

IMPROVING THE HEALTH
OF AMERICA'S CHILDREN



HEALTH GROWTH ENVIRONMENT

Hi/Lo CoIN

Hi-Lo Recruitment Schema Overview

National Children's Study Day
August 24, 2011, Bethesda, MD
Pat McGovern, PhD, MPH

Jane Cauley, PhD; Laura Caulfield, PhD; Edward Clark, MD; Dana Dabelea, MD, PhD; Neal Halfon, MD, MPH; Katherine Hartmann, MD, PhD; Carol Hogue, PhD, MPH; Jane Holl, MD, MPH; and LuAnn White, PhD

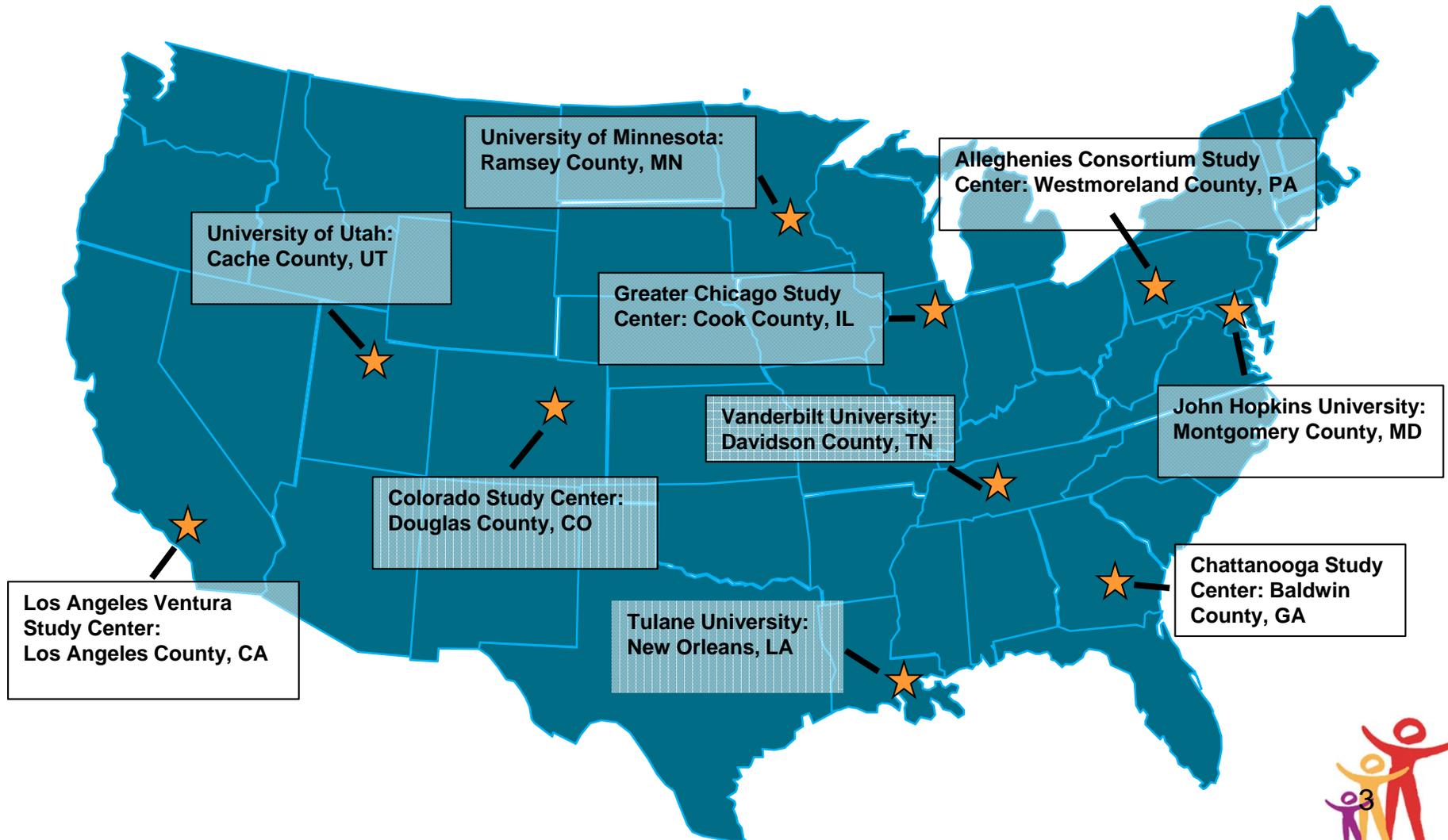
Hi-Low Intensity Dynamic Recruitment Model



- **What is it?**
- **What have been our successes and challenges?**
- **What's next?**



Hi-Lo Study Center Locations



What is Hi-Lo?



