

# A PARTICIPATORY AGROECOLOGICAL INTERVENTION DECREASES DEPRESSION AMONGST FEMALE SMALLHOLDER FARMERS IN SINGIDA, TANZANIA

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**act:onaid**

COLLABORATIVE CROP RESEARCH PROGRAM  
HELPING SMALLHOLDER FARMERS FEED THEIR WORLD  
THE MCKNIGHT FOUNDATION

# MENTAL HEALTH MATTERS

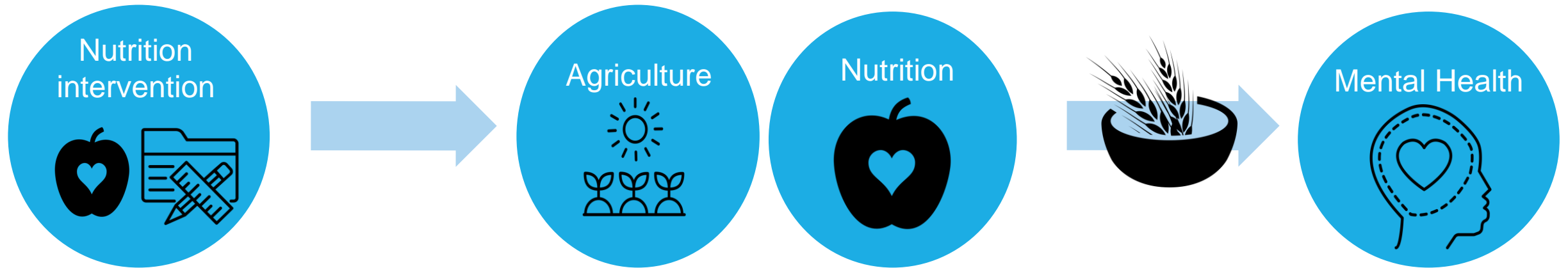
Depressive disorders	Total YLD (thousands)	YLD per 100,000	% of all YLDs	Rank cause
<b>Low- and middle-income countries</b>				
- African Region	7 229	731	7.9	2
- Eastern Mediterranean Region	4 049	685	6.9	2
- European Region	3 517	859	8.1	2
- Region of the Americas	5 106	844	9.3	1
- South-East Asia Region	13 967	724	7.0	2
- Western Pacific Region	10 525	640	7.2	2
<b>High-income countries</b>	9 608	839	7.9	2
<b>World</b>	<b>54 215</b>	<b>738</b>	<b>7.5</b>	<b>1</b>

Source: WHO Global Health Estimates ([http://www.who.int/healthinfo/global\\_burden\\_disease](http://www.who.int/healthinfo/global_burden_disease))

# SO...WHY AM I HERE?

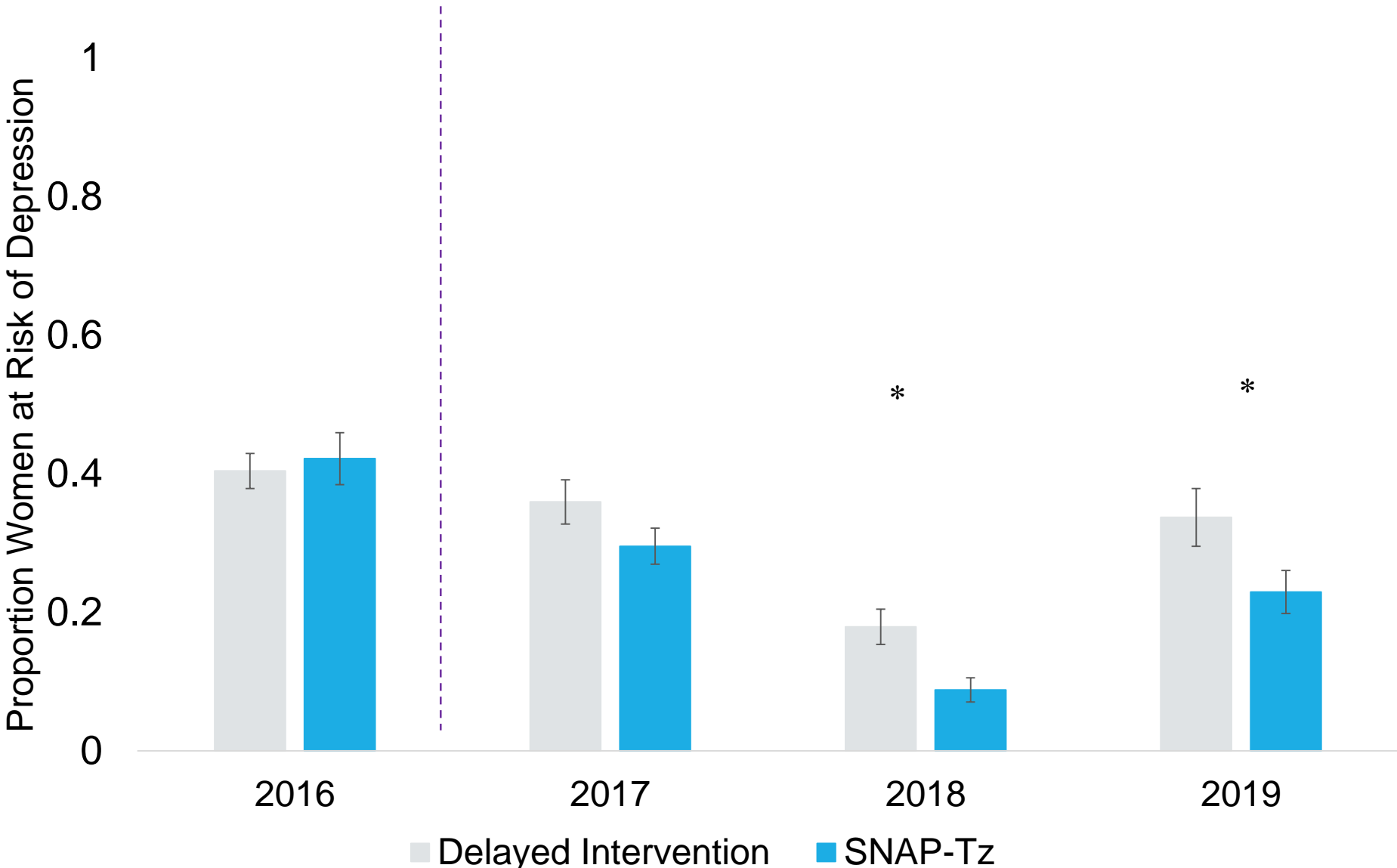


# FOOD SECURITY LINKS TO MENTAL HEALTH



- Uncertain access to food creates stress
- Inability to fulfill social role can be stigmatizing
- Food insecurity associated with poor economic status
- Food insecurity associated with nutritional deficiencies

