

# Maternal Depression, Treatment and Impact on Health and Nutrition Behavior Adoption



Highlights from a Randomized Controlled Trial in Uganda      September 8<sup>th</sup>, 2020  
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# Caregiver Mental Health

A critical component of caregiver's wellbeing that has undeniable long-lasting or even permanent impact on her own welfare, her family, and the health and development of her children.



# Caregiver Mental Health



1 in 5  
mothers in developing  
countries experience  
depression after childbirth<sup>5</sup>

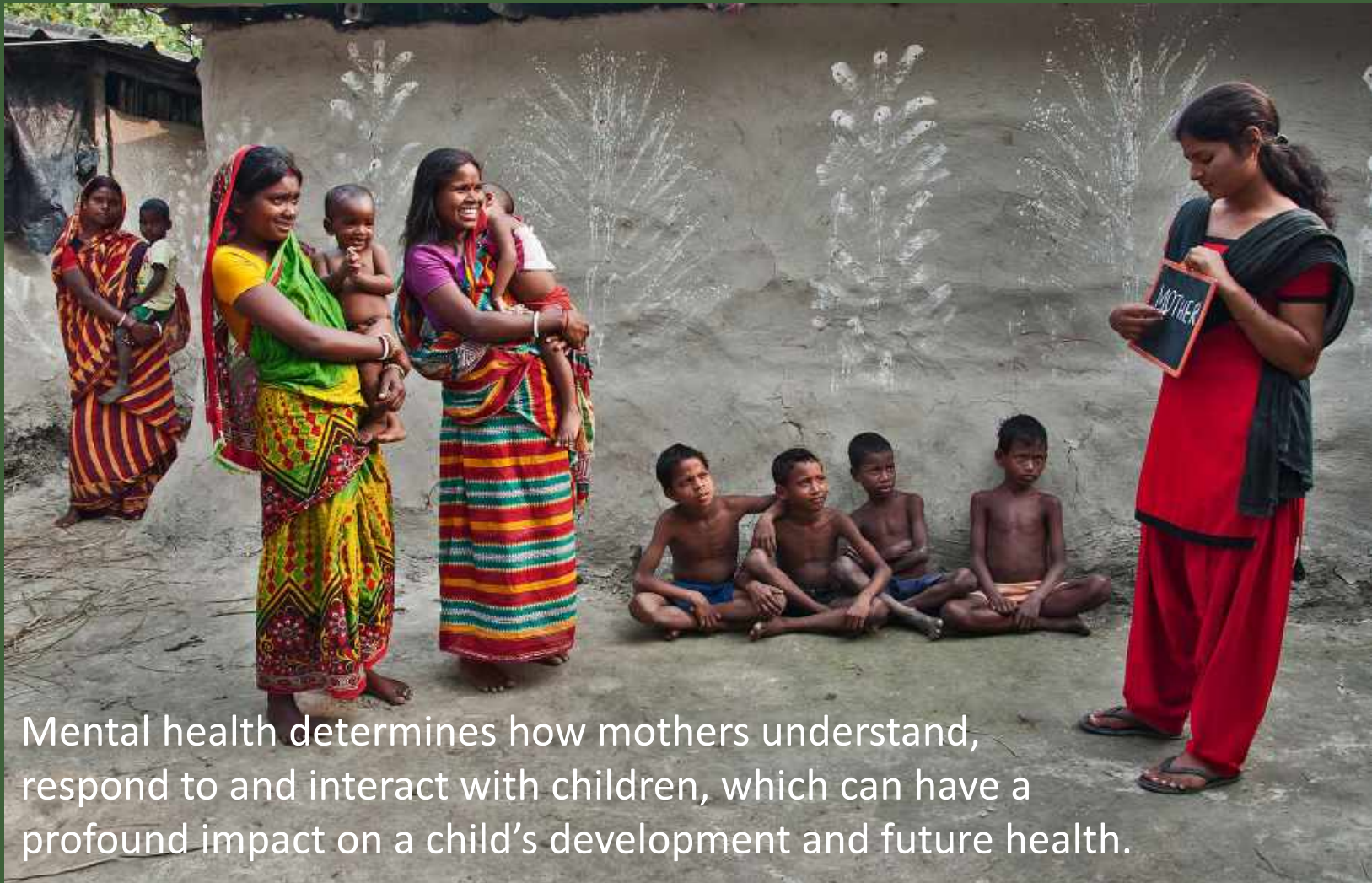


15 - 23%  
of children live with  
a parent with a  
mental illness<sup>4</sup>





# Caregiver Mental Health



Mental health determines how mothers understand, respond to and interact with children, which can have a profound impact on a child's development and future health.

