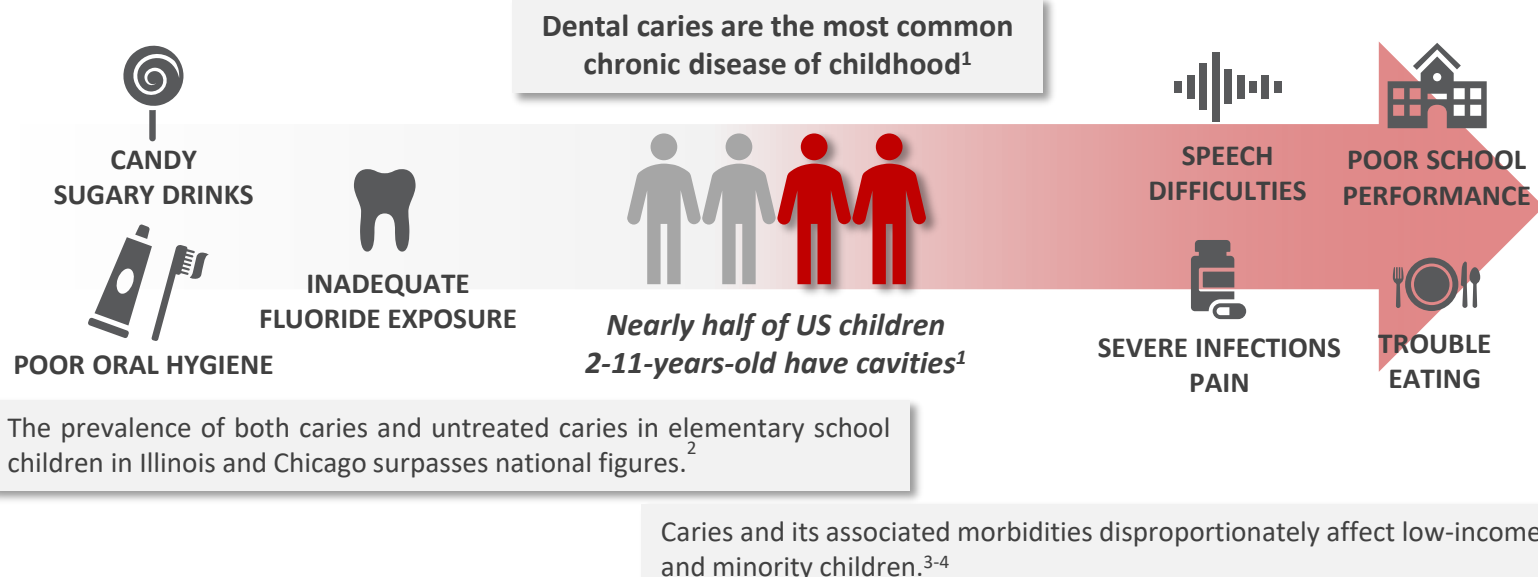




COordinated Oral Health Promotion (CO-OP) Chicago

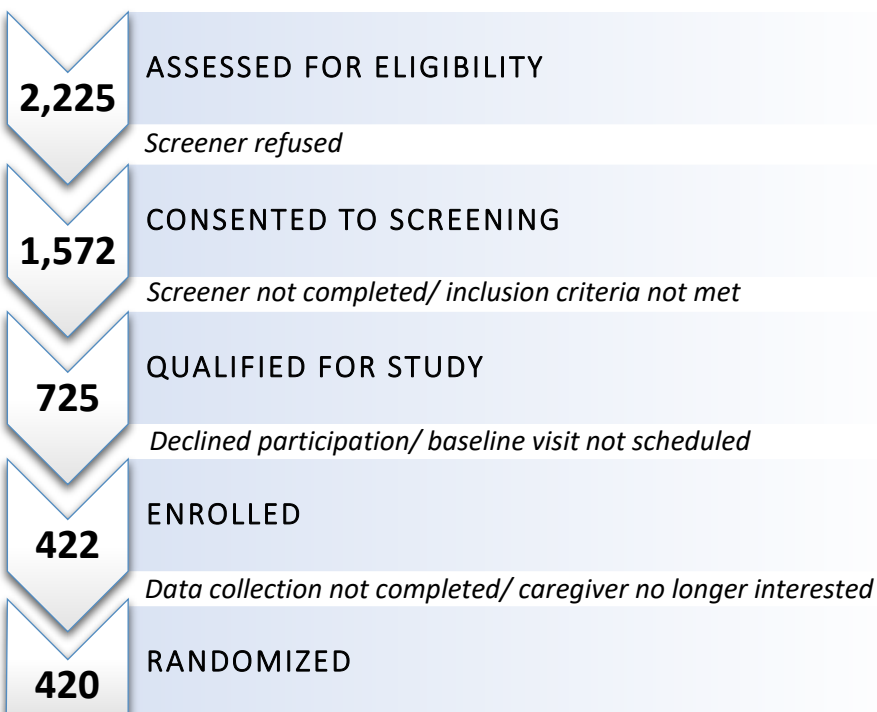
THE PROBLEM with oral health in children



THE STUDY to evaluate and address it

CO-OP Chicago is a research study that evaluates the effectiveness of a family-focused community health worker (CHW) oral health intervention to improve oral health behaviors in low-income, urban children under the age of 3 years.