# SNAP-TZ DECREASED WOMEN'S RISK OF DEPRESSION



\*p<.05, \*\*p<.01

# OBJECTIVES

1. Share **impact evaluation** of an agriculture and nutrition-sensitive intervention on women's risk of depression
2. Unpack **pathway**
3. **Give recommendations** to measure depression in agriculture and nutrition interventions

# THE SINGIDA NUTRITION AND AGROECOLOGY PROJECT (SNAP-TZ)

- Participatory agroecological intervention
- 10 control villages
- Expected outcomes:



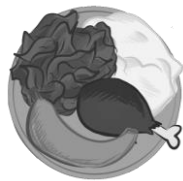
↑ sustainable agriculture



↑ food security



↑ gender equity



↑ nutrition knowledge



Integrated curriculum on agriculture, nutrition & gender



In each village, at least monthly participants meetings



Using stories and songs to illustrate integrations



Monthly household visits



Legume seeds distribution

# THE SINGIDA NUTRITION AND AGROECOLOGY PROJECT (SNAP-TZ)

➤ Expected outcomes:



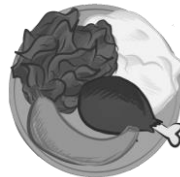
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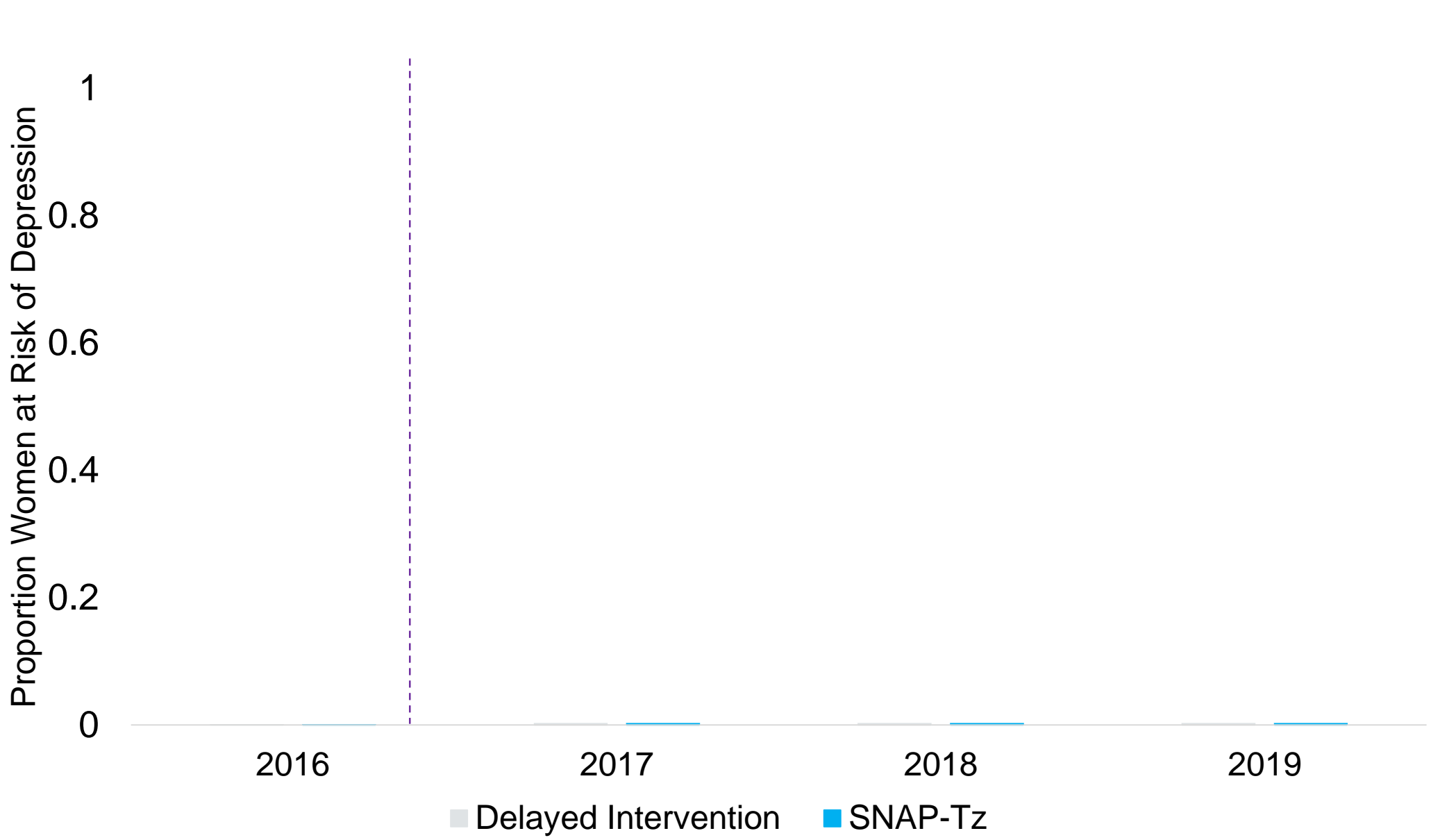
↑ nutrition knowledge

