

The New Haven MOMS Partnership: Combatting Depression, Reducing Stress and Building Foundational Skills for Success

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Overview of Today's Webinar

- Addressing mental health
- Achieving high rates of participation
- Using technology to keep people engaged
- Building a partnership that works

Addressing Mental Health

Strategies for a community-based approach



THE NEW HAVEN **MOMS PARTNERSHIP**

Ensuring the Emotional Health of Our City's Families

Yale SCHOOL OF MEDICINE



Our Target Population



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Low-income, African American and Latina
pregnant and parenting women in New Haven

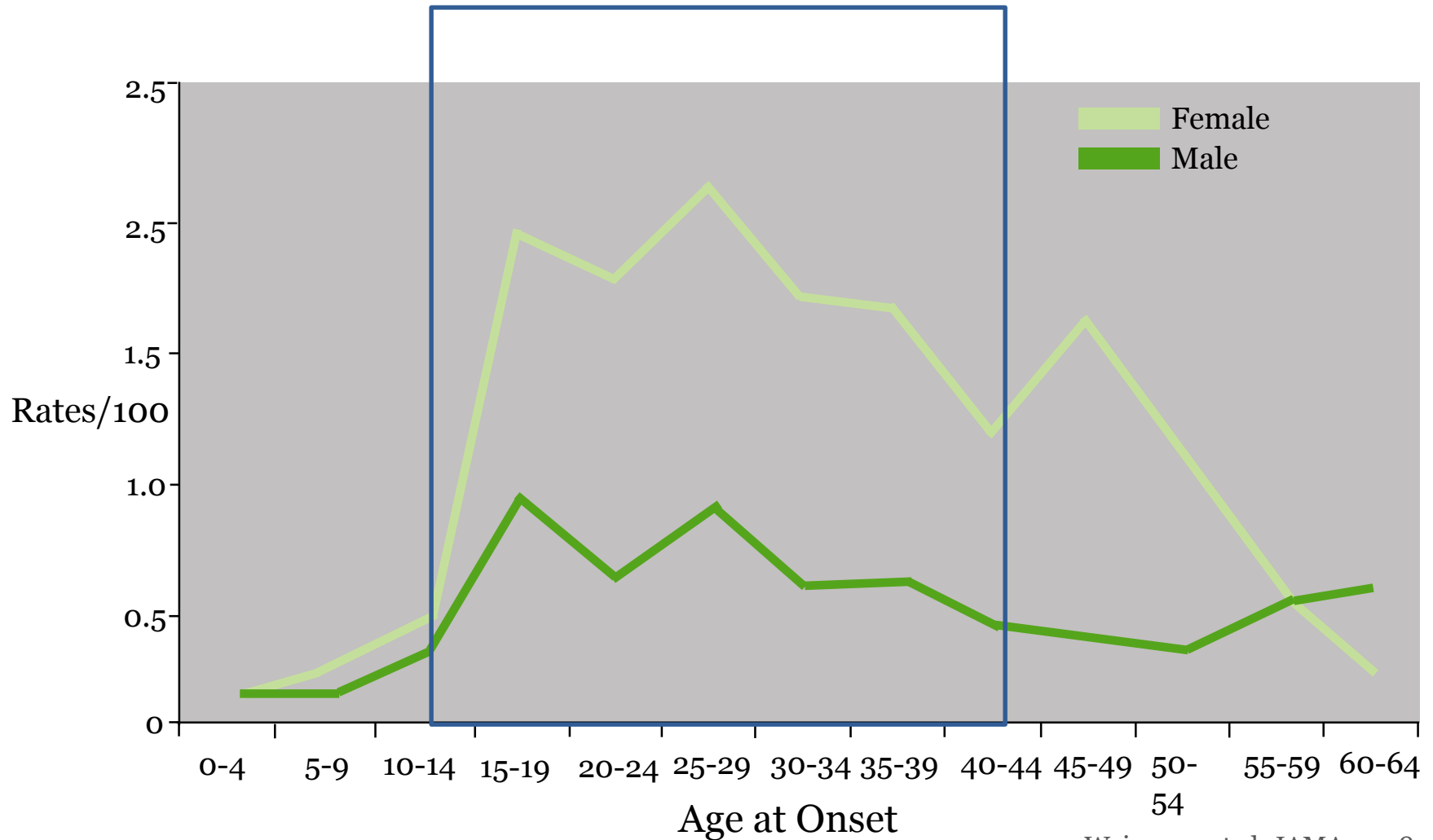
The New Haven Mental health Outreach for MotherS (MOMS) Partnership

- All Our Kin
- Clifford Beers Guidance Clinic
- Housing Authority of New Haven
- New Haven Health Department
- New Haven Healthy Start
- State of CT Department of Children & Families
- State of CT Department of Social Services
- The Diaper Bank
- Yale Child Study Center & Psychiatry
- Advisory Committee of 40+ local and state leaders



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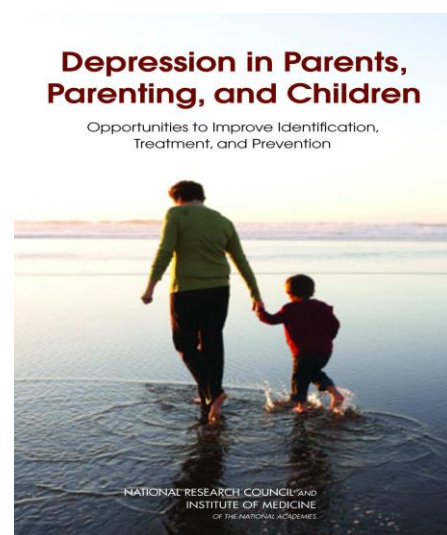
Age-Specific Rates of depression in the USA