Hi-Lo: *Direct to the Public*

- **Create community awareness and support**
- **Engage key stakeholders**
- **Create a “buzz” by time a household receives an advance letter**
- **Motivate household members to call in or mail back a pregnancy screener to identify a potential participant**

Purpose of Hi-Lo Intensity Recruitment Schema



- **Inform the Main Study of the optimal size of the secondary sampling unit (SSU) to yield sufficient numbers of Study-eligible pregnant women to meet the NCS goals**

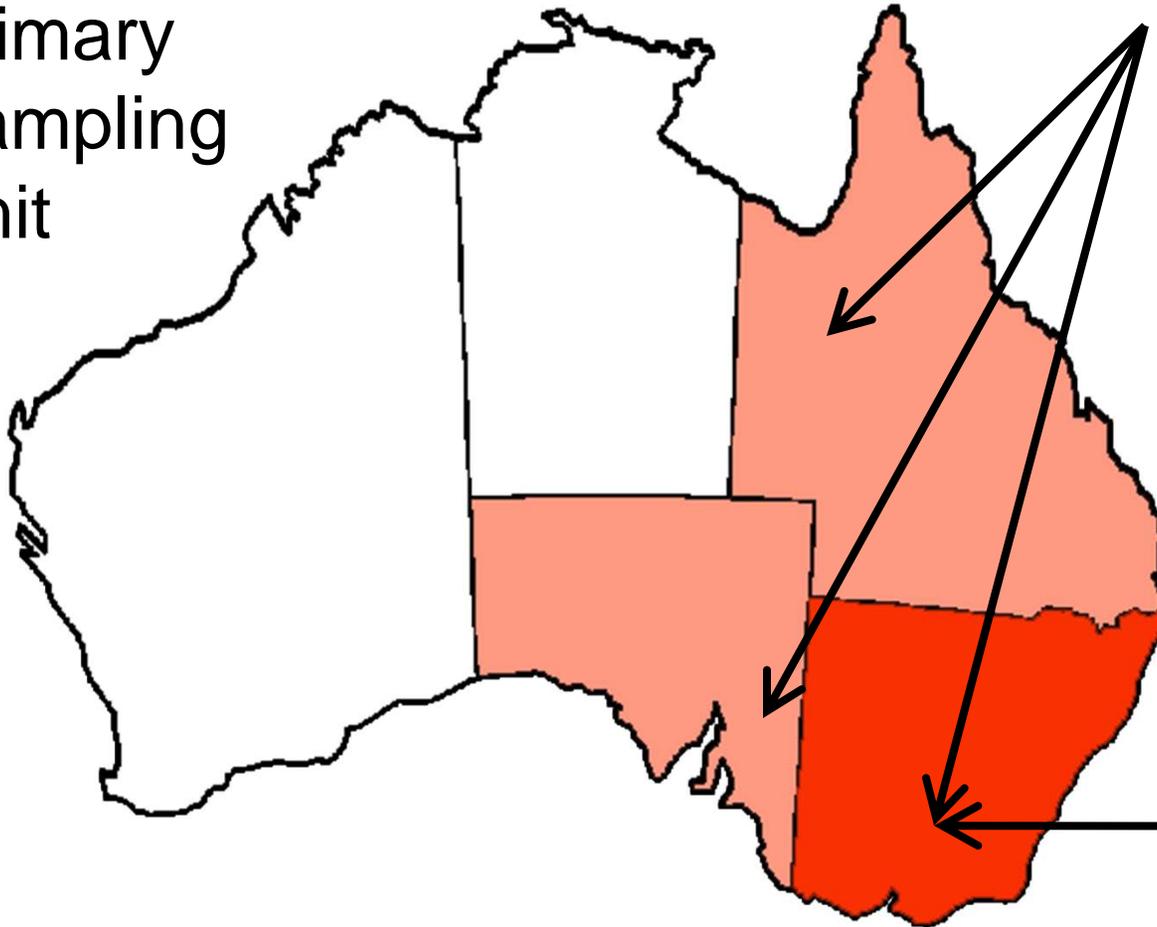
(Recruitment Schema, 5/25/10)

- **Intensity refers to nature of data collection and the relationship between Study staff and participants**

What is Hi-Lo?