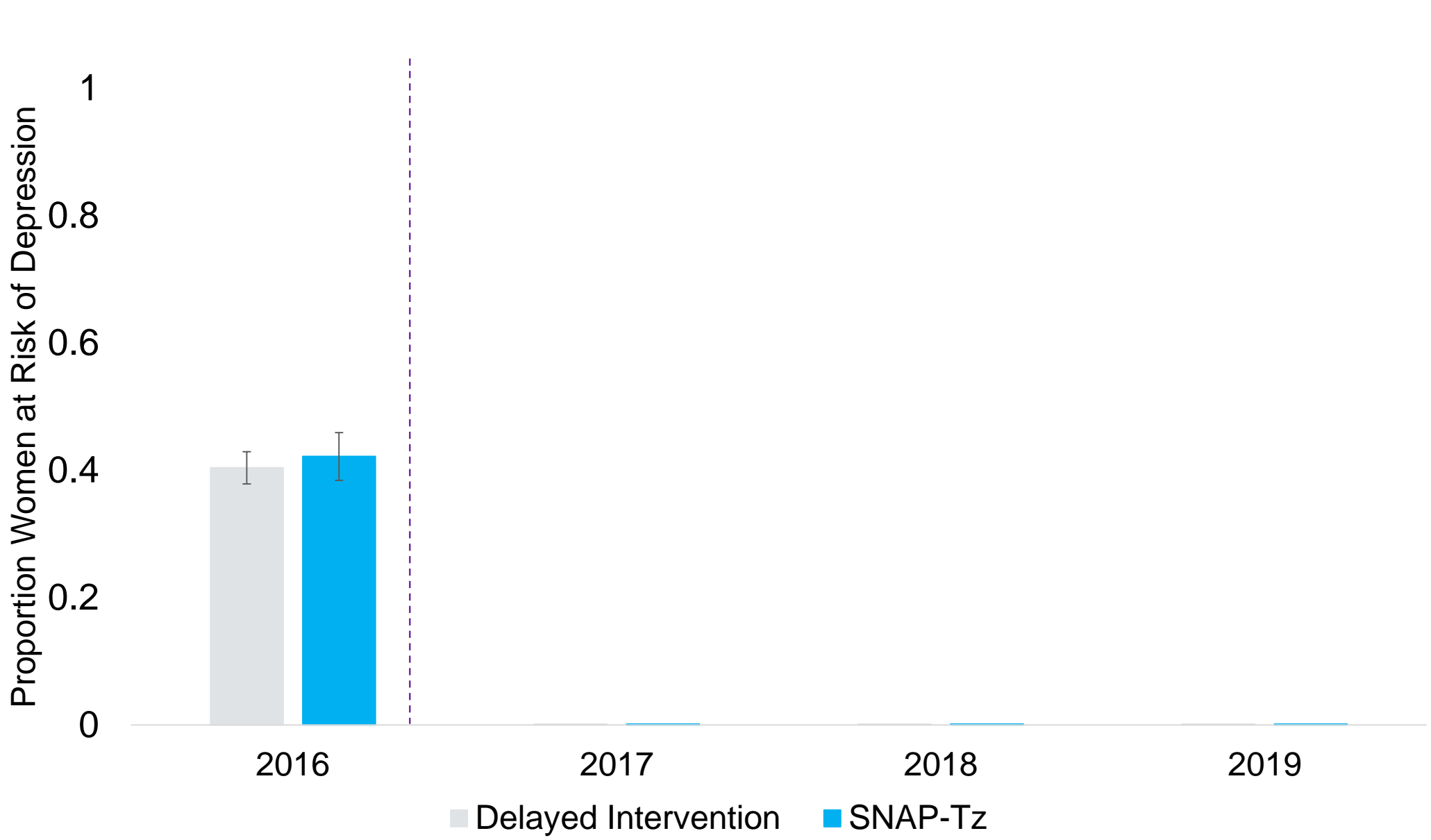


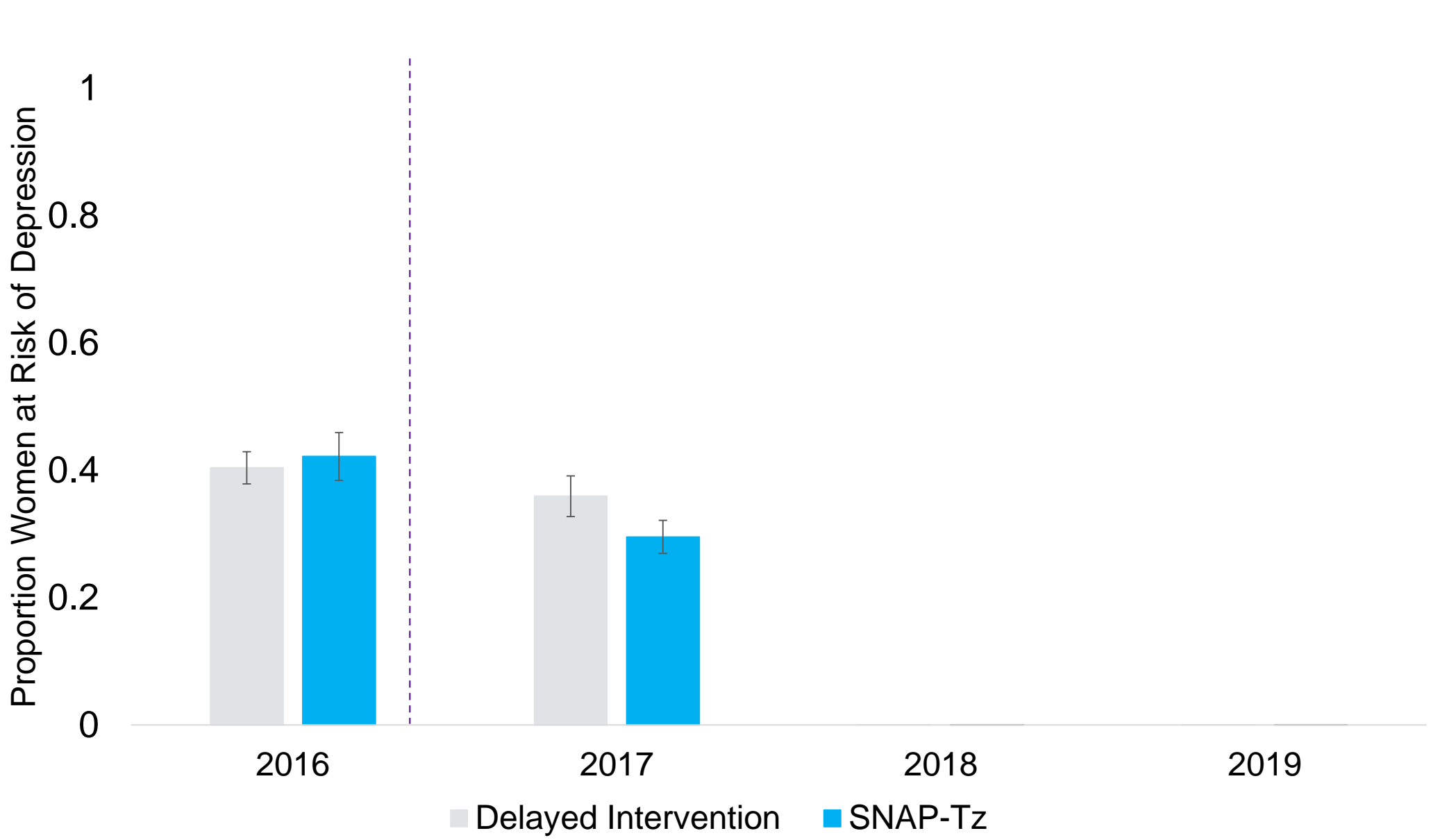
? women's depression

