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Strategies to Achieve Alignment, Collaboration, and Synergy Across Delivery and Financing Systems

Effectiveness of Early Childhood Development Partnerships in Addressing Pediatric Health and Social Needs during the COVID-19 Pandemic

Research In Progress Webinar

April 27th, 2022 10:00am-11:00am MT/ 12:00-1:00 pm ET

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Agenda

Welcome: Carrington Lott, MPH – Program Manager at Systems for Action

Presenters: Margaret Paul, PhD, Assistant Professor at New York University Grossman School of Medicine

Q&A: Carrington Lott, MPH – Program Manager at Systems for Action

Presenter

Margaret Paul, PhD, Assistant Professor
New York University Grossman School of Medicine

Margaret Paul is an assistant professor in the Department of Population Health at NYU Langone and a member of the Section on Health Choice, Policy, and Evaluation. Her interest in state and federal health policy combined with front-line experience in public health led her to pursue a doctorate in public health at NYU where her work was supported by a Robert Wood Johnson Foundation Junior Investigator Award.

Paul now works on designing and conducting rigorous, mixed methods evaluations of policy-relevant healthcare programs aimed at ameliorating health disparities. Her current major projects include an evaluation of a social determinants of health screening program in seven New York City-based pediatric primary care clinics and a study to develop and validate a tool to assess primary care structures and processes associated with high performance. In addition to her research, she provides evaluation technical assistance to grantees of the New York State Health Foundation and the New York Community Trust.

Commentary

Suzanne Brundage, MSc
Director of Population Health, PM Pediatrics

Suzanne Brundage, MSc is the Director of Population Health at PM Pediatrics and is based in Seattle WA. Prior to this role, Suzanne was the Director of the Children's Health Initiative at the United Hospital Fund in New York City and led the Partnerships for Early Childhood Development (PECD) initiative at UHF which funded the program partners as well as our evaluation. She has deep experience with both fostering and participating in multisector partnerships among health care institutions, policymakers and payers and is an expert in identify interventions and strategies to promote population health, particularly among young children and families.

Partnerships for Early Childhood Development (PECD)

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- Study team based in the Department of Population Health at NYUGSOM: Maggie Paul, PhD, Carolyn Berry, PhD, Rachel Massar, MPH, and Kayla Fennelly
- Founded by the United Hospital Fund in April 2017 and chaired by Dr. Benard Dreyer; initial cohort included 11 NYC-based clinic-community partnerships
- Goal: Initiate, expand or strengthen multisector partnerships focused on promoting early childhood development through social needs screening and referral programs targeted at families with children under the age of 5

<u>Support for intervention and evaluation:</u>

United Hospital Fund
Chad Shearer, SVP for Policy & Program
Lee Partridge, Senior Fellow

The Altman Foundation
Rachel Pine, Senior Program Officer

Robert Wood Johnson Foundation S4A
Impact of COVID-19 on network

New York Community Trust
Irfan Hasan, Deputy VP for Grants

William J. and Dorothy K. O'Neill Foundation
Marci Lu, Senior Program Officer

PECD Screening and Service Delivery Network

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Clinical Site	Community Partner(s)
NYP/Columbia University Medical Center	Northern Manhattan Perinatal Partnership (Harlem location)
St. John's Episcopal Hospital	Queens Family Resource Center Ocean Bay Community Development Corporation
NYU Brooklyn Family Health Center	NYU Family Support Center
NYP/Queens	Public Health Solutions
Northwell Health	Single Stop (Child Center of New York) The INN
Mount Sinai	Children's Aid Little Sisters of the Assumption New York Common Pantry
NYC H+H/Gouverneur	Henry Street Settlement University Settlement Grand Street Settlement Educational Alliance

Study Components

1) Establish core set of process measures to monitor implementation throughout study
2) Conduct a formative evaluation during early-stage implementation
3) Conduct a time-limited “deep-dive” process evaluation in 4 sites, including interviews and observations
4) Assess outcomes via a pre/post caregiver survey
5) **Post-pandemic supplement: Conduct additional qualitative research to assess impact of COVID-19**

