

Systems for Action

Systems and Services Research to Build a Culture of Health



PHSSR Research-In-Progress Webinar

Thursday, November 19, 2015

1:00-2:00pm ET/ 10:00-11:00am PT

Bridging Health and Health Care

Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care

Note: *Download today's presentation and speaker bios from the 'Resources' box in the top right corner of the screen.*

Agenda

Welcome: C. B. Mamaril, PhD, *Systems for Action* National Program Office; Research Assistant Professor, U. of Kentucky College of Public Health

“Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care”

Presenter: Bergen Nelson, MD, MS, UCLA [Center for Healthier Children, Families & Communities](#); UCLA School of Medicine-Pediatrics
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Commentary: Neal Halfon, MD, MPH NHalfon@ucla.edu and Moira Szilagyi, MD, PhD MSzilagyi@mednet.ucla.edu, UCLA [Center for Healthier Children, Families & Communities](#); UCLA School of Medicine-Pediatrics

Glen P. Mays, PhD, MPH, *Systems for Action* National Program Office; U. of Kentucky College of Public Health

Questions and Discussion

Presenter



Bergen Nelson, MD, MS

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Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care

Bergen B. Nelson, MD, MS

Assistant Clinical Professor of Pediatrics, UCLA



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Trabajando Juntos por Nuestros Niños (Working Together for Our Kids)



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Acknowledgements

- Funded by the Robert Wood Johnson Foundation Public Health Services and Systems Research Program
- Many thanks to:
 - National Coordinating Center at U. Kentucky;
 - Partners at 211LA, Patricia Herrera and Irene Aceves; at Clínica Romero, Ingrid Estrada and team;
 - UCLA study team, Dr. Paul Chung (PI), Damaris Arriola Zarate, Lindsey Thompson, medical student and intern volunteers;
 - Experts providing commentary, Drs. Neal Halfon, Glen Mays, and Moira Szilagyi



Background: Developmental Screening is a Recommended Preventive Service

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

AAP Council on Children with Disabilities. Identifying Infants and Young Children with Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening. Pediatrics. 2006;118 (1):405-420.



