Lab and test results,
2. Treatment referrals,
3. Hospitalizations and discharges,
4. Medication changes
5. Referral results, prescriptions, and related communication with other physicians and health care professionals.

Medical Homes ...

Ensure quality care

(for example)

1. Measure clinical quality performance against benchmarks and best practices
2. Take action to improve care and care processes
3. Use patient registries, or EMR, to monitor and track patient health status or generate clinical reminders

Medical Homes include...

Information system support

(for example)

1. electronic scheduling system
2. electronic medical record system
3. electronic prescribing system
4. electronic health information exchange with other providers

Medical Homes include...

**Appropriate communication with patients,
families and caregivers**

(for example)

1. Phone calls to patients for follow-up or reminders
2. Email communication with patients
3. Letters to patients

Medical Homes include...

Self-management and prevention education for...

(for example)

1. wellness & prevention
2. chronic disease management
3. end-of-life planning
4. home monitoring

Medical Homes include...

Community Linking Services

(for example)

1. Continuously monitoring patients' eligibility for services such as WIC, Medicaid, CHIP.
2. Facilitate linking through appropriate referrals to other needed health and human services

Full scope of care for most kinds of medical conditions

(for example)

1. Strive to be a single source of primary care and treatment to avoid fragmented care.
2. Maintain well-managed relationships to needed specialists and hospitals
3. Care provided across the life-span or disease spectrum.

Medical Homes include...

Payment Recognition

refers to providers receiving adequate payment or appropriate reimbursement for MEDICAL HOME types of services provided.

- Health care reimbursement should include reimbursement to providers for providing a “medical home”.
- Basic policy shift for the government/state recognize providers for medical home services.

Our Evaluation

- **Select medical home models deployed in one or more health systems** – with tier 1 and/or tier 2 elements.
- **Identify organizational structures, processes in model.**
 - examine prior changes and changes during study
 - examine current professional assessments and expectations
- **Identify key metrics, including, clinical and financial outcome measures.**
 - associated with one or more conditions target
 - measured across units and organizations doing medical home
 - compared retrospectively and prospectively during the study
 - explained by analysis of medical home features

OUTCOMES?

- Lone Star Circle of Care's data and information.
- They are on the forefront of the Medical Homes initiative in the Austin, Round Rock, & Georgetown area.



SELECTED QUOTES FROM KEY PERSONNEL

[Tracking patient hand-offs]:
“We have a good system in place for follow-up with patients. We can generate letters using our EMR system, for labs or anything else. Our front desk staff calls patients to remind them about their appointments. So our communication is pretty good.”

SELECTED QUOTES FROM KEY PERSONNEL



Ensuring quality care
“I would say without a doubt, we fully meet [quality of care]. We have benchmarks in place and we’re taking action to improve care and care processes.”

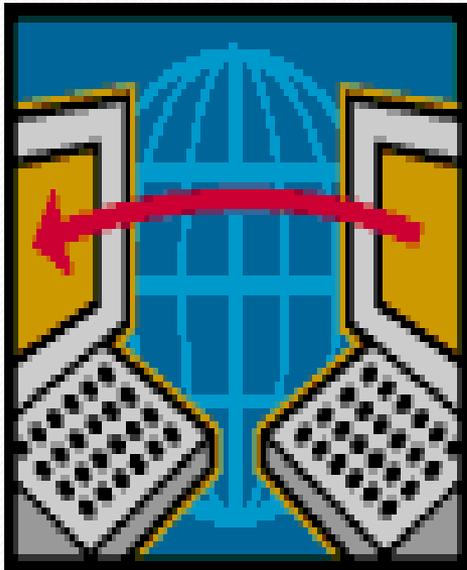
SELECTED QUOTES FROM KEY PERSONNEL



[Patient and family communication] “I think our staff members do a really great job at getting lab results and talking to the patients about their results and sending out referral letters.

Each clinic dedicates one person to referrals, making sure the patient gets a specialist and we receive all the hospitalizations and discharge notes from the hospitals and our nurses are really good about working with the providers on this. And we chart everything in the chart, like tasking and telephone calls.”

SELECTED QUOTES FROM KEY PERSONNEL



“Our [**information**] system is very robust and it meets all of our needs quite well. We keep find better ways to improve the system and use it in different ways that improve and meet all of our needs. It’s very impressive because it is so flexible, and the extent to which it can be modified to meet all of our needs. It’s very dynamic.”

Challenges & opportunities

- Challenges (Provider time to participate—busy family centered practices, busy waiting rooms)
- Opportunities
 - Grant on transforming primary care practices into medical homes
 - Behavioral/Psychiatric care health evaluation collaboration

PART II:

CHRONIC DISEASE SELF-MANAGEMENT PROGRAM STANFORD MODEL



Department of Aging and Disability Services



Department of State Health Services

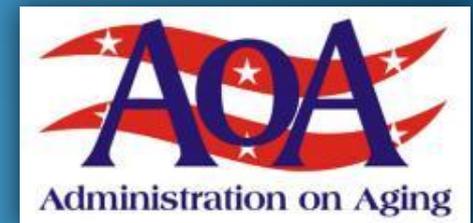
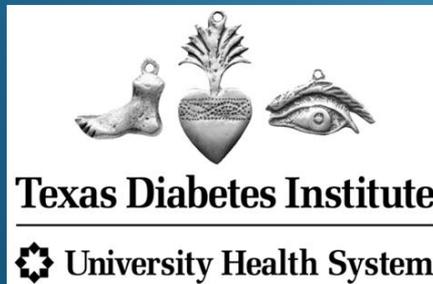
Texas Healthy Lifestyles: Chronic Disease Self-Management Program

An evidence-based approach to improving
health outcomes in a senior population

June 16, 2010



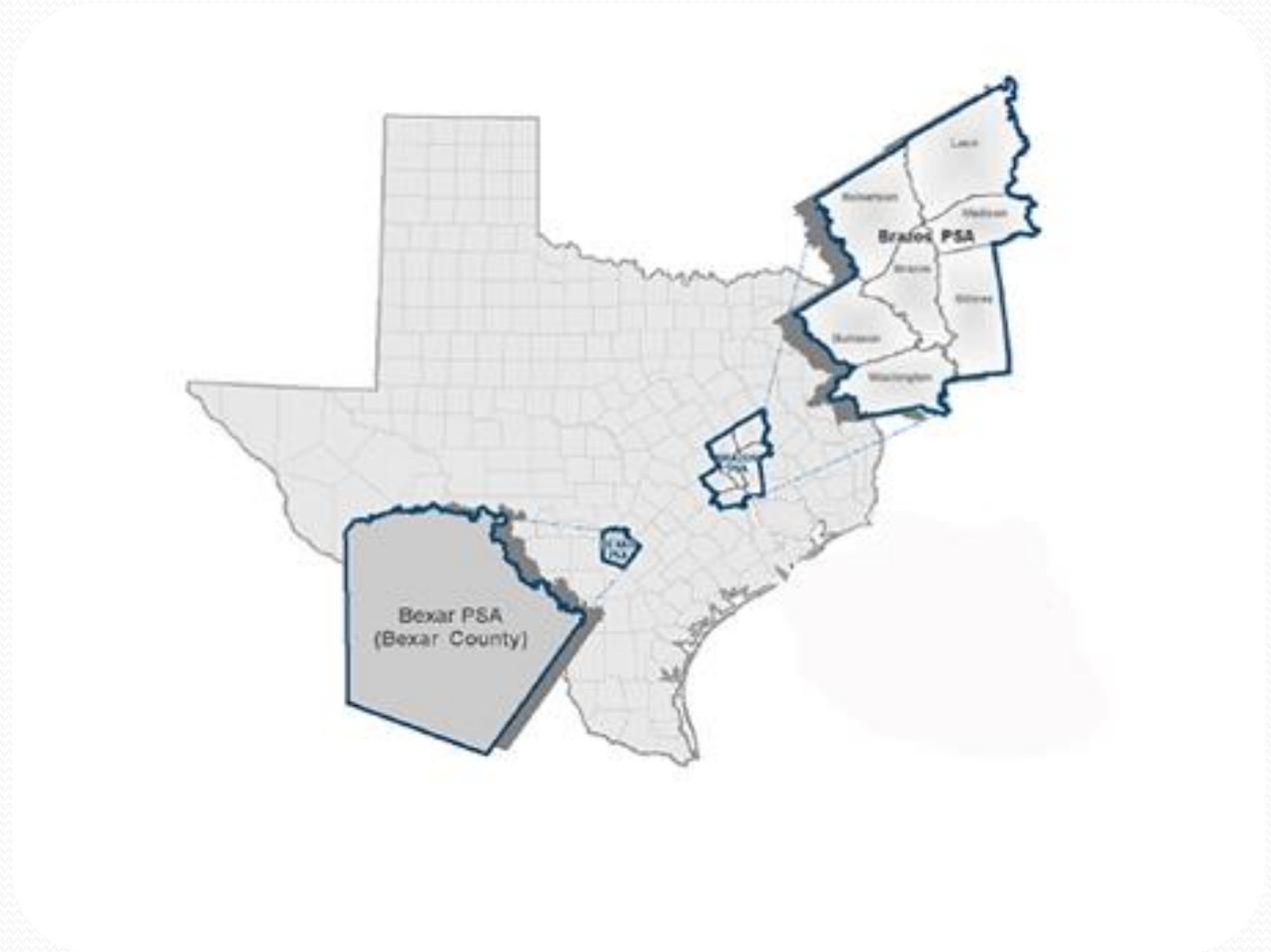
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Chronic Disease Self-Management Program (CDSMP)

Bexar AAA
-San Antonio Area

Brazos Valley AAA
-7 counties

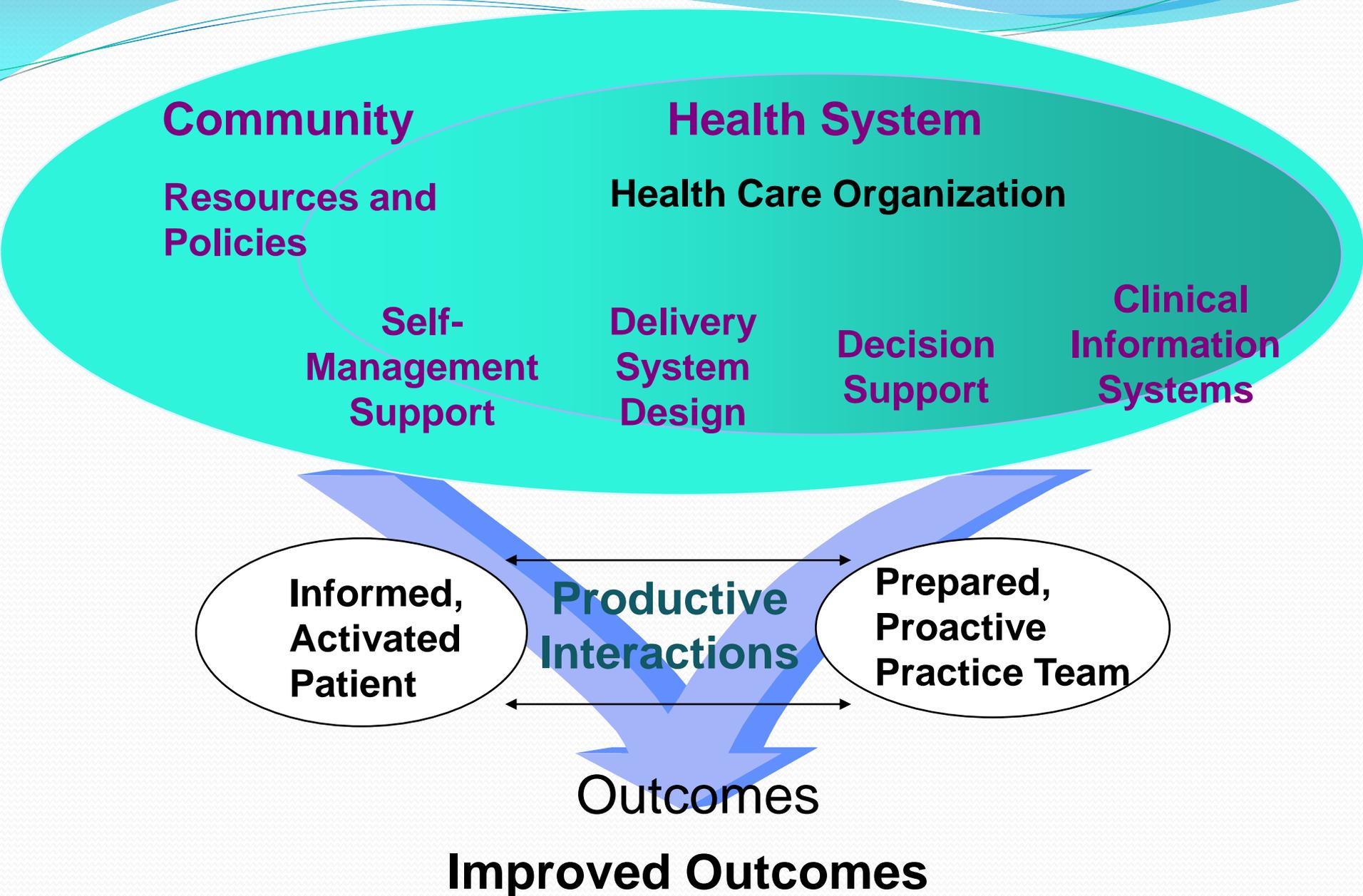


Why are we doing so poorly?