Our S4A Project

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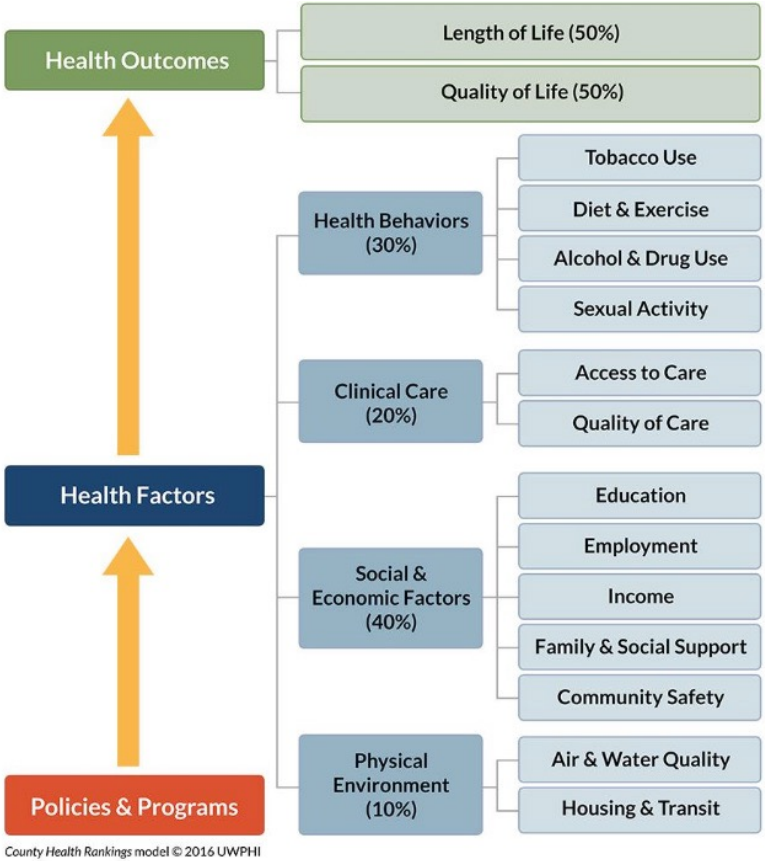
Goal: Assess COVID-19 related implementation changes at each site and across the collaborative network as a whole

Approach:

- **Analyze implementation data and caregiver survey data** to assess of the extent to which COVID-19 impacted the demand for services throughout the crisis and the overall functionality of the existing system with respect to identifying, referring, and addressing the needs of families
- **Caregiver interviews** with caregivers as well as leadership, providers, and staff involved in screening, referring, and providing services to families
- **Photo-elicitation interviews (PEI) with caregivers** to understand their perspectives on aspects of their communities which help and/or hinder health and wellbeing
- **Key informant interviews** with broad network of stakeholders



ID and Refer

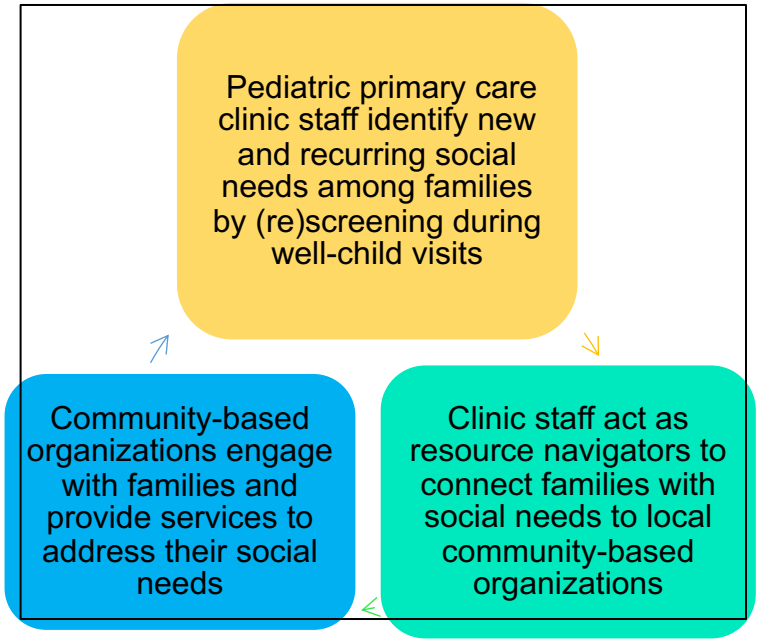
1) Poverty is disproportionately experienced by children in the US. A large majority of children in the US are seen at well-child exams during their first year of life, whereas children do not begin engaging in the education system until age three at the earliest. *Children of low-income families are more likely to miss these visits; however, the large majority of low-income children attend at least some well-child visits.*

