

Mattel Children's Hospital

UCLA

Developing and testing a new model for telephone-based early childhood developmental screening and care coordination in vulnerable populations

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Tiered model of developmental risk in 0-5 year-olds

Developmental delay:

Formal intervention services
IDEA Parts B and C

3

5-10%

High risk: Major risk

factors, significant parental
concerns, delays below
formal intervention
threshold

2

25-30%

Low risk: Screening and
surveillance, parent
support, high quality
preventive services

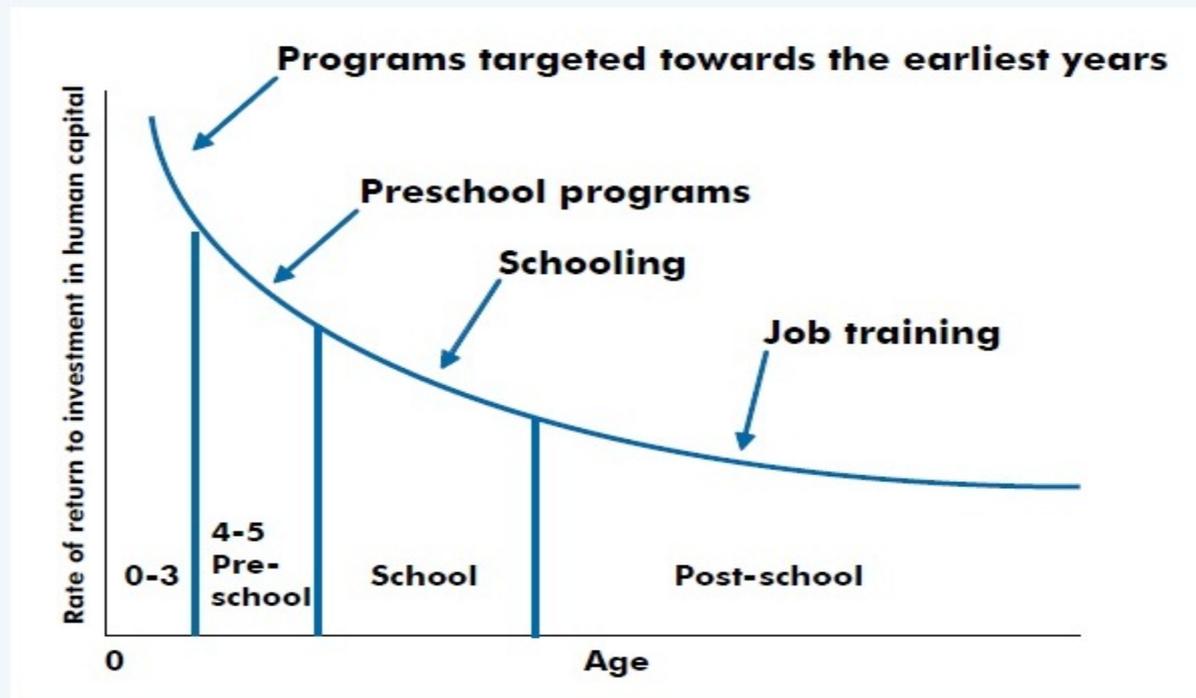
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60-70%

The Heckman Curve

Returns to a Unit Dollar Invested

(a) Return to a unit dollar invested at different ages from the perspective of the beginning of life, assuming one dollar initially invested at each age



Developmental Screening in Pediatrics

The American Academy of Pediatrics (AAP) recommends universal screening and surveillance:

- Ask about and document family concerns at every well visit
- Use a validated screening tool at 9, 18 and 24-30 months
- Use an autism-specific screening tool at 18 and 24-30 months
- Refer promptly to evaluation and intervention services when concerns are detected

Developmental Screening in Pediatrics

Need for Quality Improvement:

- Despite AAP recommendations, many families' needs are not met in the child health services system.
- Only 30-50% of parents with young children report ever having had a developmental assessment with their PCP.
- Many parents would like more guidance from their children's health providers about learning, development and behavior.
 - 30-40% of parents with young children have concerns
 - 4-5% of children ages 0-5 have a written intervention plan
- Many children with problems are identified too late, and this is worse for low-income and racial/ethnic minority families.

Developmental Screening in Pediatrics

Barriers to screening in clinical settings:

- Lack of time
- Limited training in development and behavior
- Lack of familiarity with screening tools
- Perceived lack of referral resources
- Challenges to follow-up

Research Question

- Does centralized, telephone-based early childhood developmental screening and care coordination improve quality of care for young children and their families?