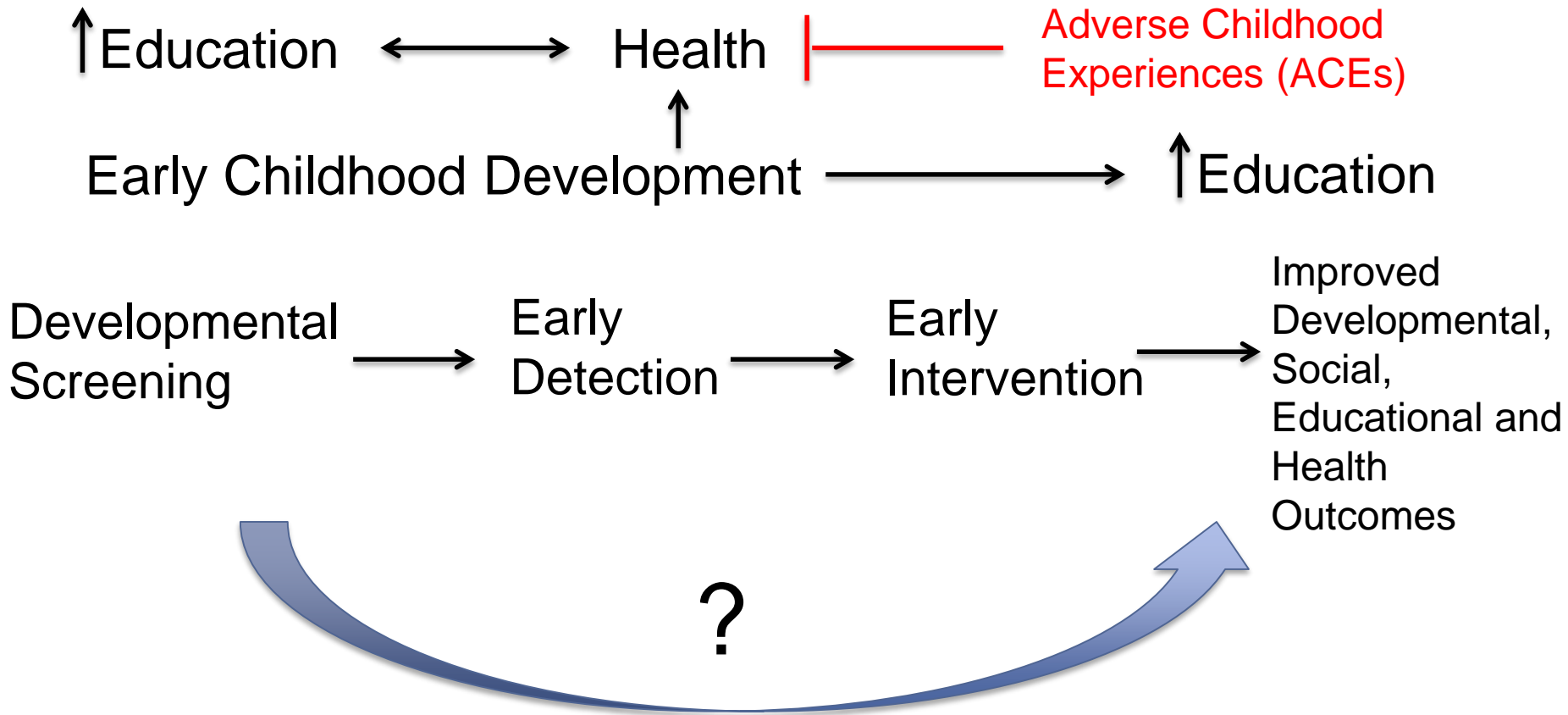
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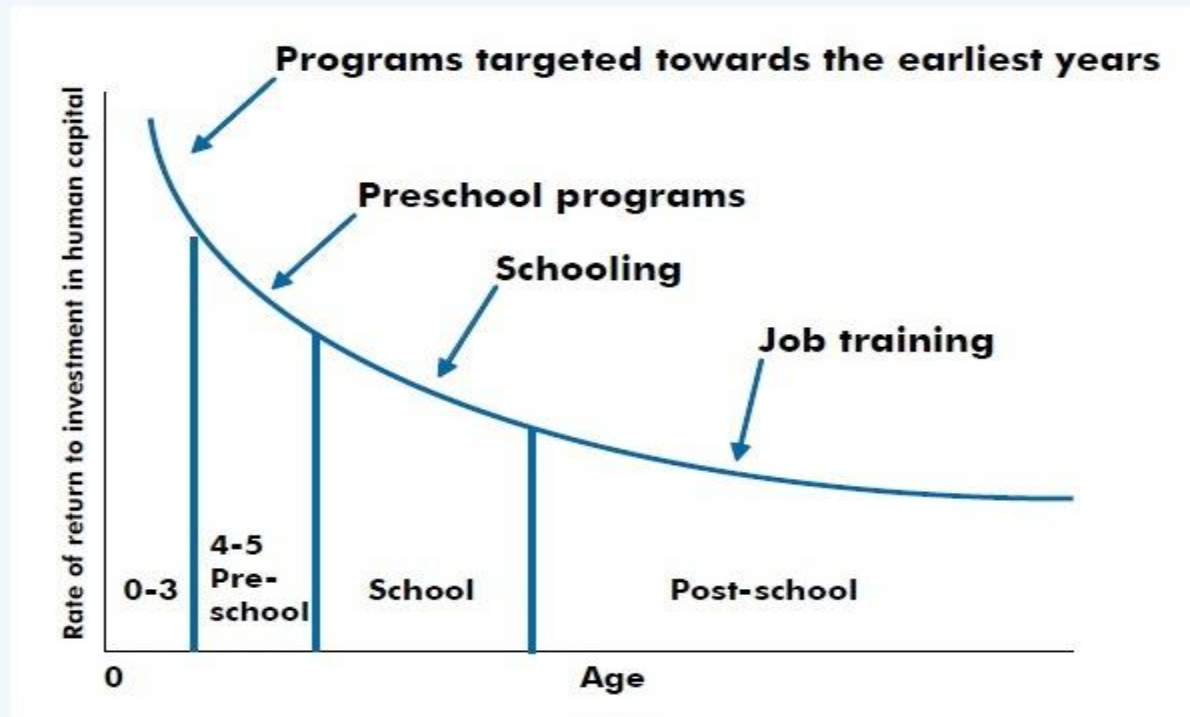
Background: Health Impact of Education and Early Childhood Development