2) Early childhood is a critical time for intervening on upstream risk factors, including social risks, and pediatric primary care is a reliable and easy touch point to assess and address needs.

3) Many social needs are recurring and well-child visits offer an opportunity to rescreen and follow-up with families in a systematic manner at regularly scheduled visits. *The American Academy of Pediatrics recommends 13 well-child visits between birth and age six.*

4) Pediatric clinics are especially well-positioned to engage in social needs screening and referral as these practices generally have a long history of engaging with CBOs due to early childhood referrals.

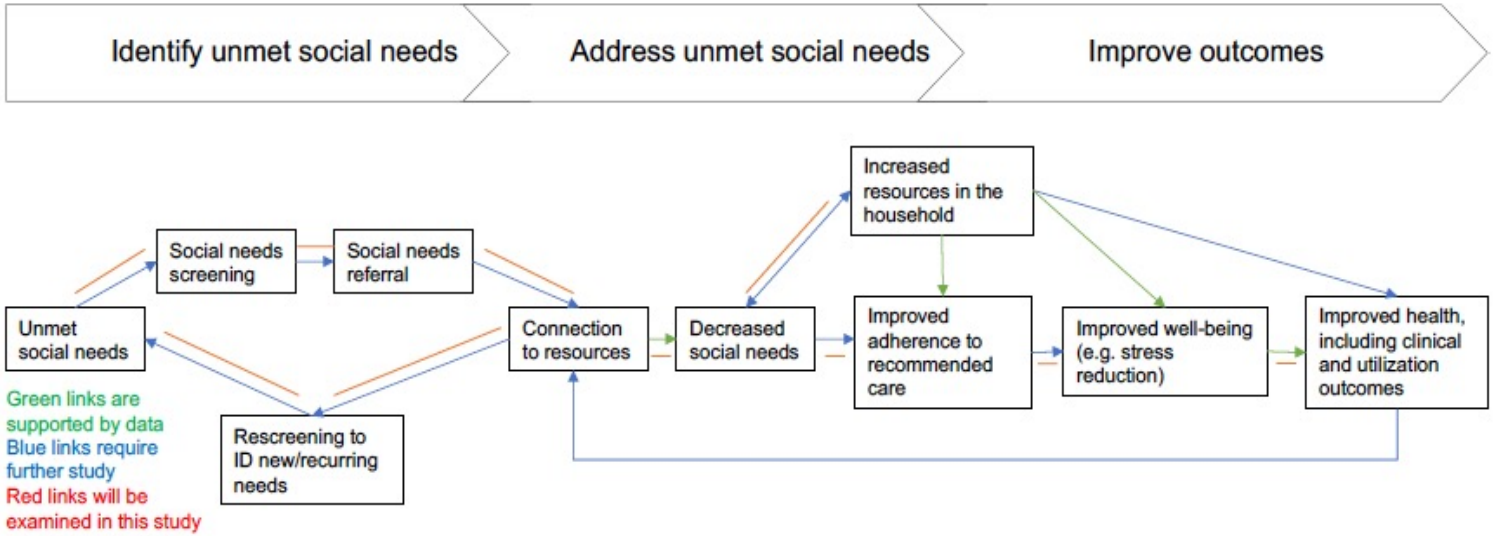
Intervention Model and Research Questions