Community Partners



- County-wide information and referral services
- 211 Call centers in >90% of US counties
- Developmental screening and care coordination project in LA since 2009



- Federally-qualified community health center
- Predominantly Latino, low-income families

Developmental Screening at 211LA

- Since 2009, has screened and coordinated care for over 11,000 children from birth to 5
- Families call for variety of reasons initially– offered screening if children 0-5 in household
- Overall higher risk than general population
- Connected with a wide range of services
- Pilot data published in Roux, et al. Am J Prev Med 2012;43(6S5):S457–S463

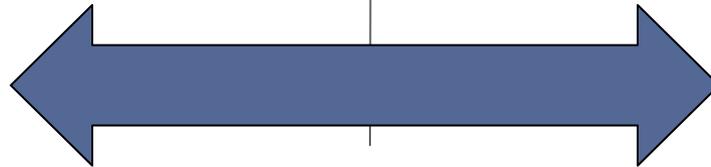
Potential Advantages

211:

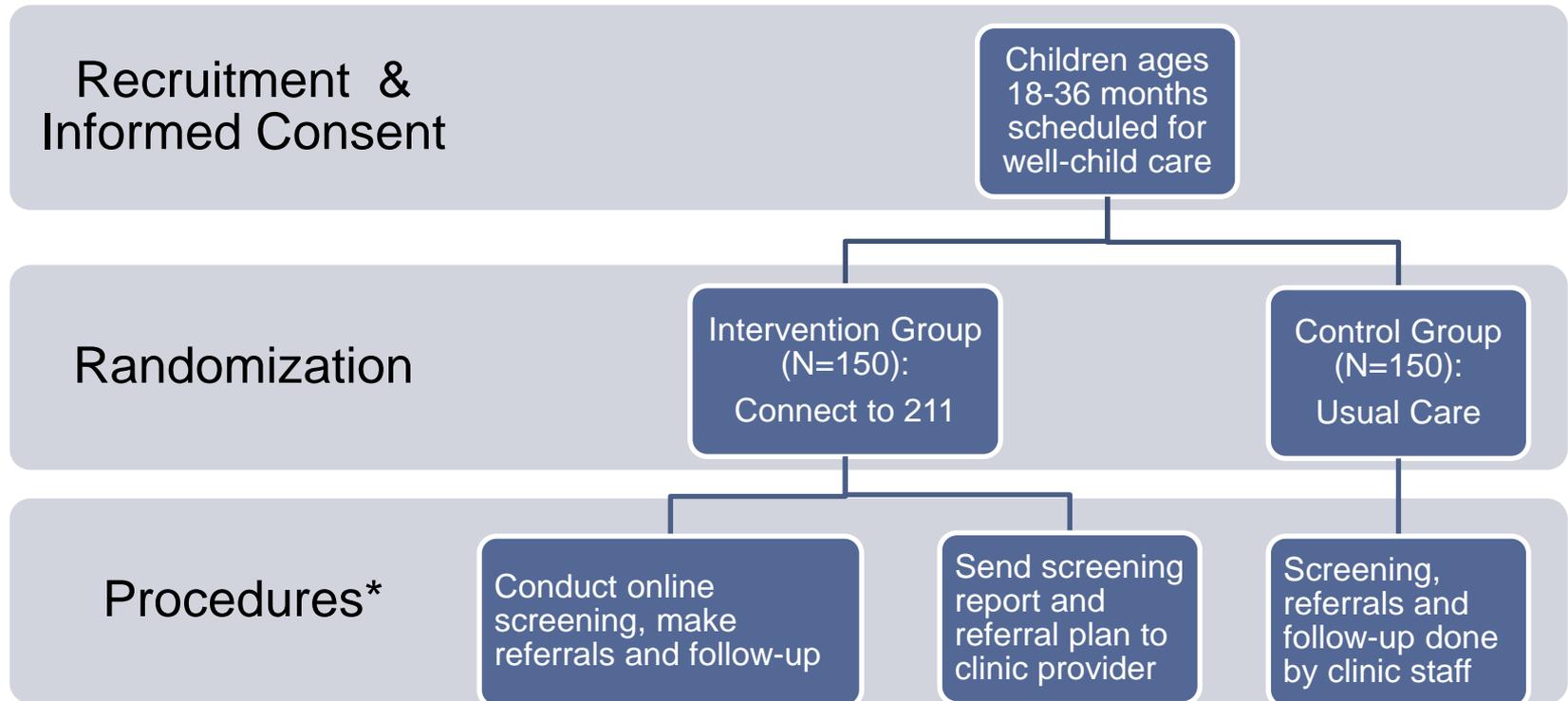
- More time available
- Standardized, validated screening tools online
- Extensive resource directory
- Connects to resources across developmental spectrum
- Care coordination
- Data