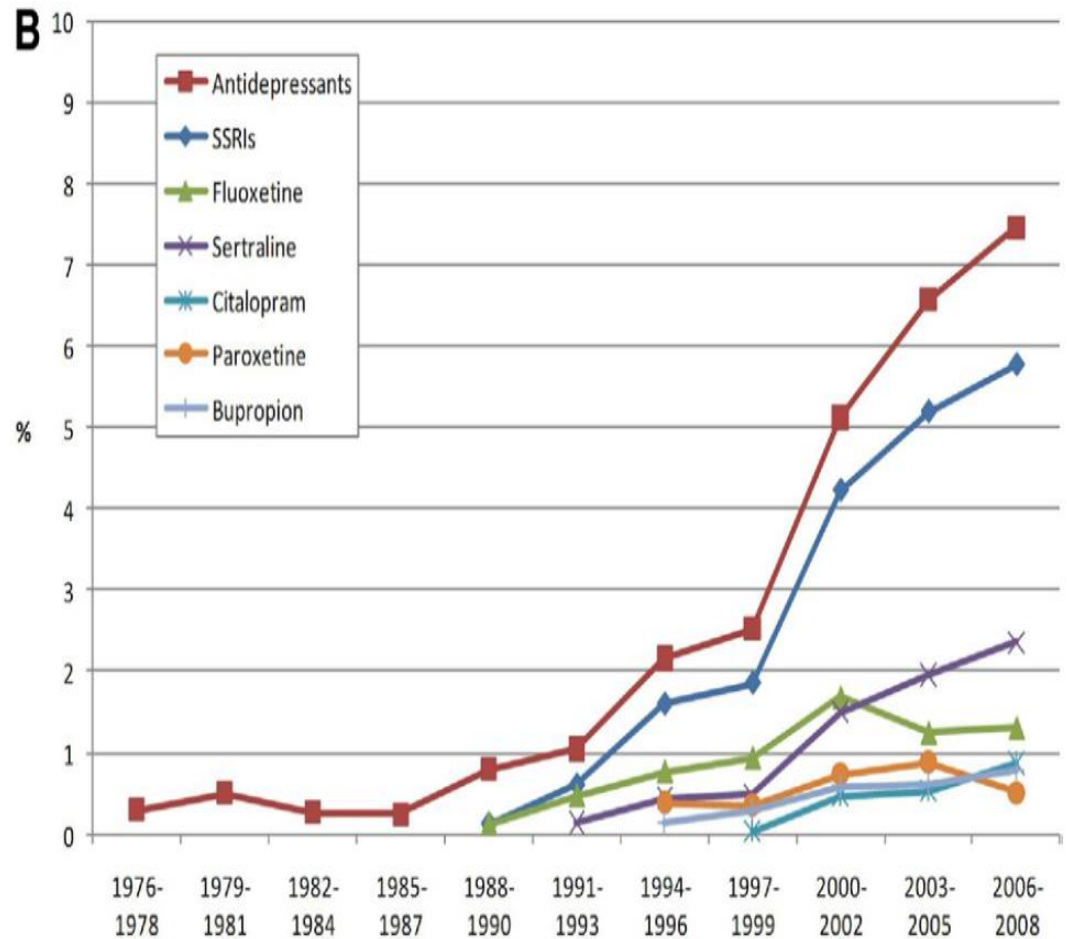
Weissman et al. JAMA, 1998

Public Health Significance: Maternal Depression

- In the United States, depression is the leading cause of non-obstetric hospitalizations among women aged 18-44.
- Specifically for parents, depression can
 - Interfere with parenting quality
 - Put children at risk for poor health and development
- At least 15.6 million children live with an adult who had *major* depression in the past year



Maternal Mental Health: Public Health Impact



Mitchell et al, *American J of Obstetrics & Gynecology*, 2011, Vol 205: 51, e1-e8

Impact on Children

- Less likely to engage in positive parenting practices and preventive child health practices
- Parental depression linked to
 - lack of school readiness and early school success
 - impairments in cognitive and motor function
 - increased risk for mental illness



Smith MV et al, 2009; *AMJ Public Health* 63(120); NICHD Early Child Care Research Network. 1999. *Developmental Psychology* 35(5): 1297-1310. Kavanaugh, 2006. *Ambulatory Pediatrics* 6(1): 32-37. Surkan, 2012, *Pediatrics* 130 (4)

Maternal Mental Health in New Haven



- 54% of children under age 3 live in poverty, in single, female-headed household.
- For low-income women with young children, 40%-60% with depressive symptoms
- Early Head Start mothers: 20% report illicit drug use

Kahn, RS 2006; Bassuk, Buckner, Perloff, & Bassuk, 1998; de Groot, Auslander, Williams, Sherraden, & Haire-Joshu, 2003; Hall, Williams, & Greenberg, 1985; Heneghan, Silver, Bauman, Westbrook, & Stein, 1998; Hobfoll, Ritter, Lavin, Hulsizer, & Cameron, 1995 de Groot et al., 2003; Galea, 2007

Mental Health and Employment

- People with mental health problems have the highest "want to work rate" [of out of work people] with up to 90% wanting to work.
- Employees with depression are more likely than others to lose their jobs and to change jobs frequently.
- Only about one in four employees with major depression received adequate treatment for the disorder.

Cognitive Behavioral Therapy

- Bandura, 1977 embodies principles of behavior change that are universally relevant, i.e., potentially applicable across cultures.
- Social learning theory: *reciprocal determinism*, we both shape and are shaped by our environments.
- Flexible, to prevent, treat, and maintain after treatment. Most effective intervention for depression, trauma, addiction.

Specifics of CBT

- Just as we have been taught to think and act in certain ways, we can also learn new, more adaptive ways to think and act when our old patterns are not helpful in dealing with our current situations.
- Pleasant activity scheduling, interpersonal skills training, and cognitive restructuring served as core elements
- Cultural relevance

Features of CBT: Help to organize thinking

- Mothers are encouraged to shape aspects of their reality so as to reduce risk and severity of depressive episodes.
 - (1) identification of specific thoughts (e.g., “I’m worthless”) and behaviors that worsen or improve mood,
 - (2) provision of skills to make conscious choices that minimize the impact of harmful thoughts and behaviors, such as engaging in pleasant activities,
 - (3) acquisition of skills for disputing harmful thoughts, using cognitive restructuring techniques, and
 - (4) development of a personal sense of meaning and fulfillment in life.