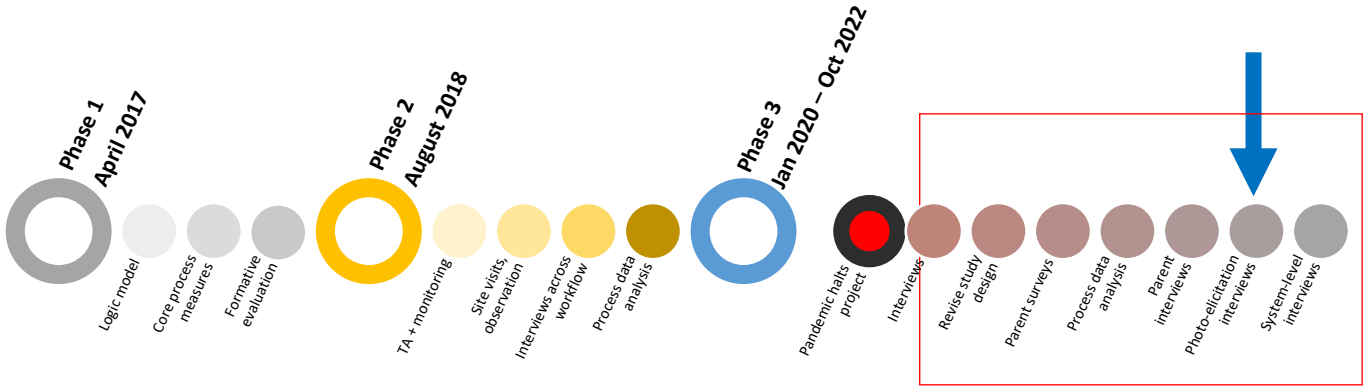
Key Research Questions

- ✓ **Primary:** Do screening and referral interventions based in pediatric primary care clinics lead to reductions in social needs among families?
- ✓ **Secondary:** What are effective implementation strategies?
- ➢ **And now:** How did the COVID-19 pandemic impact the network of clinics and service providers? Parents and families?

Framework of pathways by which social needs interventions may impact health outcomes



Timeline of Critical Study Events



Core Implementation Measures Captured by the PECD Network

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Measure	Definition
Screening rate	The proportion of individuals in the target population assessed for SDOH needs using the administered screening tool.
Positive screens	The proportion of individuals in the target population with positive screens, defined as having at least one reported SDOH need.
False negatives/ missed positives	The proportion of individuals in the target population with negative screens (i.e., identified no needs) who report having one or more needs later in the visit (e.g., during conversation with providers and/or staff).
Referral rate	The proportion of individuals referred to services out of those with positive screens.
Refusal rate	The proportion of individuals who refuse all services out of those who are referred to services. This measure combines two points of refusal: patients with positive screens who refuse to be referred to the community partner and patients who refuse services once contacted.
Service provision	The proportion of individuals who received services to which they were referred out of those referred to services
Referral feedback	The proportion of individuals referred to services for which there was information transferred from the CBO back to the clinical team (sometimes referred to as “closing the feedback loop”)

Implementation Data (Jan. 2020 to Jan. 2021)

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Site	Screening rate	Positive screen rate	Wanted help rate	Referral rate	CBO contact rate	Referral feedback
A	999/2,561 (39%)	466/999 (47%)	--	--	--	--
B	RedCap: 210/unknown EPIC: 600/unknown	RedCap: 158/210 (75%) EPIC: 300/600 (50%)	RedCap: 131/158 (83%) EPIC: 300/300 (100%)	RedCap: 58/80 (73%) EPIC: 148/300 (49%)	RedCap: 49/58 (84%) EPIC: --	42/49 (86%) EPIC: --
C	672/766 (88%)	410/672 (61%)	209/410 (50%)	95/209 (45%)	95/95 (100%)	95/95 (100%)
D	2,616/unknown	1,190/2,616 (73%)	1,429/1,904 (75%)	--	--	--
E	1,050/1,291 (81%)	403/1,050 (38%)	420/1,050 (38%)	326/403 (81%)	261/326 (80%)	261/326 (80%)
F	736/unknown	558/736 (76%)	356/558 (64%)	274/346 (77%)	--	--
G	1,572/1,911 (82%)	473/1,572 (30%)	304/473 (64%)	361/304 (119%) not corrected for referring families to multiple CBO partners	211/361 (58%)	219/361 (61%)

