

Bureau of Early Intervention

EHR → **EI**



Catherine Canary, MD, MPH

Medical Director, NYC Bureau of Early Intervention

Kelly Escobar, Ph.D.

Director, Fund for Early Learning

Robin Hood



Agenda

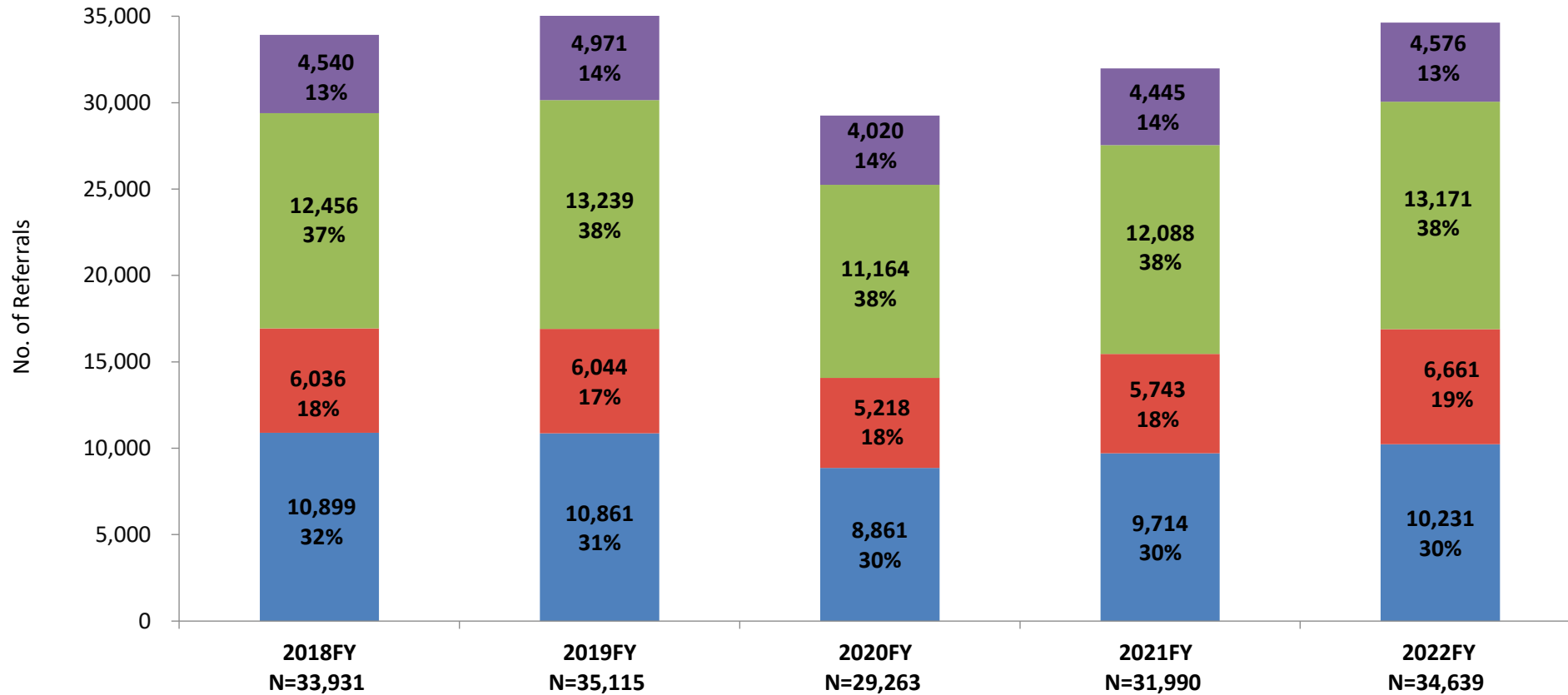
- NYC EI Equity
- EHR-EI Grant Funding and Goals
- Project Impact and Lessons Learned
- EHR-EI Data & Analytics
- Next Stage

The NYC Early Intervention Program (EI)

- Federal entitlement program governed by Part C of the Individuals with Disabilities Education Act (IDEA) with oversight by the NYS Department of Health, Bureau of Early Intervention
- Comprehensive program that supports infants and toddlers with developmental delays and disabilities in their efforts to realize their full potential.
 - Monitors the development of at-risk children
 - Assists and empowers families to meet their child's and their own needs
 - Entitles children, regardless of race, ethnicity, immigration status, or income, to critical developmental services.

Number of New and Re-Referrals, by Race and Ethnicity

Population Estimates by Race/Ethnicity by Year								
	2018		2019		2020		2021 & 2022	
	0-3 Pop	% of Pop	0-3 Pop	% of Pop	0-3 Pop	% of Pop	0-3 Pop	% of Pop
White	102,366	30.2%	100,180	30.5%	102,726	31.9%	99,041	31.6%
Black	72,875	21.5%	69,949	21.3%	68,522	21.3%	65,534	20.9%
Latinx	116,368	34.3%	113,185	34.4%	106,962	33.2%	100,578	32.0%
Asian	47,704	14.1%	45,378	13.8%	43,599	13.5%	48,759	15.5%



ROBIN HOOD FOUNDATION

Poverty-fighting, Early Childhood, and Early Intervention

ROBIN HOOD: WHO WE ARE

Robin Hood is New York's largest poverty-fighting organization. We find, fund, and fuel over 350 nonprofits across the five boroughs of New York City to provide low-income New Yorkers with the tools they need to build better lives. Over the past 33 years, we've invested over three billion dollars in the most impactful programs across the city.