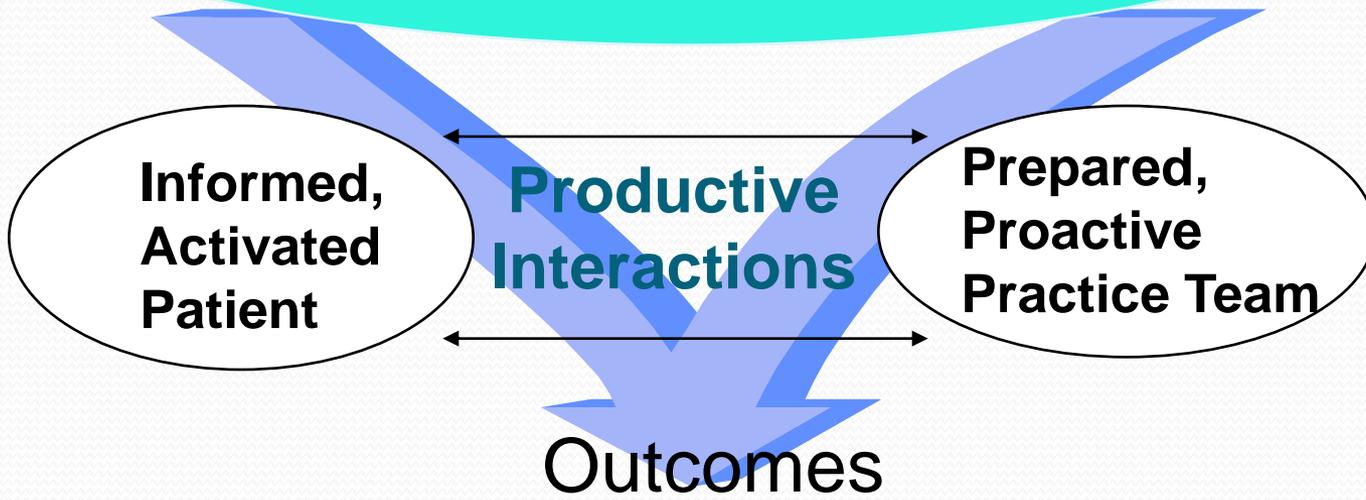
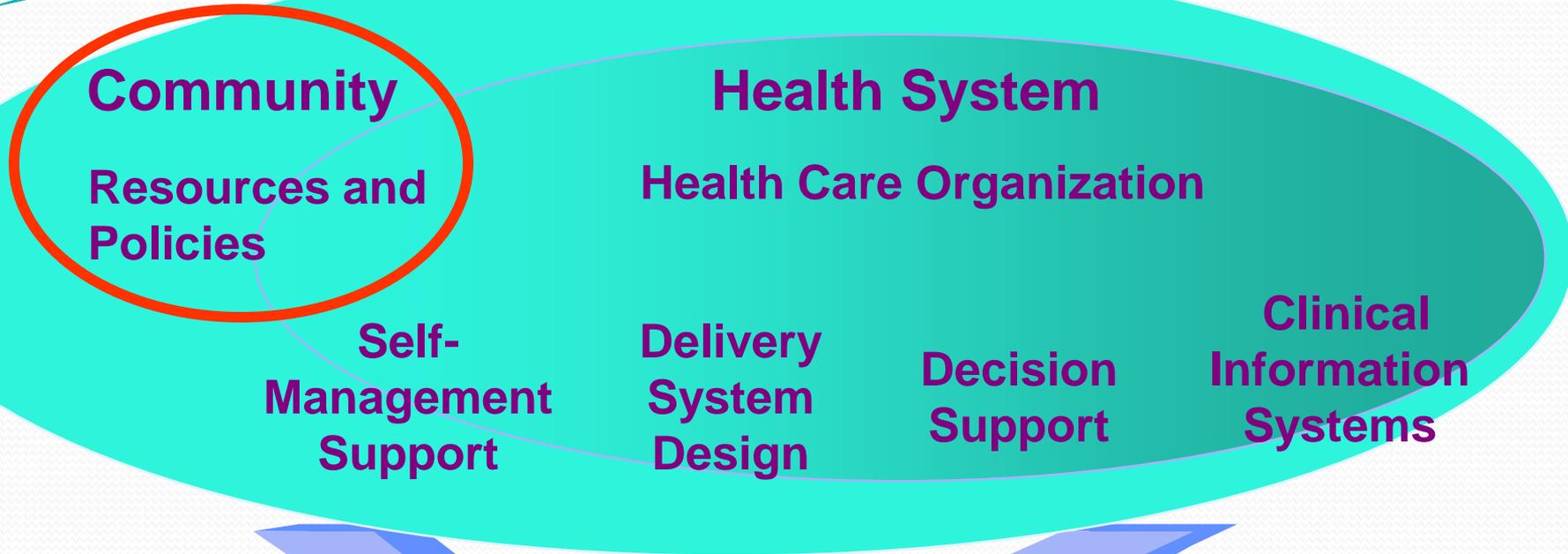
The IOM Quality Chasm report says:

- “The current care systems **cannot** do the job.”
- “Trying harder will not work.”
- “Changing care systems will.”

Chronic Care Model

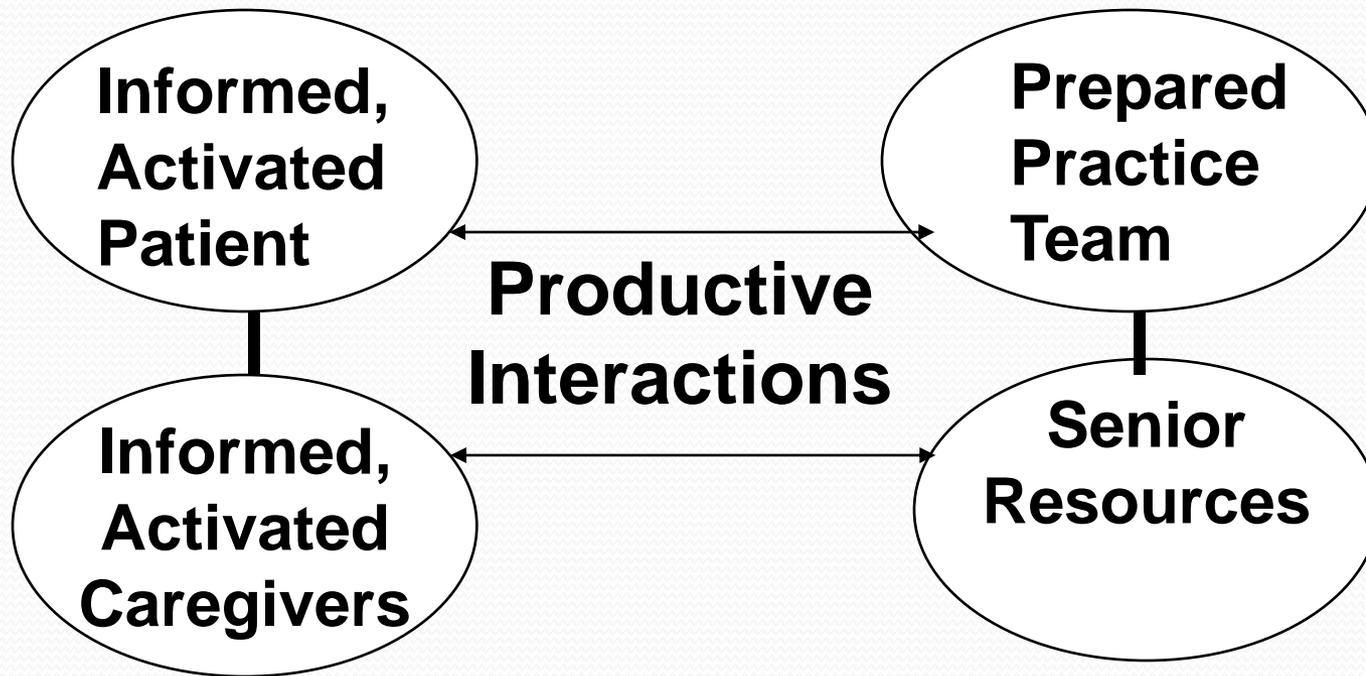


Chronic Care Model



Improved Outcomes

Essential Element of Good Chronic Illness Care



Chronic Disease Self-Management Program

Intervention Approach

Reduce Impact of Chronic Disease Burden

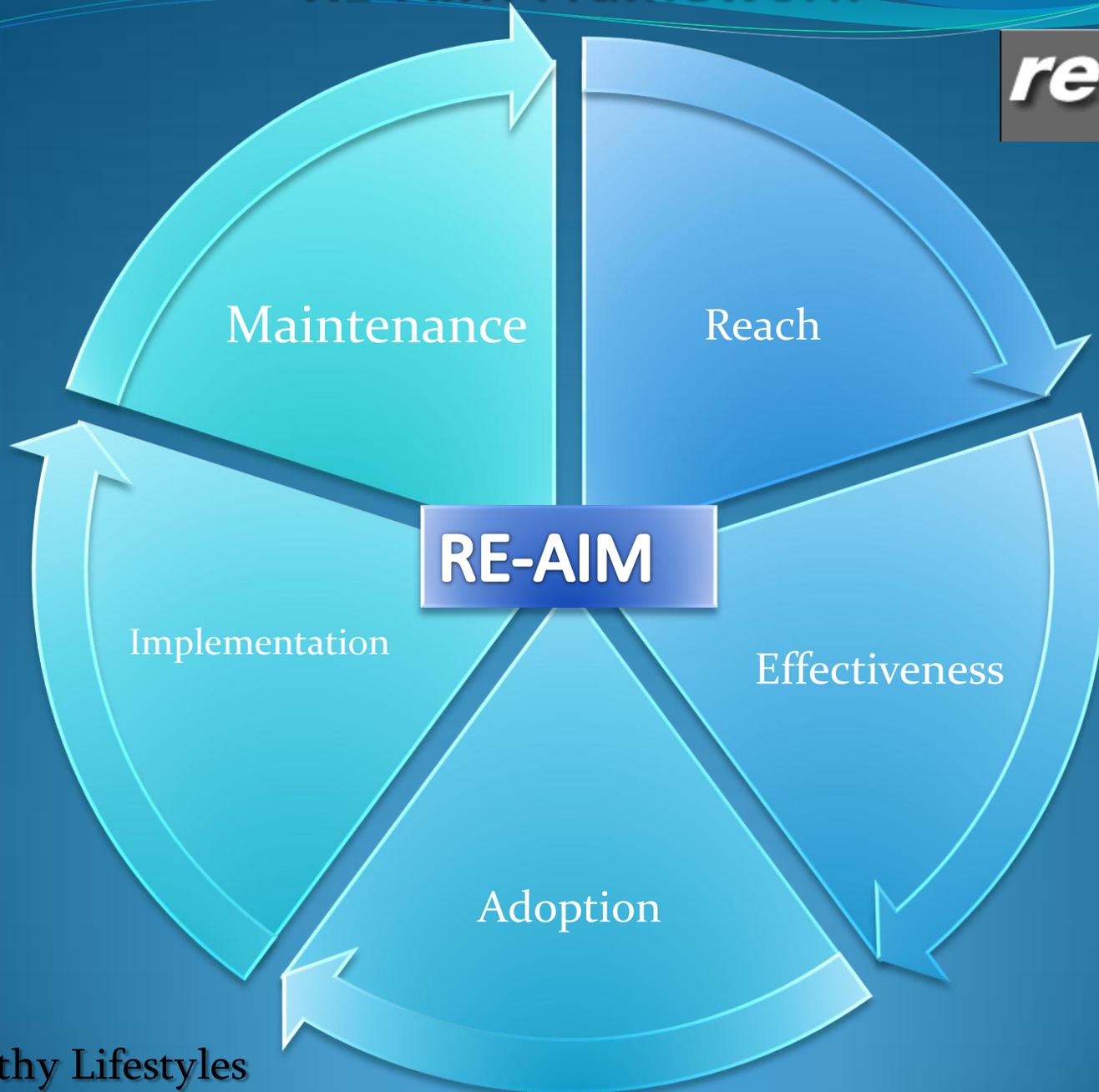
➔ Aims to help people gain self-confidence in their ability to control their symptoms