Total screened in Y3 (sum num col 2): 8,455
Positive screens in Y3 (sum num col 3): 3,958

Caregiver Surveys

- Phone-based surveys administered by study team
- Caregiver Surveys
  - Phone-based pre/post surveys at program and comparison sites
  - Caregivers with positive screens verbally consented to participate and received a $10 gift card incentive
  - Time 1: September 2020-March 2021 (n=209; 48% of parents who agreed to be contacted)
  - Time 2: March 2021-August 2021 (n-129; 62% follow-up rate)

Survey Results: Demographics

- **Gender**
  - 99% Woman
  - 1% Man
- **Avg. Age:** 32 years old
- **Race**
  - 22% Black
  - 62% Hispanic or Latino
  - 15% Other
- **Language**
  - 39% English only
  - 40% Spanish only
  - 17% Both Spanish and English
  - 4% Other
- **Avg. # Adults in household:** 2
- **Avg. # Children in household:** 2
- **Avg. Child age:** 4 years old

- **Insurance**
  - 78% Medicaid
  - 1% Medicare
  - 4% Private
  - 2% Other
  - 15% None/Uninsured
- **Relationship to child**
  - 98% Mother
  - 1% Father
  - 1% Grandparent
- **Mother's education**
  - 18% Less than HS graduate
  - 46% HS graduate/GED
  - 37% Some College/College graduate/Grad school

Survey Results: Recollection and Comfort with Screening; Connection to Services

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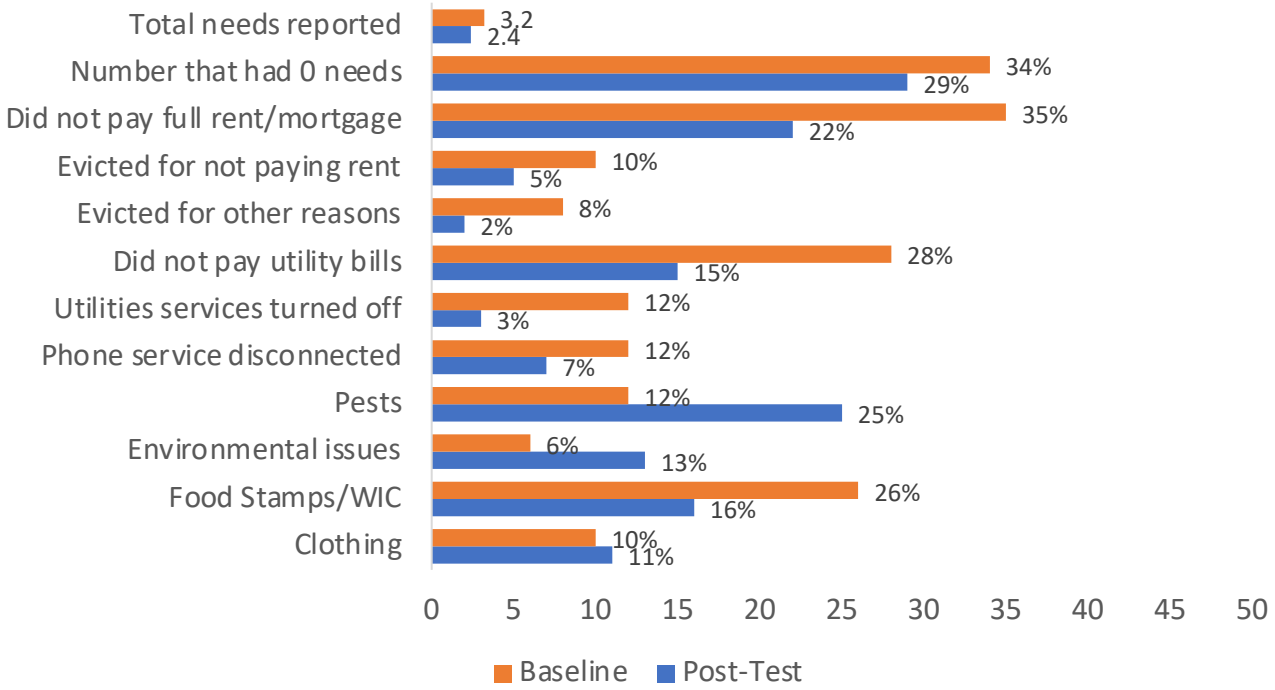
Screening