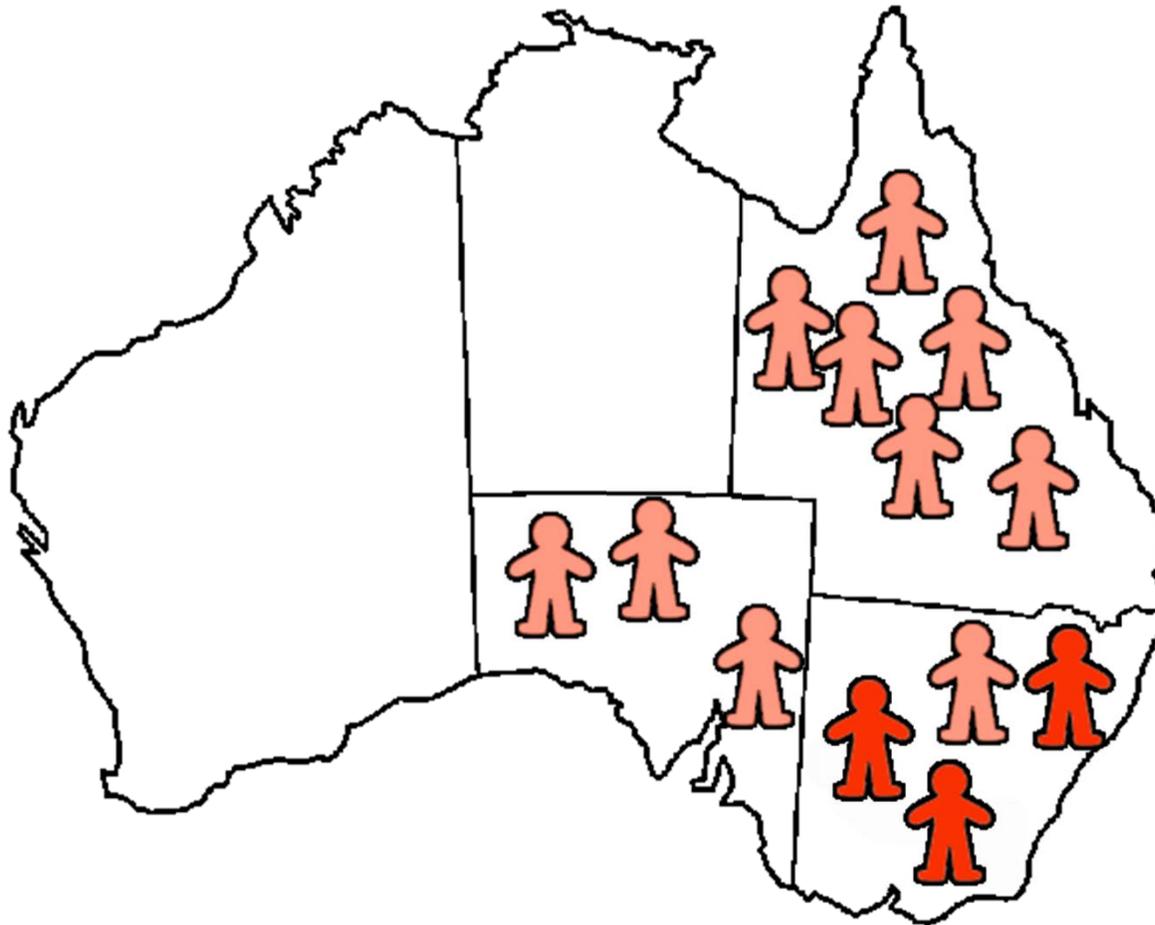
Primary
Sampling
Unit



Secondary
Sampling
Unit (Lo-I+Hi-I)
Original Expectation:
250 births/year

Tertiary
Sampling
Unit (Hi-I only)

What is Hi-Lo?