Grantmaking Programs

Management Assistance

Public Policy

Fundraising and Development



EARLY CHILDHOOD

Driving health outcomes, fostering early brain development and promoting core life skills



SCHOOL-AGED CHILDREN

Building strong academic foundations, social-emotional development and career potential



YOUNG ADULTS

Promoting academic success, training young people for middle-skills jobs and preventing recidivism



ADULTS & HOUSEHOLD SUPPORTS

Buffering against financial shocks, building skills and assets, and reshaping systems and policies

EARLY CHILDHOOD AT ROBIN HOOD

Priority Areas

Maternal and Child Health
and Mental Health

Early Care and Learning

Child Care

Without intervention, children living in poverty on average fall behind their more advantaged peers early in life and are a full standard deviation behind by kindergarten.

Access to equitable and quality maternal and infant care and rich learning opportunities with responsive adults foster early brain development in the first years of life and impact long-term trajectories.

High quality early childhood experiences improve the chance of high school graduation by as much as 30%, leading to higher rates of college entry and completion and a pathway to economic mobility.

RACIAL EQUITY & EARLY INTERVENTION

Central to Robin Hood's mission is to advance racial equity and break down systemic barriers to economic mobility for families of color living in poverty.

Poverty is a major risk factor for developmental delay, and unfortunately is also a racial equity problem

- Less than half of children in NYC receive all their EI services on time, and Black and Latinx children as disproportionately affected

Children of color living in poverty are being left behind in receiving critical services to set them on the path toward academic achievement and future economic mobility.

ROBIN HOOD IN THE MIX



The Early Intervention Process

Family Concern



1. Referral *(Unless parent objects)*

- Referral source or parent suspects child of having developmental delay or disability
- Family informed of benefits of Early Intervention Program (EIP)
- Child referred to Early Intervention Official (EIO) within two days of identification
- EIO assigns Initial Service Coordinator

2. Initial Service Coordinator

- Provides information about EIP
- Informs family of rights
- Reviews list of evaluators
- Obtains insurance/Medicaid information
- Obtains other relevant information

3. Evaluation*

- Determine eligibility
- Family assessment (optional)
- Gather information for Individualized Family Service Plan (IFSP)
- Summary and report submitted prior to IFSP

4. The IFSP Meeting*

(If child is eligible)

- Family identifies desired outcomes
- Early Intervention services specified
- Develop written plan
- Family and EIO agree to IFSP
- Identify Ongoing Service Coordinator (OSC)
- EIO obtains social security number(s)

Early Intervention Services*

- Assistive technology devices and services
- Audiology
- Family training, counseling, home visits, and parent support groups
- Medical services only for diagnostic or evaluation purposes
- Nursing services
- Nutrition services
- Occupational therapy
- Physical therapy
- Psychological services
- Respite services
- Service coordination
- Social work services
- Special instruction
- Speech-language pathology
- Vision services
- Health services
- Transportation and related costs

AREAS OF DEVELOPMENT

- Cognitive
- Physical (including vision and hearing)
- Communication
- Social/emotional
- Adaptive development

5. IFSP Review Six Months, Evaluate Annually

- Decision is made to continue, add, modify or delete outcomes, strategies and/or services
- If parent requests, may review sooner (If parent requests an increase in services, EIO may ask for supplemental evaluation)

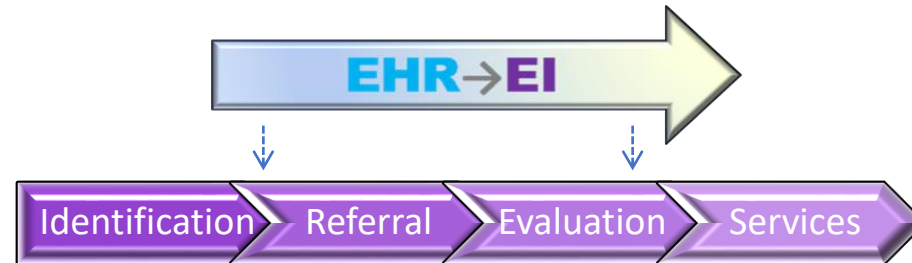
6. Transition

- Plan for transition included in IFSP
- Transition to:
 - Services under Section 4410 of Education Law (3-5 system)
 - OR
 - Other early childhood services, as needed

**Parent/guardian may access due process procedures.*

Project Overview

- BEI aims to increase EI referrals and retention among historically underserved groups.
- The **EHR→EI** initiative enables the use of an **electronic** health record referral process with bidirectional data exchange and follow-up.



- By creating an electronic platform for the referral process across NYC healthcare systems and adding the bidirectional data component, BEI expects to increase awareness, equity, and retention in the EI Program and foster clear communication pathways between EI, referring healthcare providers, and families.

