Closing Gaps in Health and Social Services for Low-Income Pregnant Women

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

Research-in-Progress Webinar
November 10, 2021
12-1pm ET
Agenda

Welcome: Carrington Lott, MPH

Presenters: Irene Vidyanti, PhD, MEng • LA County Chief Information Office
            William Nicholas, PhD, MPH • LA County Department of Public Health

Commentary: Kelly O’Connor Kay • Maternal Mental Health NOW

Q&A: Carrington Lott
Irene Vidyanti is a Data Scientist for the Los Angeles County Chief Information Office (CIO). Her expertise is in using data science and systems science to evaluate the impact of interventions on multiple sectors and to drive data-driven decision-making at both operational and strategic levels. She is the Principal Investigator for this study. She is currently also the co-lead for a project to assess Countywide performance on supporting strong children, families, and communities in LA County.

Prior to joining the CIO, she was a Data Scientist at the Department of Public Health. She received her PhD in Industrial and Systems Engineering from University of Southern California and her Bachelor's and Master's degrees in Information and Computer Engineering from Cambridge University.
In October 2015 Will Nicholas joined the LA County Department of Public Health, where he directs the Center for Health Impact Evaluation. Before joining DPH, Dr. Nicholas spent five years at the UCLA Center for Healthier Children, Families and Communities, where he co-directed the Los Angeles/Ventura Study Center of the National Children’s Study. While there, he was also a lecturer at the UCLA Fielding School of Public Health, where he taught a course on children’s health and health policy. Prior to his appointment at UCLA, he spent three years as Director of Research at the California Endowment. Prior to that, Dr. Nicholas spent six years as a Senior Research Analyst at First 5 LA, Los Angeles County’s Proposition 10 Commission, where he commissioned and managed evaluation and research grants related to early childhood health and development. Nicholas has also served as an Associate Policy Analyst for the Rand Corporation, and as a Research Analyst for the Los Angeles County Health Department’s Tobacco Control Program.

Dr. Nicholas, a resident of Los Angeles, received a B.A. in Spanish Literature from the University of California, Berkeley; an M.A. in Latin American Studies and an M.P.H. in Population and Family Health from UCLA; and a Ph.D. in Health Policy from Yale University.
Kelly O’Connor Kay, Executive Director, oversees the programmatic, fundraising and marketing operations of Maternal Mental Health NOW. Her goal is to ensure that all of Los Angeles County’s new families have the resources they need to address maternal mental health disorders so that they can grow and thrive. Kelly previously served as Maternal Mental Health NOW’s Development Director for 7 years. Before joining Maternal Mental Health NOW’s team (which coincidentally corresponded with her own transition to motherhood), Kelly worked for several nonprofit organizations in the human services and environmental fields in the US and the UK as a freelance fundraising consultant and staff member. Kelly is a graduate of Northwestern University, having received a BS in Communication Studies & Sociology. She also holds a MS in Elementary Education from Brooklyn College, part of the City University of New York.
About MAMA’S Initiative
Background

Poor birth outcomes in Los Angeles County Department of Health Services (LAC DHS) necessitates a different approach

*LAMBS 2010; March of Dimes, 2010; WHO, 2010
A Different Approach

To influence outcomes, need to breach agency silos to address social stressors

- Social stressors contributing to poor outcomes are common in the DHS prenatal population
- Need to offer comprehensive services and supports to address social stressors alongside health care provision
- The MAMA’S Neighborhood initiative assesses clients’ needs and connects clients to housing, social services, mental health treatment, and other needed services

Rate of social stressors in the LAC DHS prenatal population

- Substance abuse
- Intimate partner violence
- Housing instability
MAMA’S Neighborhood Initiative

Maternity Assessment Management Access and Service Synergy throughout the Neighborhood

Program core assumption: A comprehensive, coordinated approach that includes three core pillars of health (physical, mental, social) is required to address poor birth outcomes

- **Assessment**: Consistent screening and identification of needs and risks, including medical, social, and environmental determinants
- **Management of Access**: Alignment of intensity of service provision with identified risks
- **Service Synergy**: Coordinated and collaborative care across sectors to mitigate the determinants of poor outcomes
- **Throughout the Neighborhood**: Going beyond borders of the clinic to the community with community-based partners & MAMA’S Visits (home visits)
MAMA’S Neighborhood Network