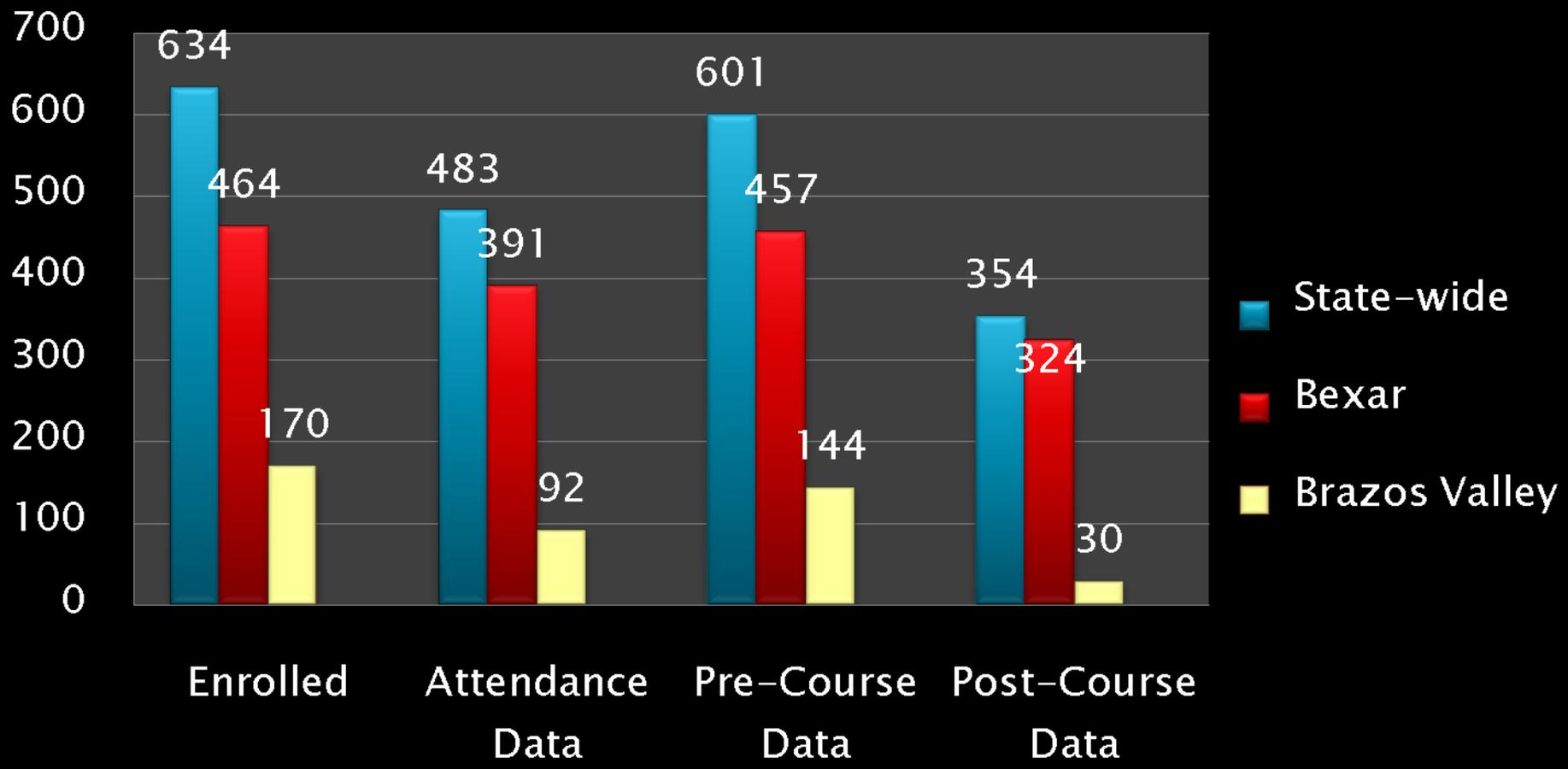
➔ Understand how their health problems affect their lives and how to manage them



<http://patienteducation.stanford.edu/programs/cdsmp.html>

RE-AIM Framework



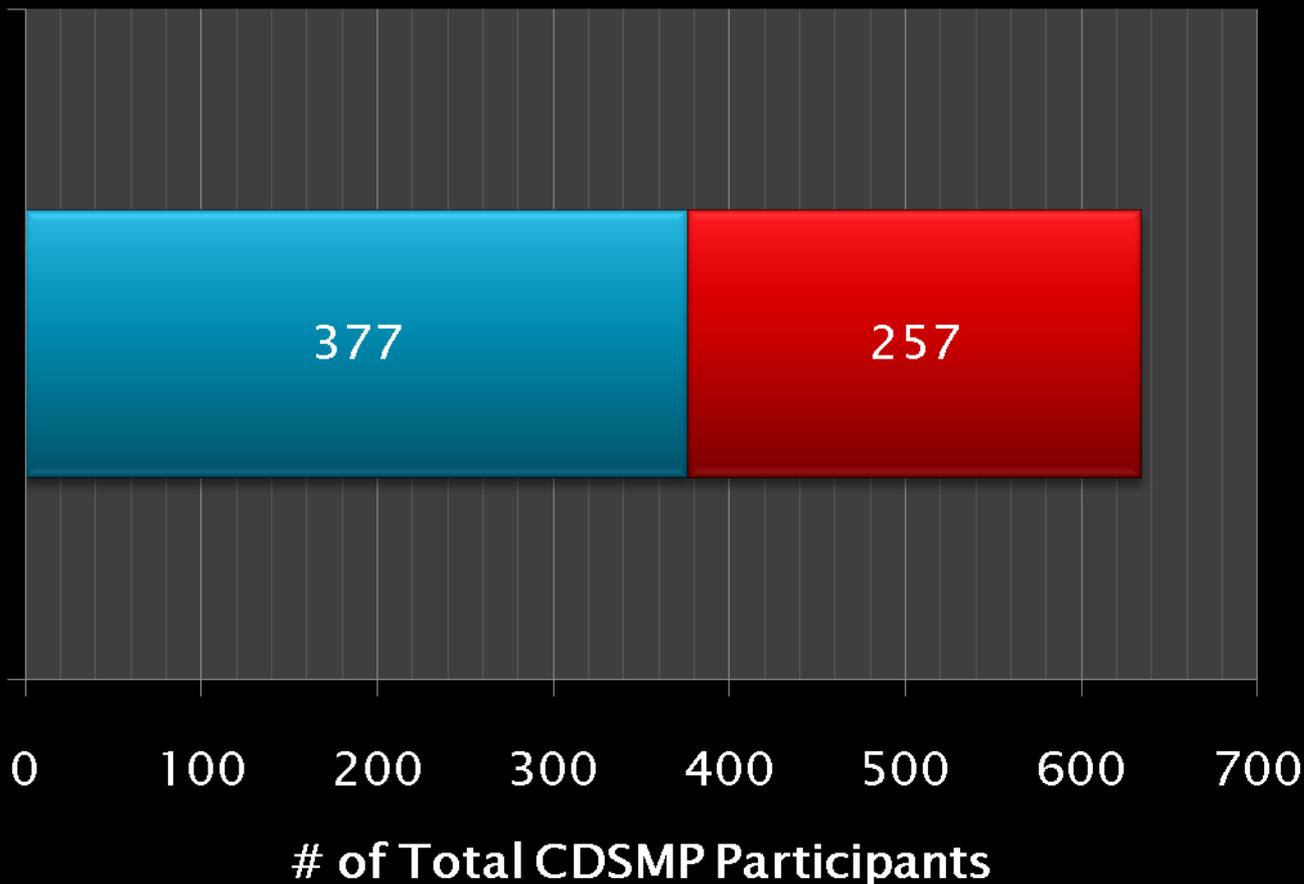


CDSMP REACH

The absolute number, proportion, and representativeness of individuals who are willing to participate in a given initiative

STATE-WIDE

Total = 634



Year 1: classes held between May 1, 2007 and August 31, 2008

Year 2: classes held between September 1, 2008 and September 30, 2009

**Cumulative data based on reported data from all sites. Some data still being received for the Year 2 time period*

CDSMP REACH

The absolute number, proportion, and representativeness of individuals who are willing to participate in a given initiative

