Addressing Social Risk in Pediatric Health Care Settings:
A Tale of Two Interventions

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Resource Navigation Intervention

- Assessed family social risks
- Used algorithms to provide targeted resource referrals
- Connected to resources
- Created intervention plans
- Provided case management
- Followed-up (phone, text or in-person) every 2 weeks
Interventions

SCREENING
Do you need...

- Food
- Housing
- Help with benefits
- Legal services

Written Community Resources

Resource Navigation & Follow-up
Study I
Methods: Study Design

- Two hospitals serving low-income, diverse patients
- Primary Care and Urgent Care settings
- Randomization by day: Navigation vs. written resources
- Caregivers: English/Spanish, ≥ 18 yrs., no acute illness

Key Question: Can addressing social issues during pediatric care visits decrease social risks and improve children’s health?
Participant Characteristics

1809 Families
872 Navigation Services
937 Written Resources

Children
- 5 years (SD 5 years)
- 51% Female
- 51% Hispanic, 26% Black

Caregivers
- 84% Mother
- 35% Primary language Spanish
- 34% > High school education
- 75% Household income <35k

68% Urgent Care
32% Primary Care
Prevalence of social risks (% of total sample)

- Running out of food: 41.2%
- Difficulty paying utility bills: 41.1%
- Difficulty finding a job: 31%
- Not having a place to live: 29.2%
- Unhealthy living environment: 22.8%
- Medical bills: 21%
- No health insurance: 17.6%
- Other housing concerns: 16.5%
- Cut off or denied from benefits programs: 14.3%
- No primary care or regular doctor: 13.8%
- Disability interfering with ability to work: 9.7%
- Mental health care for adult in household: 7.3%
- Problems with a current or former job: 6.1%
- Pregnancy-related work benefits: 2.5%
Results

Change in total number of social risks

* p < .05  

Gottlieb, Hessler, Long et al., 2016
Results

Change in total number of social risks

<table>
<thead>
<tr>
<th></th>
<th>Written Resources</th>
<th>Navigation Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change in total number of social risks</td>
<td><img src="chart1.png" alt="Chart" /></td>
<td><img src="chart2.png" alt="Chart" /></td>
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</table>

Change in caregiver - reported child health

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<tr>
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<th>Written Resources</th>
<th>Navigation Intervention</th>
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<tbody>
<tr>
<td>Change in caregiver - reported child health</td>
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<td><img src="chart4.png" alt="Chart" /></td>
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* p < .05

Gottlieb, Hessler, Long et al., 2016
Study II
Methods: Study Design

- Urgent care setting
- Randomization by family: Navigation vs. written resource
- Broadened health outcomes and process measures

Key Question: Can addressing social issues during pediatric urgent care visits decrease social risks and improve child and caregiver health?
Participant Characteristics

- **614 Families**
- **310 Navigation Services**
- **304 Written Resources**

**Children**
- 6 years (SD 5 years)
- 51% Female
- 79% Hispanic, 8% Black

**Caregivers**
- 88% Mother
- 70% Primary language Spanish
- 51% > High school education
- 88% Household income <35k
Preliminary Results: First Look!
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- 92% reported ≥ 1 social risk area
- 4.2 social risks (from 18) reported on average

* p < .05
## Preliminary Results: First Look!

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<thead>
<tr>
<th>Issue</th>
<th>Written Resources</th>
<th>Navigation</th>
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<tbody>
<tr>
<td>Food insecurity</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Unstable housing</td>
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<tr>
<td>Bills (utility)</td>
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<td>x</td>
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<tr>
<td>Housing Quality</td>
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<td>x</td>
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<td>Difficulty finding job</td>
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<tr>
<td>Denied income support programs</td>
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<td>x</td>
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<tr>
<td>Medical bills</td>
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<td>Childcare</td>
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<tr>
<td>Transportation</td>
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<tr>
<td>Legal issues</td>
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<tr>
<td>Primary care provider</td>
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</tbody>
</table>
Pending analyses

Self-reported health outcomes
• Child health (general health, PedsQL)
• Caregiver health (PROMIS, PHQ-8, Perceived Stress)

Biomarkers (intermediate health outcome)
• Hair cortisol
• Salivary Inflammatory markers (IL-6, CRP)
• DNA methylation and genotyping

Health Care Utilization

Process measures (dose, resource connections)

Qualitative study of resource navigation
Discussion
Summary & Significance

- Social health outcomes
  - Navigation intervention in both studies led to decrease in social risk factors.
  - Findings for written resources are less clear.

- Physical health Outcomes
  - Improved general health on single item measure
  - Pending analyses will deepen our understanding of the impact of both interventions on a range of health outcomes and mechanisms.
Acknowledgements

• Our study participants, whose resilience in the face of social adversity is humbling.

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