Clinic:

- Continuity of care, longitudinal relationships
- In-person observations
- Capacity to address medical complexity
- Clinical settings in general—nearly universal entry point



Study Design



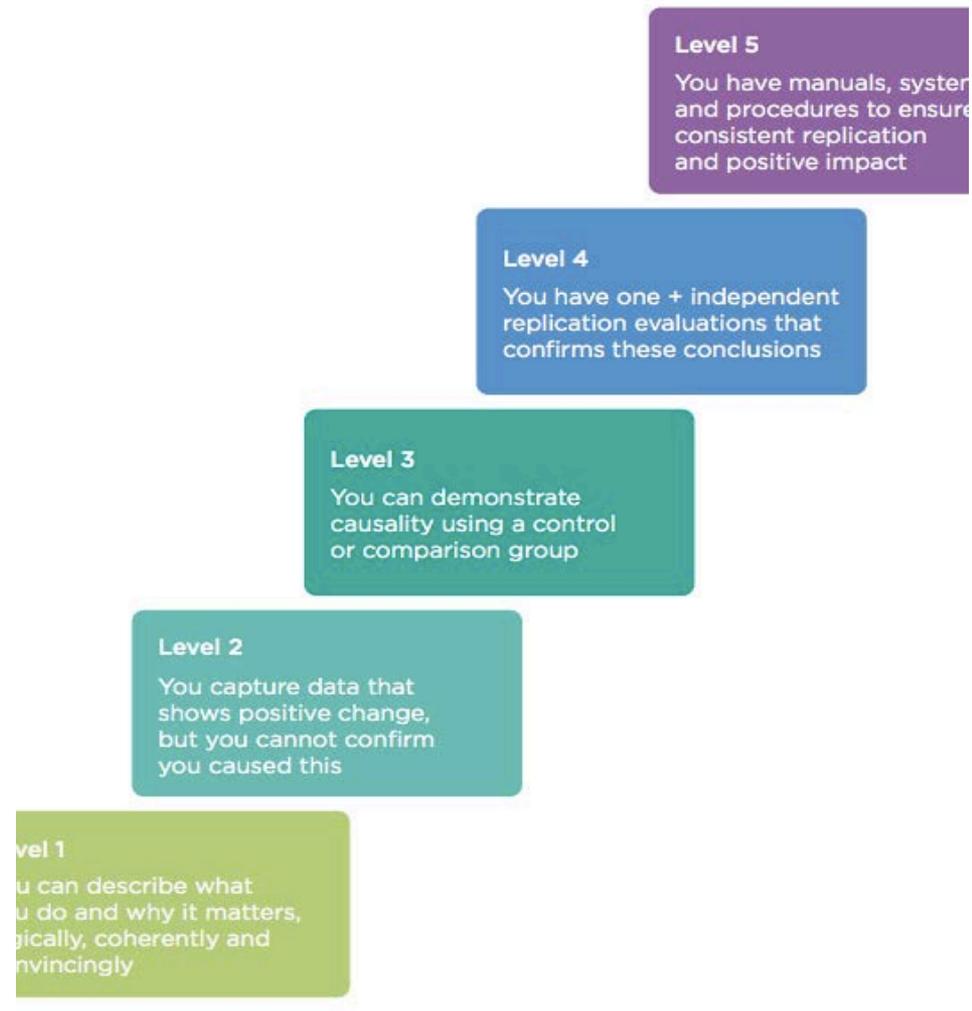
*Both groups: baseline and 6-month follow-up parent interviews, quarterly chart reviews and abstraction of 211 data

Practical Considerations

- Engagement of community partners
- Recruitment and informed consent, sample sizes
- Baseline interviews → warm transfer to 211LA
- Exchange of data among 211, UCLA and the clinic
- Hawthorne effect on providers → baseline control group
- “Contamination” of control group
- Measurement issues

Dissemination & Implementation

- RCT will provide important evidence on potential benefits of linking clinical settings with telephone-based screening and care coordination.
- If effective, future studies will be necessary to replicate findings in other settings, possibly with higher level of randomization.



Thank you!



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