of Total CDSMP Participants

0 100 200 300 400 500 600 700

STATE-WIDE

Total = 634



■ Year 1

■ Year 2

Bexar

Total = 464



Brazos Valley

Total = 170



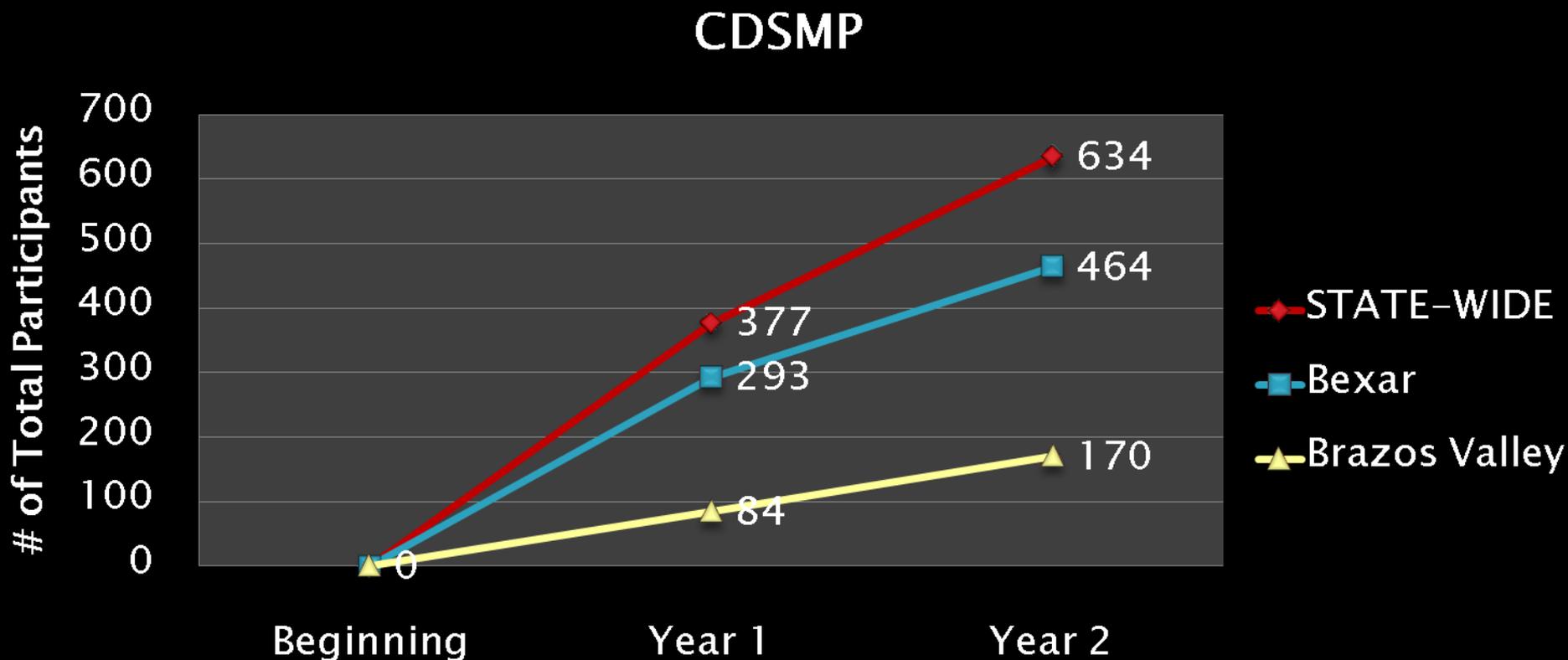
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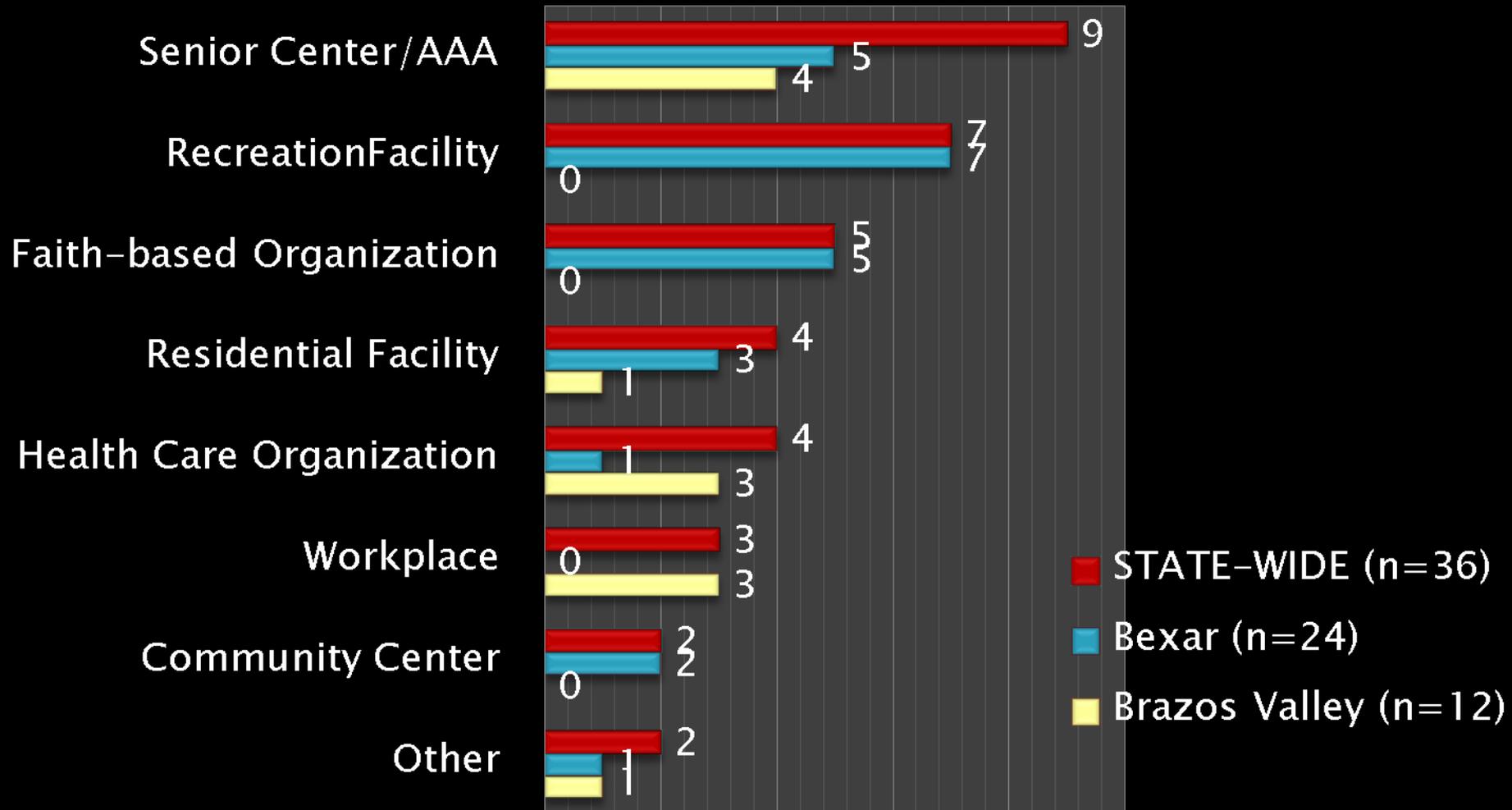
ADOPTION

The absolute number, proportion, and representativeness of settings and intervention agents who are willing to initiate a program

CDSMP	Bexar	Brazos Valley	STATE-WIDE
Participants	464	170	634
# of Unique Implementation Sites	24	12	36
# of Classes	33	16	49

ADOPTION- Implementation Site Types for CDSMP classes taught

0 2 4 6 8 10



CDSMP IMPLEMENTATION

Number of Classes by Program by Year



Year 1: classes held between May 1, 2007 and August 31, 2008

Year 2: classes held between September 1, 2008 and September 30, 2009

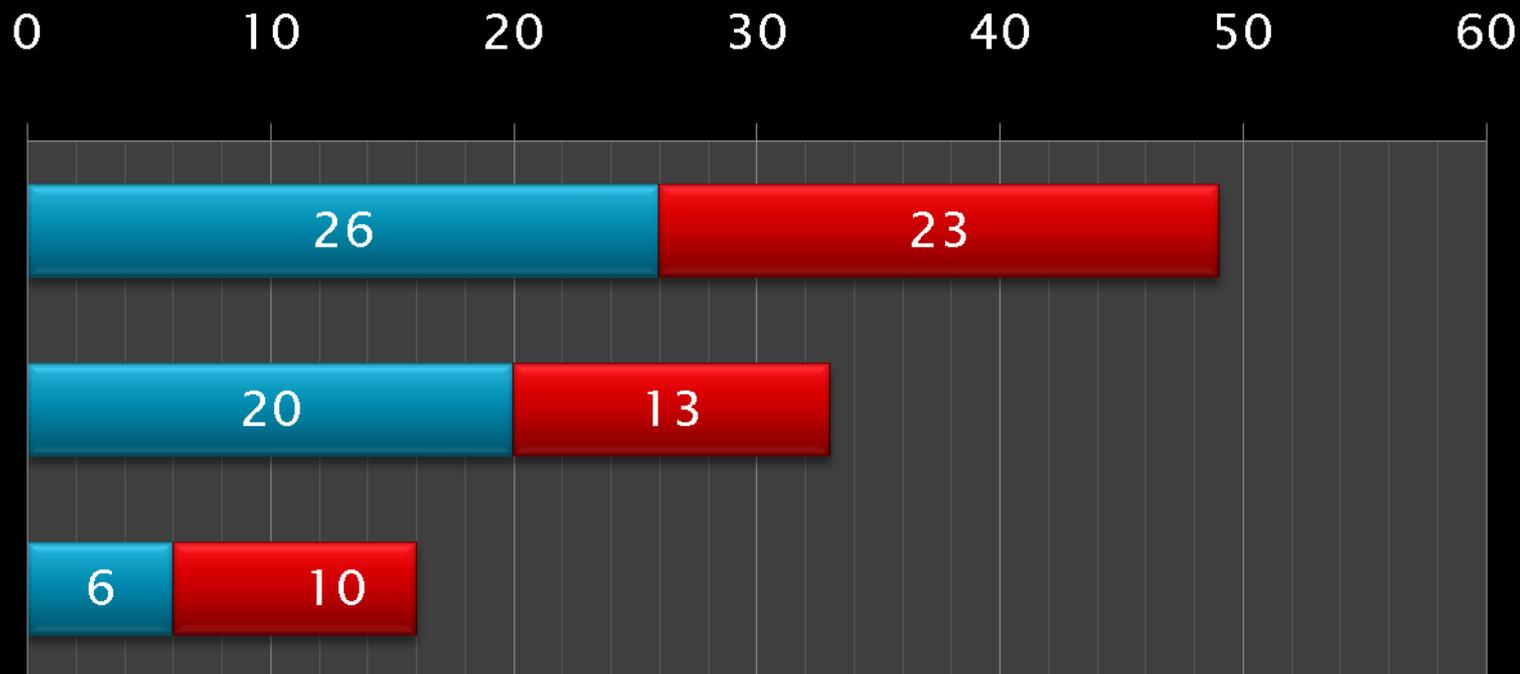
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CDSMP IMPLEMENTATION

Number of Classes by Program by Year

Classes

■ YR 1 ■ YR2



Year 1: classes held between May 1, 2007 and August 31, 2008

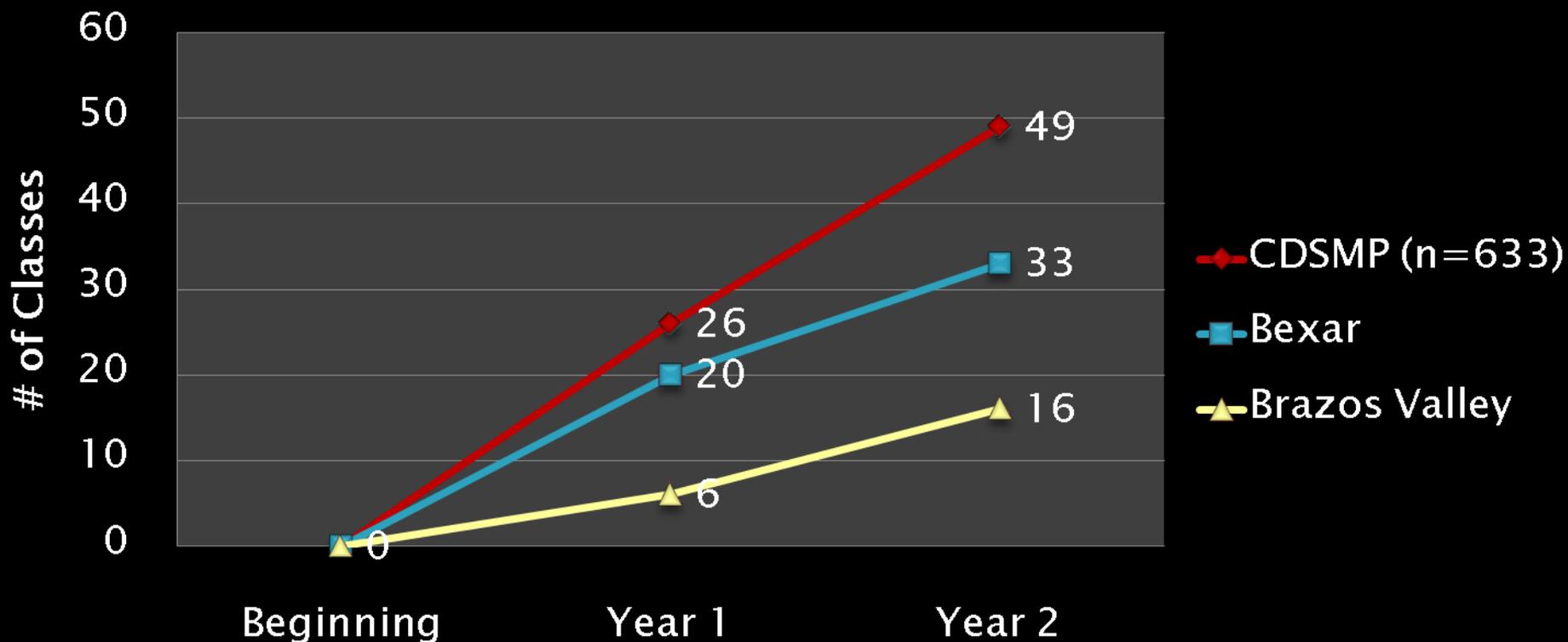
Year 2: classes held between September 1, 2008 and September 30, 2009