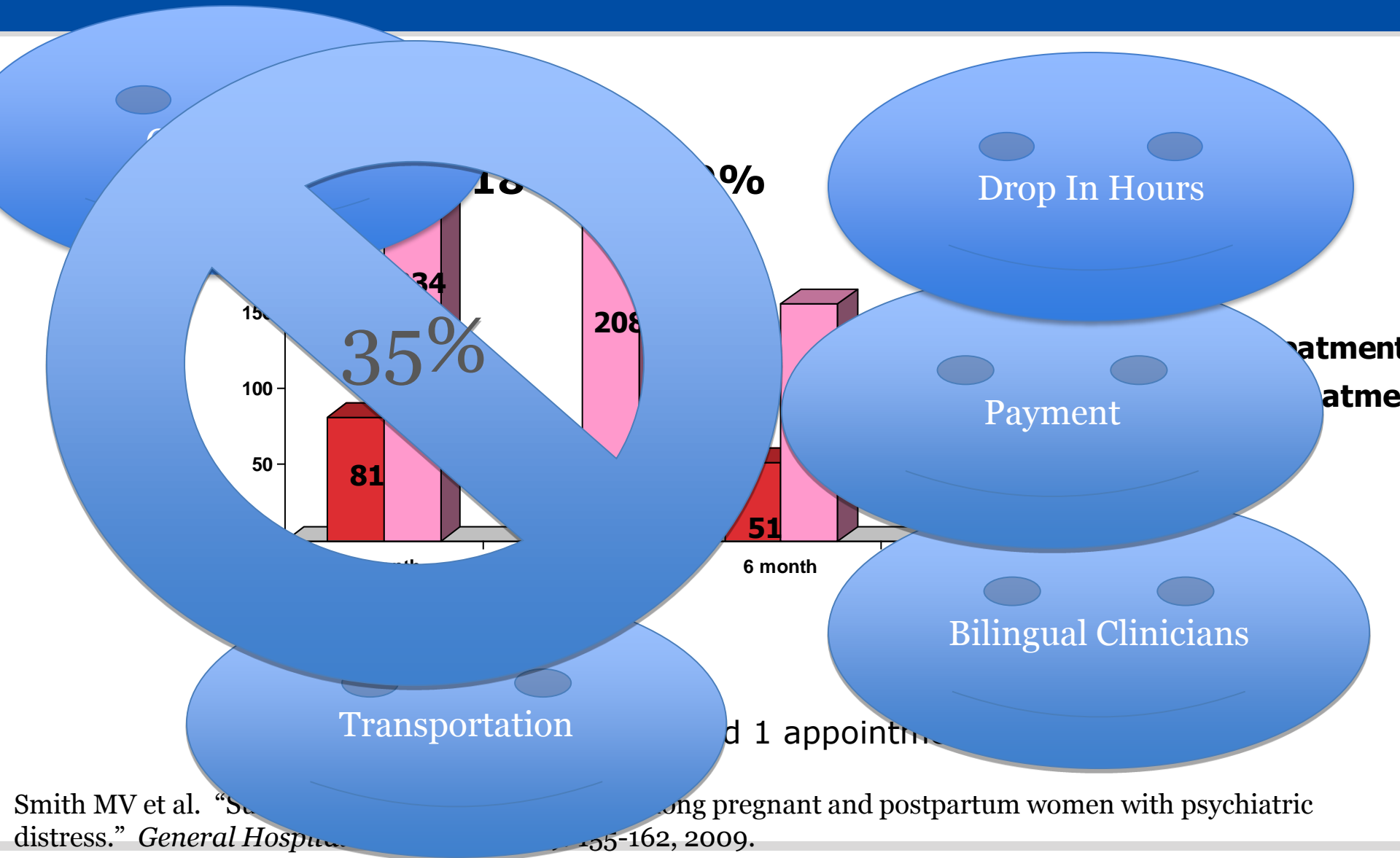
Achieving high rates of participation

Patient Health Questionnaire-2

| | Not at all 0 | Several days 1 | More than half the days 2 | Nearly every day 3 |
|---|--------------------------|--------------------------|-------------------------------------|-------------------------------------|
| • a. Little interest or pleasure in doing things | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| • b. Feeling down, depressed, or hopeless | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

Scores range from 0-6; score of \geq to 3 indicates a high likelihood of depression

Treatment Attendance (N=315)

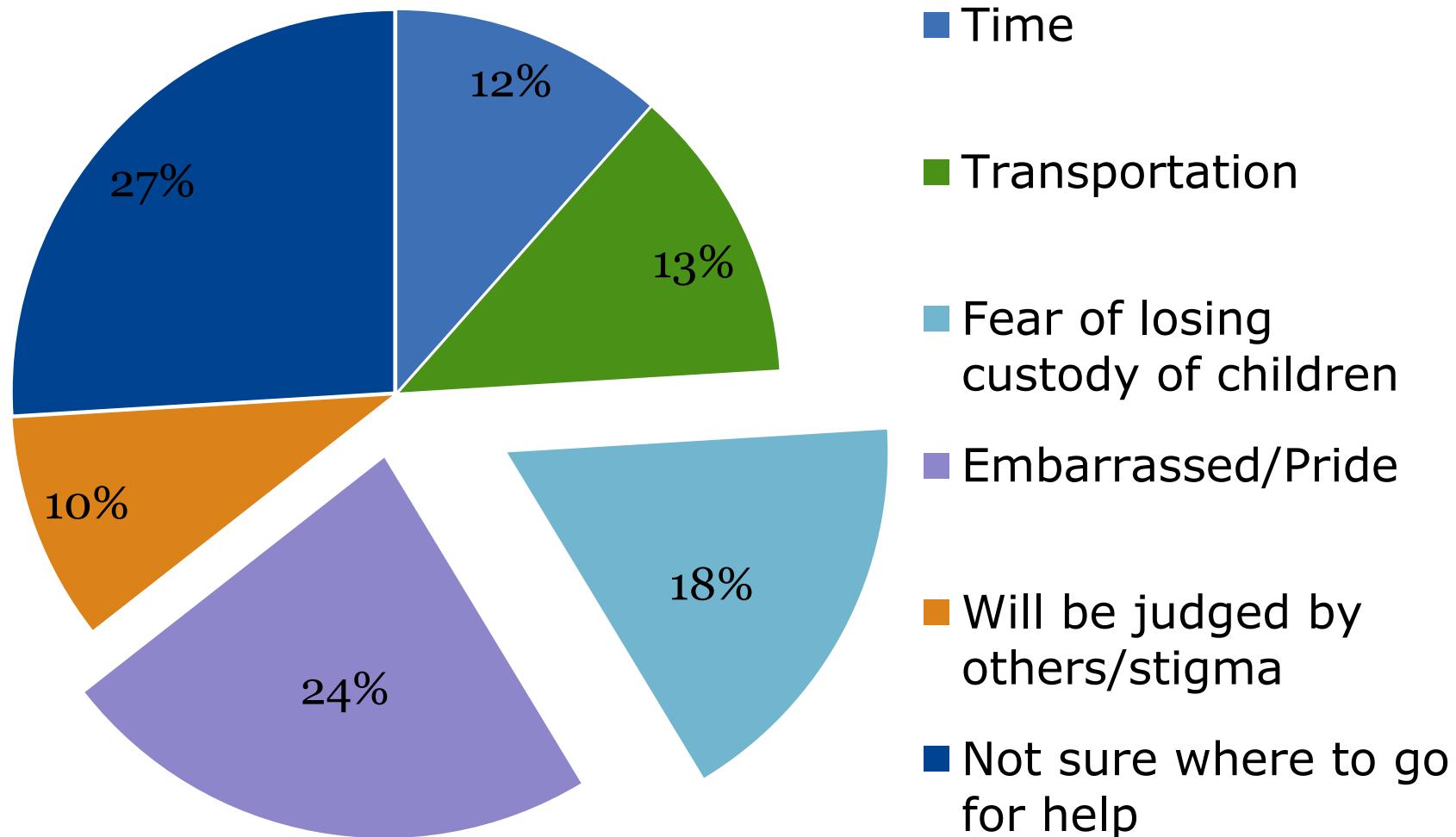


Smith MV et al. "Successful treatment of pregnant and postpartum women with psychiatric distress." *General Hospital Psychiatry* 37:155-162, 2009.