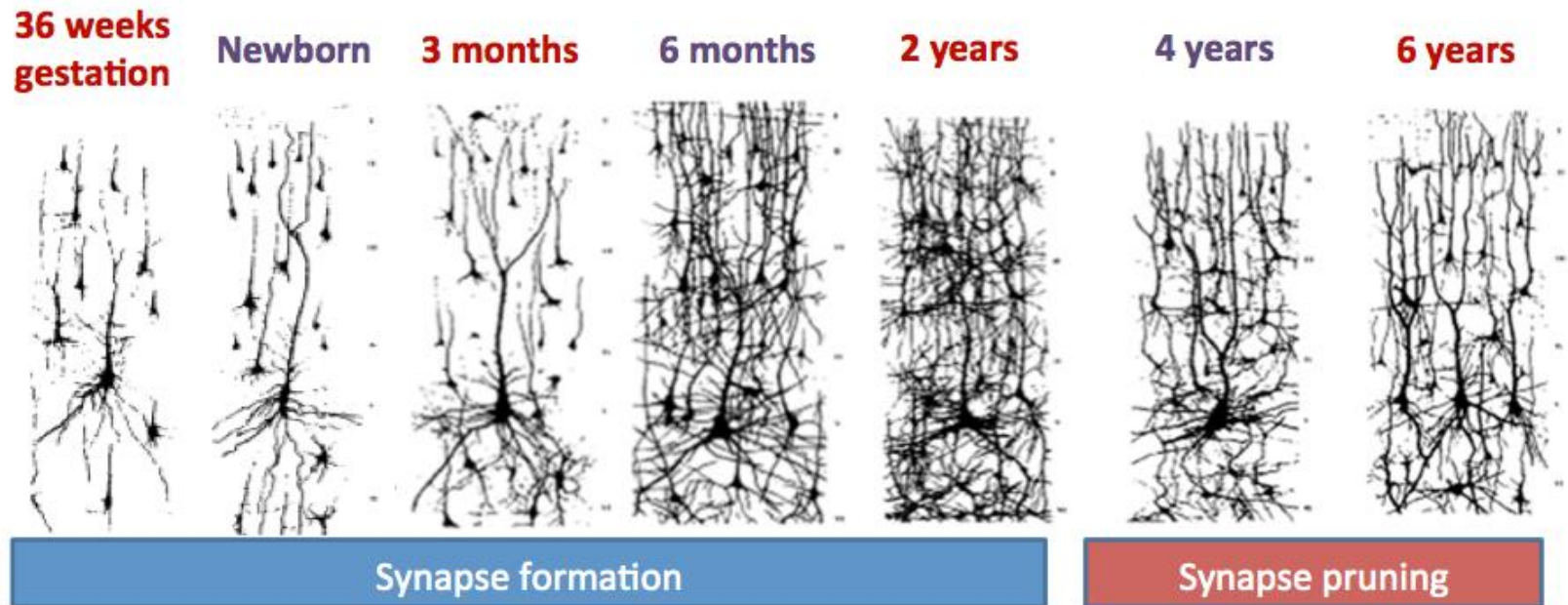
The Heckman Curve

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



Background: Early Brain Development



Source: Center on the Developing Child at Harvard University;
<http://developingchild.harvard.edu/>



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Developmental Screening in Pediatrics

Need for Quality Improvement:

- Despite AAP recommendations, many families' needs are not met in the child health services system.
- ~30-50% of parents with young children report having had a developmental assessment in primary care (Halfon, et al., 2004; Guerrero, et al., 2010).
- 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



Developmental Screening in Pediatrics

Screening Alone is Not Enough:

- QI programs have increased screening rates
- Follow-up is still a major challenge→
 - Families may not follow up with referrals (Jimenez, et al. 2012)
 - Few clinics have good tracking systems or care coordination (King, et al. 2010)



Research Question

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



Partners



- County-wide information and referral services
 - 211 Call centers cover >90% US population
 - Developmental screening and care coordination project in LA since 2009
- Federally-qualified community health center, in Pico/Union area of LA, with long-standing mission to provide high-quality care to vulnerable families



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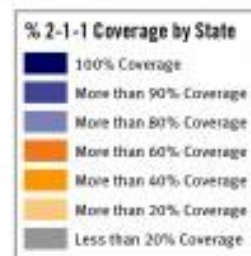
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% of Population Covered* by 2-1-1 in Each State

United Way • ATRS 
2-1-1
Get Connected. Get Answers.