RECRUITMENT



ELIGIBILITY CRITERIA

- ✓ Active patients/clients in the clinics/WIC centers
 - ✓ No medical condition that would limit their ability to conduct study activities
- Children:
- ✓ Ages 6-36 months
 - ✓ Minimum of 2 fully erupted central maxillary incisors
- Caregivers:
- ✓ Age 18+
 - ✓ Speak English or Spanish
 - ✓ Primary caregiver

CHWs have contributed to disease prevention and health promotion efforts in US communities for decades. A growing number of studies support the work of CHWs to improve a range of health outcomes. CHWs are non-clinicians that provide health education, social support, care coordination, navigation, and advocacy services to expand individual and community capacity for health.⁵⁻⁶ Previous studies have demonstrated that oral health education provided to parents had a positive effect on knowledge, intended behavioral change, and caries prevalence for children.⁷⁻⁹ However, limited data exist that support CHW intervention efficacy in changing oral health outcomes in children or associated family behaviors.^{7,10-13}

DESIGN

420 FAMILIES

in Cook County, IL, from

20 Partnership sites:

10 Medical Clinics

10 WIC Centers

BASELINE DATA COLLECTION

RANDOMIZED

CHW INTERVENTION
(211 families)

USUAL CARE
(209 families)

CHW VISIT 1 &
FOLLOW-UP
PHONE CALL

CHW VISIT 2 &
FOLLOW-UP
PHONE CALL

6 MONTH DATA COLLECTION

CHW VISIT 3 &
FOLLOW-UP
PHONE CALL

CHW VISIT 4 &
FOLLOW-UP
PHONE CALL

12 MONTH DATA COLLECTION

CHW VISIT

STUDY PARTICIPANT DEMOGRAPHICS

	Caregiver	Child
Female	96%	51%
Average age	30 years	22 months
Highest degree earned		
Less than high school	16%	
High school/GED	31%	
More than high school	52%	
Hispanic	52%	54%
Mexican (% of Hispanic)	84%	73%
Race		
White	14%	13%
Black	42%	42%
Other	45%	45%
Household income in last year		
<30k	23%	
30k-60k	18%	
>60k	7%	
Unknown	52%	
Refused to answer	0%	
Caregiver relationship status		
Single	34%	
Living with partner/ spouse	61%	
Separated/ divorced/ widowed	5%	
Average household size	5	
Average number of children in household	3	
Has health insurance	76%	96%
Medicaid	77%	89%
Has dental insurance	66%	82%
Medicaid	79%	90%
Average caregiver depression score (national normal range 50-60)	46	
Average caregiver anxiety score (national normal range 50-60)	47	
Average caregiver social functioning score (national normal range 50-60)	32	
Average caregiver emotional social support (national normal range 50-60)	56	
Average caregiver informational social support (national normal range 50-60)	58	
Average caregiver instrumental social support (national normal range 50-60)	55	

RETENTION

87% of families completed the 6-month data collection

86% completed the 12-month final data collection



ORAL HEALTH WHEN STARTING THE STUDY

	Caregiver Reported	Observed
Child's brushing frequency		
Never/has not started	6%	
Sometimes, but not everyday	15%	
Once a day	34%	
Twice a day	40%	
More than twice a day	5%	
Plaque score, average (standard deviation)		1.9 (0.6)
Average child started brushing	10 months	
Do adults help with brushing		
No, child brushes alone	3%	
Sometimes	17%	
Most of the time	19%	
Always	56%	
Actual parent involvement		
Parent did all brushing		65%
Both parent & child participated in brushing		31%
Parent wiped, teeth not brushed		4%
Child refused brushing		1%
Length of brushing		
0-59 seconds	31%	Average: 84 seconds
60-119 seconds	33%	
120 or more seconds	31%	
Don't know	1%	
Average age started using toothpaste	13 months	
Toothpaste has fluoride		
Child does not brush/use toothpaste	17%	16%
No	19%	29%
Yes	22%	56%
Don't know	42%	
Amount of toothpaste used		
Does not brush/use toothpaste	17%	16%
Smear	52%	39%
Pea sized	22%	29%
Half load or covers half the brush	6%	10%
Full load or covers the full brush	2%	6%
Length since child's last dental visit (%)		
Never has been	60%	
≤ 6 months	33%	
> 6 months but < 1 year	4%	
> 1 year but < 2 years	3%	
Child has had dental cavity or tooth decay	4%	



