

# Preventing adverse childhood experiences and reducing their impact on New Haven families: the MOMS Partnership

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All photographs are used with  
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# Early experiences influence brain development beginning in utero

- From 0 to age 3 the brain's circuitry is most sensitive to external experiences, for better or for worse. During these *sensitive periods*, learning and social-emotional development is shaped by responsive, reliable and secure interaction with adults (parents and caregivers).
- Chronic or extreme adversity can interrupt normal brain development.
- This chronic adversity can be manifest in the form of mental illness and substance abuse in parents.

## Strong Relationships With Adults Buffer ACEs

- When a young child is supported by caregivers she learns how to cope with normal stressors and the body's stress response system returns to a pre-ACE level. Child adapts.
- Chronic adversity such as prolonged stress (chronic poverty, repeated abuse), is experienced without adults as a buffer, this type of adversity becomes "toxic" and disrupts the body's biological ability to respond to stress and to develop and learn.
- Early intervention can reduce the impact of ACEs on children and families.

# Tips for You (parent with mental illness) to reduce your child's risk of depression and anxiety

- Establish and maintain a good relationship with your child.
- Be involved and support increasing autonomy of your toddler.
- Minimize conflict in the home.
- Help your child to deal with anxiety.



# A profile of Yvonne and Carmen

- Average income = \$8,500/ year
- High school graduates, fifth grade reading level
- Interpersonal violence, one incarcerated husband
- Transient---average of five moves in the last year
- Food insecurity, no phone, no heat
- Diabetes, HIV +

# Two Generation Approach

Preventing Adverse Childhood Experiences and Reducing Their Impact on Children Requires Transforming the Lives of Parents and Caregivers

Violence

Mental  
Illness

Substance  
Abuse

Adverse childhood  
Experiences

Stress

Poverty



Strengthening  
foundational  
skills for  
parenting,  
employability,  
and  
responsible  
citizenship

# Depression is more prevalent and more severe among low-income mothers



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- In the United States, **one in five women** will experience an episode of major depressive disorder (MDD) during their lifetime <sup>1, 3</sup>
- Specific to mothers, 2.6 million mothers with young children, or **14.5 percent of all mothers with young children**, have had major depression at some time in their lives.<sup>2,4</sup>
- **69.7 percent of depressed low-income mothers** with young children have a condition classified as severe or very severe—to a degree that disrupts her home, social, or work life.<sup>2</sup>

1. Kessler RC, Zhao S, Blazer DG, Swartz M. Prevalence, correlates, and course of minor depression and major depression in the National Comorbidity Survey. *J Affect Disord.* 1997 Aug;45(12):19–30.
2. National survey of Drug Use and Health (NSDUH), 2008– 2010,
3. Weissman MM, Olfson M. Depression in women: implications for health care research. *Science.* 1995;269(5225):799–801.
4. Gotlib IH, Whiffen VE, Mount JH, et al. Prevalence rates and demographic characteristics associated with depression in pregnancy and the postpartum. *J Consult Clin Psychol.* 1989;57(2):269–274.

# Maternal Mental Health: Overview of the Epidemiology

- **20.6** million children live with an adult with a mental illness.<sup>1,2</sup>
- Children of depressed as compared to non-depressed parents are more likely to develop psychiatric illnesses, and are at greater risk for social, cognitive, and medical difficulties.<sup>2</sup>



<sup>1</sup> Prince M. *Lancet* 370: 859-877, 2007. Kessler RC. 2005 JAMA  
<sup>2</sup> *National Academies of Science*, 2010

# Negative impacts of maternal depression



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- Birth outcomes:
  - Increases preterm birth and low birth weight (2-3X)
- Attachment/bonding
  - Reduces likelihood of breastfeeding
  - Reduces formation of secure attachments
- Chronic disease
  - Increases child asthma attacks (2X),
  - Increases likelihood of mental health diagnosis in children (3X)
- Child socio-emotional development
- Child educational outcomes
- Healthcare utilization



Grote, Nancy 2010. "A Meta-analysis of Depression During Pregnancy and the Risk of Preterm Birth, Low Birth Weight, and Intrauterine Growth Restriction." *archives of General Psychiatry* 67(1): 1012–24.