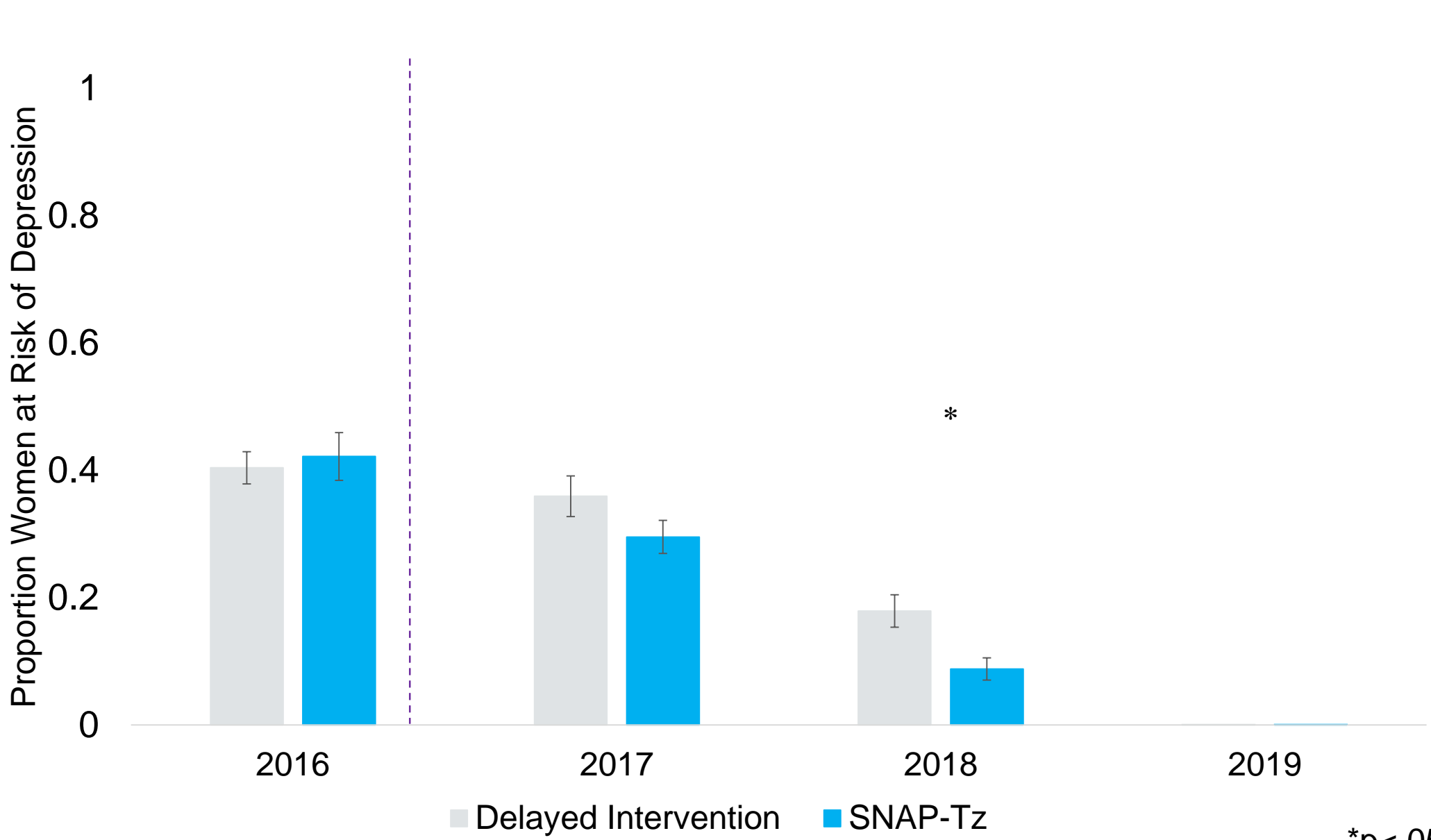
Center for Epidemiological Studies  
Depression (CESD)