**Cumulative data based on reported data from all sites. Some data still being received for the Year 2 time period*

CDSMP IMPLEMENTATION

CDSMP Classes in Texas

CDSMP Classes



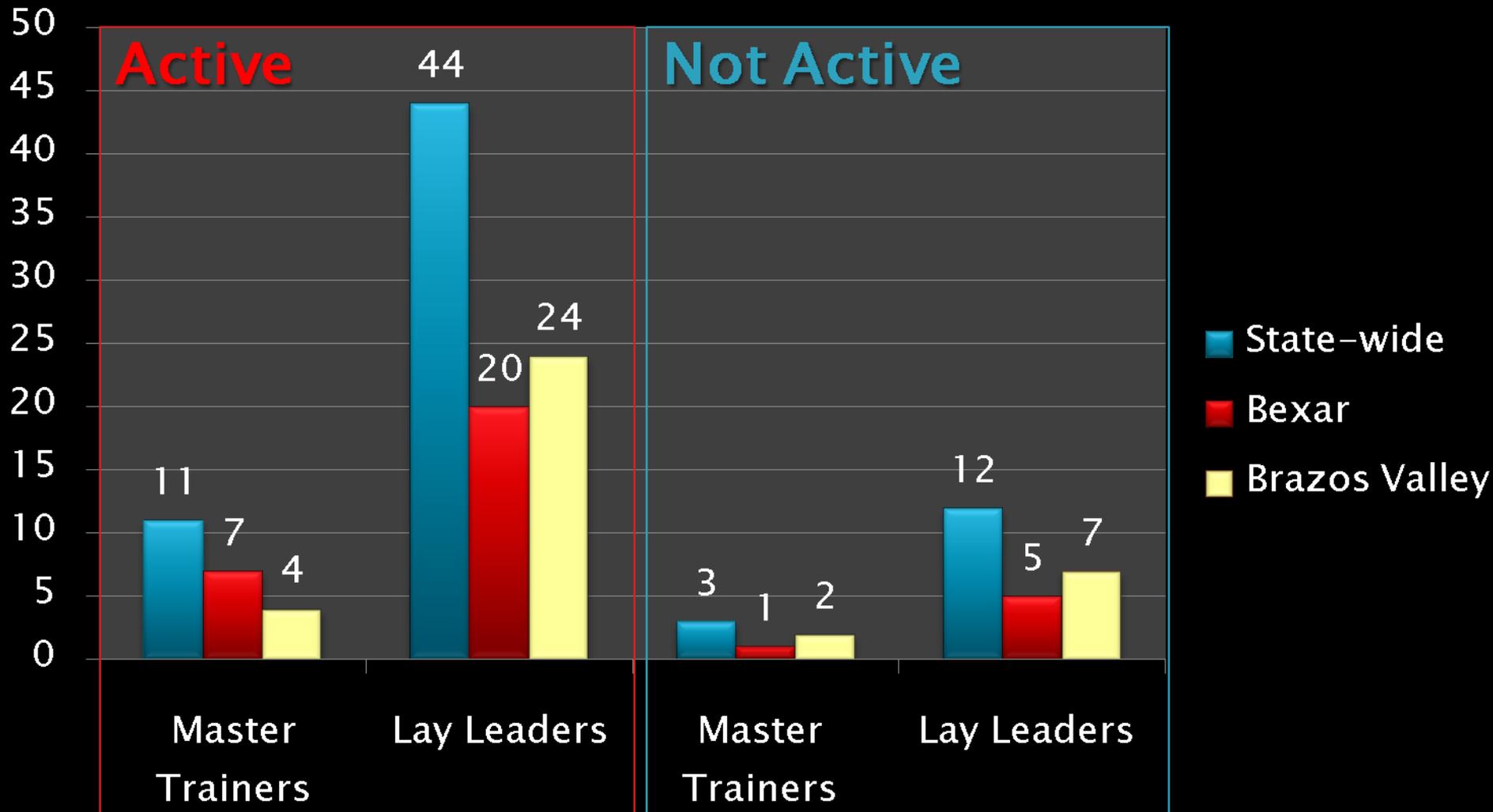
Year 1: classes held between May 1, 2007 and August 31, 2008

Year 2: classes held between September 1, 2008 and September 30, 2009

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CDSMP IMPLEMENTATION- Program Capacity

Master Trainers and Lay Leaders

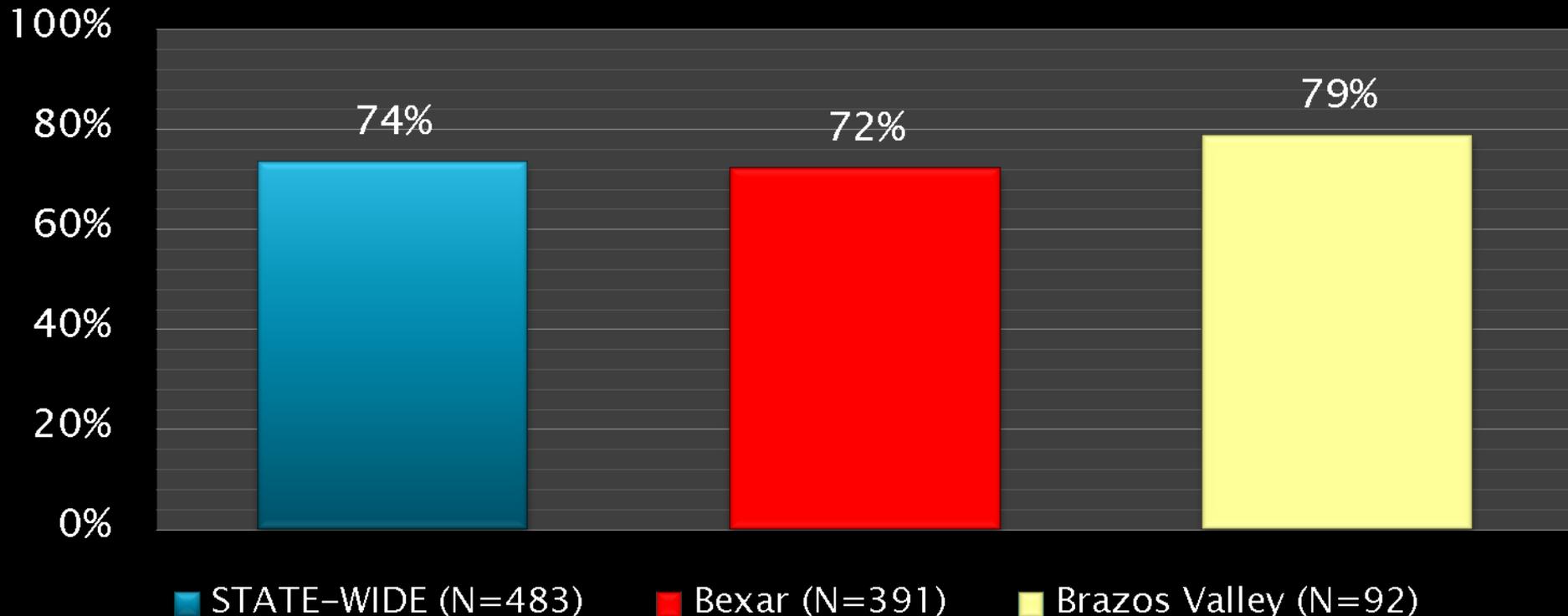


CDSMP IMPLEMENTATION

At the setting level, fidelity to the various elements of an intervention's protocol including:

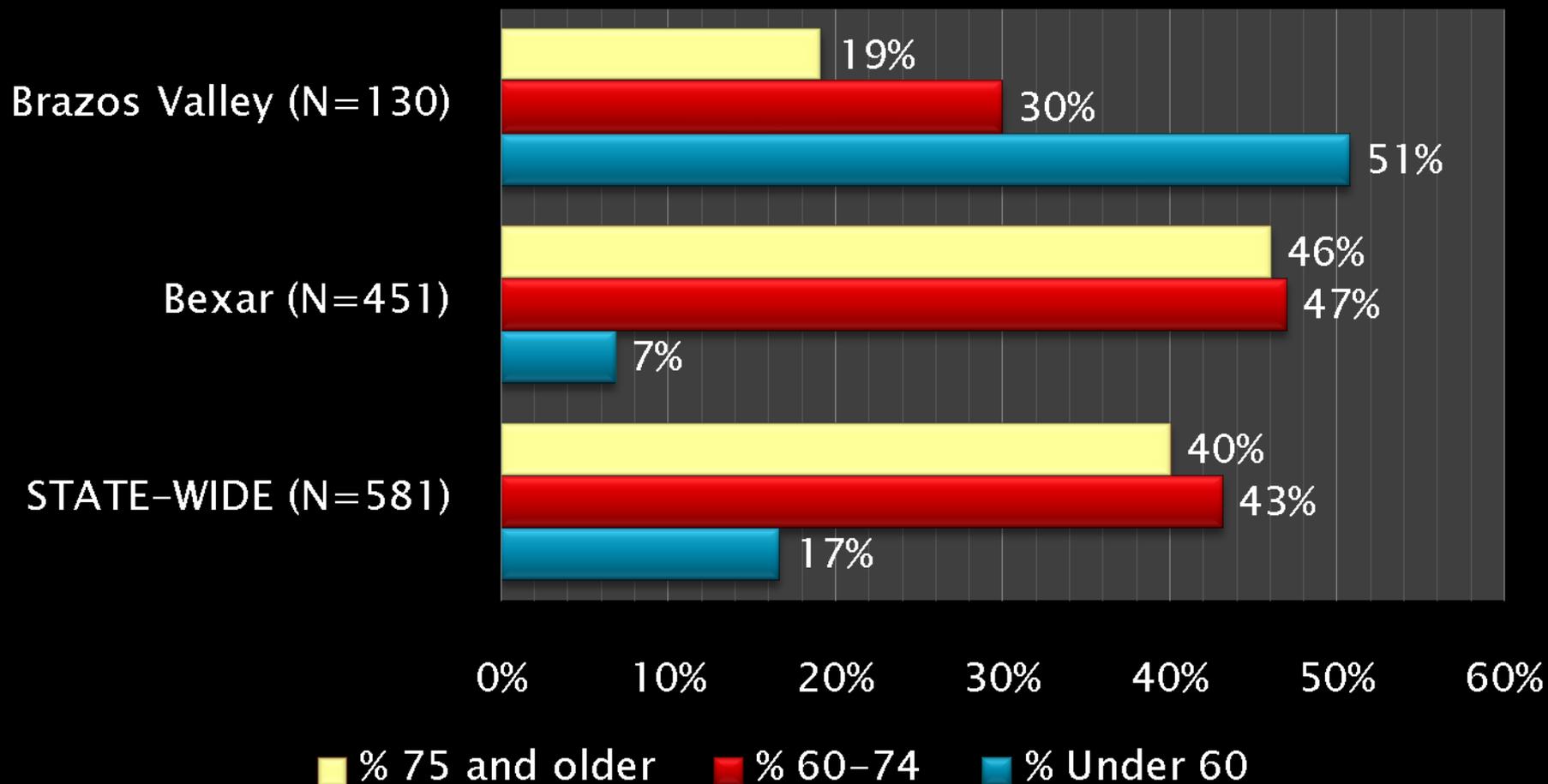
- Consistency of delivery as intended, and
- Time and cost of the intervention