Beardslee, William R., 2011. "Transmission and Prevention of Mood Disorders among Children of Affectively Ill Parents: A Review." *JaaCaP* 50(11): 1098–109.

National Research Council and Institute of Medicine (NRC and IOM), Committee on Depression, Parenting Practices, and the Healthy Development of Children. 2009. *Depression in Parents, Parenting, and Children: Opportunities to Improve Identification, Treatment and Prevention*. Washington, DC: National Academies Press.

# Maternal Depression & Work

- Depression impacts a mother's ability to escape poverty (ACE):
  - Difficulty getting and keeping a job
  - Increased absenteeism and reduced productivity among those who have jobs <sup>1,2,3</sup>
- Early Head Start participation increased mother's participation in education, job, training and employment. Depressed mothers did not. <sup>4</sup>
- For poor mothers specifically, treatment and employment services combined can help them earn higher wages, increase work productivity <sup>5</sup>

<sup>1</sup> Kessler, RC *Am J Psychiatry* 163 (9) 2006.

<sup>2</sup> Wang, P. *Archives Gen Psychiatry* 63 (12) 2006

<sup>3</sup> Lepine, JP. *Neuropsychiatric Disease & Treatment* 7 (1) 2011

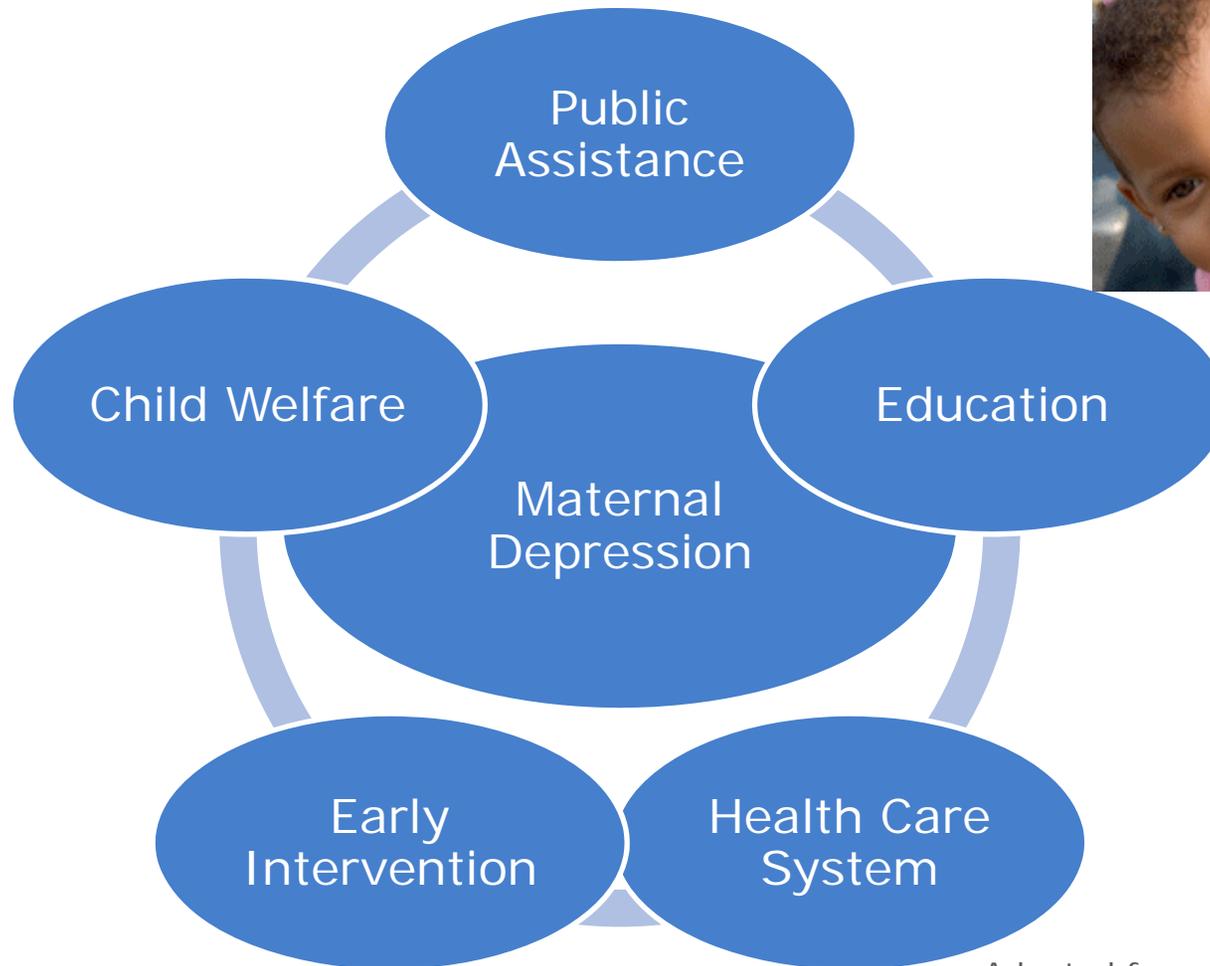
<sup>4</sup> ACF, U.S.HHS 2002

<sup>5</sup> Butler, D. MDRC, 2012;

# Public Sector Systems Affected by Maternal Depression



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Adapted from Sontag-Padilla, RAND  
2013

# This isn't just a local problem. Nationally, low-income mothers do not receive depression treatment

- National estimates from the Medical Expenditure Panel Survey showed nearly 40 percent of mothers with depression had not received treatment, and only 35 percent of those treated had received adequate treatment<sup>1</sup>