Barriers to Mental Health Care Reported by Pregnant and Parenting Women (N=609)

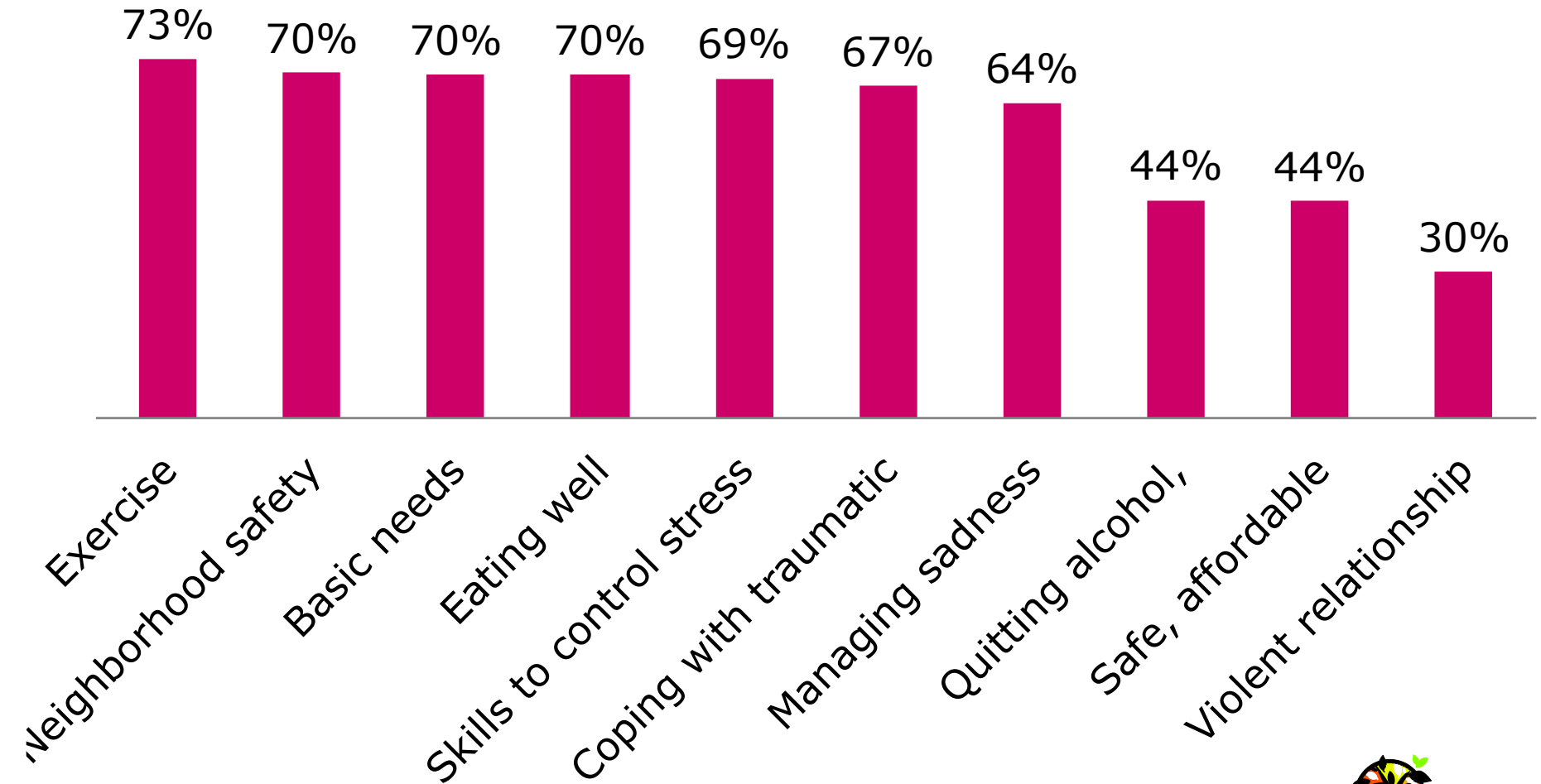


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Smith et al, 2009; *Gen Hosp Psych* 31(2): 155-162, 2009.

Mothers (N=1,207) Needed Support With....



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Community Mental Health Ambassadors

- Unique understanding of the experience, language and/or culture of mothers
- Interviewed over 1,300 mothers
- Conduct two-generation outreach in mental health, child development, alleviation of stress



Engagement



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96% Adherence (n=97)



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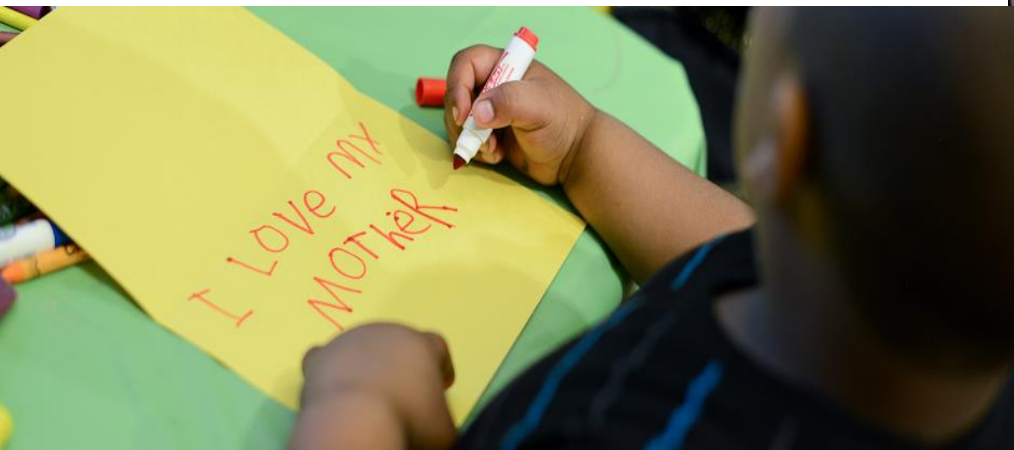


Innovation in Location



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- Locate services in locations where families live, learn, work, play and network
- 2012 IOM report: integrate health in non health is essential to addressing chronic health needs ¹