2-year grant awarded by the Robin Hood Foundation in July 2021

20 Active EHR-EI Centers



- Bellevue Pediatric Primary Care
- Coney Island Pediatrics
- Cumberland Primary Care Peds
- East New York Peds Primary Care
- Elmhurst Pediatric Primary Care
- Gouverneur Primary Care Peds
- Harlem Primary Care Peds
- Jacobi Primary Care Peds
- Kings County Primary Care Peds
- Lincoln Primary Care Peds
- Metropolitan Pediatric Primary Care
- Morrisania Primary Care Peds
- N Central Bronx Primary Care Peds
- Queens Pediatric Primary Care
- Sydenham Pediatric Primary Care
- Woodhull Primary Care Peds



- Comprehensive Health Care Center



- Sunset Park Family Health Center



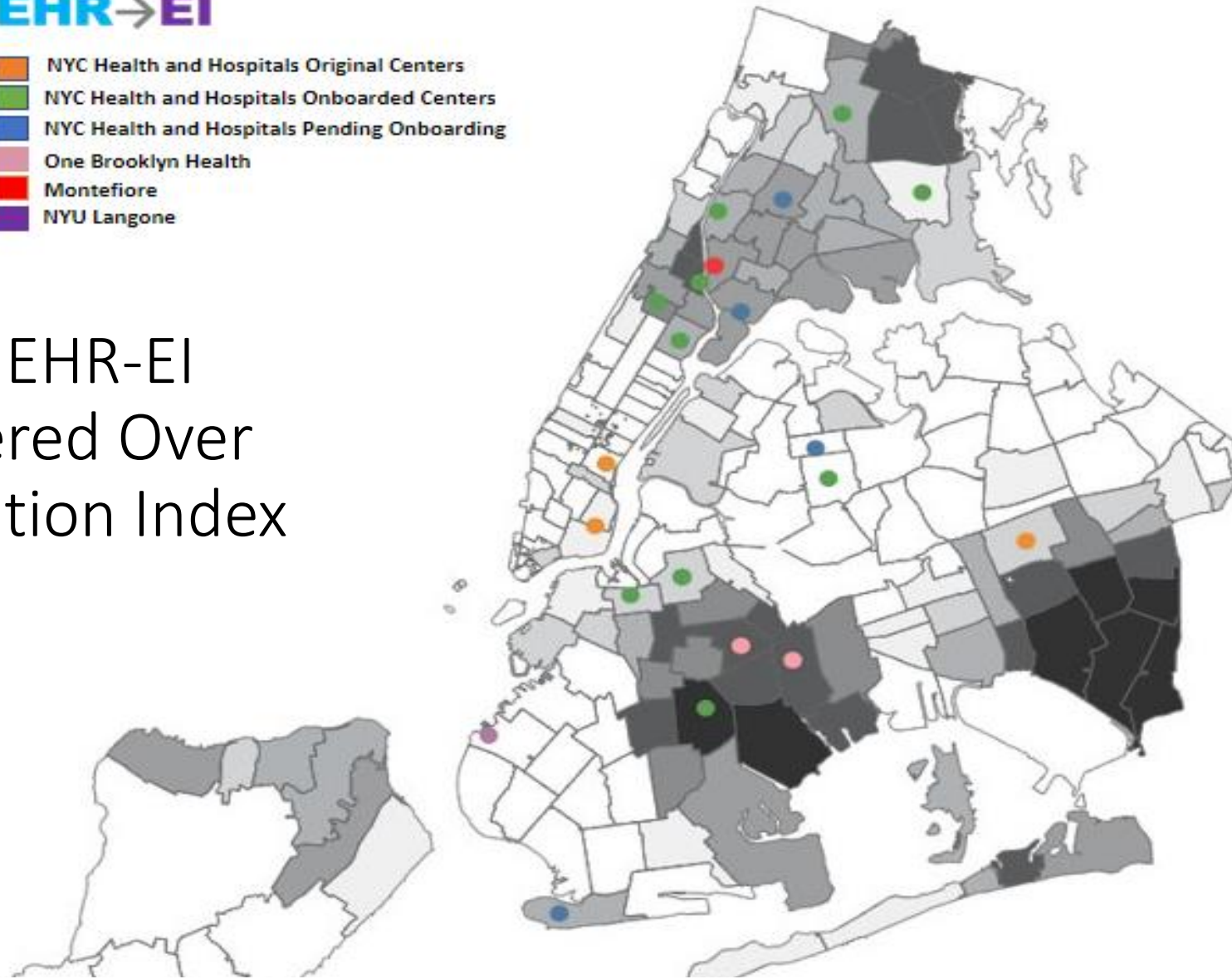
- BFCC New Lots
- BFCC Eastern Parkway



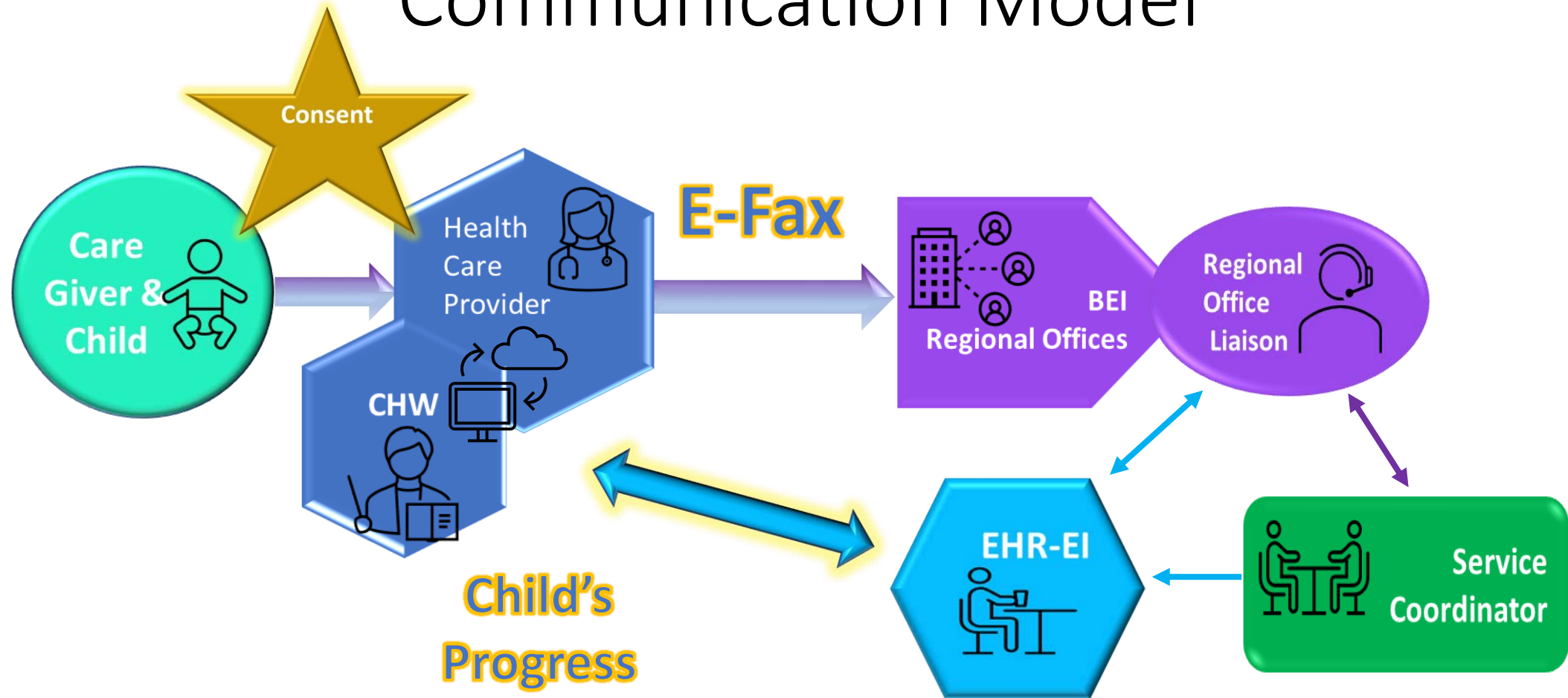
EHR → EI

- NYC Health and Hospitals Original Centers
- NYC Health and Hospitals Onboarded Centers
- NYC Health and Hospitals Pending Onboarding
- One Brooklyn Health
- Montefiore
- NYU Langone