1. Enroll everyone in Low-Intensity
2. Convert women in TSU from Low to High Intensity

HiLo Study Centers & the Collaborative Improvement Network (CoIN)



Purpose of CoIN

- **Improve enrollment outcomes**
- **Accelerate improvement**
 - **Shared learning, shared problem solving, and stealing ideas**
- **Optimize implementation**
 - **Using a structured learning system to test and document learning**
 - **Testing theories of how to make work more effective and efficient**

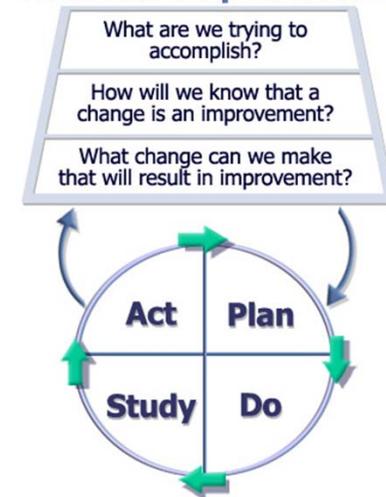


CoIN Learning Session 1



- **Learn about Model for Improvement and structured learning system (PDSAs)**
- **Create matrix of HiLo goals, metrics & strategies**
 - **Outreach & Engagement**
 - **Enrollment**
 - **Conversion**
 - **Data Collection**
- **Refine Study Design Process Flow Figures**

Model for Improvement





Evaluation of Mass Marketing For Participant Recruitment Davidson County, Tennessee

	Advance Letter Only	Advance Letter and Screener	Advance Letter, Screener and Incentive	Total
Total	0.11%	2.42%	3.78%	3.78%

J. Nikki McCoy, MPH and Katherine Hartman, MD, PHD
Vanderbilt University

Orchestrated Testing



Orchestrated Testing of Change Strategies: Variations on Incentives to Improve Recruitment into the National Children's Study (NCS)

Dena R. Herman¹, Neal Halfon¹, Michael C. Lu¹, Nikki McKoy², Bonika Peters³, Pat Mc Govern³, Kaitlin Wolfe⁴, Jane Holl⁴, Nina Markovic⁵, John P Bourgeois⁶, Joslyn Levy⁷

¹ Los Angeles/Ventura Study Center, UCLA School of Public Health, Los Angeles, CA; ² Vanderbilt University;

³ University of Minnesota Study Center, Minneapolis, MN; ⁴ Northwestern University; ⁵ University of Pittsburgh; ⁶ Tulane University; ⁷ Joslyn Levy and Associates

Introduction

• There is extensive literature in survey research to support the use of incentives to improve recruitment rates for research studies.

• However, there have been few examples to date to show how various incentive strategies would affect participation in the NCS.

• Unlike other recruitment strategies, the Hi/Lo Dynamic Model of recruitment relies solely on community outreach and direct-to-consumer marketing techniques to raise awareness about the NCS and encourage participants to self-refer via telephone. Motivating women to initiate these calls is challenging.

Collaborative Innovation Network (CoIN)

• The ten Hi/Lo Study Centers are part of what is called a CoIN.

• As an alternative to conducting the work in silos at each individual Study Center, the CoIN creates the infrastructure for collaborative improvement and innovation among Study Centers and to apply and spread tested improvements at a quicker pace.

Purpose

The purpose of this experiment was to improve rates of recruitment and to capitalize on the collaborative efforts of the Hi/Lo CoIN. Several Study Centers developed a Plan Do Study Act (PDSA) strategy to conduct orchestrated testing of multiple modes, amounts, and timing of monetary incentives delivered by mail.

Table 1 Recruitment Process and Timing of Initial Mailings

	Recruitment Initiated	Initial Mailings	What Mailed	Who Received (no. of segments)
Cook Co., IL	Dec. 2010	Feb 2011	Pregnancy Screener (PS)	
Davidson Co., TN		Jun 2011 Jul 2011	Advance Letter & PS Reminder Cards	2 segments All segments
Los Angeles Co., CA	Feb. 2011	Feb 2011 Monthly	Advance Letter/Recruitment Letter Marketing mailers	6 segments (Wave 1) 8 segments (Wave 2)
Ramsev Co., MN	Jan 2011	Jan 2011 Weekly	Advance Letter/Invitation Letter Advance Letter/Pregnancy Screener	25,626 LoI & HiI DU's 4,753 HiI DU's; 10K LoI nonresponders
Westmoreland Co., PN	Jan 2011	Jan 2011 Feb 2011	Advance Letter/Invite to Participate Pregnancy Screener	4 segments 4 segments