*Coverage is defined as populations with landline telephone access to 2-1-1 dialing codes.
Population based on 2010 Census

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:

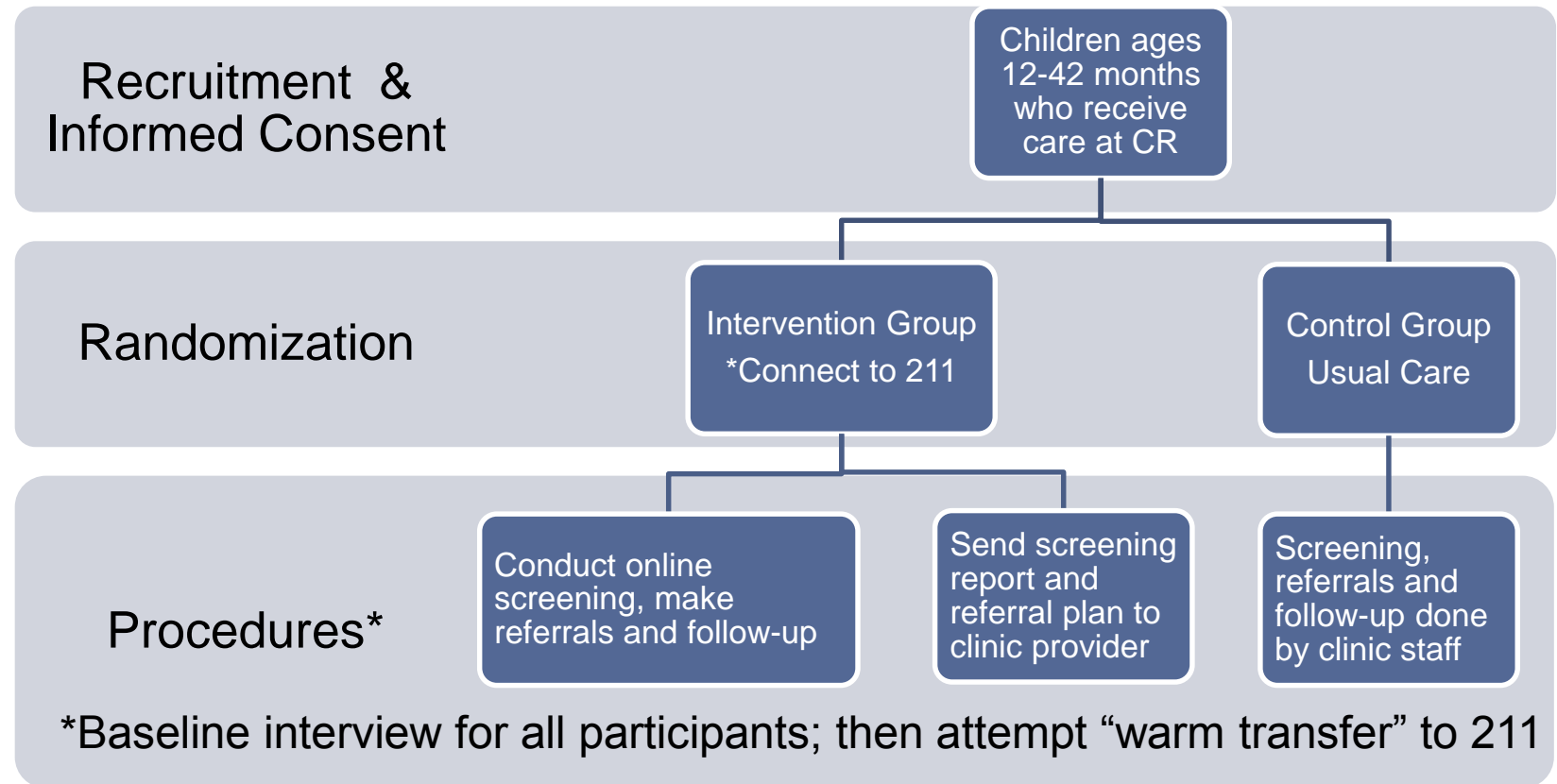
- More time available
- Standardized, validated screening tools online
- Extensive resource directory
- Connects to resources across developmental spectrum
- Care coordination
- Data