Locations of EHR-EI
Centers Layered Over
Black Population Index
Heatmap



EHR-EI Referral and Bidirectional Communication Model



Project Impact

- Worked with four different hospital systems to institutionalize electronic referrals to the Early Intervention Program
- All partners seeking to onboard additional sites within their networks
- Bidirectional data exchange and follow-up processes implemented at all 20 participating sites
- The evaluation phase will produce a population-based assessment of the increase in EI referrals at two of the original three EHR-EI locations between the pre-intervention period in FY'20 and the first implementation year in FY'22.





Lessons Learned

- Importance of Clinical Champions
- Need to balance project requirement with partner clinical workflow issue
- Early Intervention consent requirements
- Data turnaround



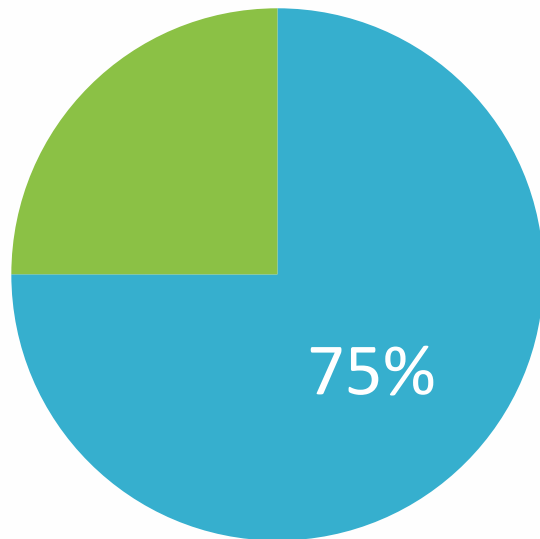
EHR-EI Data & Analytics

Volume of EHR-EI Referrals

January 2022 – March 2023 (N = 3,021)