# Impact on Children

- Mother-infant attachment
- Breastfeeding and care-taking behaviors
- Low birth weight of child
- Under-nutrition in first year
- Rates of diarrheal diseases
- Immunization completion
- Poor cognitive and emotional development



# Impact on Mothers

- Physical, mental, emotional suffering
- Elevated risk of suicide
- Obstetric complications and preterm labor
- High-risk behaviors such as alcohol and substance abuse
- Dangerous ill health post-partum





# C-RCT in Uganda



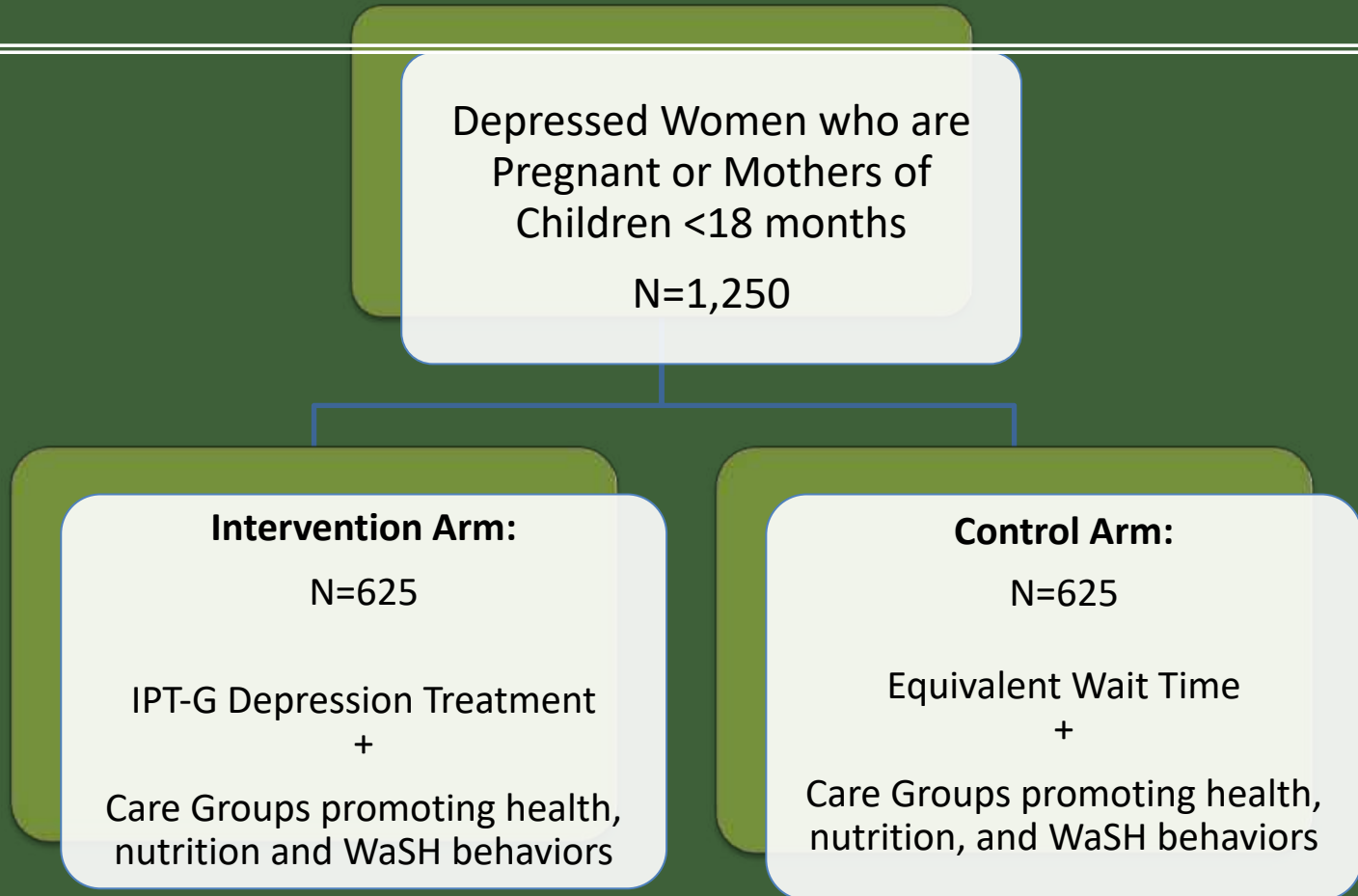
Kitgum, Uganda 2016-19

Evaluate if IPT-G treatment of maternal depression:

1. Decreases Depression and Improves Functionality
2. Improves the Adoption of Household Health Nutrition, and WASH Behaviors

