Leveraging Pediatric Primary Care to Prevent Disparities in Child Development and School Readiness:

*Video Interaction Project and Integrated Models*

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Primary Prevention: Often Left Out of the Equation, High Importance

- Vast evidence (developmental science, neuroscience, economic) supports need and benefits
- Poverty alone predicts adverse outcomes
- Early emergence of disparities strongly support need for preventive efforts beginning as early as possible
Population-level access in early childhood remains a critical barrier for 0-3 period before school entry:

• Limited access across many platforms:
  • Early Head Start: Capacity to serve 4% eligible families

• Home visiting: substantial progress
  • Quadrupled families served over 4 years
  • ~300,000 families served across all HV
  • Engagement/delivery represent substantial, ongoing progress, yet still significant unmet need with capacity ~3 to 15%

Ref: National Home Visiting Resource Center, 2017
Our Focus: Pediatric Primary Care

Universal Platform for Promoting Parenting and School Readiness through Primary Prevention

- Population-level accessibility
- High engagement
- Early, population-scalable interventions
- Low cost
In Primary Care: Most studied, proven intervention: **Reach Out and Read**

- >25% of all low income US children birth to 5 years reached by ROR: 4.7 million children
- Estimated cost: $25/child/year
  - Policy perspective: *rounding error*
Birth to 5 program designed as enhancement to ROR:

1. Coach working 1-on-1 with families

2. Promotion of play, reading aloud, teaching and talking

3. **Core activity:** Video-recording of parent-child interaction followed by review of video to promote self-reflection

Relatively low cost:

~$175-$200 / child / year
**Video Interaction Project (VIP)**

**Program structure**
- Coach meets with family in one-on-one sessions at every well-child visit
  - Sessions last 25-30 mins
  - 14 sessions birth to age 3

**Key program components**
- 1. Provision of toys & books to take home

**Promotion of Resilience**
- Access to materials that facilitate interactions
Video Interaction Project (VIP)
Provision of Learning Materials

Infant

Toddler
Video Interaction Project (VIP)

**Program structure**

- Coach meets with family in one-on-one sessions at every well-child visit
  - Sessions last 25-30 mins
  - 14 sessions
    - birth to age 3

**Key program components**

1. Provision of toys & books to take home
2. Parent guides with suggested activities and guided planning

**Promotion of Resilience**

- Access to materials that facilitate interactions
- Knowledge & skills
## Video Interaction Project (VIP)
Interactive Pamphlets Build on Parent’s Goals

<table>
<thead>
<tr>
<th>VIP Guide</th>
<th>Caregiver’s Name:</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td>_________ is __ months old!</td>
<td>What I've noticed:</td>
<td></td>
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</tbody>
</table>

### My Baby Today

- Coos and squeals.
- Imitates your smiles.
- Lifts her head to look during tummy time.

### My Favorite moments:

**Ideas for today's toy:**
- See if your baby watches as you move the toy.
- Label parts and colors on the toy.
- Place the toy near the baby so he can feel the texture.

### My Video
- **My goals:**
- **What I liked:**

### My Plan for Home

- Find time every day to read, play, and talk (best with TV off).
- Looking forward to our visit at ____ months!

**Toy:** Mindshapes Blocks or Bug Jug

**Interventionist:** ________________

2m
Video Interaction Project (VIP)

Program structure

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  - 14 sessions birth to age 3

Key program components

1. Provision of toys & books to take home
2. Parent guides with suggested activities and guided planning
3. Videotaping and guided review of parent-child reading and/or play

Promotion of Resilience

- Access to materials that facilitate interactions
- Knowledge & skills
- Parenting self-efficacy
Video Interaction Project (VIP)
Making of the Video recording

Watched together by parent-child specialist and parent
- Positive interactions observed and reinforced
- Additional opportunities for interactions identified
- DVD/video given to parent to take home to share with family
Video Interaction Project Research
BELLE Project: *Factorial RCT*

**Enrollment (Birth)**
- 2005 To 2008
- Randomize at birth

**0-3 years**
- VIP: 0-3
  - n=225
- Routine care
  - n=225

**3-5 years**
- VIP: 3-5
  - Routine care

**Study Impact**
- 6 mos to 3 years: baseline impact of VIP: 0-3
- 54 mos and 2nd grade: added impact of VIP: 3-5

**School readiness/early achievement**

**Parent-child interactions**

**Parent coping with stressors**

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- HD047740 01-04
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- HD047740 08S1

*Eunice Kennedy Shriver National Institute of Child Health and Human Development*
Health research throughout the lifespan

*Children's Hospital at NYU Langone*
VIP Research: Published findings

- **Increased parent-child interactions**
  - Enhanced reading, play, talking, teaching (Mendelsohn, 2011a; Cates, 2018)
  - Reduced screen time (Mendelsohn, 2011b)
  - Reduced physical punishment (Canfield, 2015)

- **Enhanced psychosocial functioning**
  - Reduced maternal depressive symptoms (Berkule, 2014)
  - Reduced parenting stress (Cates, 2015)

- **Improved child development**
  - Enhanced social-emotional development (Weisleder, 2016; Mendelsohn, 2018)
VIP Research
Parent-Child Interactions
Sustained impacts of VIP 0-3 on Observed Verbal Interactions at 54 months

*p<.05, d: Cohens d

Cates et al, 2018
VIP Research
Coping with Stressors
Reduced Parenting Stress
Enhanced Parent Child Relationship

B (SE): -.20 (.09)
p<.05

Mean P-CDI Percentile

6 Mo 14 Mo 24 Mo 36 Mo

Control VIP

Reduced Maternal Depressive Symptoms

Berkule et al, 2014
VIP Research
Child Development
VIP 0-3: **Sustained** impacts on social-emotional development **1.5 years** after program completion.