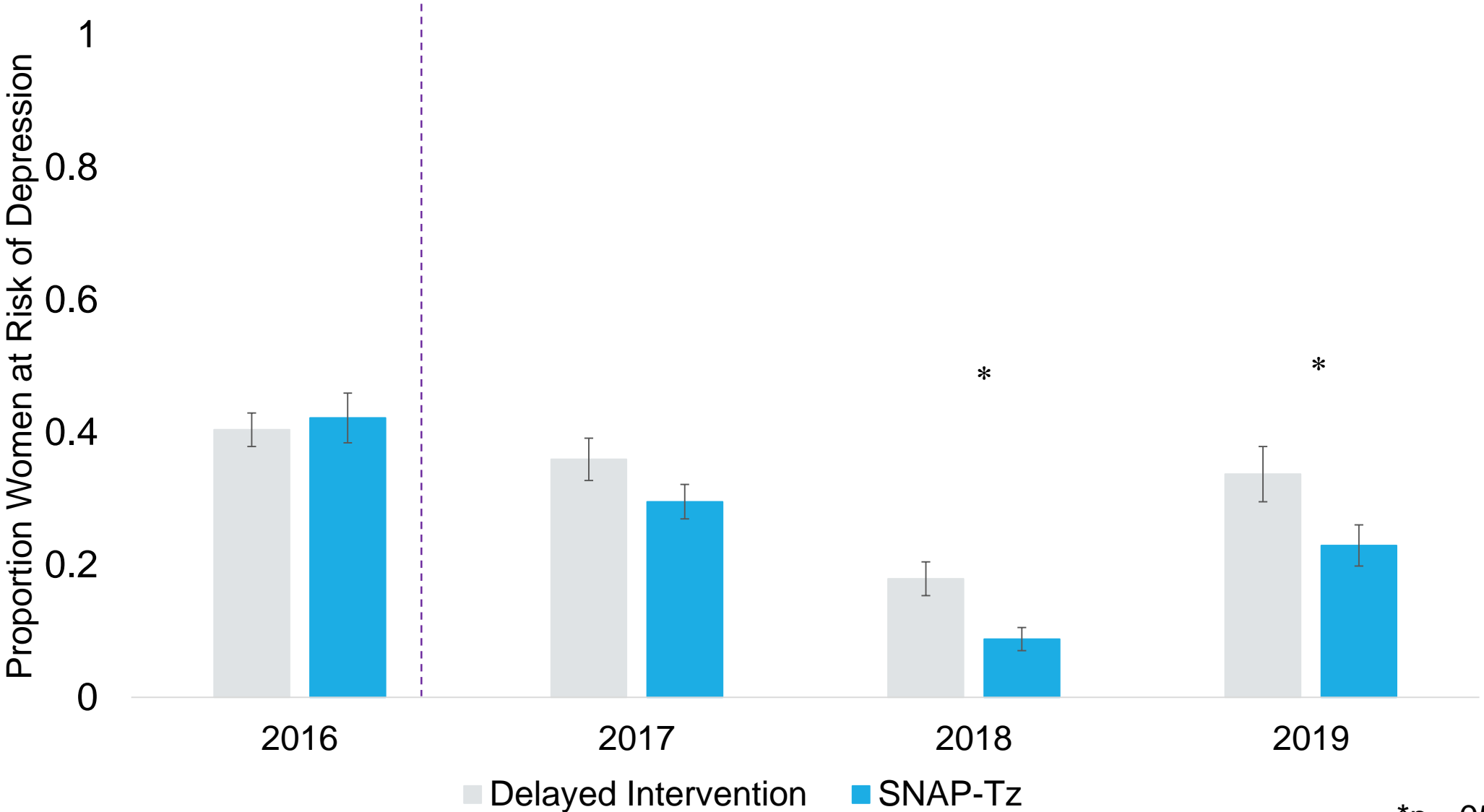






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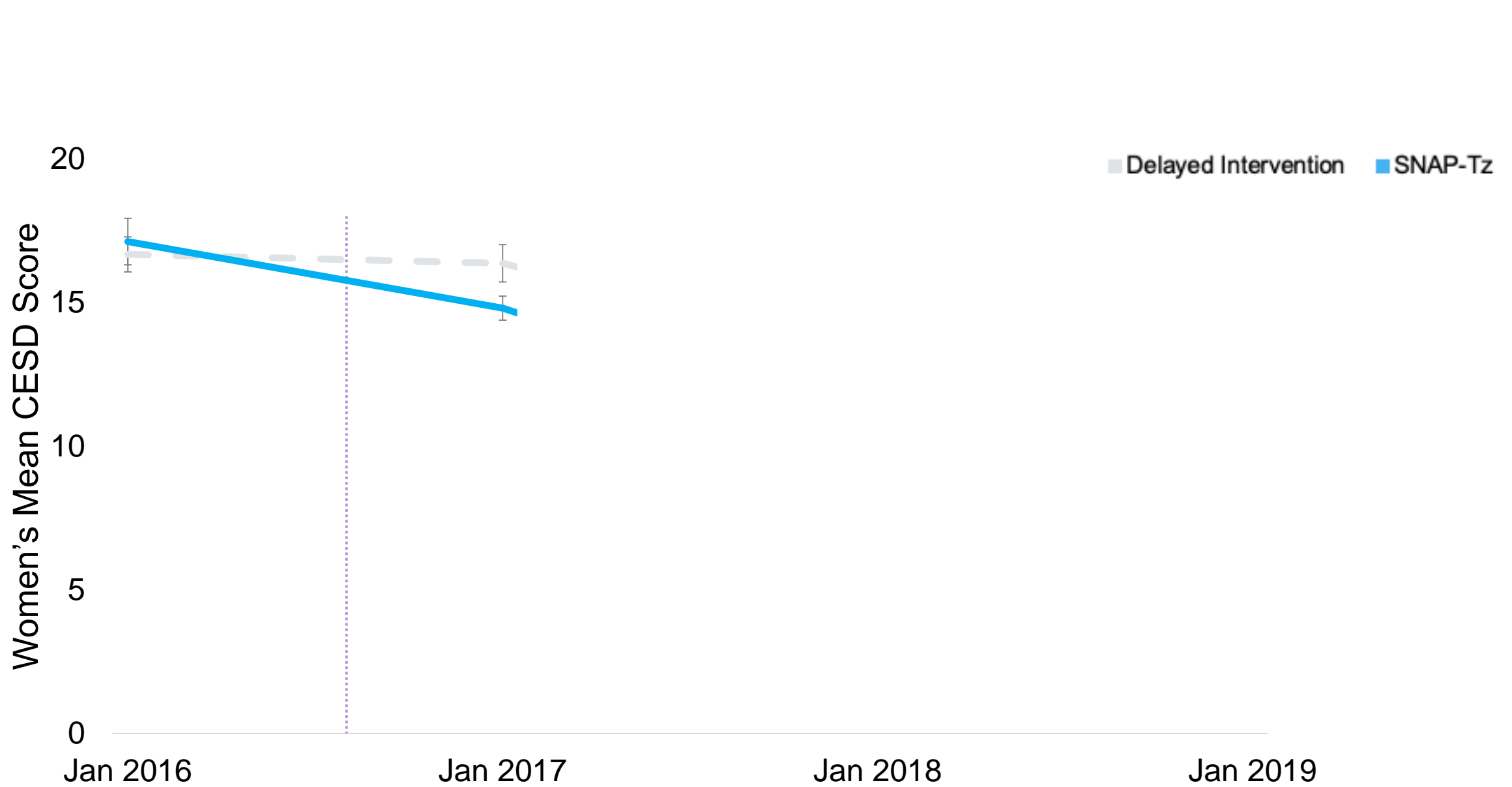
# SNAP-TZ DECREASED WOMEN'S RISK OF DEPRESSION