Table 2 Incentive Amount and Timing of Payment

Mode of Mail	Advanced Payment		Post Pregnancy Screener			
	\$2 (cash)	\$5 (cash)	\$5 (gift card)	\$10 (cash)	\$10 (gift card)	\$10 (lottery tickets)
Envelopes	Cook Co., IL		Davidson Co., TN	Los Angeles Co., CA	Cook Co., IL; Ramsey Co., MN	Los Angeles Co., CA
Priority Mail Envelopes	Westmoreland Co., PN; Cook Co., IL	Los Angeles Co., CA			Westmoreland Co., PN	
Boxes	Westmoreland Co., PN				Westmoreland Co., PN	
Addl. Support Materials	Cook Co., IL: "Lookout postcard"					

Results

Summary

- Five Study Centers participated in the orchestrated testing of incentive strategies.
- Several different modes and types of incentives were suggested and a few of these were tested.
- Participation of multiple Study Centers in an experiment to test multiple modes and types of incentive strategies was beneficial to advancing the group's knowledge of what has the potential to work and what does not in terms of using incentives to target eligible participants as well as improve recruitment response rates.

Implications/Challenges

• The value of orchestrated testing demonstrated by this experiment was that because multiple Study Centers implemented different strategies, group benefit was achieved in the following areas:

- Cost savings
- Reduction in time needed to complete experiment
- Reduction in resources needed to conduct experiment
- Abundance of information shared that would not have been possible as quickly if the experiments had been conducted individually and without a shared forum for collaboration and discussion.