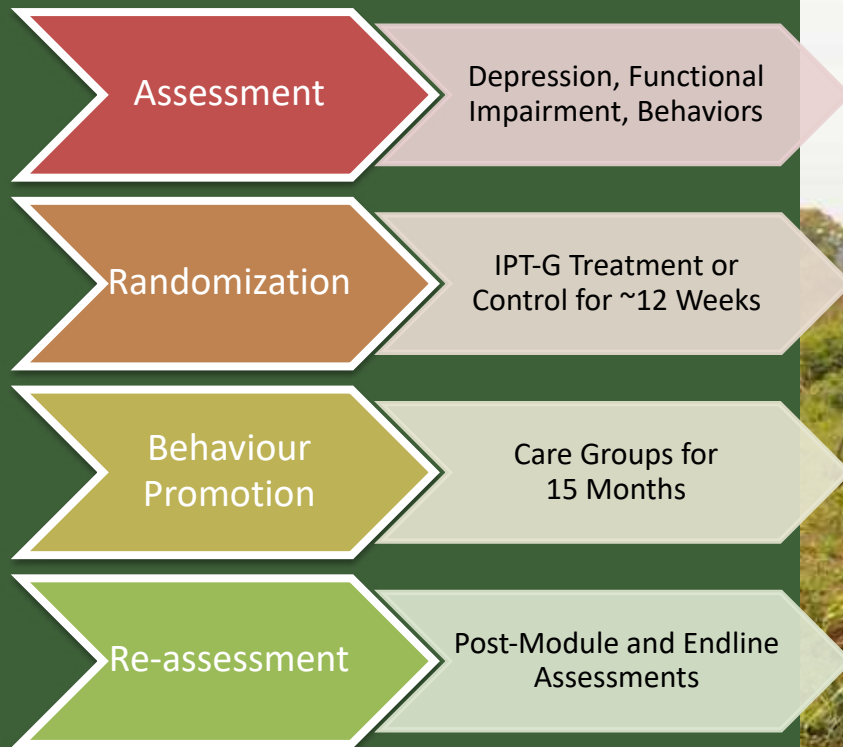


# Study Design





# Study Sequence

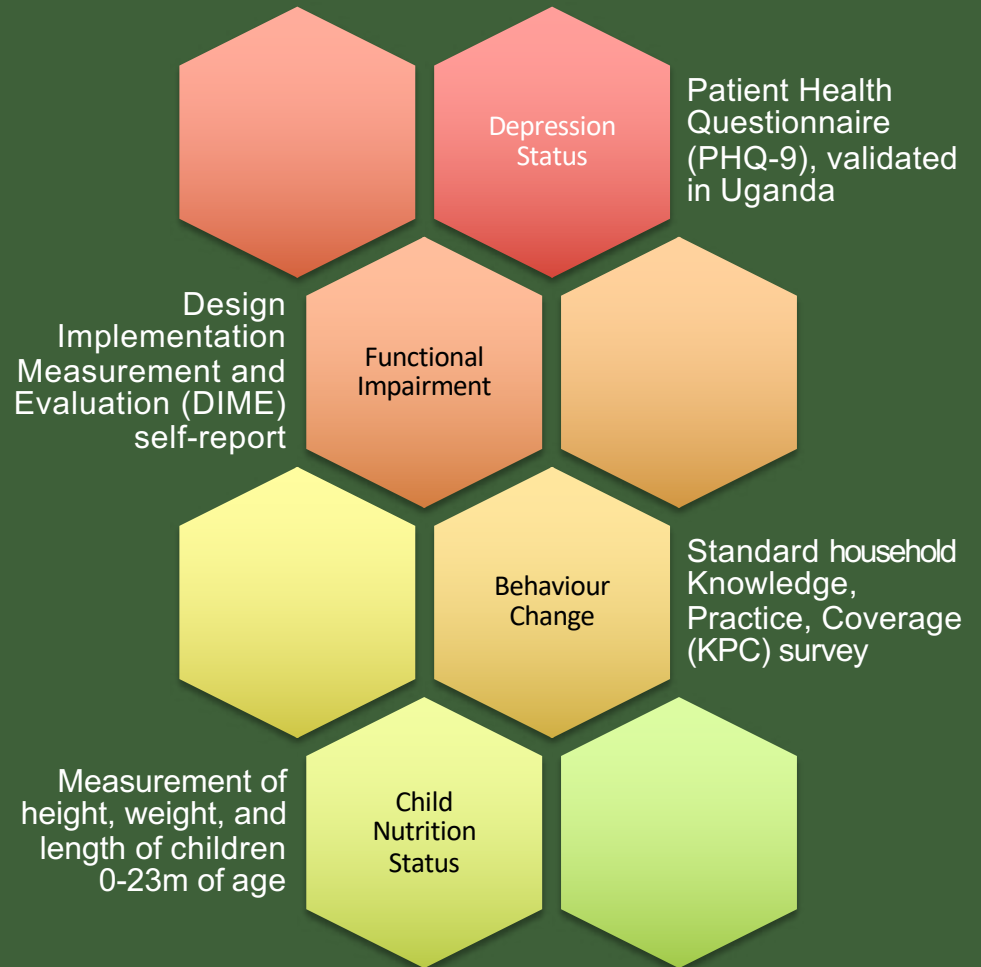


## Care Group Topics:

Essential Hygiene Actions  
Referral and Care Seeking  
Family Planning

Infant and Young Child Feeding  
Use of Preventive Health Services  
Home Management of Childhood Illnesses