- 88 (68%) program participants remembered being screened for non-medical needs
  - 82 (93%) participants who remembered being screened felt comfortable or very comfortable with being asked about non-medical needs
- For those who did not remember being screened, 66% reported they *would* feel comfortable or very comfortable being asked about non-medical needs at the clinic

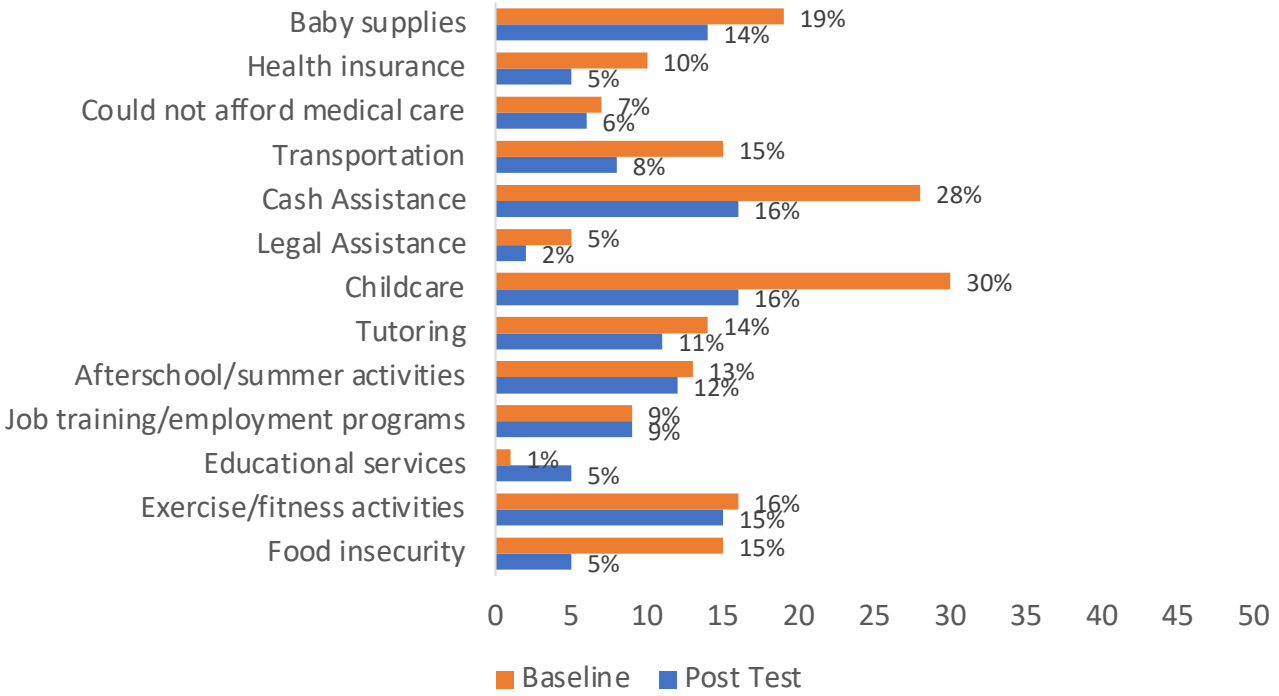
Connection to Services

- 73 (57%) program participants who remembered being screened reported that someone from the clinic spoke with them about local organizations/resources to help with their needs
  - 46 (63%) reported making contact with local organizations
    - 33 (72%) received services