¹ IOM. Living Well with Chronic Illness: A Call for Public Action. 2012

Public Housing



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- Adapt an evidence-based CBT intervention for delivery in
 - 1) groups of low-income, pregnant and parenting women;
 - 2) public housing complexes
 - 3) teams (CMHAs & clinician)
 - 3) partnership with City of New Haven
- Randomized cluster design, 8 sessions and homework help (weekly), graduation
- Initially diminish stress and depression
- Increase self control, planning, monitoring



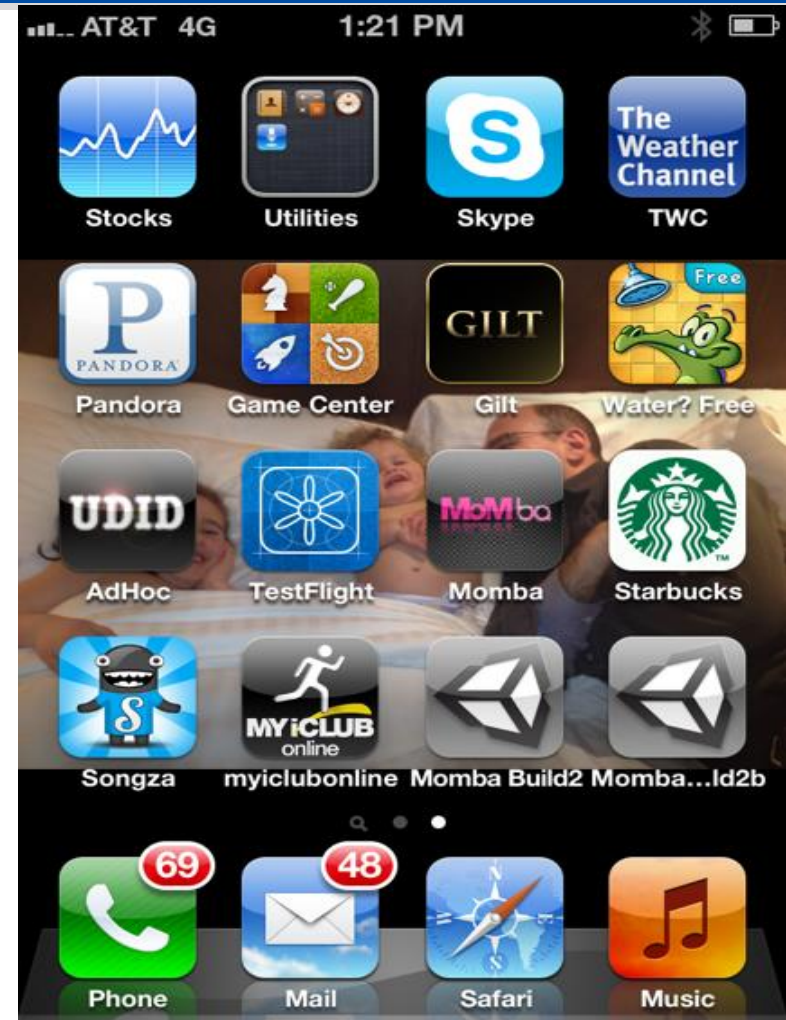
Key Outcomes



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- Maternal Mental Health (depression, trauma, substance abuse) (**primary**)
- Parental Functioning (**primary**)
- Executive Function (**primary**)
- Child welfare services referrals
- Employment
- Food
- Housing stability
- Healthcare utilization

Using technology to keep people engaged



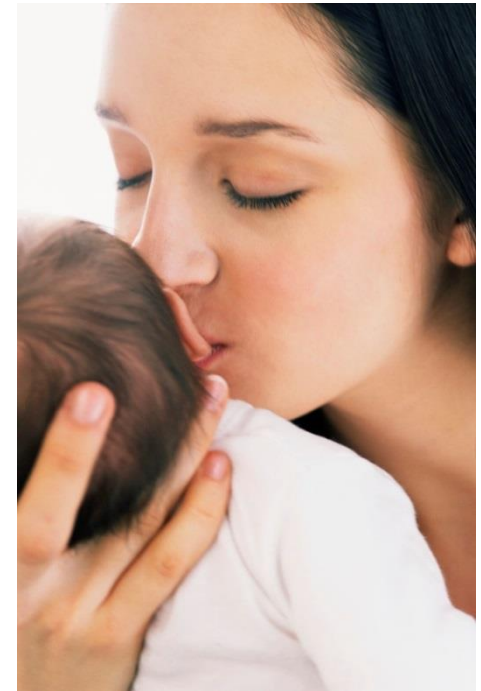
Enhance Social Networks

"Social relationships, or the relative lack thereof, constitute a major risk factor for health—rivaling the effect of well established health risk factors such as cigarette smoking, blood pressure, blood lipids, obesity and physical activity."

House, Landis, and Umberson; *Science* 1988

MoMba's Theoretical Constructs

1. Models of behavior change
2. Social epidemiology
 - Social support
 - Social network
 - Social capital
3. Attachment theory
4. Behavioral economics



Fishbein, M., & Ajzen, I. (1975). *Belief, Attitude, Intention, and Behavior*:
Berkman LF, & Kawachi I. (2000) *Social Epidemiology*
Bowlby J (1958). *International Journal of Psychoanalysis*
Volpp, L, Troxel (2008) *JAMA*
Tversky & Kahneman (1974) *Science*