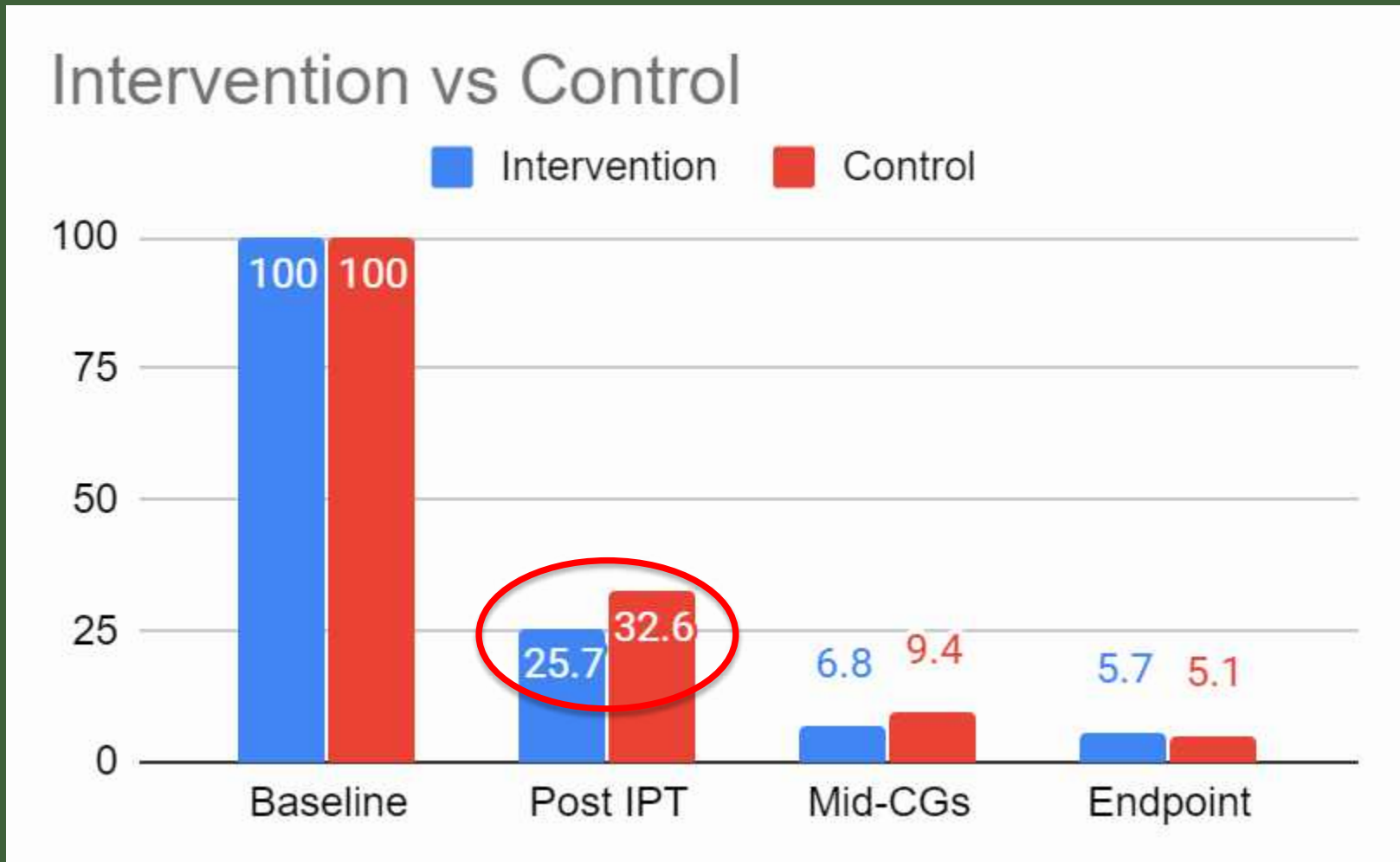
# Outcomes Measured



# Results

Women treated with IPT-G had a greater reduction of depression than in comparison mothers, but this difference attenuated after CGs