Clinic:

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



Study Design: A Randomized Controlled Trial



Retrospective Chart Review Cohort

- We will also review ~150 medical records for 12-42 month-old children seen at the clinic during the 6 months prior to the study, to assess provider behavior with respect to developmental screening and referrals, prior to starting the intervention

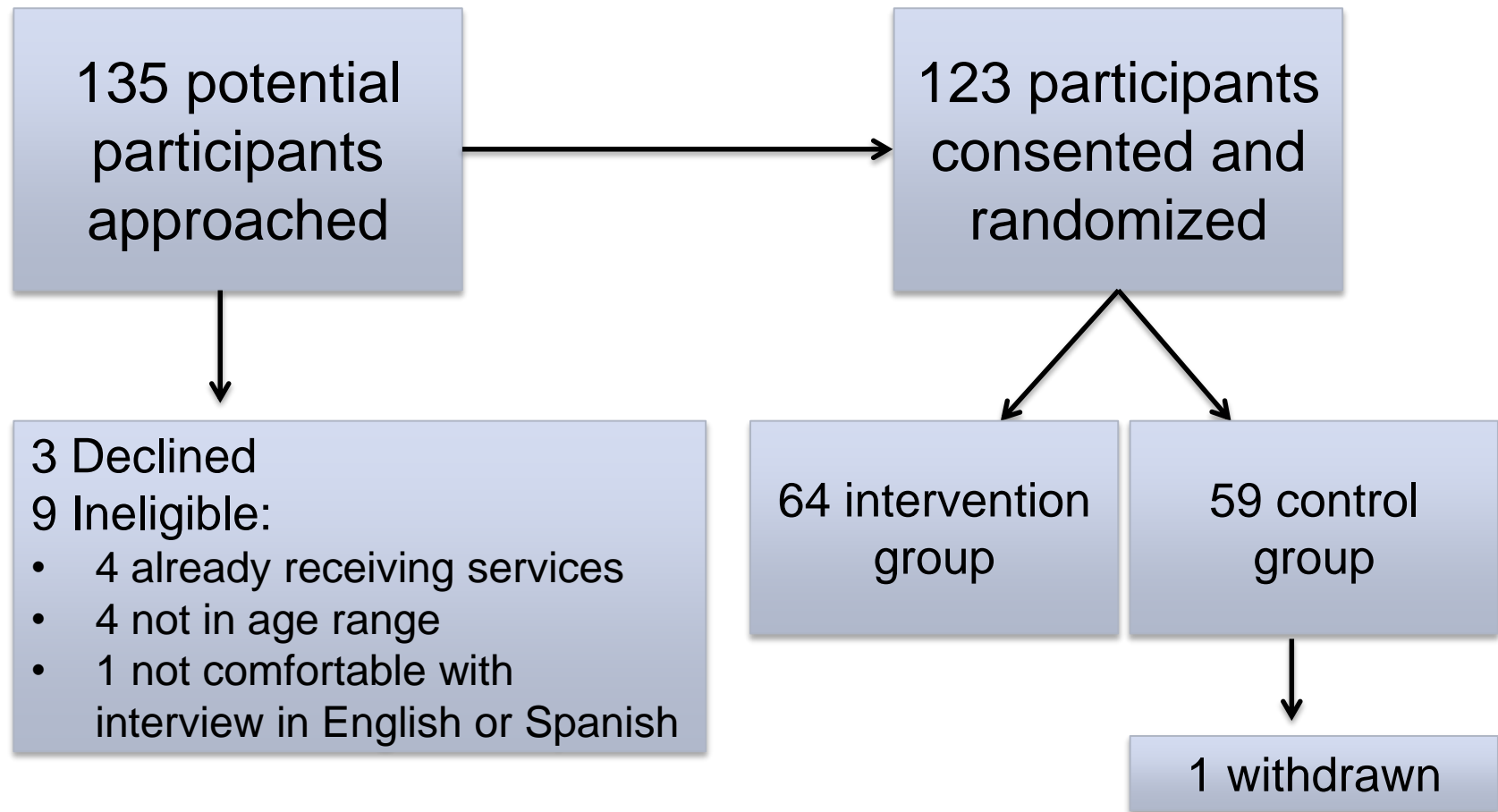


Measures

- Baseline parent interview (demographics, general concerns, experiences of care);
- Baseline PEDS, PEDS:DM, M-CHAT (done by UCLA for control subjects and 211 for intervention)
- Quarterly medical record review for screening & referral, followed to 1 year post-enrollment
- Quarterly 211 data on screening, referrals, & follow-up, up to 1 year post-enrollment
- 6 month follow-up parent interviews to assess connection to services, experiences of care



Results: Study Progress to Date



Study Progress to Date (as of 11/13/15)

- Baseline interviews completed and entered for 93 participants: 50 intervention and 43 control
- Medical record review completed and entered for 91 participants: 48 intervention and 43 control
- Of 50 intervention group participants, 36 (72%) have connected with 211LA



Preliminary Results: Demographics

	Total	Intervention	Control	p-value
Data available	93	50	43	
Child Age (mean)	25.3 months	26.6 months	23.9 months	0.11
Race/Ethnicity				
Latino	87 (94%)	47 (94%)	40 (93%)	0.85
Other	6 (6%)	3 (6%)	3 (7%)	
Primary Language				
English	23 (25%)	13 (26%)	10 (23%)	0.76
Spanish	59 (63%)	35 (70%)	24 (56%)	
English and Spanish	9 (10%)	2 (4%)	7 (16%)	
Other	2 (2%)	0	2 (5%)	



Preliminary Results: Developmental Risk

	Total	Intervention	Control	p-value
Data available	93	50	43	
Parental concern about child's development or behavior (DB) in past 6 months?	31 (33%)	17 (34%)	14 (33%)	0.88
PEDS Path A or B (high/mod risk)?	34 (37%)	18 (36%)	16 (37%)	0.90
Developmental surveillance done by MD (EPIC milestone questions)?	79 (87%)	41 (85%)	38 (88%)	0.68