MoMba's Goals

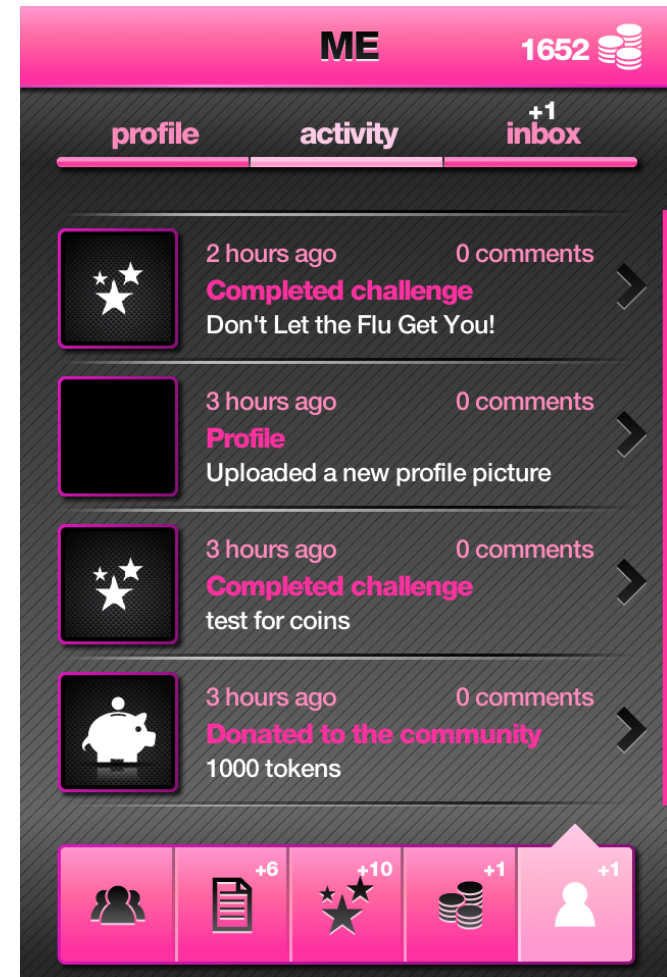


- Connect new mothers to each other (social support and networks)
- Connect new mothers to infants (attachment theory)
- Connect new mothers to local resources (community connectedness)
- Connect new mothers to information about their health and the health of their children (health behavior)
- Incentivize pro-social, health promoting behaviors (behavioral economics)



Token-based Economy & Challenge System

- Build and test trust
- Users challenge other users to do baby-focused, social capital-promoting activities by wagering their personal tokens.
- If the other user completes a challenge, the challenger is rewarded.



Challenges

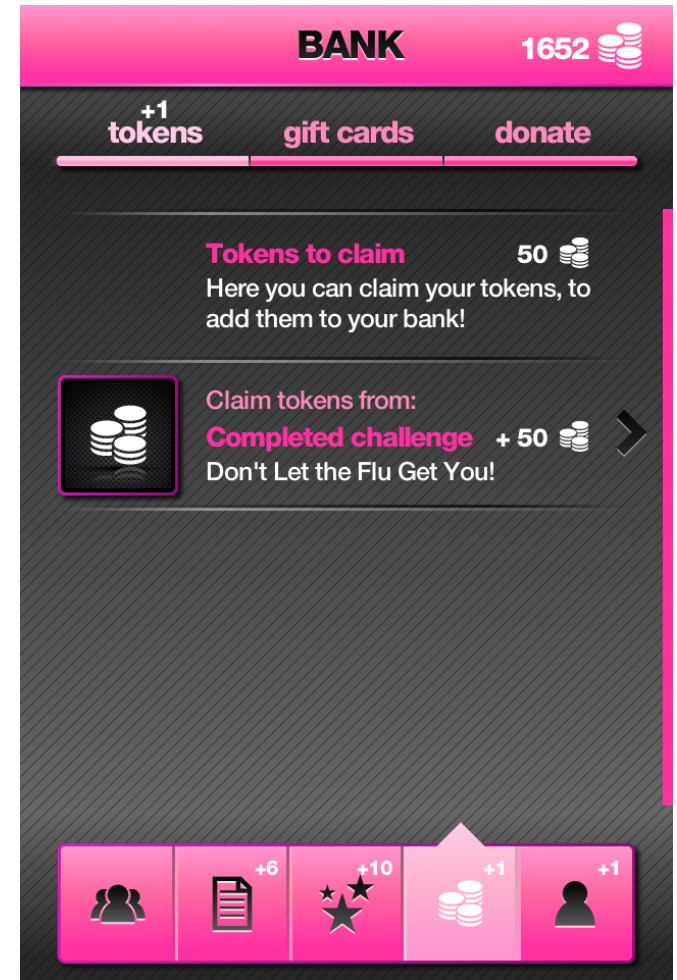
Walk in the park



Reading to your baby

Behavioral Economics

Mothers earn tokens to invest in their baby, themselves, their friends, and their larger community