% of Participants that Completed CDSMP Course



CDSMP REACH

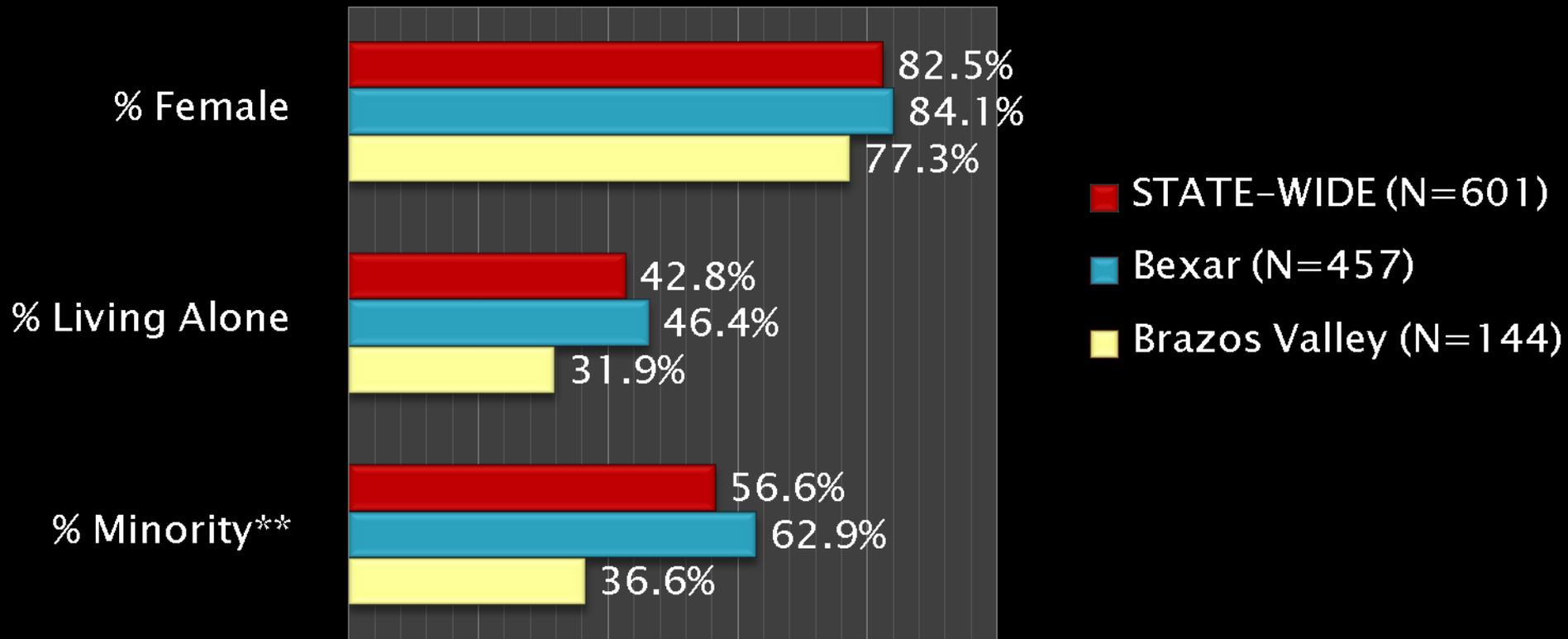
Participant Ages



Who is in CDSMP?

Participant Characteristics by %

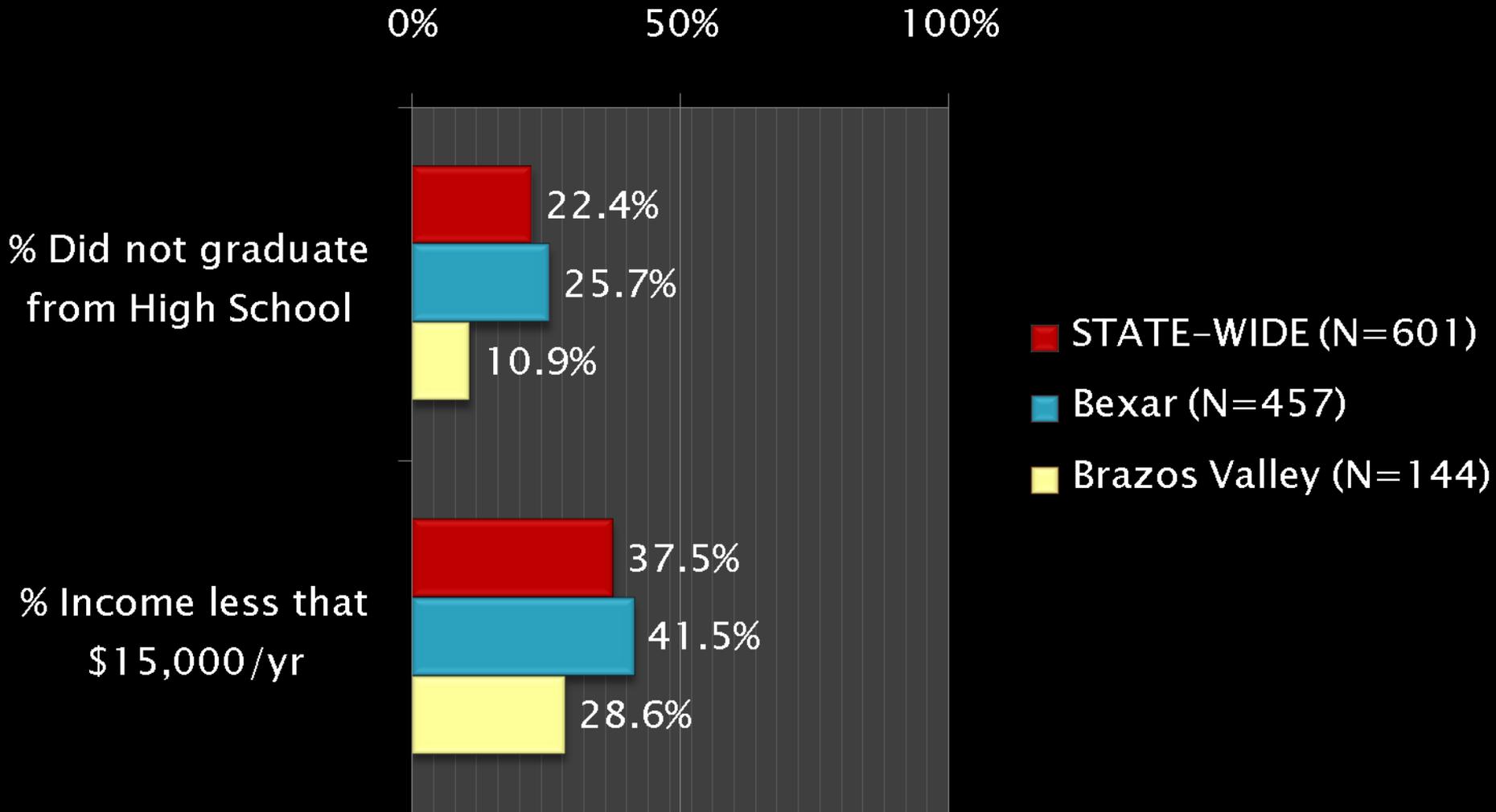
0% 20% 40% 60% 80% 100%



*Cumulative: Includes all data reported as of October 1, 2009 from 601 baseline pre-assessment forms completed by consenting participants. Missing/refused data not included in analysis

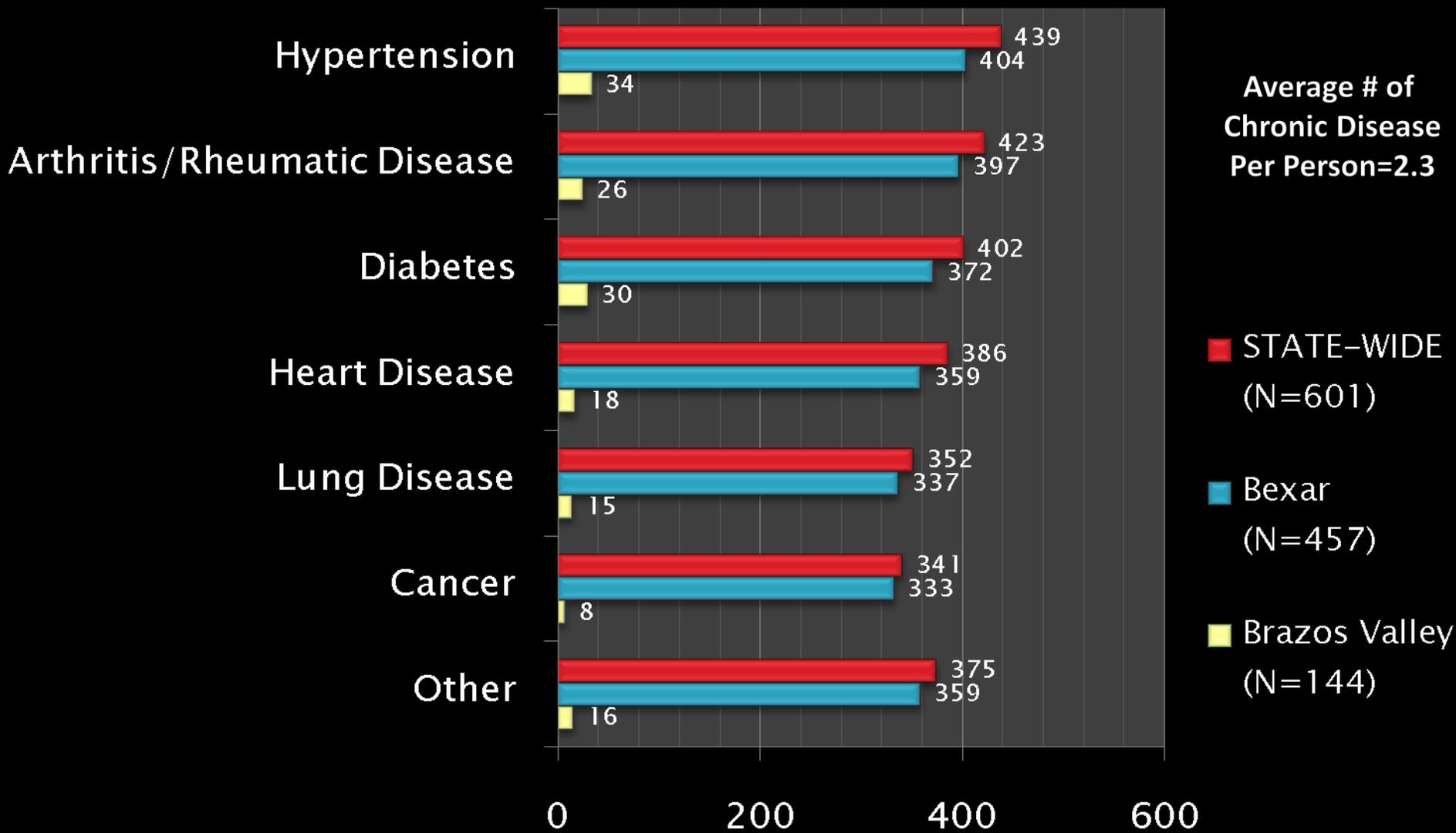
**Minority includes all reported race/ethnicity other than Caucasian/White non-Hispanic

Who is in CDSMP?



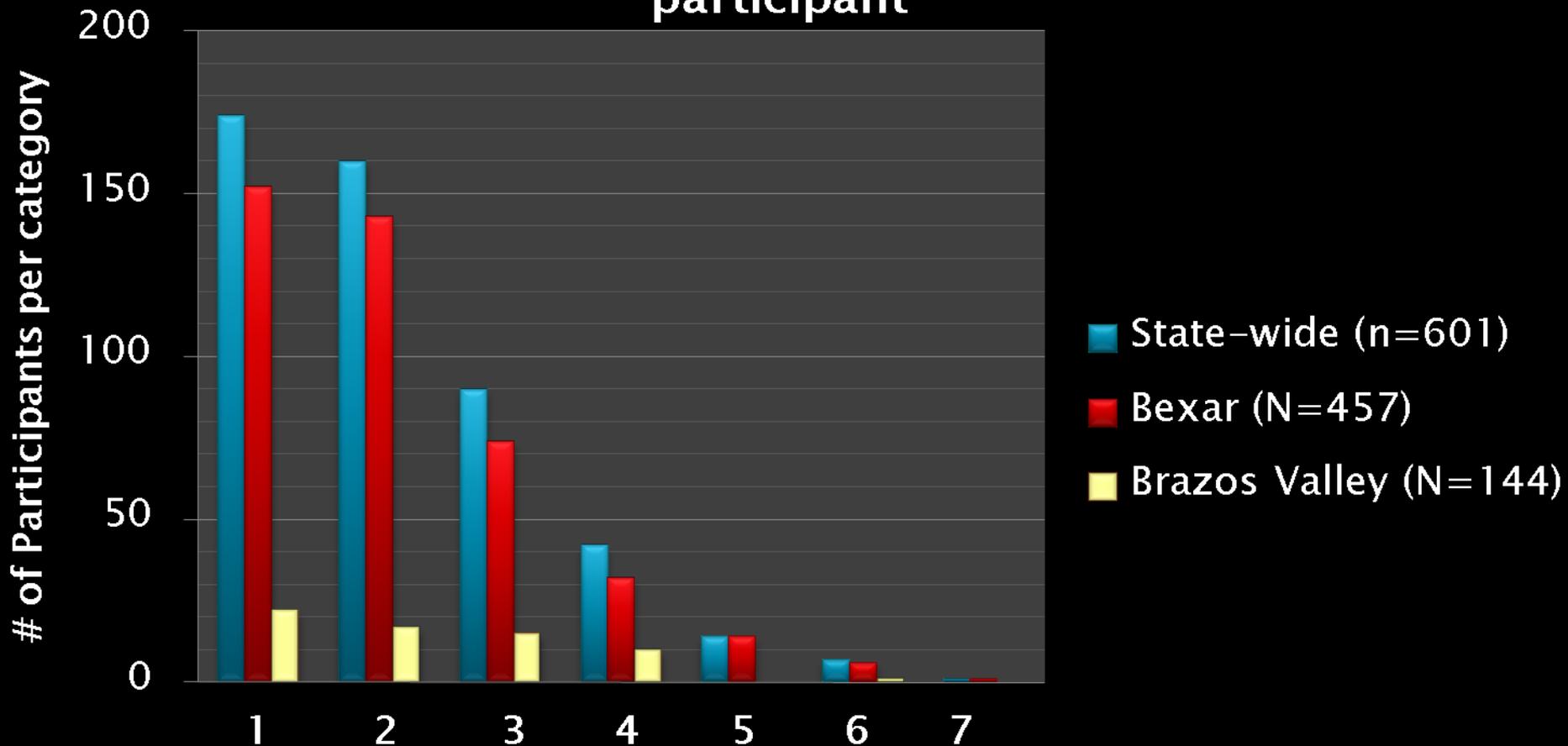
*Cumulative: Includes all data reported as of October 1, 2009 from 601 baseline pre-assessment forms completed by consenting participants. Missing/refused data not included in analysis.