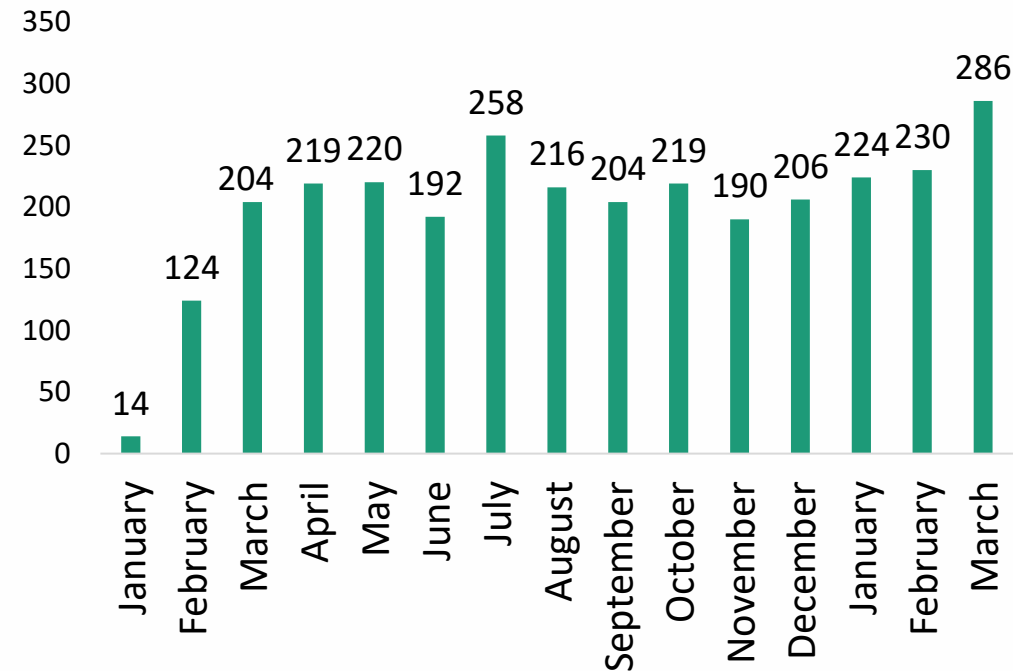
- There was an average of 246 referrals per month during Jan-Mar 2023.
- The spike in March 2023 may be a new normal, or a spike of pent-up demand from 2 newly onboarded sites.

Consent Status



■ Consented ■ Did not Consent

Month of Referral

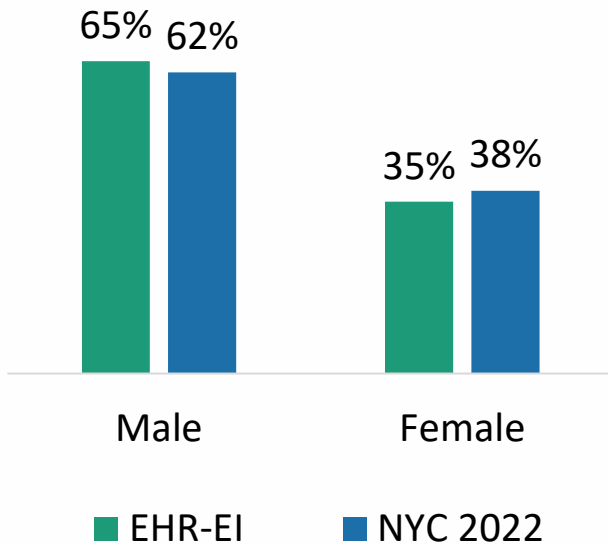


Characteristics of EHR-EI and NYC Referrals

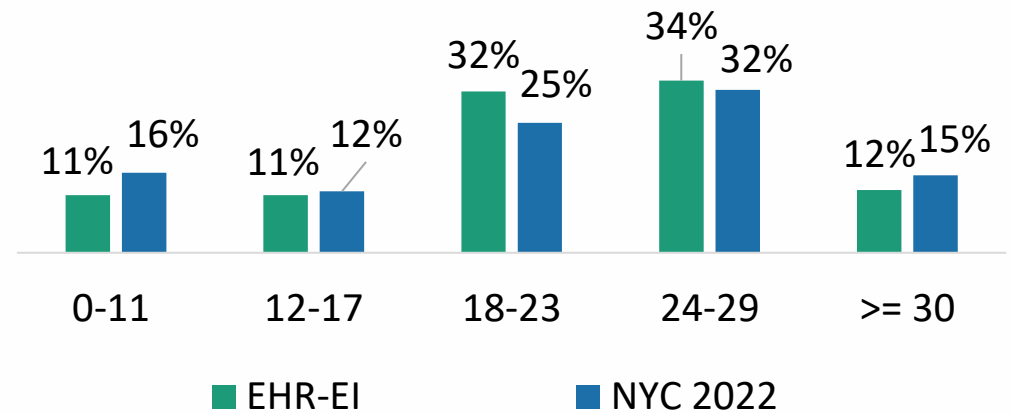
January 2022 – March 2023

- We are watching 'Age at Referral' to see whether the proportion of EHR-EI referrals between 12 and 23 months increases as EHR-EI becomes more established.