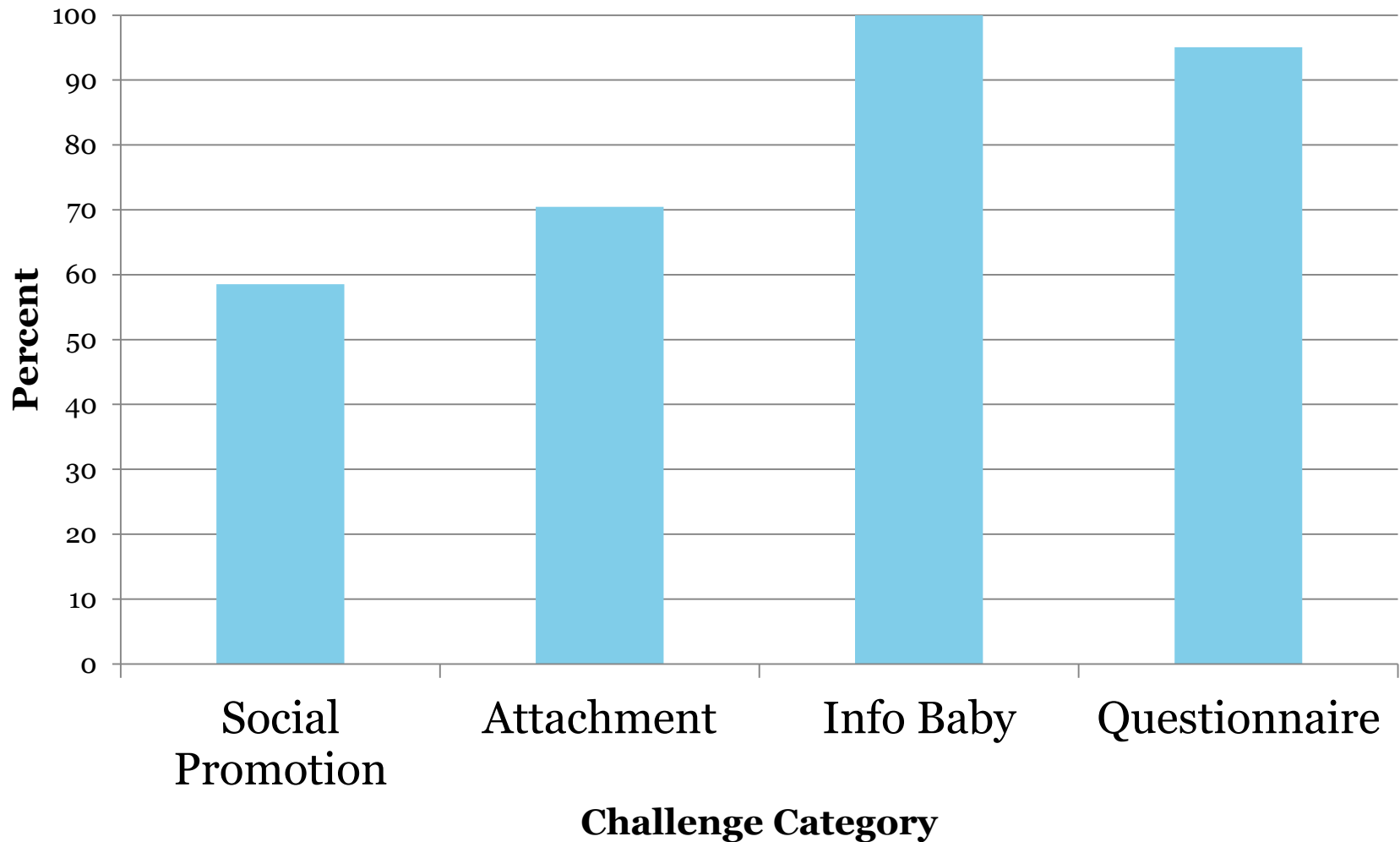


MoMba: Pilot RCT

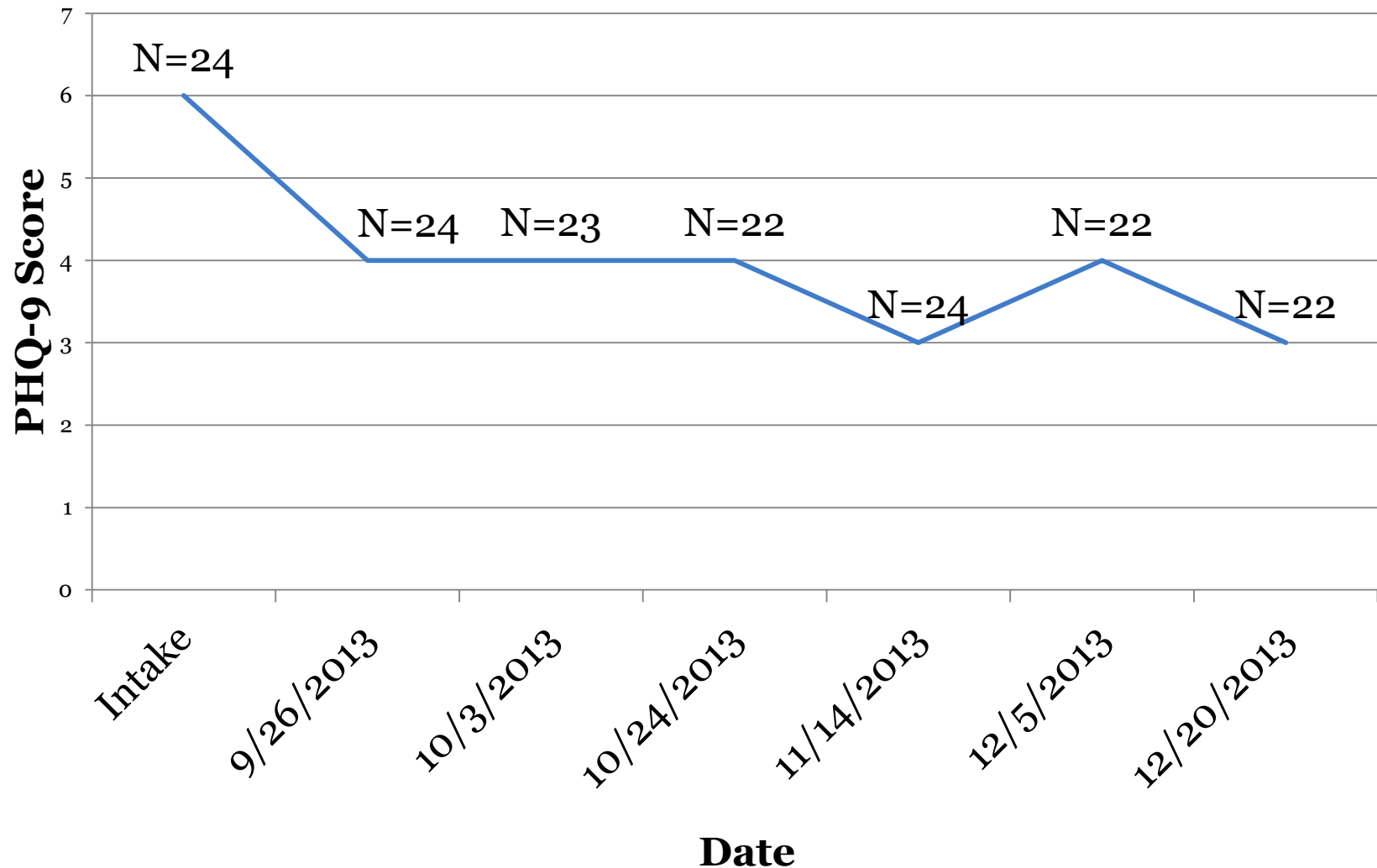


- Pilot randomized controlled trial
 - 18 months
 - 27 pilots—initial feasibility
 - 20 intervention (phone, Momba, data plan)
 - 20 control (phone, data plan)
- Outcomes
 - Depressive symptoms
 - Perceived social support
 - Perceived social capital
 - Maternal-infant bonding