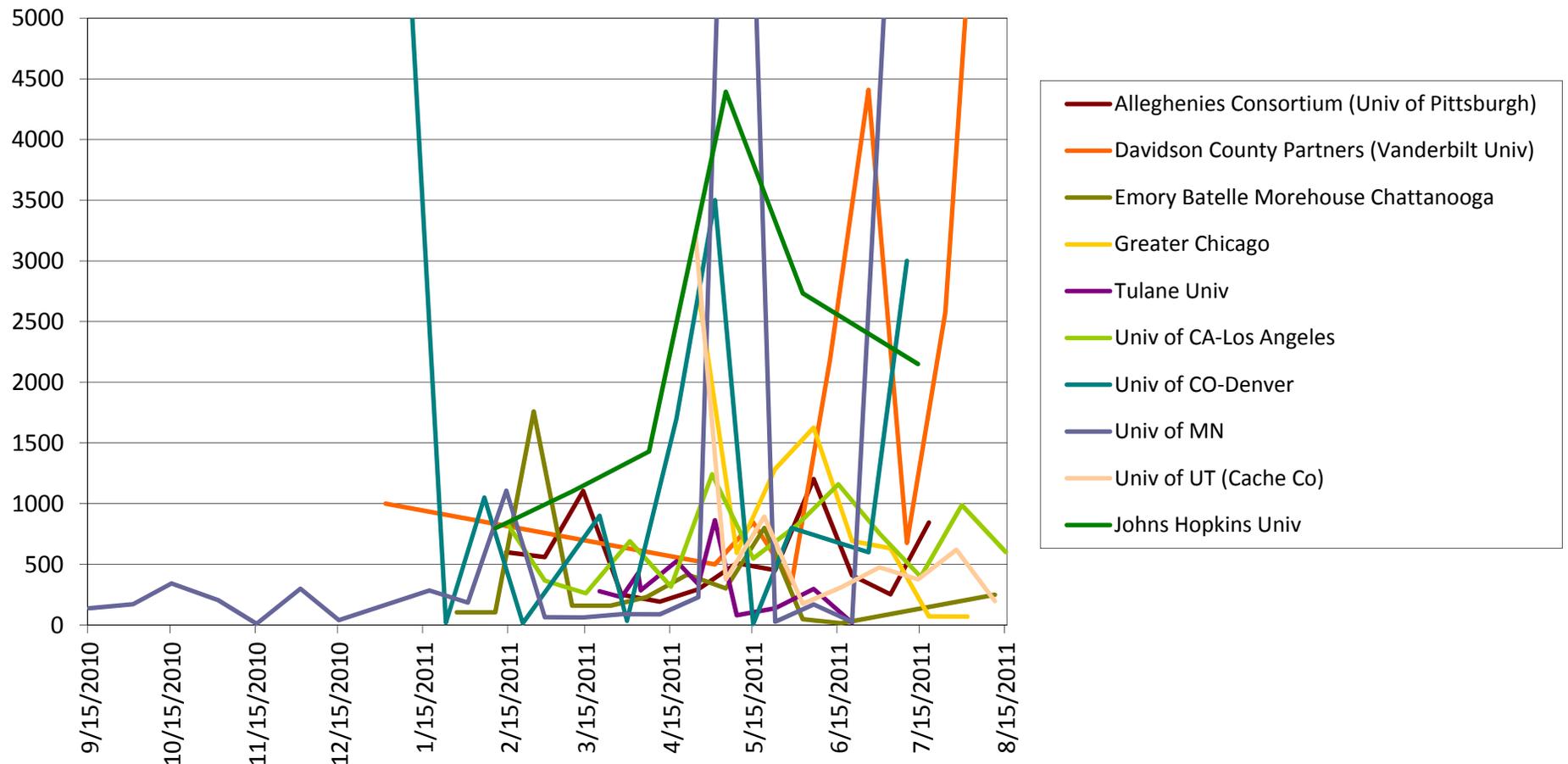
Challenges

- Not all Study Centers were able to complete their experiments because institutional approval could not be acquired in a timely fashion.
- Discussion of how decision-making processes can be facilitated at the Program Office level will improve the ability of Study Centers to conduct

Reach of Community Outreach and Engagement



Study Center Community Outreach and Engagement



NCS Community Partnership Action Index

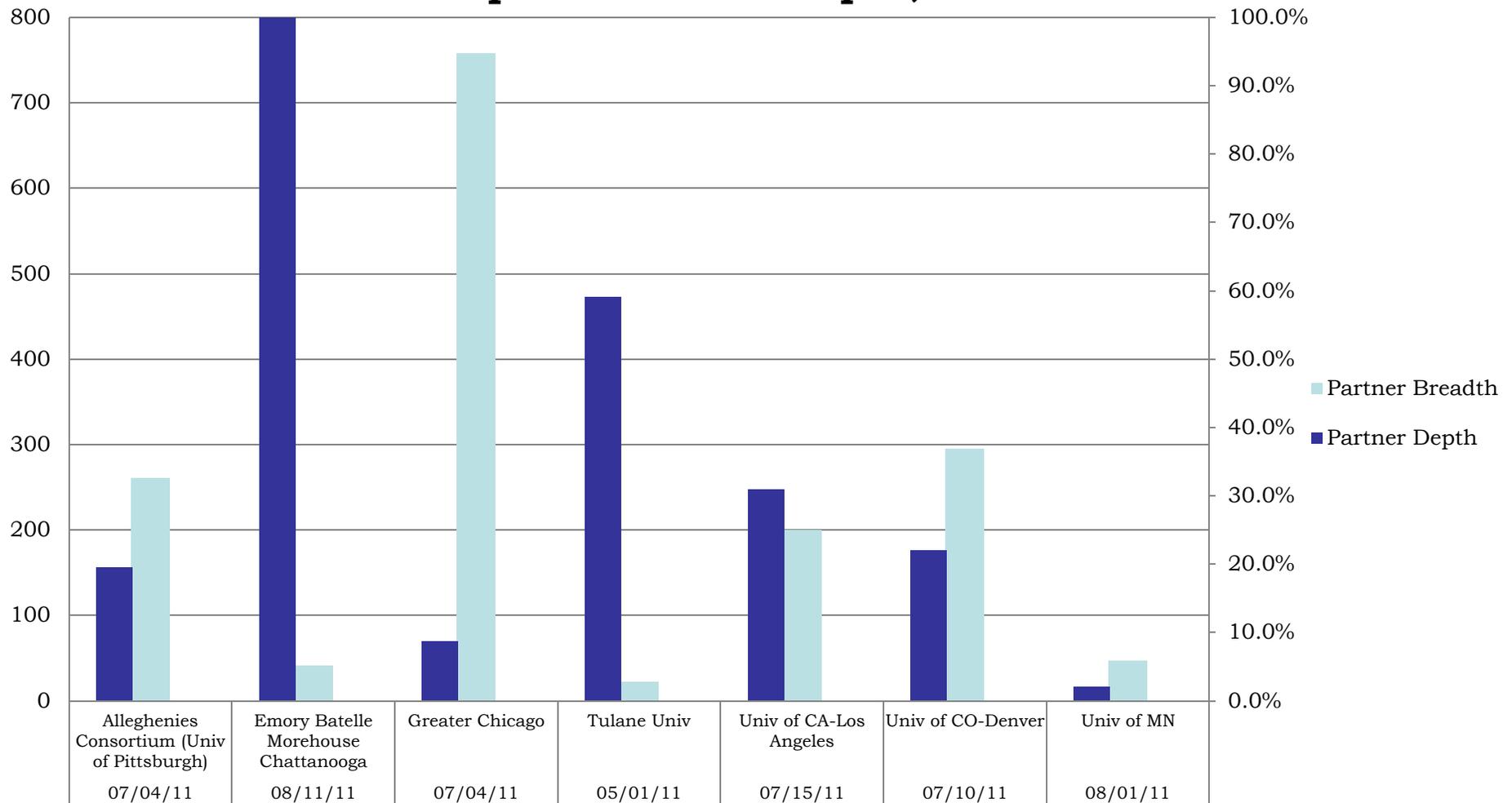
Index Score	Criteria
1. Identification	Potential partner identified & contacted (indirectly)
2. Introduction	SC has face-face meeting with organization's leadership about NCS
3. Passive Support	Organization will display NCS promotional materials or invites SC staff to meet with clients/constituents at upcoming organizational events
4. Active Support- Isolated	Organization works with SC staff to plan NCS event for clients/constituents (x1) Organization describes NCS in organizational newsletter (x1) Organizational leader writes letter of endorsement for NCS or acts as NCS advocate (x1)
5. Active Support- Ongoing	School sends home NCS information to parents via children Organization hosts a series of NCS events/educational sessions organized by SC staff Organization incorporates NCS information into its one-on-one interactions with clients/constituents or in newsletter on an ongoing basis