- Low-income women, the uninsured, African American women, and Hispanic women are at even greater risk of receiving no or inadequate treatment<sup>2,3,4</sup>

1Witt, et al. 2009. "Access to Adequate Outpatient Depression Care for Mothers in the USA: A Nationally Representative Population-Based Study." *Journal of Behavioral Health Services & Research* 38(2): 191-204.

2 Kristofco, Robert E., Altha J. Stewart, and William Vega. 2007. "Perspectives on Disparities in Depression Care." *Journal of Continuing Education in the Health Professions* 27(S1): S18-25.

3 Miranda, Jeanne, Thomas G. McGuire, David R. Williams, and Philip Wang. 2008. "Mental Health in the Context of Health Disparities." *American Journal of Psychiatry* 165(9): 1102-08.

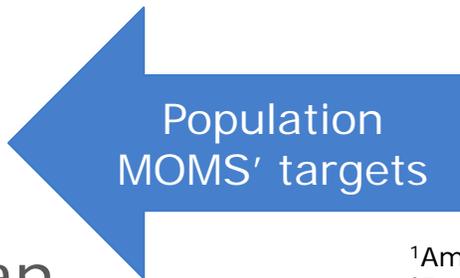
4 Santiago, Catherine DeCarlo, Stacey Kaltman, and Jeanne Miranda. 2012. "Poverty and Mental Health: How Do Low-Income Adults and Children Fare in Psychotherapy?" *Journal of Clinical Psychology* 69(2): 115-26.

# Depressed mothers are the “hardest to reach” but most necessary to engage



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- Between **28 and 61** percent of mothers in home visiting programs screened positive for depression.<sup>1</sup>
  - Program effects may be greatest for mother's with depression.<sup>2,3</sup>
  - But these mothers usually drop out early or **never enter programs**.<sup>4</sup>
- 10,367 participants 66 implementation sites: mothers who had the highest dropout rate were:
  - younger
  - unmarried
  - African American



<sup>1</sup>Ammerman, RT. *Aggression and Violent Behavior* 15. 2010.