Survey Results: Social Needs



Survey Results: Social Needs continued



Survey Results: Parent wellbeing

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Survey Item	Pre-test	Post-test	Significance
Caregiver concern for child development	n=105	n=121	
Any concern	49 (47%)	43 (36%)	P=0.123
Caregiver self-efficacy	n=127	n=129	
Total score	27.4 (sd 2.9)	27.3 (sd 2.1)	P=0.683
Perceived stress (PSS-10)	n=128	n=129	
Total score	14.5 (sd 7.7)	13.6 (sd 6.6)	P=0.344
Depressive symptoms (PHQ-9)	n=128	n=129	
Total score	4.3 (sd 5.3)	3.3 (sd 5.1)	P=0.002

Survey Results: Adverse experiences due to COVID-19

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Survey Item	September 2020-March 2021 N= 248	March 2021-August 2021 N= 165
Member of household lost job	131 (53%)	70 (42%)
Had to move/relocate from home	34 (14%)	22 (13%)
Increase in mental health issues among household member(s)	137 (55%)	46 (28%)
Increase in community violence	49 (20%)	25 (15%)
Household member hospitalized with COVID-19	28 (11%)	15 (9%)
Household member passed away from COVID-19	14 (6%)	4 (2%)
Disruption in childcare	87 (35%)	48 (29%)
Reduced income	175 (71%)	107 (65%)
Problems accessing healthcare	31 (13%)	25 (15%)
Difficulty getting food for family	74 (30%)	53 (32%)
Difficulty paying bills	119 (48%)	68 (41%)

Survey Results: COVID-19 Distress and Optimism

Survey item	September 2020-March 2021 N= 248	March 2021-August 2021 N=165
Overall distress		
No/ A little distress	97 (39%)	59 (36%)
Some/ Extreme distress	151 (61%)	105 (64%)
Overall optimism about next 6-months		
Not at all/A little optimistic	68 (28%)	32 (19%)
Somewhat/Very optimistic	86 (71%)	131 (79%)

Survey Results: Concern due to COVID-19

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Survey item	September 2020-March 2021	March 2021-August 2021
Child(ren)'s education	n= 248	n= 149
Somewhat or very concerned	158 (64%)	104 (70%)
Economic future	n= 247	n= 162
Somewhat or very concerned	165 (67%)	121 (75%)
Ability to pay rent and other bills	n= 248	N= 164
Somewhat or very concerned	153 (62%)	114 (70%)
Having to move due to potential eviction	n= 247	n=163
Somewhat or very concerned	121 (49%)	91 (56%)

Survey Results: Concern due to COVID-19 continued

Survey item	September 2020-March 2021	March 2021-August 2021
Not being able to put food on table	n= 248	n=164
Somewhat or very concerned	122 (49%)	90 (55%)
Not being able to work	n= 248	n= 163
Somewhat or very concerned	160 (65%)	106 (65%)
Getting sick	n= 246	n= 164
Somewhat or very concerned	173 (70%)	122 (74%)

Caregiver Interviews

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- We interviewed 13 caregivers across 7 sites
- All interviewees identified as mothers, most reported having multiple children and just over half were employed in some way
- Most had been seen at the participating clinic in some way and were happy with care
- Nearly all felt comfortable answering social needs screening questions in clinical settings and 11 of the 13 felt strongly that screening and especially referral should be managed by a staff member or provider rather that a less intensive intervention (i.e., handouts/resource sheets alone).
- Post-referral challenges included various aspects of access (e.g., CBO hours not aligning with work schedule)
- If connected, caregivers were happy with the resources they received and some even referred friends for services
- **Most caregivers who were connected to services reported that they still required assistance for new and/or recurring needs**

Caregiver Photo-elicitation Interviews

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- Photo-Elicitation Interviewing (PEI) is an interview method that allows participants to guide a discussion using photographs that they have taken themselves.
- The main purpose of PEI is to record which images subjects select to share, how they organize the images, and describe those images in relation to their lives.
- These responses allow us to glean insights into the everyday experiences of people without relying on the structure of an interview guide.
- Note: PEI is distinct from photovoice, which is a method used in CBPR to gather similar data interpreted as a group to inform community-level needs, decisions, etc.