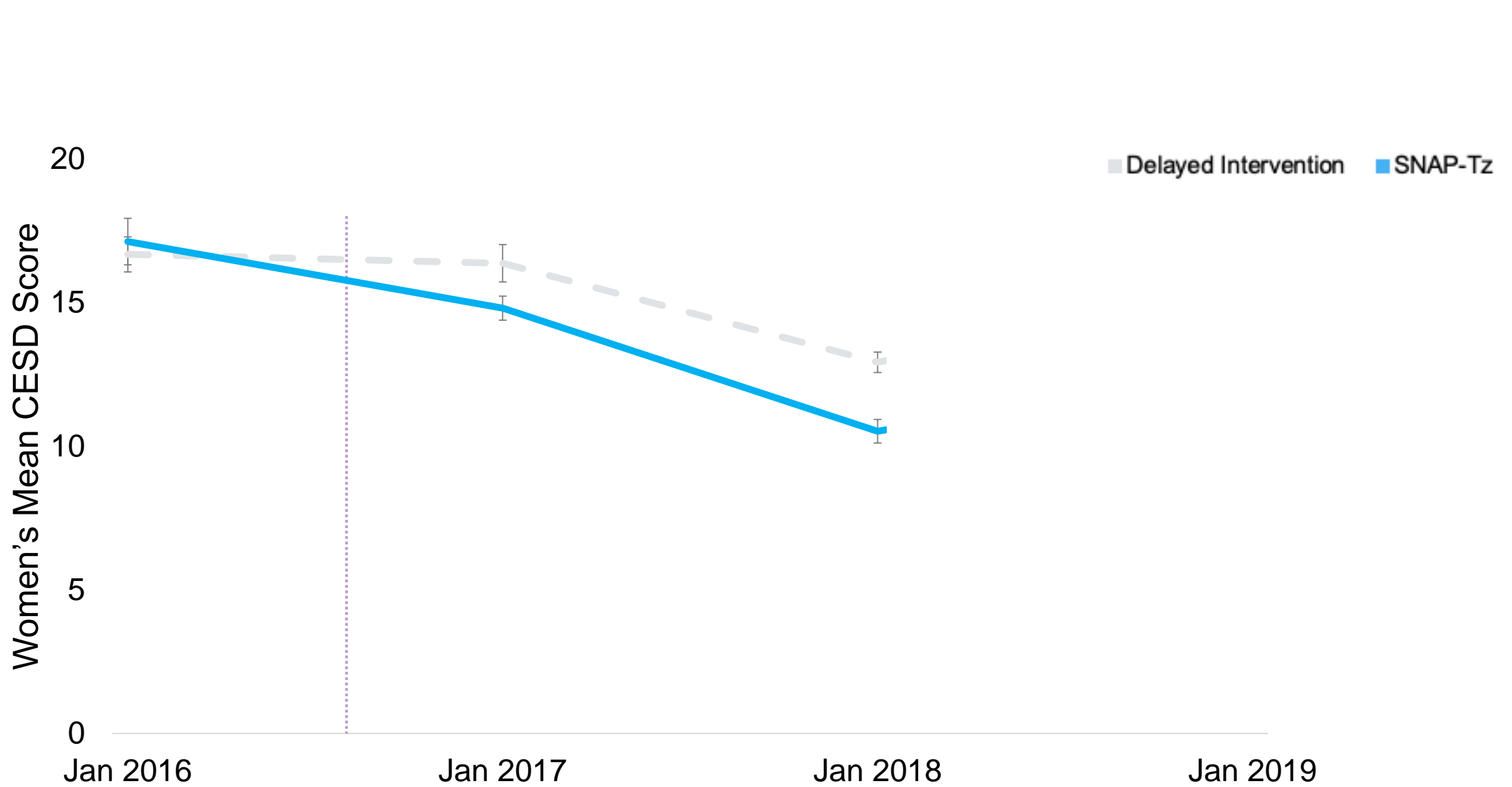
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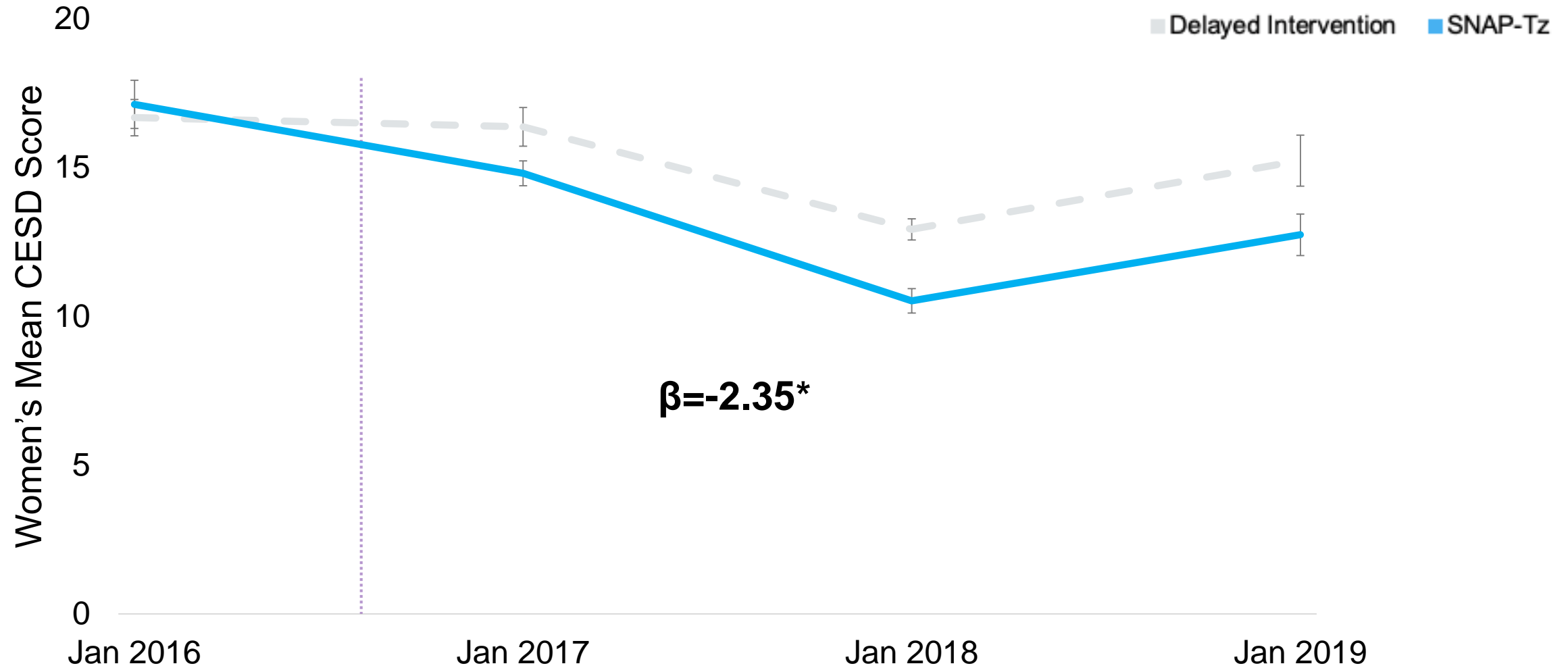








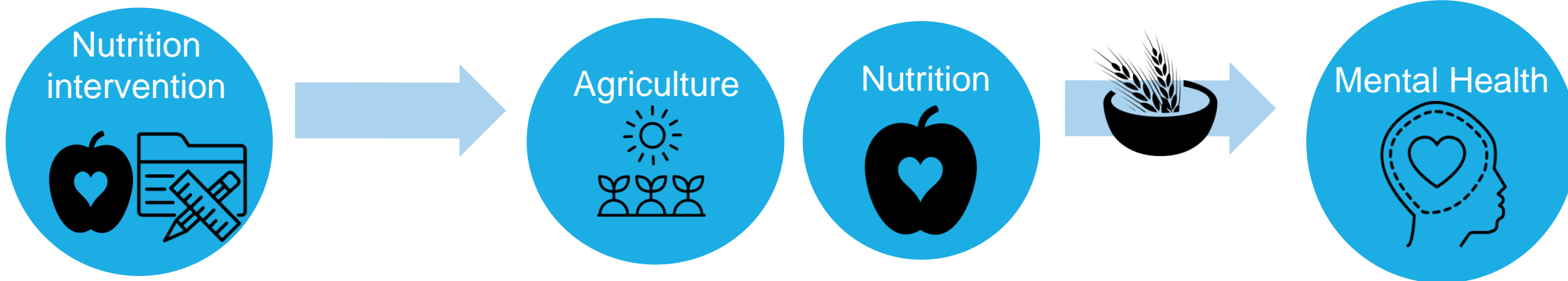
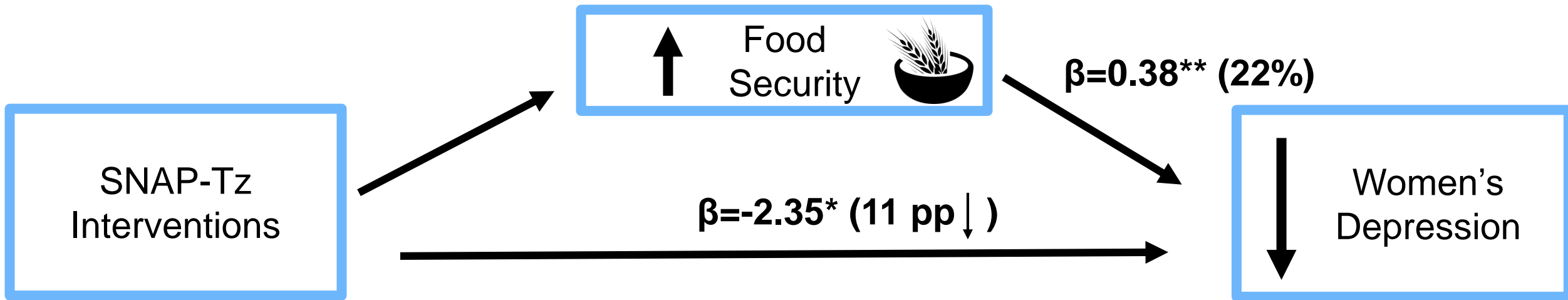
# SNAP-TZ DECREASED RISK OF DEPRESSION BY 11 PERCENTAGE POINTS