- Community Mental Health
- Ecological/Participatory & Multi-disciplinary
- Domestic/Intimate Partner Violence
- Incentivized Providers
- Housing
- WICs, Food Banks, Farmers Markets, Churches
- Substantive Abuse Svs
- Mother-Centered/Humanistic Services
- Connected & Coordinated Svs
- Community Agency Assisted
Research Questions & Methodology
## Our Research Questions

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Quantitative analysis</th>
<th>Qualitative analysis</th>
<th>Network analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the outcomes of the MAMA’s initiative?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do outcomes among MAMA’S clients compare to outcomes among mothers who did not participate in the program, specifically:</td>
<td>![chart]</td>
<td>![chart]</td>
<td></td>
</tr>
<tr>
<td>• Birth outcomes, and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Cross-sector outcomes?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How do the program impact health equity?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Are the needs of the high-risk groups adequately met?</td>
<td>![chart]</td>
<td>![chart]</td>
<td></td>
</tr>
<tr>
<td>• Has the program helped to reduce inequities in birth outcomes?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How effective are the cross-sector linkages?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How effectively has MAMA’S aligned linkages across social, health care, and public health services?</td>
<td>![chart]</td>
<td>![chart]</td>
<td></td>
</tr>
</tbody>
</table>
Quantitative Analysis
• Secondary data:
  – Countywide Information Hub
  – MAMA’S administrative data
  – Birth records
• Difference-in-differences analyses of cross-sector outcomes
• Analyses of birth outcomes
• Analyses utilize matched samples (MAMA’S clients vs propensity-matched comparison group)

Network Analysis
• Primary data:
  – Network survey of MAMA’S Neighborhood community-based partner agencies
• Network map of partnership network
• Network scores

Qualitative Analysis
• Primary data:
  – Patient interviews
  – Provider interviews
  – Key informant interviews
• Analysis based on grounded theory
Quantitative Analysis
Preliminary Results
Where We Are: Quantitative Data Linkage

- We are utilizing LAC’s Countywide Information Hub to allow assessment of cross-sector impact (health care and mental health utilization, food assistance / CalFresh, income assistance / CalWorks, housing, justice involvement)
- We linked MAMA’s administrative data to the Information Hub
- We will link birth records to the Information Hub to allow assessment of birth outcomes
- We will use the array of linked data to construct a comparison group of non-participants resembling MAMA’s clients, propensity matched on individual characteristics, birth risk factors, social determinants, and service utilization, est. in December
Number of MAMA’S clients by enrollment year

Oct 2014: Risk stratification, Individualized Case Plan

Sep 2015: Risk level management of panels

Mar 2016: Interactive Case Plan

Jul 2016: Full implementation

restrict analyses to enrollments in 2017 & 2018:
• Ensure program has been fully implemented
• Remove potential effect of COVID for one-year post-enrollment results
Total MAMA’S clients enrolled in 2017 & 2018 (n = 4982)

Excluded: Unmatched to the Information Hub (n = 990)

Total matched to the Information Hub (n = 3992)

Excluded: Poor matching to the Information Hub (n = 325)

Total well-matched to the Information Hub (n = 3667)

Excluded: Multiple enrollments within 2017 & 2018 (n = 54)

MAMA’S sample for analyses (n = 3613 unique clients)
Preliminary Analysis: Cross-sector Impact of MAMA’S

*Results are preliminary and may change as we refine our approach to analyze the data
Network Analysis
Result Highlights
MAMA’S staff identifies 51 organizations as part of the network. Social service organizations make up around 68% of the network.

40 members were invited to participate in a social network analysis survey using the PARTNER tool. 19 members responded (48% response rate). Respondents collectively had 80 partnerships.