Preliminary Results: Screening and Referral

	Total	Intervention	Control	p-value
Validated screening done	36	36 (72%)	0	0.00
DB concerns noted in medical record?	10 (12%)	6 (14%)	4 (10%)	0.64
DB Referrals (Regional Centers, School Districts, speech)	16 (17%)	15 (30%)	1 (2%)	0.006



Other Considerations

- Limited documentation in medical record
 - Time from concern to referral to receipt of services
 - Referrals to other early childhood programs (Head Start, Early Head Start, child care, mental health, family literacy, financial supports, etc.)
- >90% of those connected to 211 group have received some kind of referral; 72% referred to Head Start/ Early Head Start
- Follow-up: what is eligibility and participation in services?
 - Costs



Discussion

- Promising early results, but recruitment, data collection, and analyses are ongoing.
- Single clinic site may have limited generalizability.
- What are implications for:
 - future research,
 - practice,
 - scale and spread?



Commentary



Research: Neal Halfon, MD, MPH

Director, [UCLA Center for Healthier Children, Families & Communities](#) (CHCFC)

Professor, UCLA Schools of Medicine-Pediatrics, Public Health, & Public Policy NHalfon@ucla.edu



Glen P. Mays, PhD, MPH

Director, [Systems for Action](#) National Program Office

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Practice: Moira Szilagyi, MD, PhD

Associate Faculty Member, [UCLA CHCFC](#)

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Questions and Discussion

Webinar Archives

<http://www.publichealthsystems.org/phssr-research-progress-webinars>

Upcoming Webinars

Wed, Dec. 2 (12-1pm ET)

EXPLORING NEW METHODS AND MEASURES TO ASSESS THE IMPACT OF THE ECONOMIC RECESSION ON PUBLIC HEALTH OUTCOMES

Anna Schenck, PhD and Anne-Marie Meyer, PhD, School of Public Health
University of North Carolina at Chapel Hill

Wed, Dec. 9 (12-1pm ET/ 9-10am PT)

IMPROVING THE REACH AND EFFECTIVENESS OF STD PREVENTION, SCREENING, AND TREATMENT SERVICES IN LOCAL PUBLIC HEALTH SYSTEMS