Effect size \((\text{Cohen's } d)\): Reduction in hyperactive behavior

- VIP 0-3 alone: \(0.38\)
- VIP 3-5 alone
- Both 0-3 and 3-5

\(p = .001\)

Mendelsohn et al, *Pediatrics*, 2018
VIP 0-3: Reduced Clinical Level Hyperactivity at 4.5 years for families with increased psychosocial risk

Mendelsohn et al, *Pediatrics*, 2018
Extending VIP to 5 years nearly doubled reductions in behavior problems.

Mendelsohn et al, *Pediatrics*, 2018
VIP: Work in Progress
VIP: Preparation for Scaling

- Full manualization of VIP birth to 5 years
- 3 day training course for interventionists
- Design of materials to support fidelity
- Blueprint for VIP Center of Excellence to support implementation:
  - Nonprofit business plan, organizational structure
VIP: Scaling Presently Underway

**New York City**

**Current**
- NYC H+H/Bellevue Hospital Center
- NYC H+H/Woodhull Medical Center
- Children’s Aid

Implementation in progress, start date Jan-March, 2019
- NYC H+H/Gouverneur
- NYC H+H/Elmhurst
- NYU Langone Health Brooklyn Family Health Centers

**Planned 2019**
- Public Health Solutions: pilot in WIC Centers

**National**

**Current**
- Pittsburgh, PA (Smart Beginnings)
- Pittsburgh, PA (SB): pilot with opiate-using moms
- Flint, MI
Effective Intervention will Require Working Across Platforms and Disciplines

Three examples linking pediatric primary care to home visiting:

锦标ville Beginnings (NYC and Pittsburgh):
  • Links ROR/VIP to Family Check Up for families at highest risk
  • Preparing to use with opiate-exposed newborns

City’s First Readers (NYC):
  • Links ROR/VIP to Libraries, Parent-Child Home

Family Health Centers at NYU Langone (NYC):
  • Links ROR/VIP to Healthy Steps
Integrated, tiered model linking primary care to home visits for families at increased risk

- Universal 1º prevention in primary care
  - ROR+VIP at every well child visit for all families
- Tiered 2º/3º prevention through home visiting
  - Family Check Up at 6, 18 and 30 months
  - Families with identified risks (mental health, child behavior)
- Two site RCT: NYC and Pittsburgh
  - NICHD: 1R01HD076390 (MPI Morris, Mendelsohn, Shaw)
- Progress to date
  - Enrollment of 400+ parent-child dyads complete
  - Follow up through 2 years in progress (n~100)
City’s First Readers: Population level primary prevention linking health care to community

- NY City Council initiative www.citysfirstreaders.com
- Links 11 programs across NYC in multiple platforms:
  - **Pediatric primary care**: ROR, VIP
  - **Community**: NY Library Systems, Literacy Inc.
  - **Childcare**: Committee for Hispanic Children and Families, JCCA
  - **Home**: Parent-Child Home Program
  - **Early Child Education**: Jumpstart, United Way
- Goal: increased engagement, contact and impact through provision of complementary messages across multiple settings
- Part of the HRSA Bridging the Word Gap Practice-Based Research Collaborative (Weisleder, Mendelsohn, Mogilner)
Linking Healthy Steps, ROR/VIP, and Community

- Healthy Steps ideal focal point for prevention
- Example: Initiative presently under development at Family Health Centers at NYU Langone (NYC)
  - Potential integration, led by Healthy Steps Specialist:
    - Supports ROR
    - Trains / supervises VIP interventionists
    - Refers families to VIP
    - Screens families for ACES, social determinants, assets/vulnerabilities
    - Provides mental health and other services
    - Links families to community services and home visiting
Policy Implications

- Need for *primary prevention* beginning in *very early childhood*

- *Positive Parenting / Relational health:* critical target for interventions

- *Pediatric primary care can complement home visiting* as a population-scalable platform for promotion of parenting and school readiness
Video Interaction Project

For more information:

A video providing a general overview of VIP: https://www.youtube.com/watch?v=CkcJCs9JdX0&feature=youtu.be

A short 1 minute video providing a quick look at what happens during a sample VIP session: https://www.youtube.com/watch?v=fdk2AmRcG6Y&feature=youtu.be

A 15 minute video providing a detailed overview of what happens during a sample VIP session: https://www.youtube.com/watch?v=jlwi_AWIOE&feature=youtu.be
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- New York City Department of Health and Mental Hygiene

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