## Proportion of Women Depressed—IPT-G vs. Control

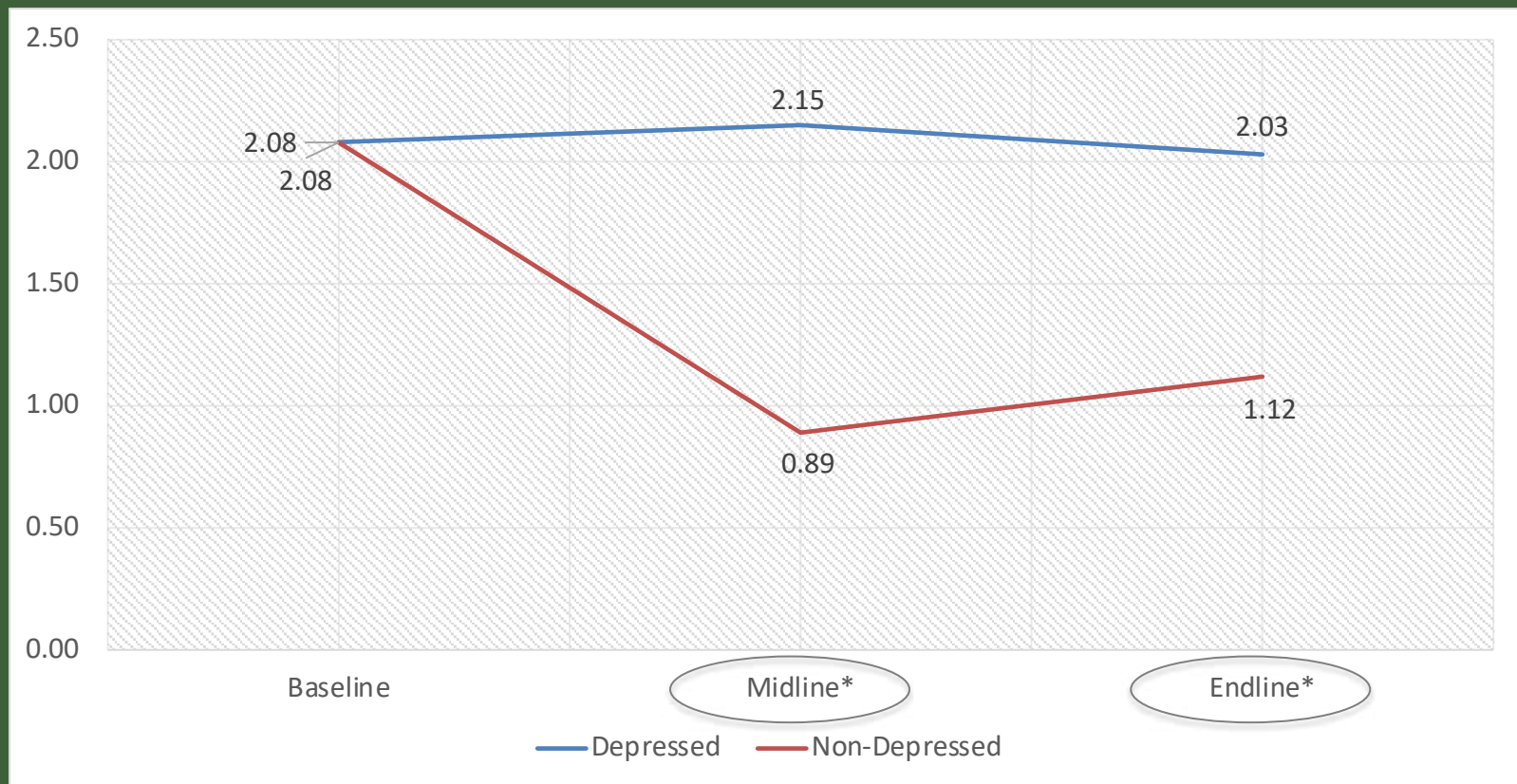




# Results

## Depression status significantly affected women's ability to function in daily activities

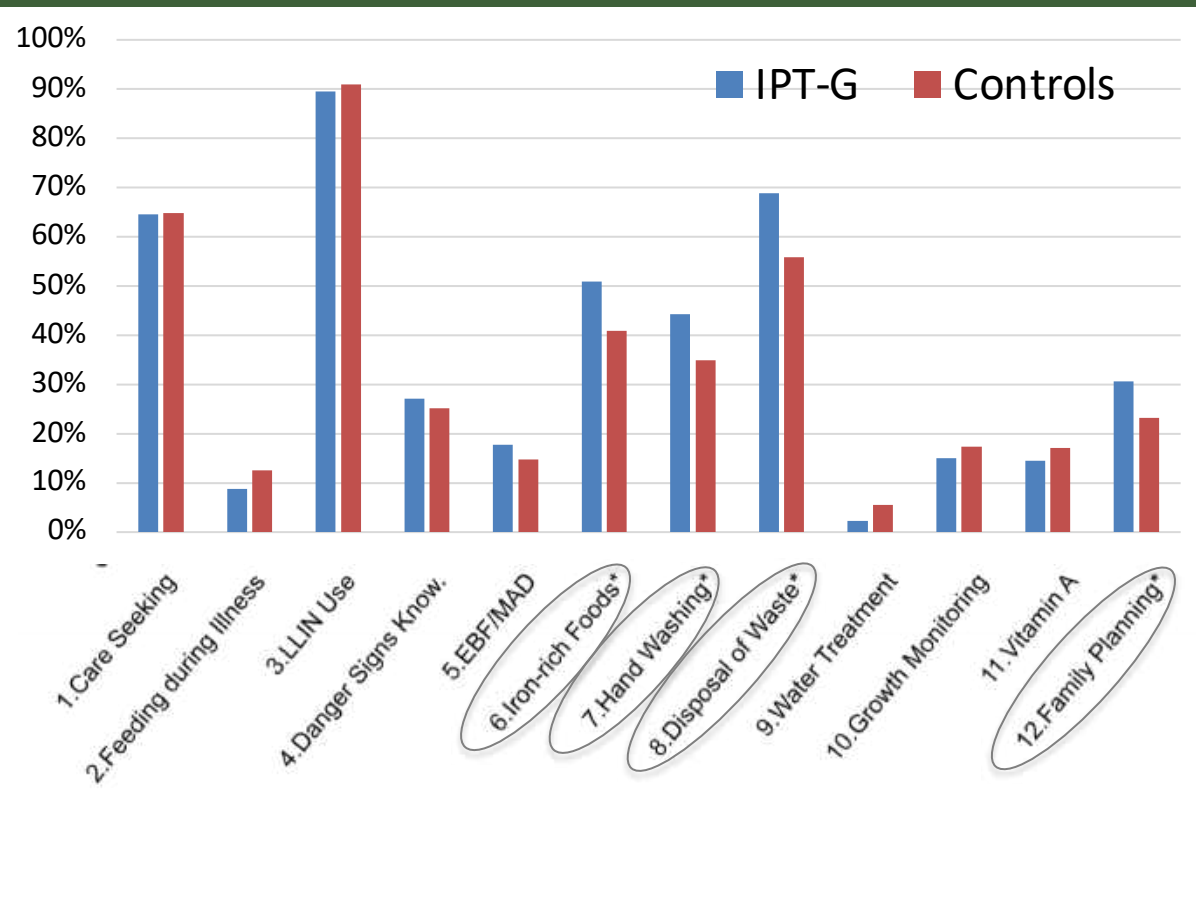
Functional Impairment—Depressed vs. Non-Depressed