The network is diverse with a low level of density. This means that there is a little connectivity already taking place with opportunities to develop additional connections between members.
Trust and Value in MAMA’S Neighborhood Network

• Members reported high levels of value and trust within their network partnerships
• Openness to discussion is an area of growth
• High levels of perceived value and trust in network relationships are important in building and maintaining collaborative capacity
• Understanding the perceived value of network relationships is important in leveraging the different ways in which members contribute to the network
• Trust in inter-organizational network relationships facilitates effective information exchange and decision-making and reduces duplication of effort among groups
Relationships among Network Partners

- The intuition is that more network connections should indicate a better functioning network, but this approach can be resource intensive.
- Connections are somewhat distributed across the levels. If more connections were at the integrated or coordinated levels, the relationships would require more resources to maintain.
- Relationships mostly consist of client referrals.

![Diagram showing increased resources needed at each level of relationship types.]

**What does your relationship with your partner entail? (n=80)**

- Client Referrals: 75%
- Information Exchange: 23%
- Data Sharing: 18%
MAMA’S seems fairly successful in fostering cross-sector collaboration.
Network Resiliency during COVID-19 Pandemic

Network seems resilient, with many relationships unaffected or strengthened by the pandemic.

Please describe how COVID-19 has impacted your relationship with each of these organizations. (Choose as many as apply)

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>25%</th>
<th>50%</th>
<th>75%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Our relationships started because of a COVID related topic</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has required us to work more closely together</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has strengthened our relationship</td>
<td>8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has required us to increase our collaboration</td>
<td>4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has required us to decrease our collaboration</td>
<td>6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has required us to postpone programs or projects we were working on together</td>
<td>3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COVID has had no impact on our relationship</td>
<td>26%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't Know</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Network Resiliency during COVID-19 Pandemic

Services offered changed during pandemic, with more food security services, reduced home visitations.
Qualitative Analysis
Result Highlights
MAMAs Patient/Provider Interviews

Conducted by Southern California Center for Nonprofit Management
(Phone Interviews substituted for Focus groups due to COVID-19)

20 MAMAs Patient Interviews
• 12 English/8 Spanish
• All identified as African American/Black or Hispanic/Latina
• MAMAs tenure ranged from 4 months to 5+ years
• Patient experiences included: homelessness, jail, domestic violence, substance use disorders, high risk medical conditions
• Representation from all 4 geographic areas targeted by MAMAs

18 Provider Interviews
• 13 with neighborhood care team (care coordinator, social worker, RN, health educator)
• 5 physician staff members
• Representation from all 4 geographic areas targeted by MAMAs
MAMAs Patient/Provider Interviews

Patient Interview Guiding Questions
• Patient experiences with various components of MAMAs service delivery
• Factors affecting patient experiences and engagement

Provider Interview Guiding Questions
• Perceptions of MAMAs program components
• Factors affecting patient engagement with the MAMAs program and patient outcomes
Context: Key Program Components

Patient Intake

- Psychosocial Intake (care coordinator)
  - Cornerstone of program—patients given a risk score and assigned to high, medium or low risk care groups
  - Lengthy assessment with sensitive questions
  - Psychosocial referrals made based on risk assessment
  - High (and some medium) risk patients enrolled in MAMAs Visits (Home Visitation program)

- Medical Intake (nurse)
  - All patients also receive a medical intake—medical risk also factored into global risk score
  - High medical risk patients assigned to high-risk OB clinic
  - Mid-risk patients assigned to intermediate OB generalist
  - Low-risk patients receive care from midwives or mid-level clinician

Collaborative Care Meetings

- Regularly scheduled at each MAMAs site and attended by Clinical staff, neighborhood care team and auxiliary providers
- Facilitates communication between Neighborhood Care Team and Clinical Care Team
Thematic Findings: Intake Process

- Psychosocial intake should prioritize confidentiality, taking into consideration virtual and in-person circumstances.
- COVID-19 made this challenging since some intakes had to be conducted virtually.
- Letting patient know ahead of time what to expect was viewed as beneficial by patients and staff.
- Separate psychosocial and medical intakes help patients build rapport with both care teams and help surface needs and concerns that may not have been revealed through a single combined intake, but places a significant burden on the patient.
- Overall patients valued and appreciated the time and attention received and providers felt that the intake process helped empower patients to understand and navigate their care more effectively.