Sex



Month of Age at Referral

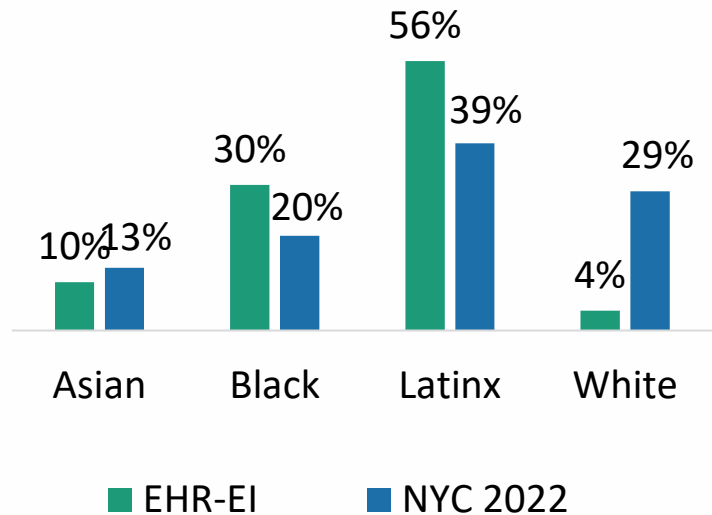


Characteristics of EHR-EI and NYC Referrals

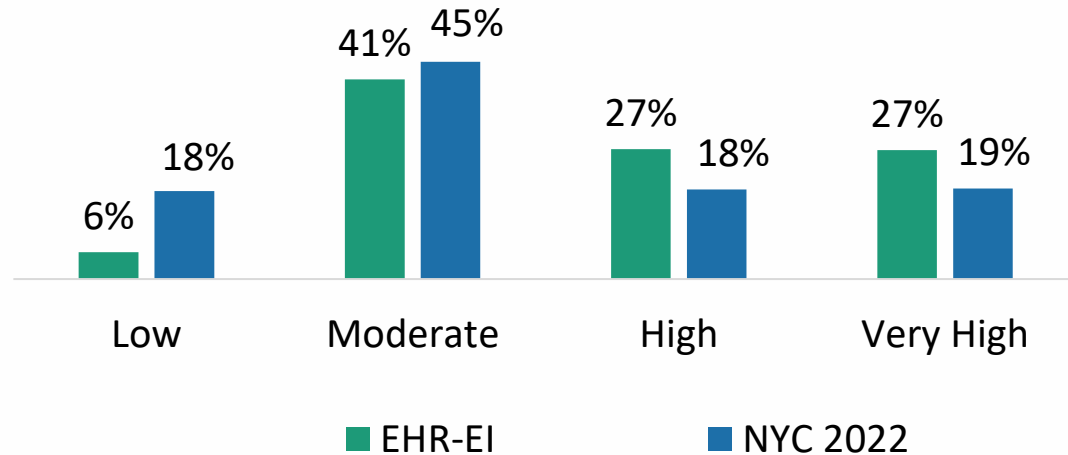
January 2022 – March 2023

- 86% of EHR-EI referrals occur among Black and Latinx children
- 54% occur among children living in high and very high poverty neighborhoods