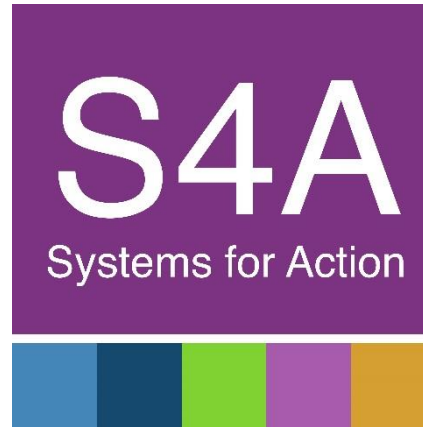
Lynn Silver, MD, MPH, Senior Advisor for Chronic Disease and Obesity
Public Health Institute, California

Thurs, Jan. 21 (1-2pm ET/ 10-11amPT)

LEVERAGING A HEALTH INFORMATION EXCHANGE INNOVATION TO IMPROVE THE EFFICIENCY OF PUBLIC HEALTH DISEASE INVESTIGATION

Janet Baseman, PhD, MPH, Debra Revere, MLIS, MA, and Ian Painter, PhD
University of Washington

Thank you for participating in today's webinar!



For more information about the webinars, contact:

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PHSSR Research in Progress Webinar Series

Speaker Biographies

Thursday, November 19, 2015, 1:00–2:00pm ET/ 10:00-11:00am PT

Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care

Presenter



Bergen Nelson, MD, MS is a Center Associate Faculty Member at the UCLA Center for Healthier Children, Families & Communities, and Assistant Clinical Professor at the David Geffen School of Medicine, Department of Pediatrics at UCLA. She is a general pediatrician and a health services researcher who completed the Robert Wood Johnson Foundation Clinical Scholars Program at UCLA in 2011. Dr. Nelson's research interests include early childhood development, the connections between education and health, and improving systems of care for vulnerable families. She has worked with public school districts in Los Angeles and San Francisco, as well as the federally-funded Head Start preschool program, on transformational

initiatives that augment the role of early education programs and systems in promoting early identification and response to developmental concerns. Dr. Nelson received her MD at Harvard Medical School, and completed internship and residency in pediatrics at University of California, San Francisco, starting in the inaugural year of the Pediatric Leadership for the Underserved (PLUS) program. Dr. Nelson also taught elementary school in New York City for two years through the Teach For America program.

The [UCLA Center for Healthier Children, Families & Communities \(CHCFC\)](#) is a multidisciplinary, community-focused research, policy, and training center. The Center is a joint effort of the David Geffen School of Medicine Department of Pediatrics and the UCLA Fielding School of Public Health, and includes faculty from the UCLA Luskin School of Public Policy & Social Research, School of Law, and the College of Letters and Sciences. Integrating expertise across disciplines ensures that the solutions developed at the Center are theoretically sound and highly practical. Center faculty also partner with organizations nationally to disseminate forward-thinking ideas and strategies.

Commentary



Neal Halfon, MD, MPH is Director of the CHCFC and is a UCLA Professor at the David Geffen School of Medicine in the Department of Pediatrics, at the Fielding School of Public Health in the Department of Health Policy and Management, and the Luskin School of Public Affairs in the Department of Public Policy. Dr. Halfon's research has spanned clinical, health services, epidemiologic, and health policy domains. For more than a decade, Dr. Halfon has worked with national, state and local initiatives aimed at improving early childhood systems, and has also played a significant role in developing new conceptual frameworks for the study of health

and health care, including the Life Course Health Development (LCHD) framework. Dr. Halfon directs the Transforming Early Childhood Community Systems (TECCS) Initiative, a collaborative venture with United Way Worldwide. He is Associate Director of the UCLA Clinical Translational Science

PHSSR Research in Progress Webinar Series

Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care

Project Webpage:

<http://www.publichealthsystems.org/using-clinical-community-partnerships-and-2-1-1-technology-improve-early-childhood-developmental>

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Using Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care