“I think that’s why it took longer for the appointments...but I see why because I’m sure that all the moms had a bunch of questions, and she would take her time. She wasn’t rushing through every single person. If she did that, then part of the customer service wouldn’t be as good. But you can tell she was dedicated, and she really loved her job because she would take...”
Thematic Findings: Collaborative Care Process

- Collaborative Care Team meetings strengthen professional relationships among care team members which encourages better communication between meetings and improved care
  - “Mini-huddles” formed when certain patients are scheduled to come in

- Collaboration facilitated by having all types of providers under one roof
  - Open communication among care team allows for rapid scheduling of patients needing urgent, multidisciplinary care ("prenatal care triage")

“The nice thing about having the MAMA’s program in our clinic and having wraparound services is that you don't have to send them to a different clinic or different site for these things. I know the social workers really well. I can just walk over to their office or call them and say, “So-and-so is here. She’s really struggling with this. Can you come talk to her?” I can walk over to our CCs. I can walk over to the medical legal people and say, “Hey, she’s wondering how the application for that housing thing is going.” And so, everybody is right there in our clinic.”
Thematic Findings: Referrals

- Effectiveness of referral process depends on:
  - Availability of referral service in-house
  - Resources available in each community—housing resources universally scarce in relation to need
  - **Relational skills of MAMAs Care Coordinators**

- Reliance on relational skills of care coordinators who exercise a great level of discretion due to a lack of uniform systems of referral and follow-up

*Interviewer: “Are there ways that you confirm whether a patient has completed the referral?”*

*Provider: “I just basically rely on either a social worker or the [care coordinators] to report back to me. Or at the [Collaborative Care] Meeting to give an update on if the patient was able to connect with what we had talked about. Or at the next time I see them for their OB appointment, we check in about that.”*
Thematic Findings: Patient Engagement and Retention

Reinforcing factors

• Building trust by listening carefully and purposefully, providing safe spaces, and instilling confidence in patients
• Voluntary nature of participation and lack of behavioral requirements
• “Baby boutique” incentive program
• Maintaining active and persistent communication with patients

Barriers

• High-Risk status/life stressors (e.g., housing instability, justice system involvement, substance use)

“They helped me a lot because I am a recovering alcoholic, as well. Being able to open up and talk freely about those things helped me turn my life around and realize that I have to be a sober parent. Because the other parent for my older kids is not. They gave me strength. They gave me hope.”

“We've had patients who have had – who were using, who've been placed into substance use disorder treatment facilities during their pregnancy and been able to actively manage their withdrawal and get them on Suboxone in the pregnancy and take care of them and their baby. And I think we've had a number of success stories like this where high-risk moms have been able to really stay connected with prenatal care.”
Next Steps
Next Steps

Quantitative Analysis
• Construction of comparison group using propensity score matching
• Analyses of birth outcomes
• Difference-of-differences analyses of cross-sector outcomes

Qualitative Analysis
• Finish key informant interviews

Integration of Quantitative, Qualitative, and Network Analysis
Thank you

The S4A MAMA’S Team
• Irene Vidyanti (ividyanti@ceo.lacounty.gov), Los Angeles County Chief Information Office
• William Nicholas (wnicholas@ceo.lacounty.gov), Los Angeles County Department of Public Health
• Erin Saleebby, Los Angeles County Department of Health Services
• Laura Stroud, Los Angeles County Department of Public Health
• Ashaki Jackson, Los Angeles County Department of Health Services
• Lisa Greenwell, Los Angeles County Department of Public Health
• Chun Liu, Los Angeles County Chief Information Office
• Ricardo Basurto-Davila, Los Angeles County Chief Information Office
• Southern California Center for Nonprofit Management
• Visible Network Labs
Commentary
Certificate of Completion

If you would like to receive a certificate of completion for today’s ResProg webinar, please complete the survey at the end of the session.

One will be emailed to you.
Upcoming Webinars

Dec. 8  Can Subsidized Transportation Options Slow Diabetes Progression?

Register at:
https://systemsforaction.org/research-progress-webinars

January 12th 12 pm ET  COVID's Impact on Health Equity & Access to Health and Social Services
A Conversation across the RWJF For Action Programs
Acknowledgements

*Systems for Action* is a National Program Office of the Robert Wood Johnson Foundation and a collaborative effort of the Colorado School of Public Health, administered by the University of Colorado Anschutz Medical Campus, Aurora, CO.