RESULTS AT 12 MONTHS

- **Child brushing frequency improved**
 - Brushing frequency was the same for children who received CHWs and children who did not.
 - Brushing frequency was better for children who were older at the start, had seen a dentist recently, and had parents helping them brush.
 - Brushing frequency was worse for children when their parents reported they did not brush their own teeth often, they had interference in brushing from daily activities, and their own mouth conditions were good.
- **Child plaque score did not improve**
 - Plaque scores were the same for children who received CHWs and children who did not.
 - The only thing associated with improvements in plaque score was when parents always helped brush their children's teeth.
- **Children were more likely to see the dentist**
 - The chances of seeing the dentist were the same for children who received CHWs and children who did not.
 - Children whose homes were chaotic were less likely to see the dentist.

RESEARCH CONCLUSIONS

- Oral-health specific CHW services were not associated with improved brushing behaviors in these young children.
- Only effective brushing by an adult reduced plaque.
- More robust interventions are needed to support families during this critical developmental period.



CHW INTERVENTION DELIVERY (N=211)

April 2018 – Feb 2020	4 visits: 24%
Total visits: 420	3 visits: 13%
Average duration of visit: 64 minutes	2 visits: 21%
	1 visit: 23%
	0 visits: 19%

"They go above and beyond, like if you need a dentist, they make sure to get a dentist for your child. I definitely loved the experience."

- Participant

"It was good because it made me more concerned about brushing my child's teeth more often because I was not doing it as often before."

- Participant

"I don't know what I would have done without the girls. This is my first child, they helped me get on top of my child's dental care."

- Participant



Key Takeaways

from the study

BRUSHING

- 63% of children brushed twice a day or more at the end of the study (good!).

TOOTHPASTE

- 84% of children used toothpaste with fluoride (good!).

PLAQUE ON TEETH

- 52% of children had too much plaque on their teeth (bad!)
- More brushing did not change the amount of plaque on children's teeth.
- The only thing that seemed to result in less plaque on children's teeth was when parents always helped brush their children's teeth.

Recommendations

to promote oral health



Brush **2X**
every day



Use fluoride
toothpaste



Dentist at least
every 6 months



Help child
brush & floss



Eat healthy

Next Steps

for CO-OP Chicago

CO-OP CHICAGO COHORT STUDY

We recently received funding to follow families for four more years!

We will enroll as many of the CO-OP Chicago Trial families as possible, but we may need your help finding more. This will begin in the fall of 2021.

YOUR IDEAS?

Please send us your ideas about how to disseminate this information and how to improve services for families.



Visit our website for videos, updates & more information!
<https://co-opchicago.ihrp.uic.edu>

The CO-OP Chicago Team



Study Publications to Date

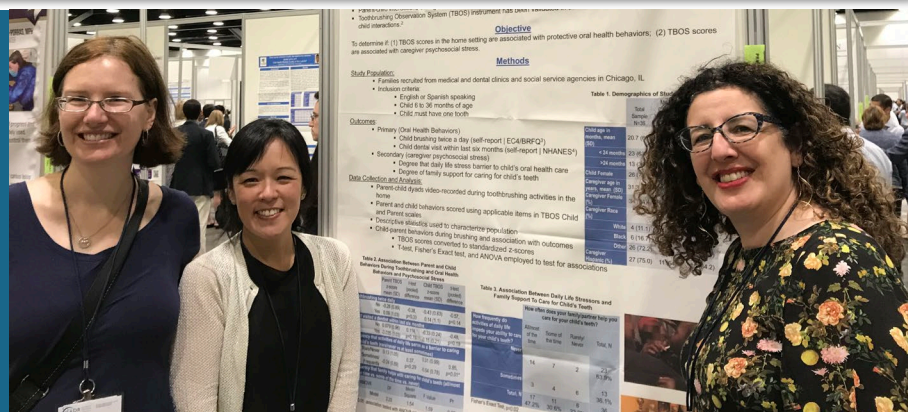
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... and more to come!

FOR DETAILS ON STUDY PRESENTATIONS AND MORE INFORMATION, PLEASE SEE OUR WEBSITE:



<https://co-opchicago.ihrp.uic.edu/our-findings/>



Thank you

to our partnership sites



Locations

Pediatric Health & Wellness Ctr
Southeast Side Community Health Ctr
South Holland Community Health Ctr



WIC Center Locations

Blue Island • Diversey • Harvey
Irving Park • Maywood • Oak Park • Summit



WIC Center Locations

Friend Family Health Ctr, Inc
Greater Lawn Health Ctr
Westside Health Partnership



Locations

Back of the Yards • Cicero/Hawthorne Works Shopping Ctr
Englewood • Main Location • South Shore



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