Will Nicholas & the Driver Diagram Metrics Team

Partnership Breadth and Depth



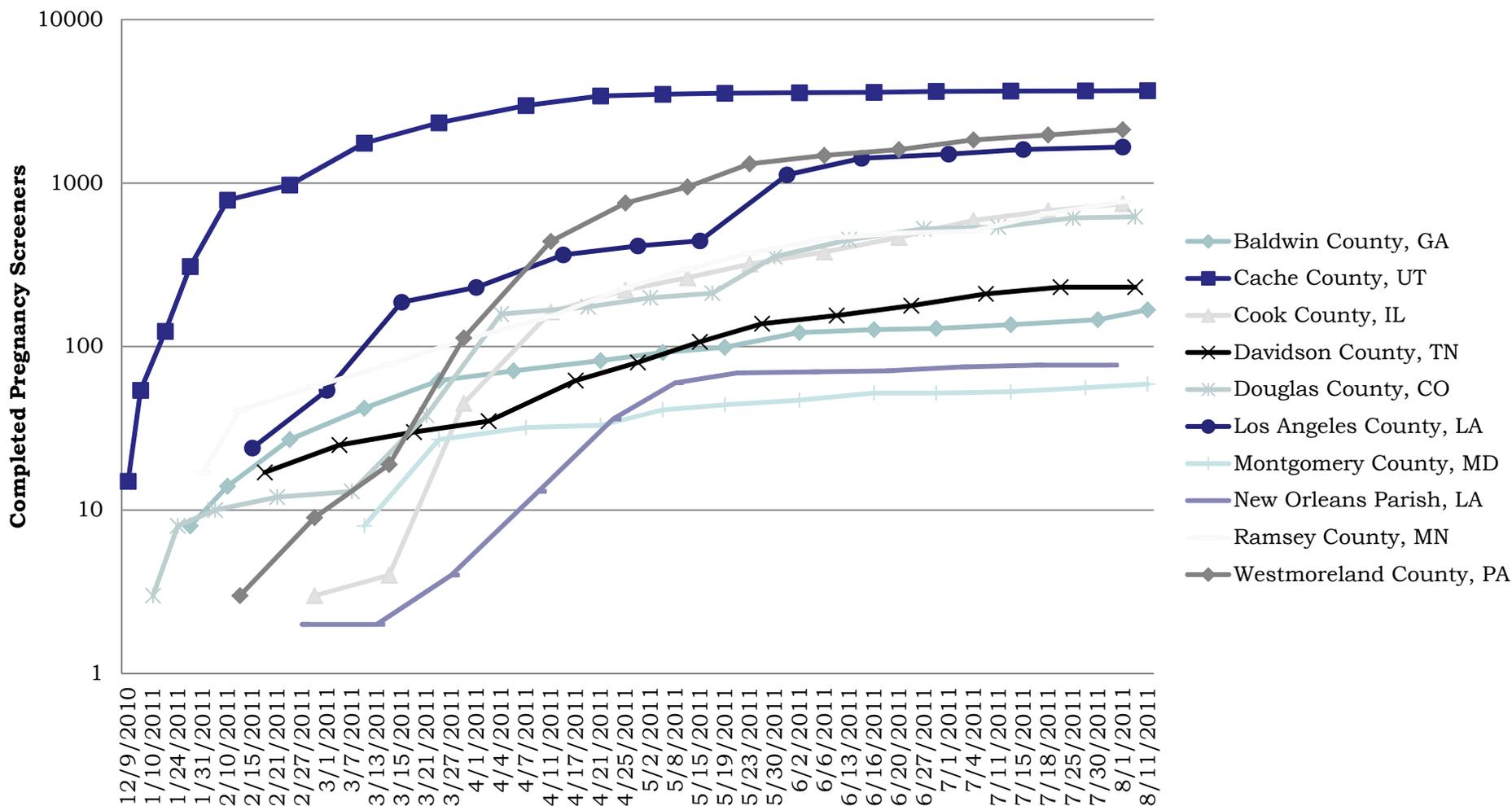
Partnership Breadth and Depth, Last Data Point