# Results

Women who received IPT-G treatment had significantly higher base percentage adoption of one-third (4 of 12) behaviors

Behavior Adoption—IPT-G vs. Control



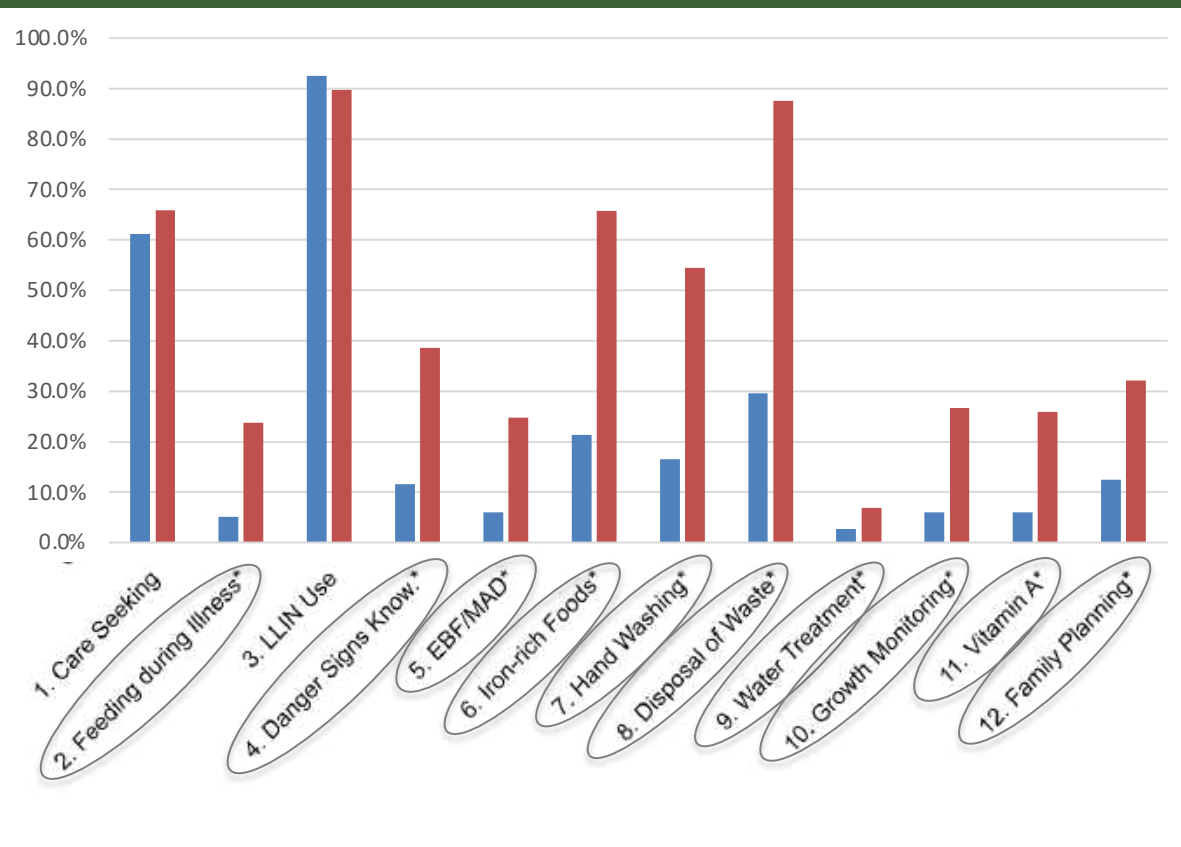
<u>Behavioral Indicator</u>	<u>IPT-G</u>	<u>Controls</u>
1. Care Seeking	64.6%	64.8%
2. Feeding during Illness	8.8%	12.6%
3. LLIN Use	89.5%	90.9%
4. Danger Signs Know.	27.1%	25.2%
5. EBF/MAD	17.7%	14.8%
6. Iron-rich Foods*	50.9%	40.9%
7. Hand Washing*	44.3%	34.9%
8. Disposal of Waste*	68.8%	55.8%
9. Water Treatment	2.3%	5.5%
10. Growth Monitoring	15.0%	17.4%
11. Vitamin A	14.5%	17.1%
12. Family Planning*	30.6%	23.2%