<sup>2</sup>Rahman, A. *PLOS Medicine* 10 (5) e1001442, 2013.

<sup>3</sup>Duggan, AK. *J Consult Clin Psychol.* 77(4):788–799, 2009.

<sup>4</sup>O'Brien, RA. *Prev Sci.* Jun;13(3):219-28. 2012

## When mothers are treated children get better

- Of the six studies that examined children's psychosocial outcomes, five found that mothers' treatment was associated with child improvements.
- Treatment of maternal depression was predictive of improvement in child academic functioning and mother-child relationships and interactions.

Gunlichs & Weissman, 2008 JAACP, 47 (4)



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# Step 1: Formalize Partnerships

- All Our Kin
- Clifford Beers Guidance Clinic
- Housing Authority of New Haven
- New Haven Health Department
- New Haven Healthy Start
- New Haven Public Schools
- State of CT Department of Children & Families
- State of CT Department of Social Services
- The Diaper Bank
- Yale School of Medicine



# Community Mental Health Ambassadors



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- Brief intervention and outreach
- “Task shifting/sharing” –V. Patel
- Community Ambassadors across sectors and levels:
  - Supermarket cashiers
  - Existing staff: health department outreach workers, home visitors, TANF case worker



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Smith, Kruse *J Health Policy & Planning*, In Press  
Pfieffer 2011 *Gen Hosp Psychiatry* 33 (1)