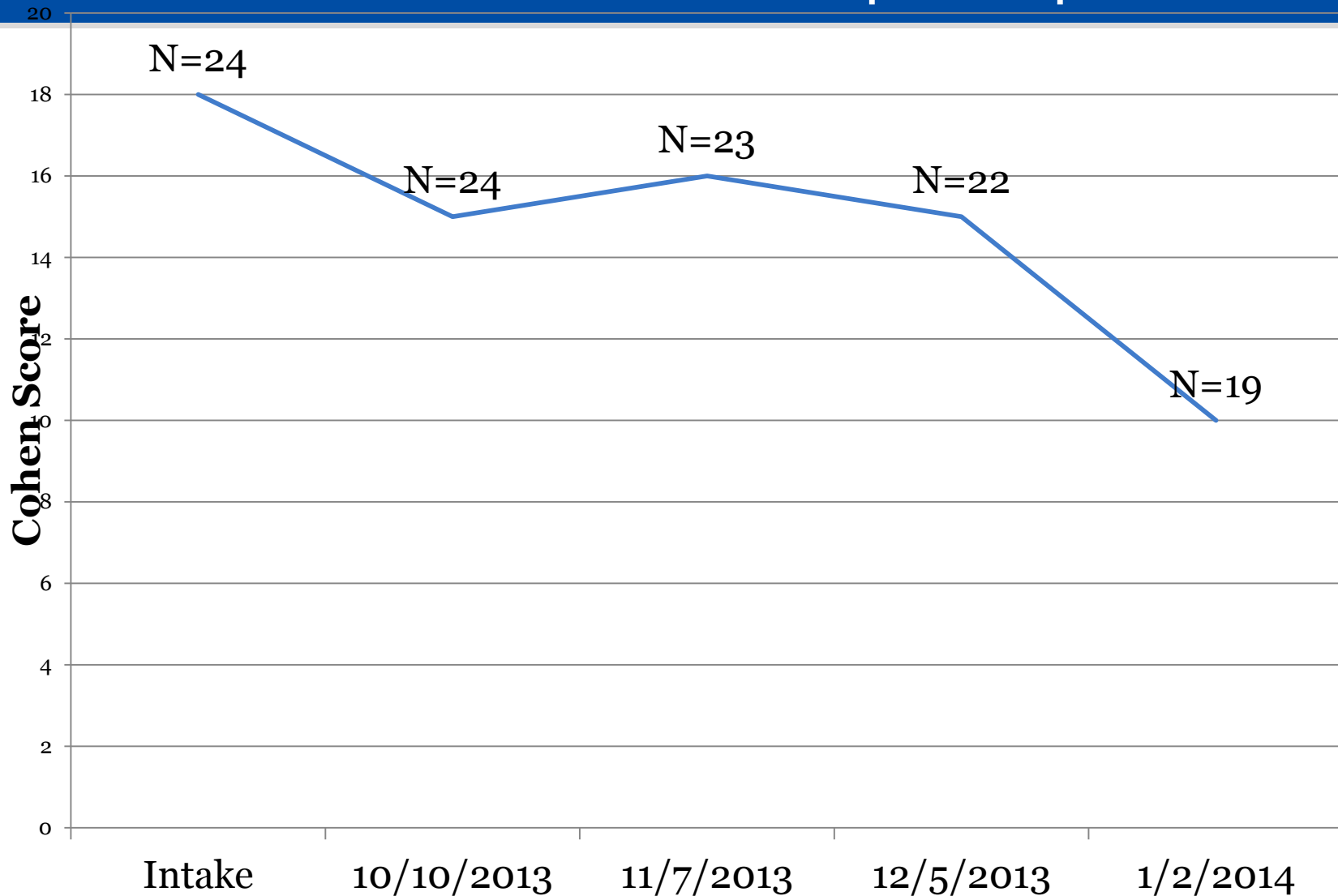
Percent of MoMba Challenges Completed by Category



Median PHQ-9 score for MoMba participants



Median Cohen Perceived Stress Scores for MoMba participants



Building a partnership that works

Examples from the MOMS Partnership

Core Tenets of Community Based Participatory Research

- Shared ownership and decision-making about research
- Shared resources and funds
- Long term benefit to the community
- Innovation occurs as decision making shifts from experts/academia to average citizen/family

CBPR is Not...

- A method or set of methods
- Specifically qualitative
- In communities, is research with communities

The Promise of a Community-Partnered Approach

- Particularly relevant for situations where service need \neq service use ^{1, 2,3,4}
- Can help to create “consumer demand”⁵

¹ Institute of Medicine (2000)

² Freimuth, VS. *Soc Sci Med* (2001)

³ Tunis, SR. *JAMA* (2003)

⁴ Zerhouni, EA. *N Engl J Med* (2005)

⁵ AHRQ (2004)

Does a community-partnered approach improve outcomes?

- Depression ¹
 - http://hss.semel.ucla.edu/documents/CPIC_Protocol_Dec2012.pdf
- Physical Activity ¹
- Homelessness ¹
- Birth outcomes ^{2, 3}
- Utilization and adherence ⁴
- Increased capacity of alternative sectors to engage depressed clients ^{1, 5}

¹ Wells KB. *JGIM* 2013

² Tripathy P. *Lancet*, 2010

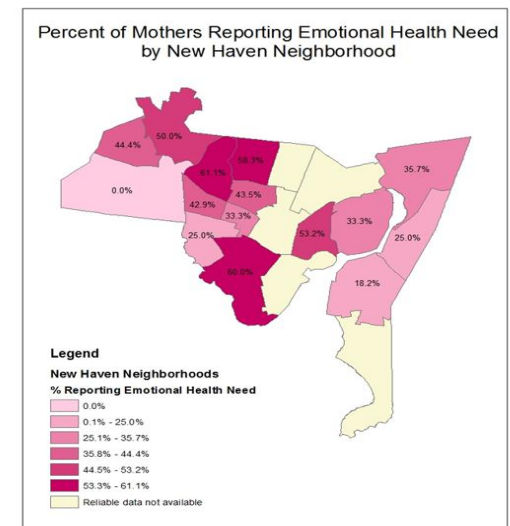
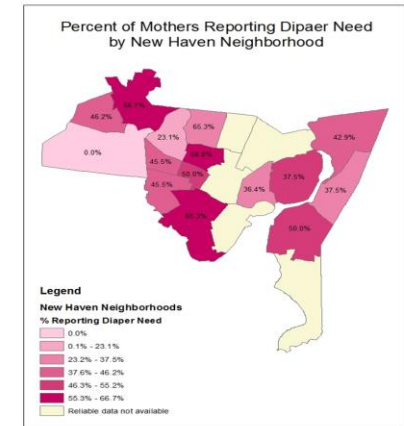
³ Coppcock DL. *Science* 2011

⁴ O'Brien, RA *Prev Sci.* 2012

⁵ Miranda J. *JGIM* 2013; 28 (10)

(1) Identify 2-Generation Needs and Partners

- Identify non-traditional partners
 - Banks, grocery stores, laundromats
- Formalize relationships
 - MOUs
- Conduct “Needs Assessment”
 - Goals as well as needed support
- Develop two generation strategic planning
 - Health
 - Mental Health
 - Workforce
 - Early care and education



Goals of Mothers

1.) Securing stable **employment**

2.) "Making my child proud"

(**Stress impedes this**)

- "I am the voice for my child"
- "I am my child's inspiration"
- "When you don't take care of yourself you don't take care of your child"

(2) Identify & Train Community Ambassadors



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- Consider **Community Ambassadors** Across Sectors and Levels:
 - Supermarket cashiers
 - Existing staff: health department outreach workers, home visitors, TANF case workers
 - Specialized staff: clinics, social service agencies, housing authorities, churches
- Two-generation connectors



(3) Universal Implementation of Interventions to Build Capacity

- “MOMS Stress Management Course”
- Early childhood settings, public housing, mental health clinics, parent classes, child protective services, workforce
- TANF credit, community service credit—incentivize



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(PI: Smith)

U.S. Office of Women's Health CCEWH10100 (PI: Smith)

Center on the Developing Child

Charitable Gift from Thorne Family Trust

Yale-New Haven Hospital

Yale Center for Clinical and Translational Research

Child Health & Development Institute



- Needs Assessment
- Community Mental Health Ambassadors
- MOMS Stress Management Course
- MoMba