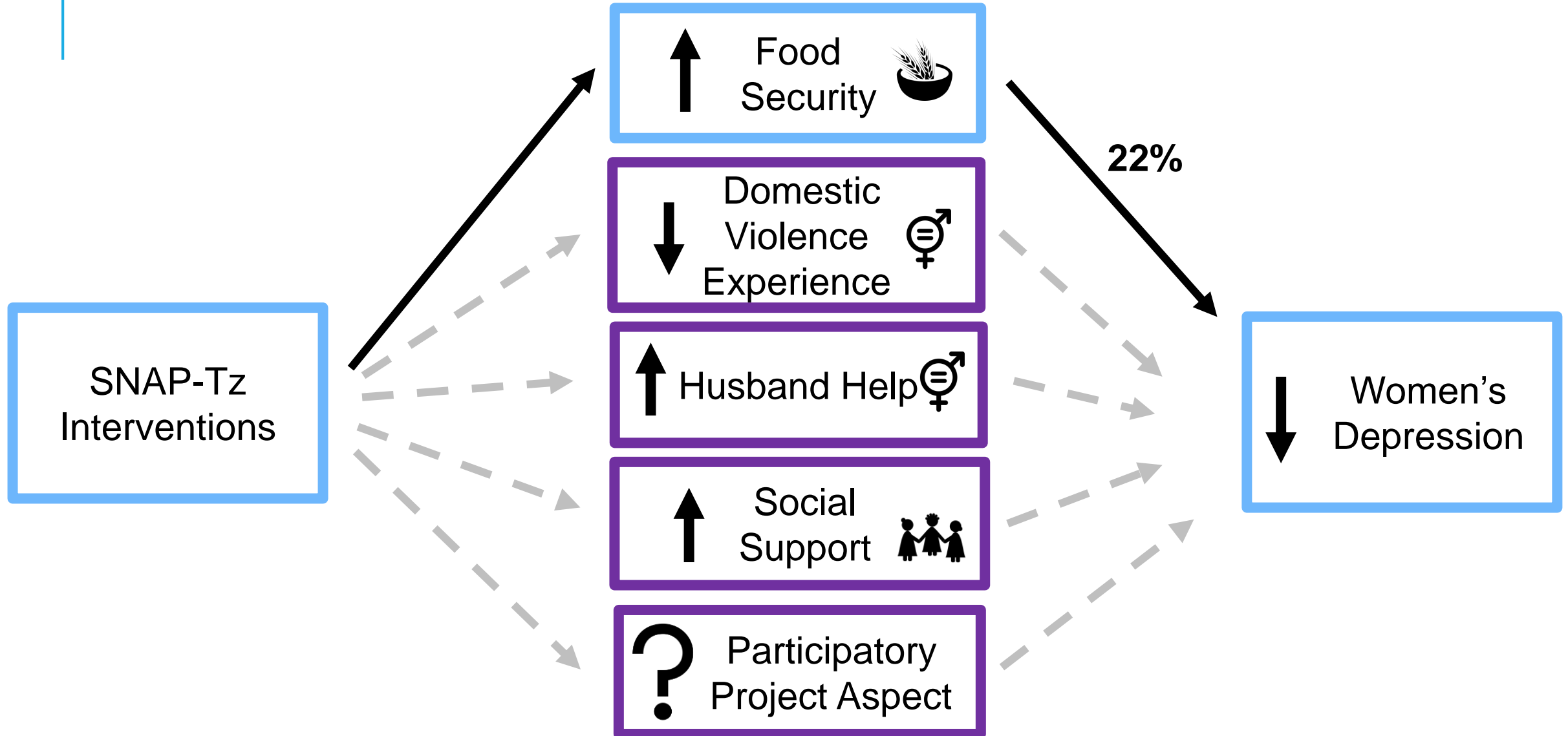
$\beta = -2.35^*$

\*p<.05, \*\*p<.01

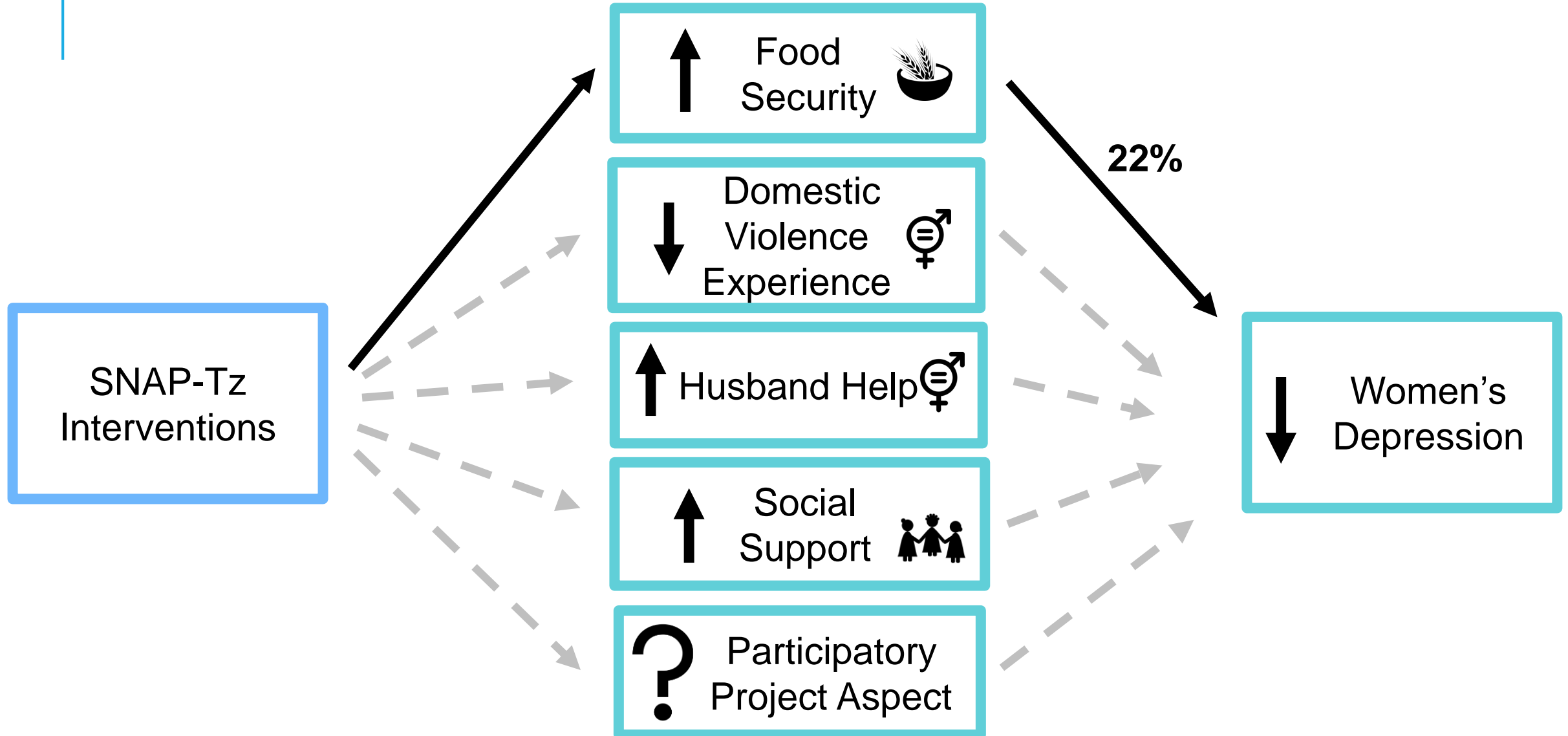
# WHY DID THIS HAPPEN? FOOD SECURITY



# FUTURE DIRECTIONS: ADDITIONAL POTENTIAL MEDIATORS

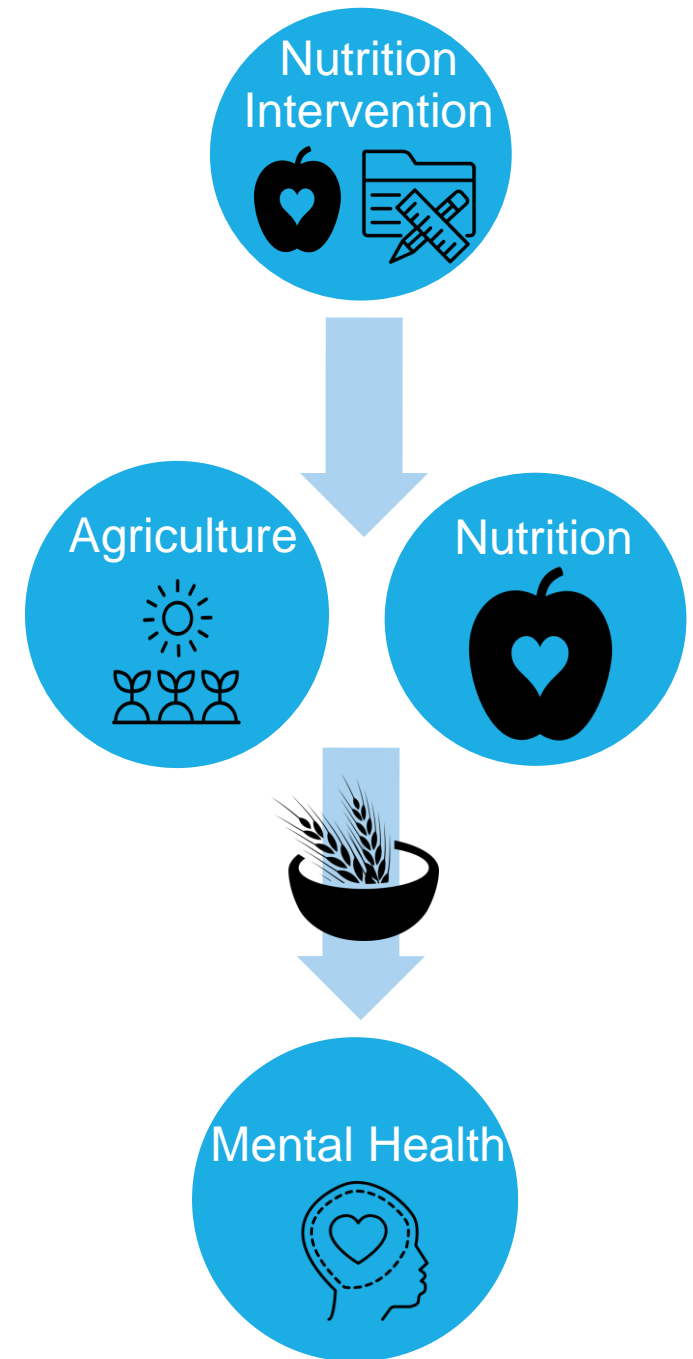


# RECOMMENDATIONS: MEASURE POTENTIAL MEDIATORS



# CONCLUSIONS

- This is one of the first reported impacts on decreasing risk of depression for a ***nutrition and agriculture*** intervention
- SNAP-Tz impact on women's depression seemed to operate through improving **food security**
- These interventions have the ability to **reduce the loss of quality life years** for women in farming communities





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**CES-D Question**

**Enumerator  
Misunderstood**

**Participant  
Misunderstood**

**Participants Not  
Honest Answering**

---

**Bothered by normal things**

**Loss of appetite**

Trouble keeping my mind on task

**Everything was an effort**

Restless sleep

**Talked less than usual**

Didn't have the energy

---

Low spirits

Sad and unhappy

Thought life was failure

Fearful

Lonely

Crying spells

Sad

---

Feel valuable†

Hopeful about future

Happy

Enjoyed life

---

**People were unfriendly**

Felt people disliked me



Lightest blue refers to 0-2 enumerator responses, middle blue 3-4, darkest blue 5-8.