<u>Behavioral Indicator</u>	<u>Odds Ratio</u>
8. Disposal of Waste*	1.46
12. Family Planning*	1.44

# Results

At midpoint, non-depressed women were significantly more likely to be endorsing behaviors (s.s. for 10 behs)

Behavior Adoption at Midpoint—Depressed vs. Non-Depressed



<u>Behavioral Indicator</u>	<u>IPT-G</u>	<u>Controls</u>
1. Care Seeking	61.2%	65.9%
2. Feeding during illness*	5.1%	23.8%
3. LLIN Use	92.5%	89.7%
4. Danger Signs Know.*	11.6%	38.6%
5. EBF/MAD*	6.0%	24.8%
6. Iron-rich Foods*	21.3%	65.8%
7. Hand Washing*	16.5%	54.5%
8. Disposal of Waste*	29.6%	87.5%
9. Water Treatment*	2.7%	6.9%
10. Growth Monitoring*	6.0%	26.6%
11. Vitamin A*	6.0%	25.9%
12. Family Planning*	12.4%	32.1%

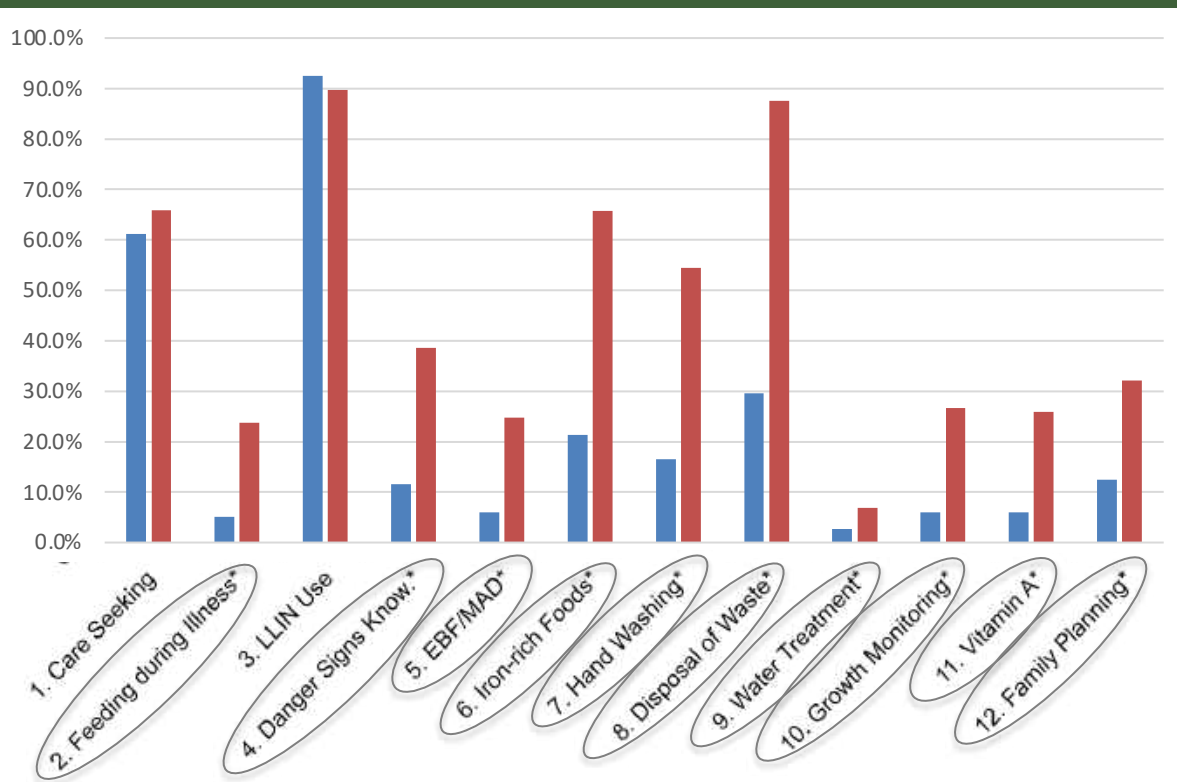
\* Midpoint = Post IPT-G Treatment, Before Care Groups



# Results

At midpoint, non-depressed women were significantly more likely to be endorsing behaviors (s.s. for 10 behs)