Example: Recent PEI Session

- Noise pollution
- Likes the busy environment with people walking and train nearby

- Housing issue: heat does not work well
- Relies on space heater

Example: Recent PEI Session

- Park nearby home great for exercise, relaxation, play for children, meditation

- Grocery store nearby is affordable and accepts food stamps

Key Findings: Implementation

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- This work is possible but requires:
  - real clinic-CBO partnerships with trust and open communication
  - substantial investment/resources
  - thoughtful integration into existing, busy workflows
- Establishing trust with caregivers of patients is also possible, but needs to be approached in a thoughtful way
  - Caregivers value assistance, discussion
  - Staffing matters
- Tracking implementation is challenging, particularly across agencies
- Contextual factors including the availability of services in a given community have a direct impact on every aspect of program implementation and potential for impact

Key Findings: Impact of COVID-19 (1/2)

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- Clinics and partners adapted to meet new reality of providing care during a pandemic
  - Substantial increase in needs among families
  - Able to adjust to daily changes in community resources
  - Used opportunity to *increase* outreach to families and institute/update public-facing resources
- Families participated in screening during COVID-19 - suggests perception of programs as a real and needed resource in the community
- **Importance of local network** – 7 sites, each operating within a different context (population, resources) within the same city
- Key pre/post survey findings: decrease in number of needs (1) + depression (PHQ9)

Key Findings: Impact of COVID-19 (2/2)

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- Telehealth perceived as a positive addition to clinic operations by caregivers in all sites
  - Show rates for telemedicine appointments close to 100%; offering telemedicine increased access for most when appropriate
- Some adaptations seem to be more efficient than business as usual/pre-pandemic care – e.g., most providers, staff, and caregivers liked SDOH screening prior to visit via telephone
- Pandemic heightened awareness and NYC experienced spike in resources to meet growing needs in some cases (e.g., food insecurity) but not others (e.g., housing) – long-term impact unclear

Next Steps

- Conclude caregiver PEI; code and analyze data
- Conduct qualitative interviews with broader network of stakeholders
- Papers
  - Implementation findings (under review)
  - Evaluation approach
  - Impact of COVID-19 on families (survey data)
  - Findings from caregiver interviews (qualitative)
  - Findings from PEI with caregivers
- Upcoming conferences
  - AcademyHealth Annual Research Meeting
  - APHA (abstracts under review)

Future Research

- Exploring role of public health agencies in assisting small/solo primary care practices with screening and resource navigation
- Partnering with former PECD site on evaluating a NYC-based public health corps CHW-led social needs screening and referral intervention in pediatric primary care clinic
- Developing and evaluating a social needs screening and referral program in adolescent primary care clinics to identify best practices, unique challenges, etc. for this population

Commentary

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Suzanne Brundage, MSc

PM Pediatrics

Thank you!

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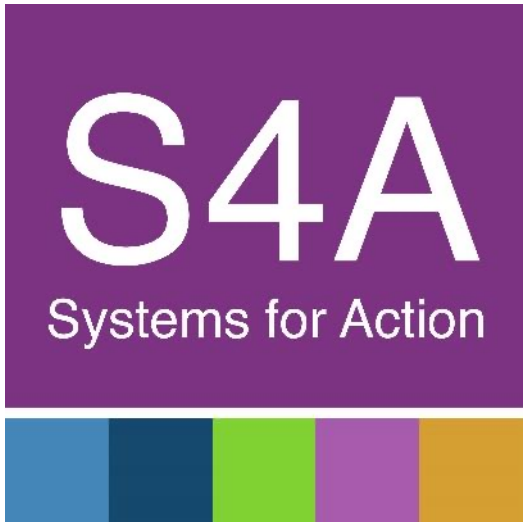
For questions for the research team email Margaret.Paul@nyulagone.org

Questions?



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Upcoming Webinars

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May 18th

Changes in Capacity to Absorb Clinical-to-Community Referrals during the COVID-19 Pandemic

from The Glasser/Schoenbaum Human Services Center and Visible Network Labs

Acknowledgements

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