Race



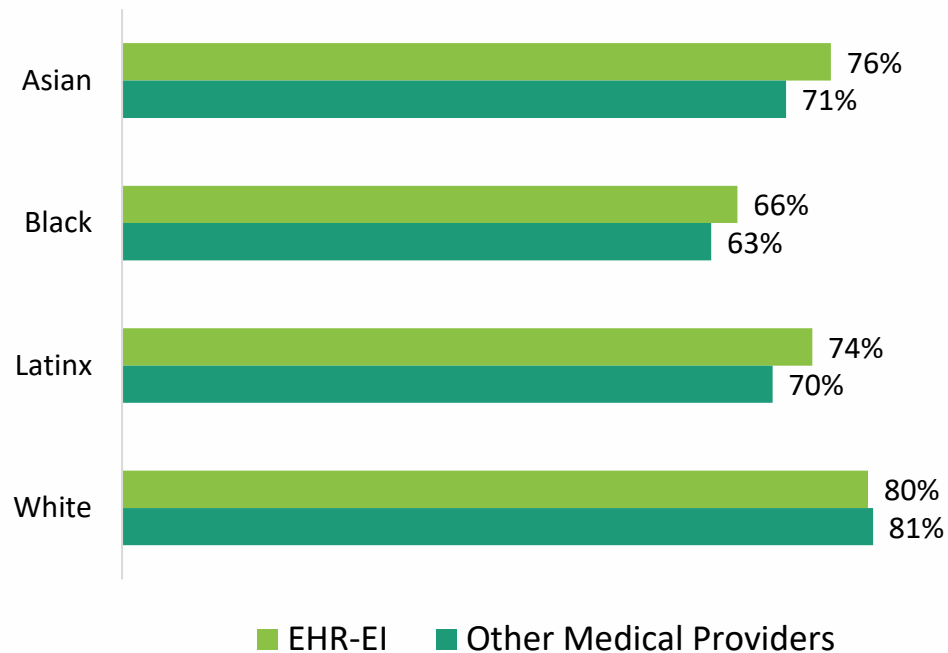
Neighborhood Poverty



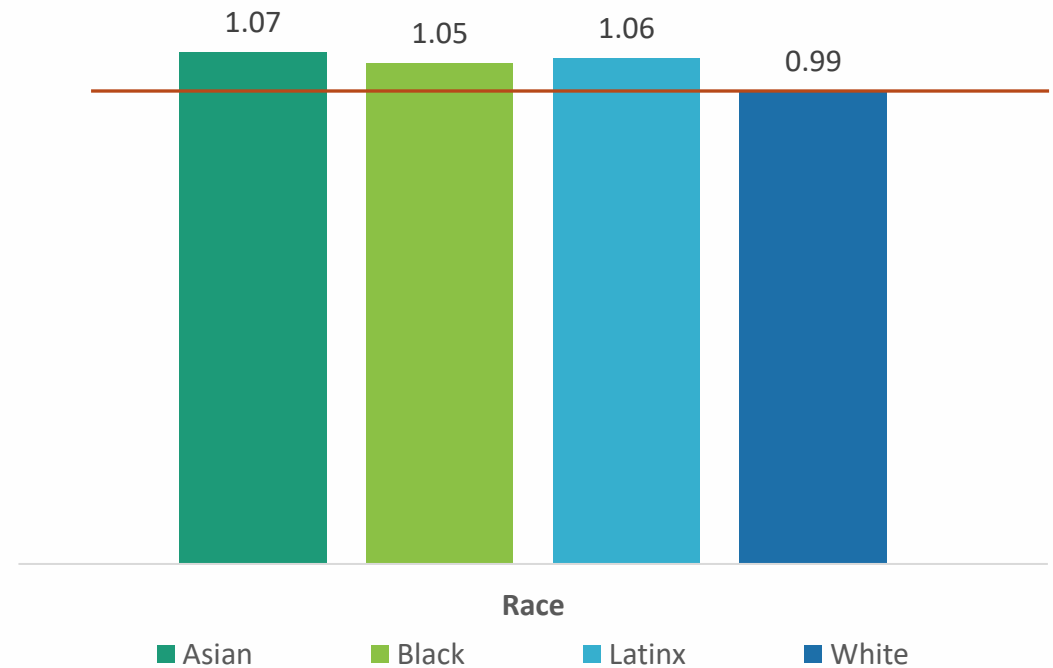
Retention By Race

EHR-EI (N = 2,281) vs. Other Medical Providers (N = 6,609), 2022

Retention Rate*



Retention Rate* Ratio EHR-EI/Other Medical Providers

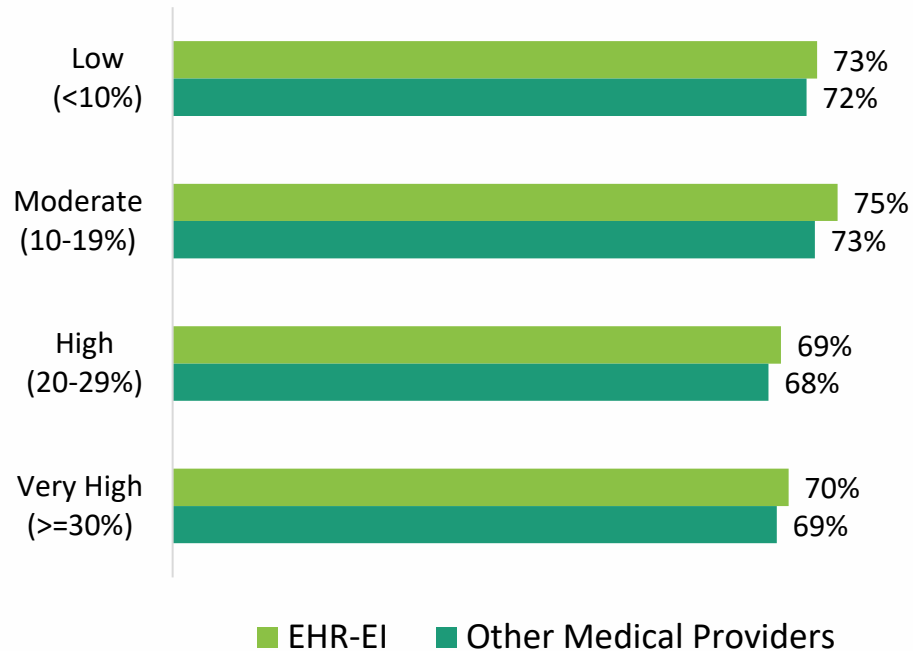


*% of referrals that occurred between Jan 2022-Dec 2022 and had a completed multidisciplinary evaluation within 180 days as of June 30, 2023