Overview

Promoting positive early childhood development is recommended by the DHHS National Prevention Strategy, and developmental screening for every young child is a recommended preventive health service for early detection of developmental delays and behavioral problems, in order to link children and families to early interventions. This study seeks to determine if a cross-sector collaboration, between a pediatric clinic and an established community-based child development screening and care management program, is associated with more screening and treatment for developmental delays in children from Latino low-income families. Using a randomized control trial, investigators will contact families scheduled for well child clinic visits and ask them to also contact the telephone-based early childhood development screening and care coordination program available through 2-1-1 Los Angeles County (211LA). The collaborative model will expand access to early screening for developmental and behavioral problems for very young children, and coordinate care between medical and community-based providers; goals are to screen and link more families to evidence-based services and ultimately reduce health disparities. If successful, the study will demonstrate the efficacy and effectiveness of the collaborative model, and establish a framework for its scale and spread to other communities with 2-1-1 services and child health care centers.

Year: 2015
Funding: PHSSR PHS4 Award
Status: Recently Awarded

Presentations

- **Developing and testing a new model for telephone-based early childhood developmental screening and care coordination in vulnerable populations** (PHSSR Keeneland Conference, April 2015)
- Clinical-Community Partnerships and 2-1-1 Technology to Improve Early Childhood Developmental Screening and Care (PHSSR Research in Progress Webinar, November 2015) *coming soon*

Research Areas

- **Information and Technology**
- **Translation and Dissemination of Research-Tested Public Health Strategies**

Contacts

Paul Chung & Bergen Nelson
University of California, Los Angeles School of Medicine

Check [back here](#) for project updates!

For more examples and resources on Pragmatic Randomized Trials:

<http://publichealthsystems.org/pragmatic-randomized-trials>

PHSSR Research in Progress Webinar Series

Speaker Biographies

Institute (CTSI). He also served as member of the Board on Children Youth and Families at the Institute of Medicine and National Research Council from 2001-2006. In 2006 he was awarded the annual research award from the Academic Pediatric Association for his contribution to the field of child health research. He received his MD at the University of California, Davis, and his MPH at University of California, Berkeley. Dr. Halfon was a Robert Wood Johnson Clinical Scholar at both UC San Francisco and Stanford University.



Glen P. Mays, PhD, MPH ~~Dr. Glen Mays~~, co-director of the Systems for Action National Program Office, is the Scutchfield Endowed Professor of Health Services & Systems Research at the University of Kentucky College of Public Health. He also serves as director of the Center for Public Health Systems and Services Research within the College of Public Health, and associate director of the Center for Health Services Research within the College of Medicine. Dr. Mays' research focuses on strategies for organizing and financing public health services, preventive care, and care management systems for underserved and high-risk populations. Dr. Mays earned Ph.D. and M.P.H. degrees in health policy and administration from the University of North Carolina-Chapel Hill, and completed a postdoctoral fellowship in health economics at Harvard Medical School. Prior to joining Kentucky, he chaired the Department of Health Policy and Management at the University of Arkansas for Medical Sciences for eight years and served on the inaugural faculty of the Clinton School for Public Service.



Moira Szilagyi, MD, PhD is a Center Associate Faculty Member at the CHCFC and Professor at the David Geffen School of Medicine at UCLA, Department of Pediatrics. She previously was Professor of Pediatrics at the University of Rochester, where she developed and directed of a pediatric medical home (Starlight Pediatrics) for children in foster care for 27 years. Starlight Pediatrics offered integrated mental health and developmental care services, was co-located with a state-of-the-art Visitation Center, and offered life skills preparation for youth in foster care. Dr. Szilagyi also created the regional child abuse program, REACH, in 1992 at the University of Rochester. At UCLA, under a contract with the Los Angeles County Department of Health Services, Dr. Szilagyi is assisting with the development of a foster care pediatric medical home at one of the county's seven foster care medical hubs. Dr. Szilagyi provides clinical services to children in foster care at Olive View-UCLA Medical Center and assisting the transformation of this evaluation site into an integrated medical home model. Dr. Szilagyi Chairs the American Academy of Pediatrics' Council on Foster Care, Adoption and Kinship Care (COFCAKC) and edited the guidelines for health care for this population, *Fostering Health*. Under her leadership, the COFCAKC has implemented a publicly available website, *Healthy Foster Care America*, to disseminate best pediatric practices, and provide information and resources for the multi-disciplinary professionals serving children in foster care. Dr. Szilagyi is now participating in a Packard Foundation project regarding medical home care for children with complex medical needs.