Behavior Adoption at Midpoint—Depressed vs. Non-Depressed



\* Midpoint = Post IPT-G Treatment, Before Care Groups

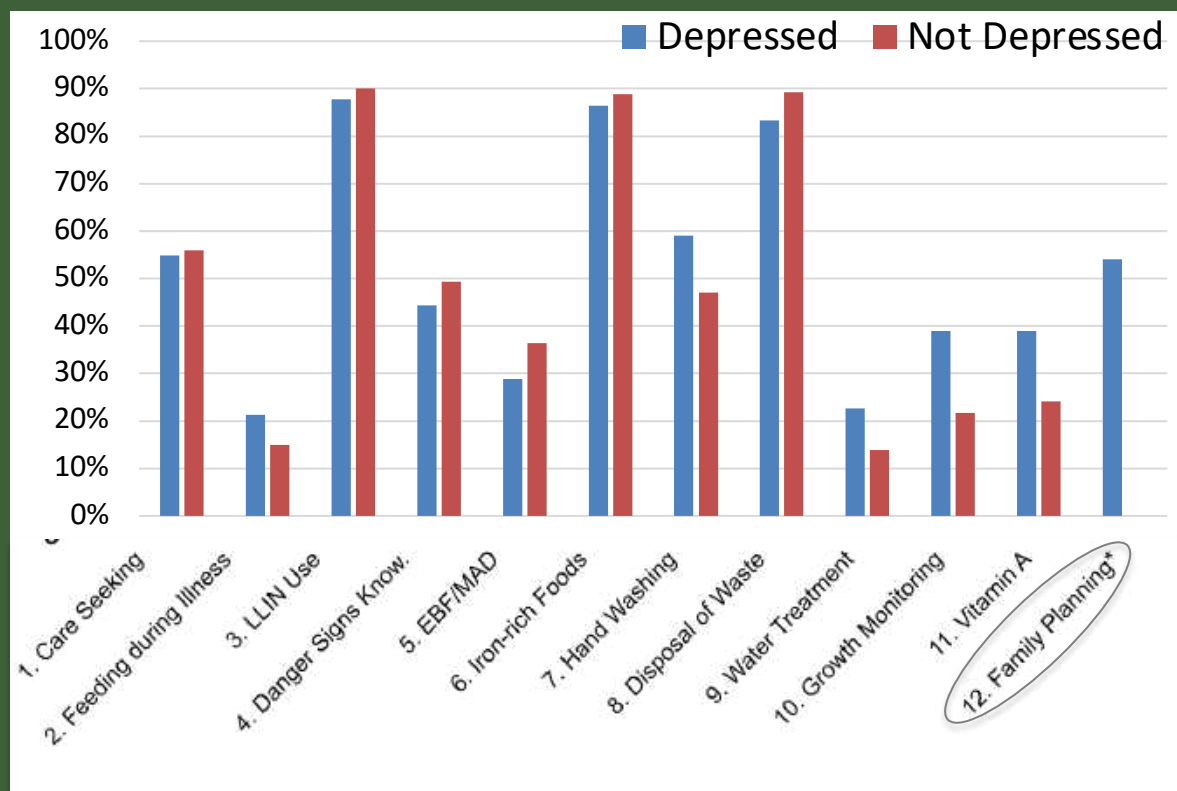
<u>Behavioral Indicator</u>	<u>Odds Ratio</u>
1. Care Seeking	2.03
2. Feeding during illness*	12.48**
3. LLIN Use	0.65
4. Danger Signs Know.*	4.61**
5. EBF/MAD*	4.52**
6. Iron-rich Foods*	7.29**
7. Hand Washing*	7.45**
8. Disposal of Waste*	20.36**
9. Water Treatment*	2.99*
10. Growth Monitoring*	5.26**
11. Vitamin A*	4.83**
12. Family Planning*	3.93**

\*  $p < .05$  \*\*  $p < .001$

# Results

After Care Groups, behavior adoption was not sig. different between depressed & non-depressed women for 11/12 behaviors

Behavior Adoption after Care Groups—Depressed vs. Non-Depressed



<u>Behavioral Indicator</u>	<u>Depressed</u>	<u>Not Depressed</u>
1. Care Seeking	54.9%	56.0%
2. Feeding during Illness	21.3%	15.0%
3. LLIN Use	87.7%	90.1%
4. Danger Signs Know.	44.3%	49.3%
5. EBF/MAD	28.9%	36.4%
6. Iron-rich Foods	86.4%	88.8%
7. Hand Washing	59.1%	47.1%
8. Disposal of Waste	83.3%	89.3%
9. Water Treatment	22.7%	13.9%
10. Growth Monitoring	38.9%	21.7%
11. Vitamin A	38.9%	24.1%
12. Family Planning*	54.1%	0.0%

# Impact on Mothers



## Depression Matters

Depression is profoundly associated with maternal functioning and behavior adoption

## Intervention

Treatment of caregiver depression may be a promising strategy for increasing behavior adoption

## Group Effect

Biweekly participation in neighbor-level groups that are a part of behavior change approaches may have a therapeutic effect on depression and improve maternal functioning

## Integration

This study supports interventions that improve depression as an important component of health, nutrition, and WaSH behavior change programs



# Thank You!

For further thoughts, ideas, questions, or comments, please contact us:

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