CDSMP: Reported Chronic Diseases



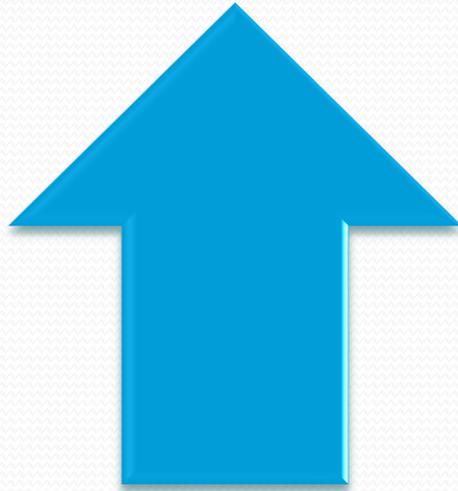
CDSMP: Reported Chronic Diseases

Number of chronic diseases reported by each participant



*Includes all data reported as of October 1, 2009 from baseline pre-assessment forms completed by consenting participants (n=601). Numbers vary slightly due to missing data.

Demonstrated Program Effectiveness for CDSMP*



Significant Improvement in:

- Feeling less pain
- Feeling less fatigue
- Improved self-efficacy to reduce or prevent falls
- Less days kept from normal social activities
- Less visits to the physician/health care provider



Adverse Effects:

- At this point, no negative consequences reported with being an CDSMP participant

**Paired t-test Analyses: Significant if P value = <.05
(n=ranging from 173 to 341)*

Demonstrated Program Effectiveness for CDSMP*

Significant Improvements*

Variable	N	Pre Course Mean	Post Course Mean	P-value	Improved*
Perceived Pain (past 2 weeks)	311	4.31	4.25	.003	X
Perceived Fatigue (past 2 weeks)	317	3.97	3.90	.028	X
Falls Efficacy (confidence to prevent and manage falls)	198	14.83	14.93	.016	X
Health interference with normal social activities (past 4 weeks)	173	1.83	1.79	.019	X
# visits to physician or health care provider (past 6 months)	317	3.89	3.82	.001	X
#times visited hospital ER	317	1.40	1.29	.013	X

*Paired t-test Analyses: Significant if P value = <.05

Program Effectiveness for CDSMP*

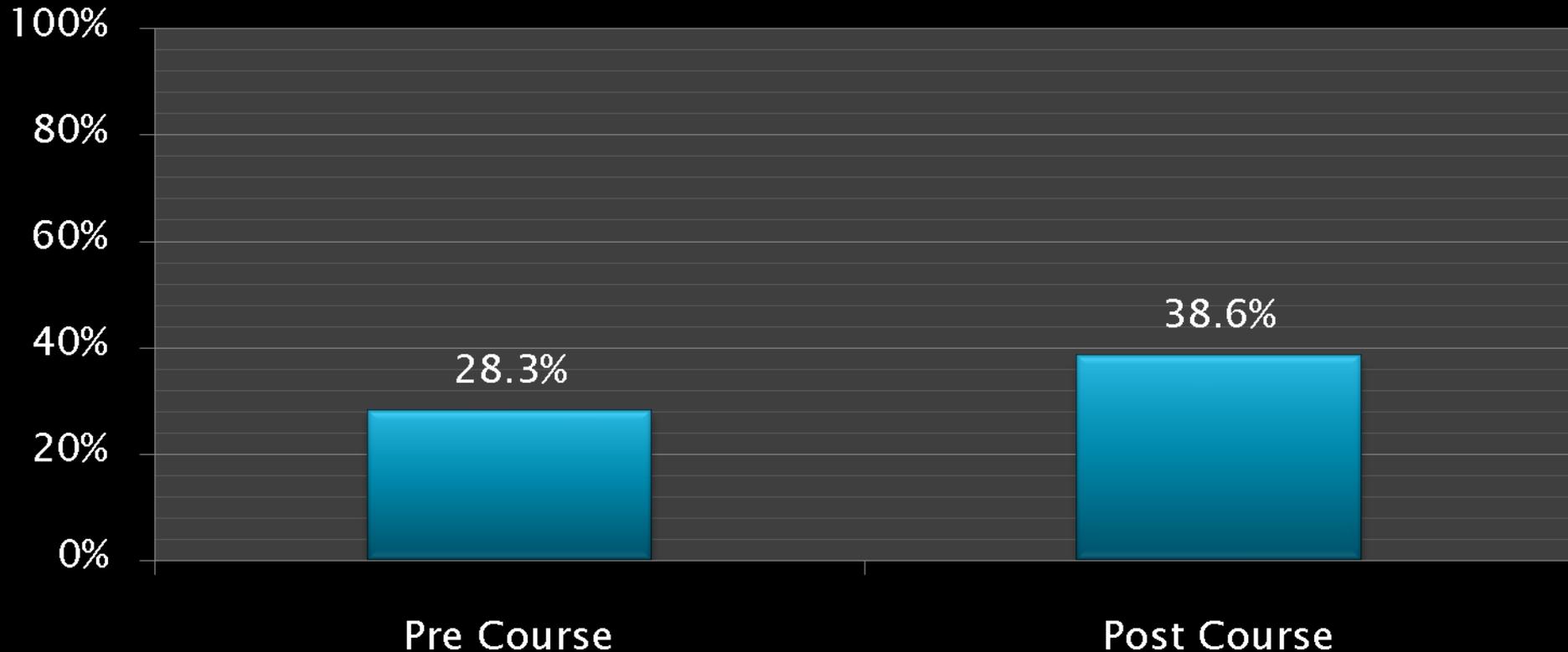
Promising Outcomes*

Variable	N	Pre Course Mean	Post Course Mean	P-value
Participates in physical activity	202	1.24	1.23	.083
# Days physically active during week	197	3.76	3.80	.088
# Self-reported falls (past month)	198	.32	.29	.058
Health interference with normal daily activities (past 4 weeks)	142	8.05	7.99	.229
# Nights hospitalized (past 6 months)	317	7.29	5.23	.199
General Health Status	345	3.13	3.12	.180

**Paired t-test Analyses: In correct direction but not Significant at P value = <.05*

CDSMP Helps Meet National PA Guidelines

Physical activity participation 5 days a week or more

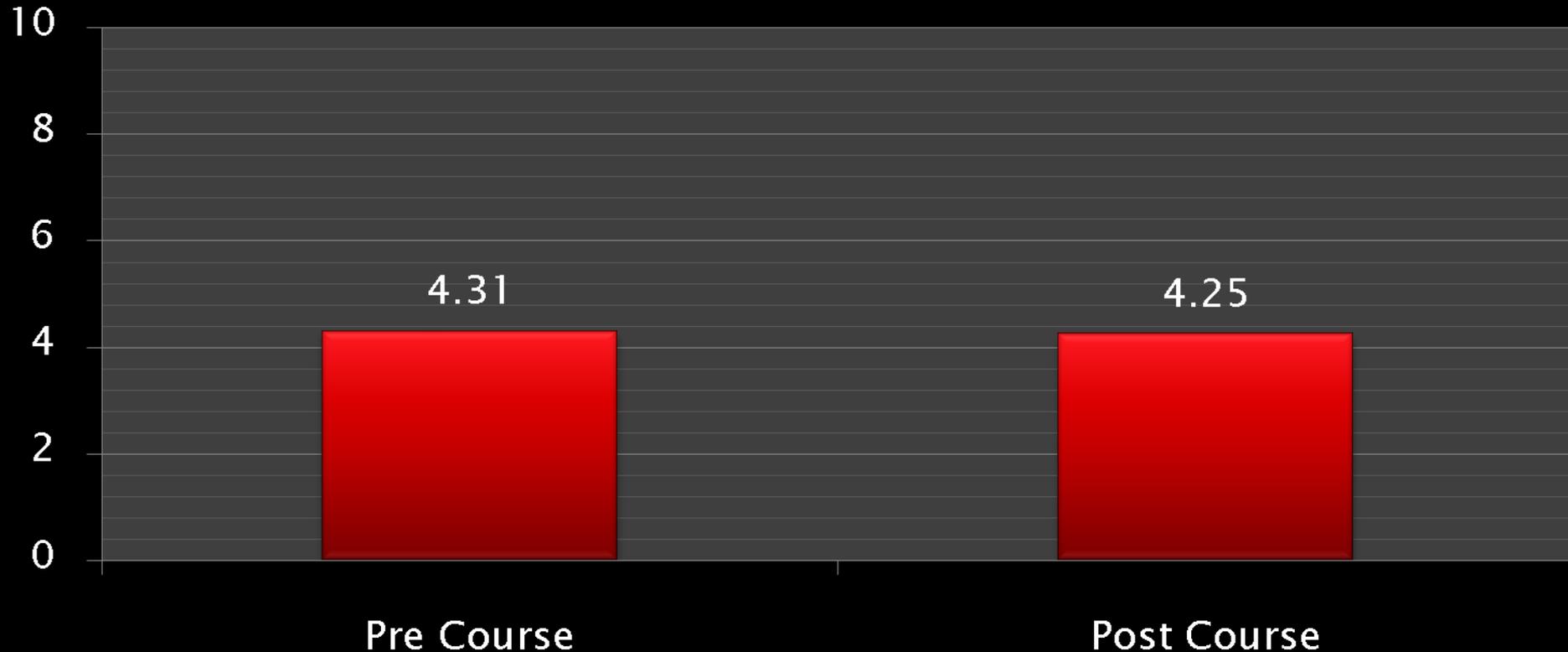


Paired t-test Analysis: *P-value* = 0.088 (n= 197)

*Includes all data reported as of October 1, 2009 from 133 baseline pre-assessment forms and 77 post-assessment forms completed by consenting participants. Missing/refused data not included in analysis.