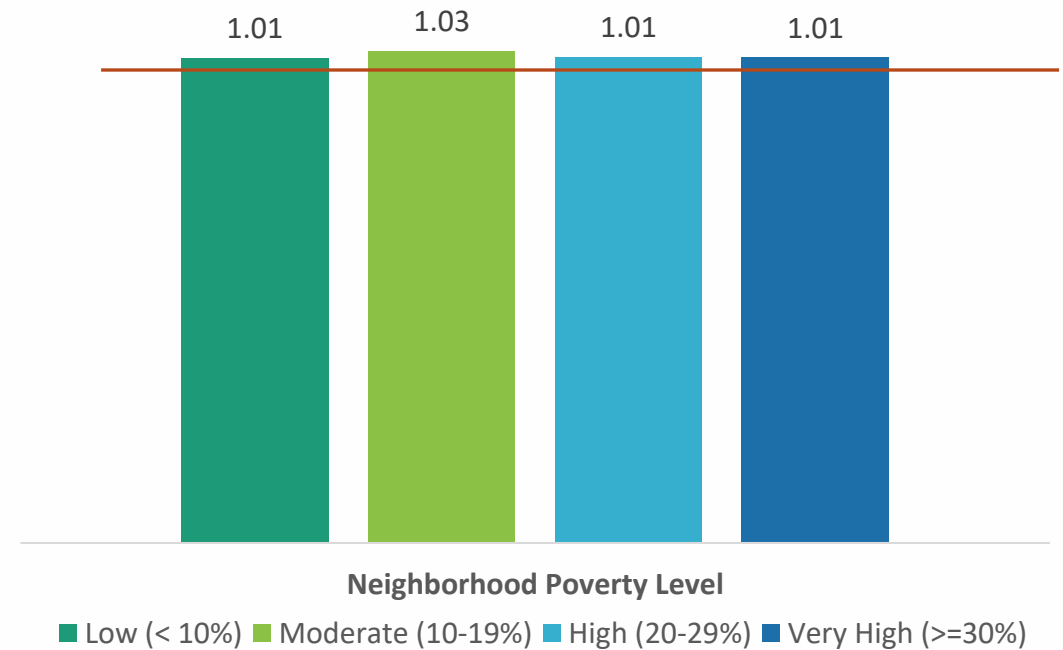
Retention By Neighborhood Poverty Level

EHR-EI (N = 2,281) vs. Other Medical Providers (N = 6,609), 2022

Retention Rate*

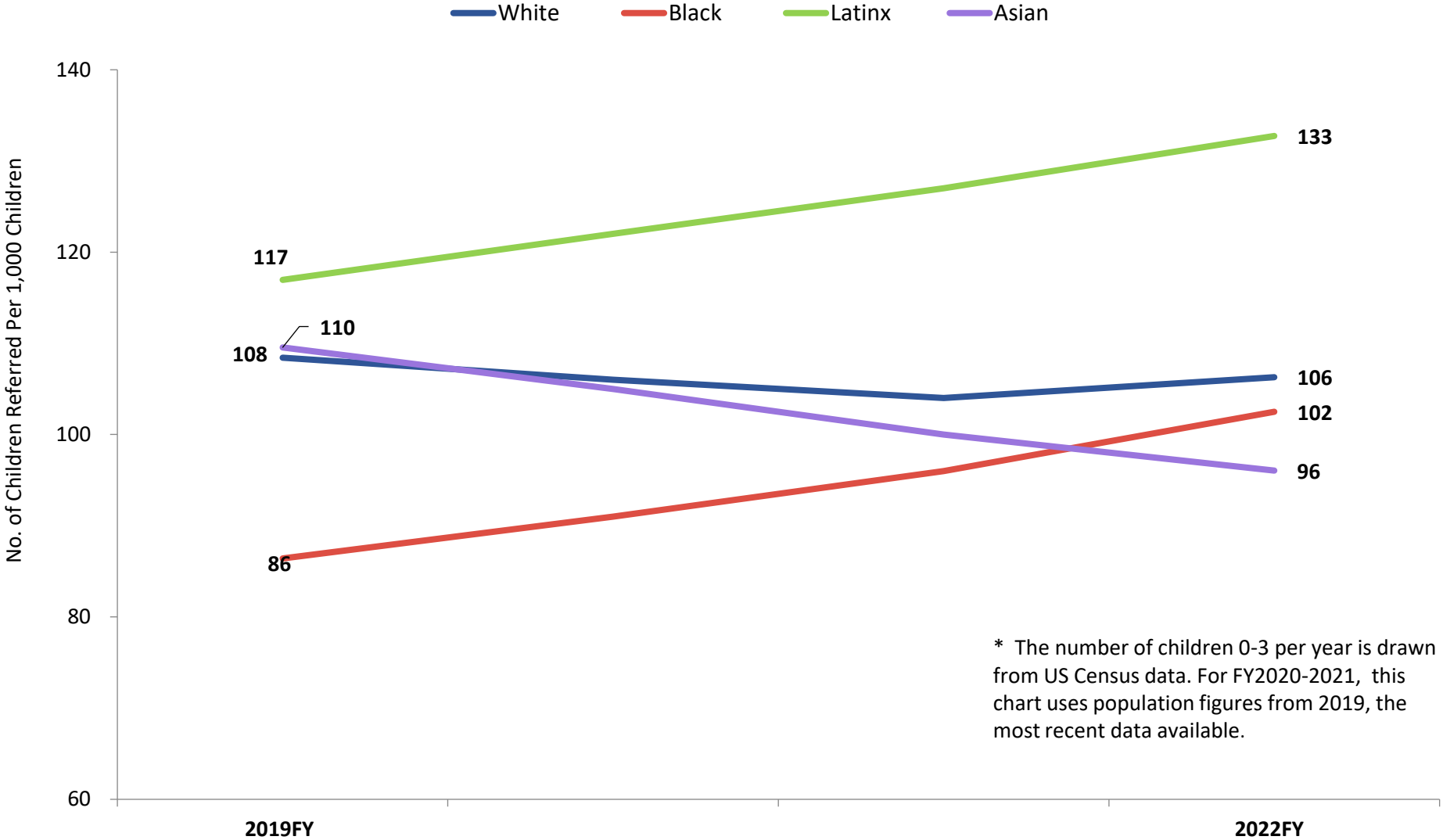


Retention Rate* Ratio EHR-EI/Other Medical Providers



*% of referrals that occurred between Jan 2022-Dec 2022 and had a completed multidisciplinary evaluation within 180 days as of June 30, 2023

Change in Referral Rate FY'19-FY'22, by Race and Ethnicity



* The number of children 0-3 per year is drawn from US Census data. For FY2020-2021, this chart uses population figures from 2019, the most recent data available.



Next Stage: 2023- 2025 Grant Period

- Further equity and access to EI by expanding the focus on Black and Asian communities, which currently have the lowest rate of referrals
- Automate the EHR-EI bidirectional data exchange(BDX) component by applying Electronic Health Information Exchange (HIE) technology and interoperability standards
- Continue current operations support
- Continue evaluation of impact
- Expand to new pediatric sites and health networks



Robin Hood Foundation will continue its philanthropic support through 2025!



Thank you