Pregnancy Screeners



**Cumulative Number of Pregnancy Screeners Completed Over Time
(Log Transformation)**



Scientific Challenges and Opportunities for Hi-Lo



- **Hypothesize that the sample will be biased toward women interested in research or health**
 - **Can evaluate the extent of bias and compare it to other strategies**
- **Can not evaluate the yield of recruitment as there is no true denominator given the absence of enumeration**
 - **Refine and implement the Household Inventory to enumerate households in the HiLo Locations**
- **Will women in LoI find their participation sufficiently meaningful to stay in the study?**
 - **Need for a research agenda for LoI women that is substantive in its own right in addition to allowing for transfer of women from LoI to HiI**
- **Will women in HiI find their participation too burdensome to stay in the study?**
 - **Need to closely monitor participant satisfaction, effectiveness of retention strategies, missing data on visits and data collection events to refine protocols**

Operational Challenges and Opportunities



Hi/Lo has not been done before – many new scripts, instruments and procedures had to be developed

- **Use of the CoIN has facilitated working groups to address development of materials and procedures**
- **Institutional processes such as IRB and OMB are not readily amenable to rapid review**
 - **Liaisons between HiLo SCs and the PO work to facilitate the process where feasible**

Next Steps



- **How do incentives influence response rates from initial nonrespondents?**
- **How best to recruit in “hard to reach” neighborhoods?**
- **What strategies of community engagement and outreach support participant retention?**

Recognizing Efforts To Date

- **COIN Coordinators**
 - **Aryeh Stein (EBMC)**
 - **Bonika Steward (University of Minnesota)**
 - **Chuck Shorter (Tulane University)**
 - **J. Mckoy (Vanderbilt University)**
 - **Jill Landsbaugh (University of CO-Denver)**
 - **Judith Kadosh (University of Pittsburgh)**
 - **Kaitlin Wolfe (Greater Chicago SC (Northwestern))**
 - **Mischka Garel (Johns Hopkins University)**
 - **Shallie Taylor (University of Utah)**
 - **William Nicholas (UCLA)**
- **Working Groups Leaders TO BE UPDATED**
 - **Hospital O&E: Kara Haas (GCSC) & Jill Cordes (University of MN)**
 - **Metrics Development: Carol Hogue (EMBC), Joe Stanford (University of Utah), Will Nicholas (UCLA)**
 - **Community O&E : Carol Sweeny (University of Utah)**
 - **Data Definitions - Jill Landsbaugh (University CO-Denver)**
- **Program Office Liaisons**
 - **Jane Holl (GCSC) & John Sokalowksi (NORC)**
 - **Laura Caulfield (Johns Hopkins University) & Sue Pedrazzani (RTI)**
- **Program Office**
 - **Brian Haugen, HiLo Liaison**
 - **Kate Winseck, COTR**
 - **John Lumpkin, COTR**
- **CoIN Management & Consultation**
 - **Lynette Lau Schumann (UCLA), Joslyn Levy, Moira Inkelas (UCLA), Lloyd Provost**

Questions and Comments