CDSMP Helps Reduce Pain

% Reduction of pain reported by participants



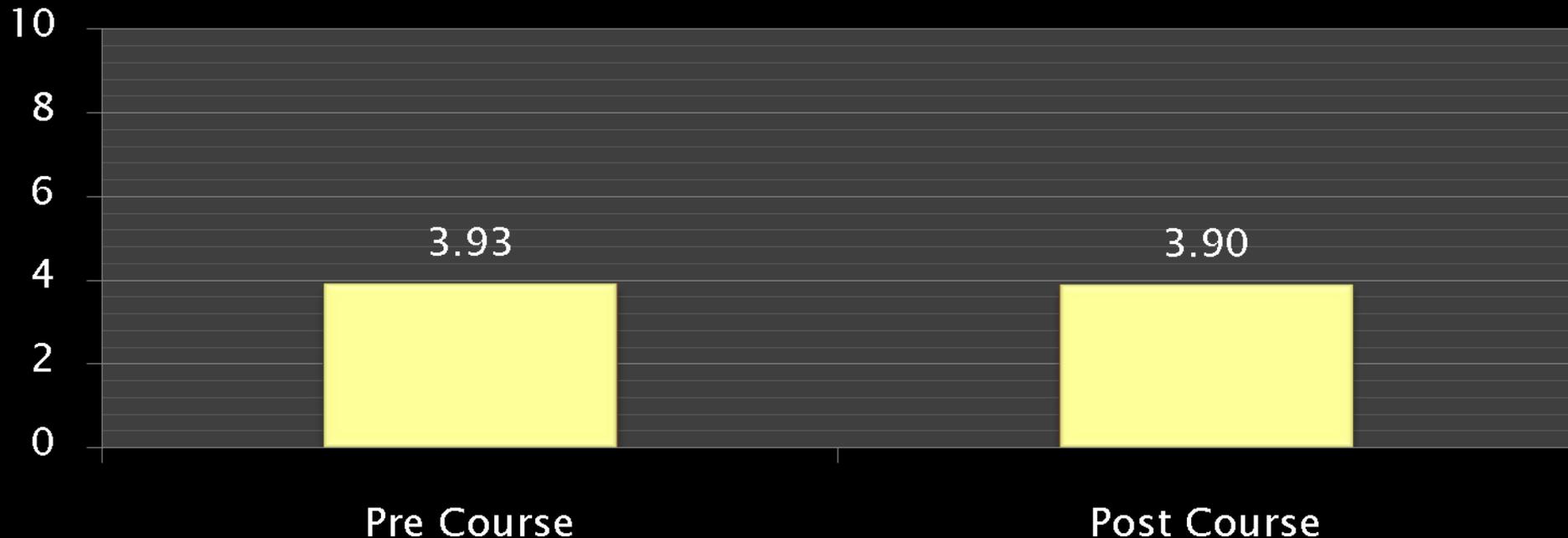
Significant Improvement
Paired t-test Analysis: P -value = 0.003 (n= 311)

*Includes all data reported as of October 1, 2009 from 311 participants with both pre and post assessment data on pain.

Missing/refused data not included in analysis.

CDSMP Helps Reduce Fatigue

Percent Reduction of perceived fatigue reported by participants



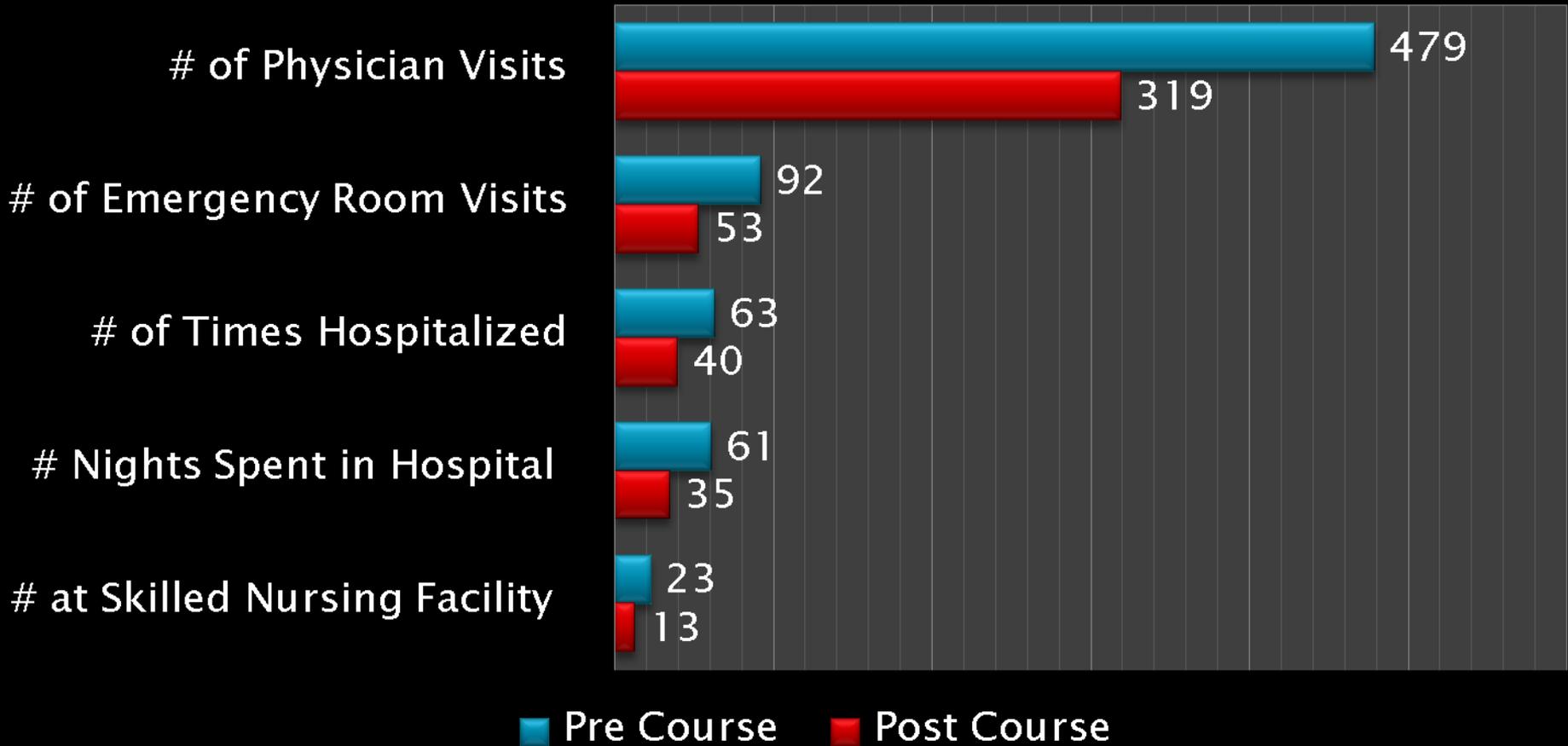
Significant Improvement
Paired t-test Analysis: P -value = 0.028 (n= 317)

*Includes all data reported as of October 1, 2009 from 317 participants with both pre and post assessment data on fatigue.

Missing/refused data not included in analysis.

CDSMP Decreases Health Care Utilization

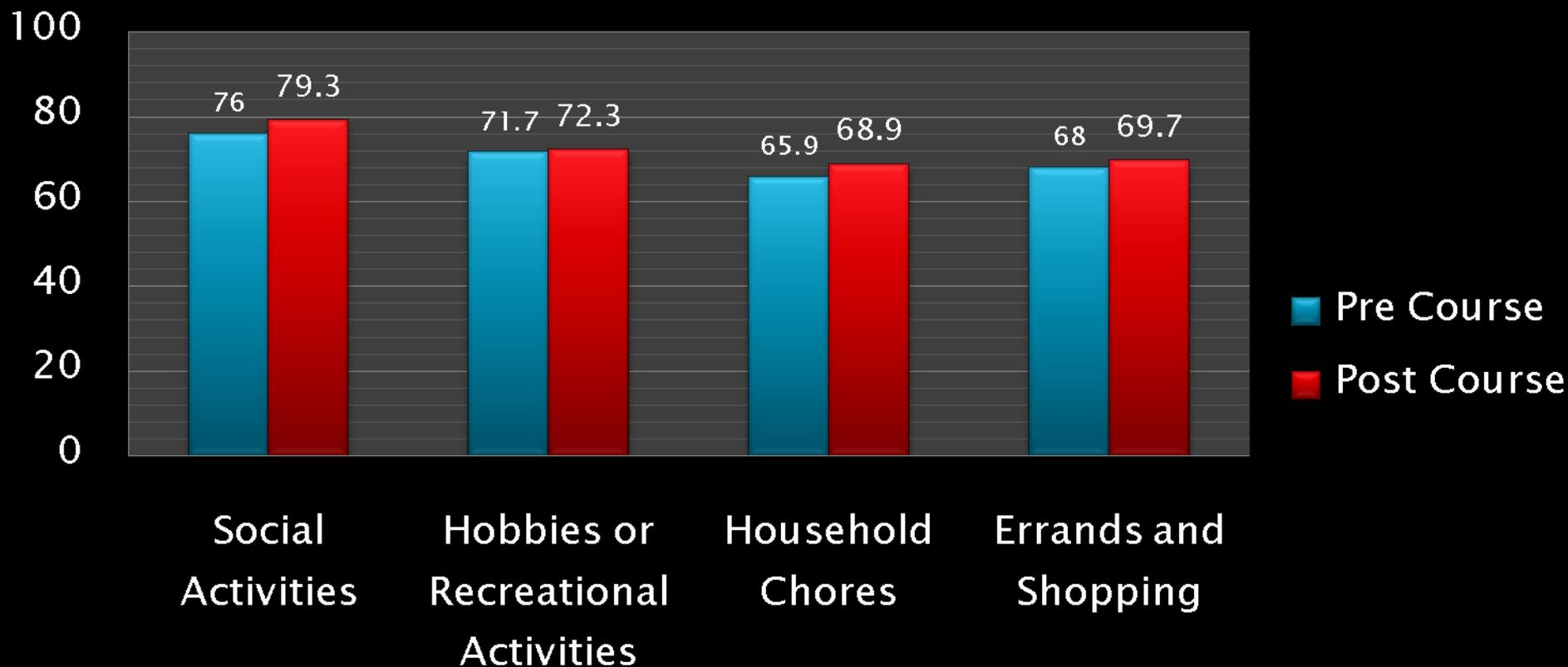
0 100 200 300 400 500 600



*Includes all data reported as of October 1, 2009.
Missing/refused data not included in analysis.

CDSMP Improves How Health Impacts on Normal Daily Activities

% Reported health interfering slightly or not at all



Paired T-Test Analyses: Overall P -value = .229 ($n=142$)

[Social Activities = .019 ($n=173$), Hobbies/Recreation=.319 ($n=187$), Household Chores= 1.00 ($n=205$), Errands/Shopping=.656 ($n=177$)]

*Includes all data reported as of October 1, 2009.

Missing/refused data not included in analysis.

Why Participants are taking the course?

“A desire to help my health situation”

“Interest in what might be available to help deal with pain/discomfort”

“Awareness and better understanding of illness. Learn coping methods and other aids.”

“Because I had fallen and broke my wrist. Did not want to fall again and learned to better manage my health problems, doctor visits, exercise and food.”

“A desire to help my health situation”



What Participants Had to Say About the CDSMP Classes?

“I want to stay as healthy and active as possible. The textbook and relaxation tape provided were excellent. Thanks! .”

Helped me with setting up future strategies to deal with the physical, mental and emotional processes of living a full and rewarding and mindful life!

“I wanted to learn about diabetes. I really enjoyed the class. I have had diabetes for 40 years. I need to learn as much as I can about it.



Success with RE-AIM Elements

REACH

Able to recruit and retain a diverse population (n>600)

EFFECTIVENESS

Improvements in health and health care

ADOPTION

Over 35 implementation sites across Texas

IMPLEMENTATION

Self assessment coach feedback form to ensure program fidelity

MAINTENANCE

Sustainability plans in place

Sustainability



Texas Diabetes Institute

University Health System

Bexar County

- Now part of AoA Oasis
- Expanding opportunities for implementation in senior health centers
- Will be complemented by Diabetes Self Management program



Brazos Valley

- Now getting picked up by Scott & White
- Being considered by VA
- Will pair with AMOB delivery channels

Next Steps



Disseminate programs

- Continuing to disseminate the programs throughout the State



Recruitment and Reach

- Continue to monitor participant recruitment to ensure participant reach



Evaluation and Data Collection

- Continue monitoring evaluation and data collection activities



Sustainability

- Identify and secure supplemental/ sustainability funding sources



Advocate for Texas Healthy Lifestyles

- Advocate at the State policy level to continue supporting THL dissemination and sustainability



Questions?

Contact information:

Jane N. Bolin, RN, JD, PhD

jbolin@srph.tamhsc.edu

(979) 862-4238