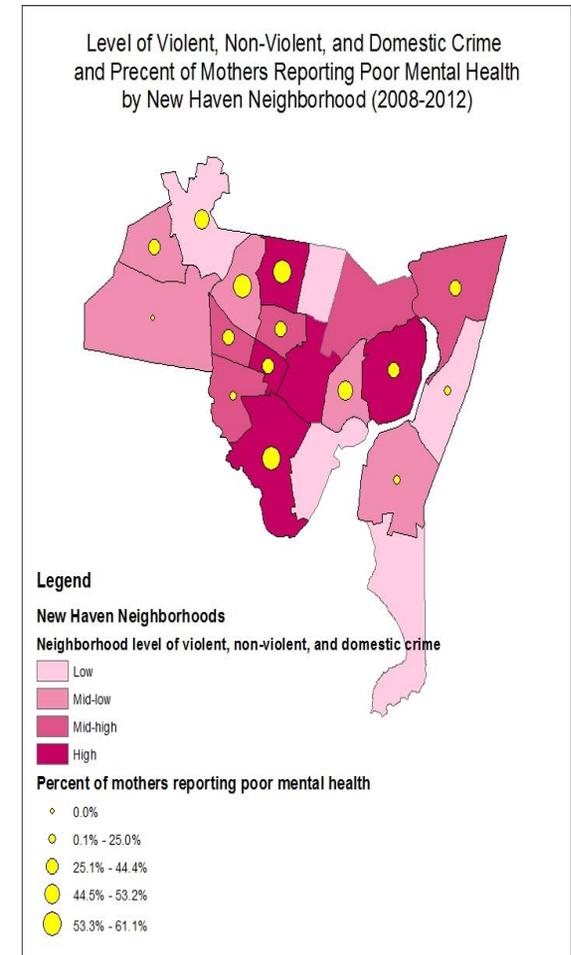


# Step 2: Assess "Need"



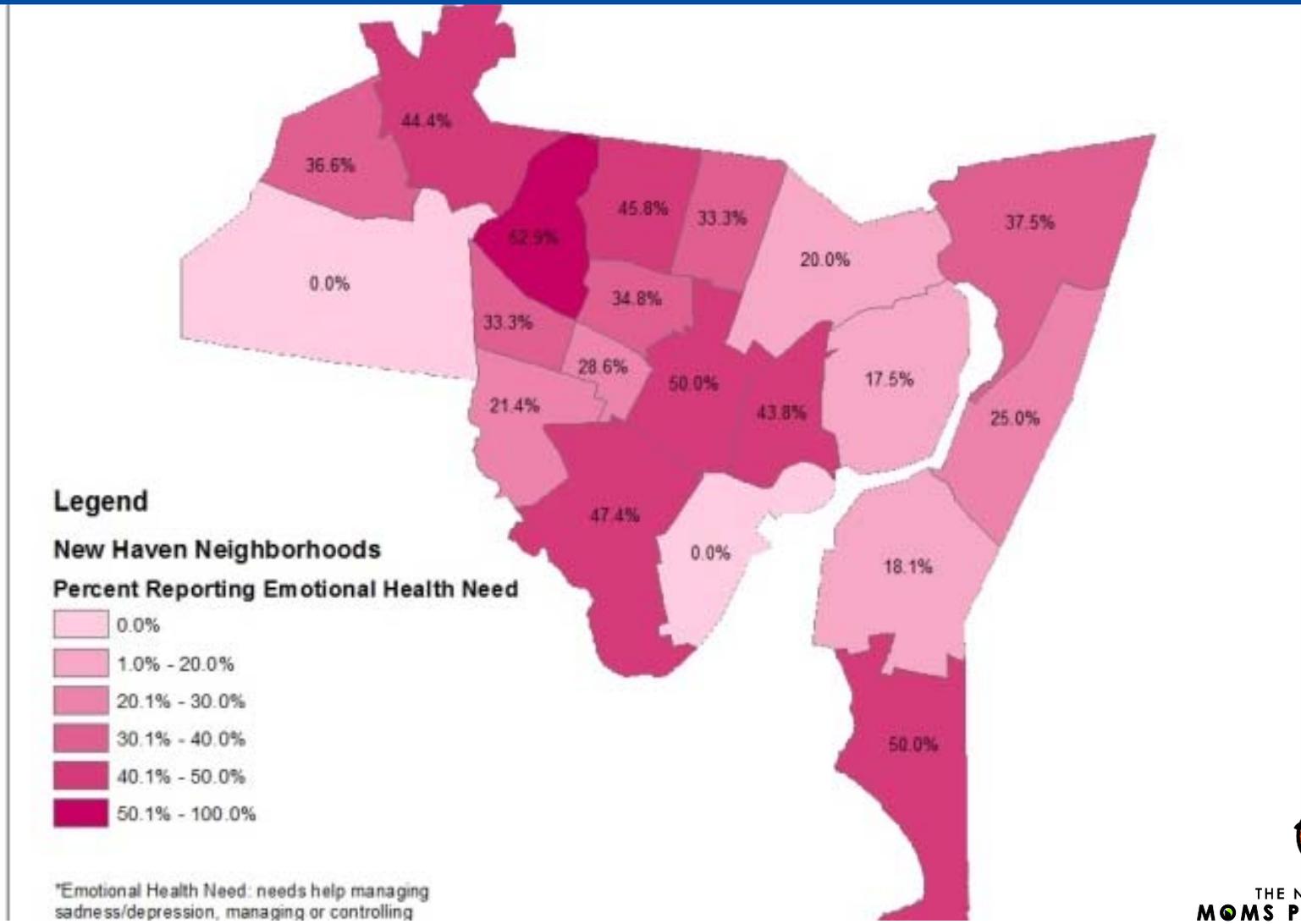
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- Conduct "Needs Assessment"
  - Goals as well as needed support
- Identify non-traditional partners
  - grocery stores, laundromats



Smith, Kruse *J Urban Health* 2014 25 (3)

# Emotional Health Need (N=1,213)



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# Goals of Mothers



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- 1.) Securing stable **employment**
- 2.) "Making my child proud"

"stress" prevents goal attainment

social isolation = depression/stress

## Step 3: Universal Strategies to Prevent and Reduce Impacts of ACEs Across Two Generations

- **Promote Family Economic Success**

Effect size for increasing family household income \$4K annually (0.41)

- **Promote Maternal Mental Health**

Effect size for cognitive gains in children as a result of treating maternal depression (0.42)



Smith MV. Under Review *Soc Sci & Med*



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# Step 4: Implementation



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- “MOMS Stress Management Course”
- 8-week (16 sessions), cognitive behavioral therapy
- Co-delivered by clinicians and community ambassadors

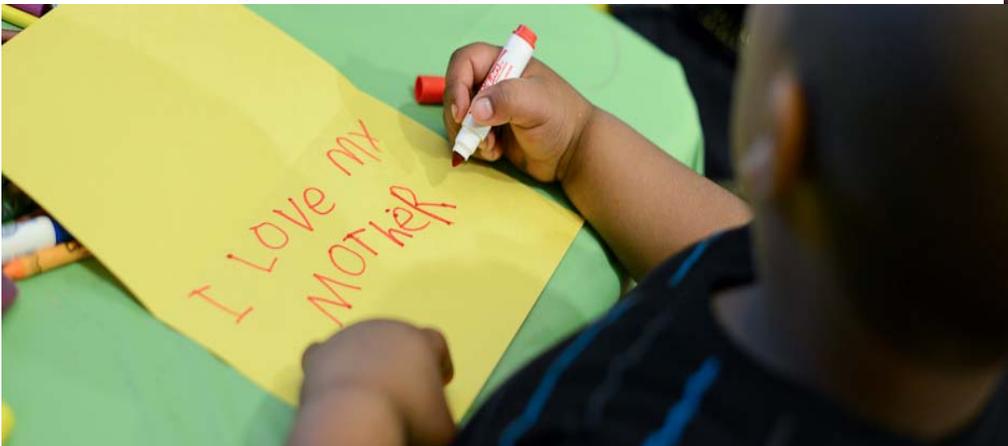


# Innovation in Location



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- Integration of health in non health settings is essential to addressing chronic health needs <sup>1</sup>
- Supermarket, Public Housing Complexes, Churches, Laundromats-- “HUBS”



<sup>1</sup> IOM. Living Well with Chronic Illness: A Call for Public Action. 2012

# Using Technology to Connect Families and Prevent ACEs

The image displays the MoMba mobile application interface. On the left, the MoMba logo is shown in pink and white on a dark, textured background. The main interface is split into two primary sections: a 'BANK' section and a 'PEOPLE' section.

**BANK Section:**

- Header: **BANK** 1652
- Navigation: +1 tokens, gift cards, donate
- Item: **Tokens to claim** 50. Here you can claim your tokens, to add them to your bank!
- Item: Claim tokens from: **Completed challenge** + 50. Don't Let the Flu Get You!

**PEOPLE Section:**

- Header: **PEOPLE** 53
- Navigation: profile, activity
- User Profile: **Sudawna W** (with profile picture)
- Details:
  - Baby name: [blank]
  - Baby gender: boy ♂
  - Baby age: Due Nov 16
  - Location: Da Hill Section
  - Neighborhood: Church St South
  - Home town: New Haven
- Bottom Navigation: +1 (people), +1 (document), +6 (stars), +1 (tokens), +2 (person)

NIMH #100456-01

# Future Directions and Concluding Thoughts

- Directly targeting parental skills might accelerate the impact of maternal remission on children, as has been suggested for parents with alcohol abuse<sup>1,2</sup>
- Public Health Approach
- Collaboration, collective impact
- Policy levers

<sup>1</sup> Weissman MM. *JAMA* 302. 2009

<sup>2</sup> Lam WK *Addictive Behaviors* 33. 2008

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