Community Engaged Research
Jonathan N. Tobin, PhD

Presented at:
The Rockefeller University Certificate Program in Clinical & Translational Research
October 16, 2020
• Provide an overview of Clinical Directors Network (CDN), the practice-based research network (PBRN)

• Describe CDN’s work with CTSAs, and with The Rockefeller University Center for Clinical and Translational Science (RU-CCTS)

• Describe the research and training partnerships – both academic and community

• Highlight selected examples of Community-Academic Collaborative Community Engaged Research (CEnR) studies
We exist to advocate for meeting the health needs of underserved populations, while providing access to high quality health care, and greater social justice for all.

**MISSION**

We believe that:
1. All people have the right to high quality, community-based health care
2. Practicing in a community-based health care center is a desirable, viable long-term career choice for clinicians
3. Practice-based research should be relevant, practical and timely
4. Research at the community-based health care center level supports the dissemination, adoption and implementation of new knowledge, resulting in sustained high quality of care, increasing health equity, and the improvement of public health

**VALUES**

Clinical Directors Network, Inc. (CDN) is a not-for-profit clinician membership organization, practice-based research network (PBRN), and clinician training organization, founded to provide peer-initiated activities for clinicians practicing in low income, minority, and other underserved communities.

Translating research into practice for the enhancement of health equity and improvement of public health
CDN’S PRIMARY ACTIVITIES

**RESEARCH**
We accelerate research translation. CDN has over 25 years of experience developing, conducting, implementing and evaluating practice-based research with Community Health Centers and other safety-net practices.

**EDUCATION**
We provide peer support through training and education that integrates online and on-site didactic and experiential learning. Collaborate with us to meet your training needs.

**PARTNERSHIP**
We conduct research and educational activities in partnership with government, academic, not-for-profit, and for profit organizations. CDN has an extensive network of multidisciplinary researchers, clinicians, clinical leaders and policy-makers.

**DISSEMINATION**
We provide dissemination services through webcasts for public health and clinical research projects. CDN has extensive experience disseminating research and training programs to our extensive network of multidisciplinary researchers, clinicians, clinical leaders and policy-makers.

**ENGAGEMENT**

**COLLABORATION**
### FACILITIES, PATIENTS & VISITS

<table>
<thead>
<tr>
<th></th>
<th>National</th>
<th>New York</th>
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</thead>
<tbody>
<tr>
<td>Total # Grantees</td>
<td>1,367</td>
<td>65</td>
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<tr>
<td>Total # Delivery Sites</td>
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<tr>
<td>Total # Medical Users</td>
<td>21,880,295</td>
<td>1,698,867</td>
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<tr>
<td>Total # Medical Encounters</td>
<td>71,297,375</td>
<td>6,174,700</td>
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<tr>
<td>Total # Dental Users</td>
<td>5,656,190</td>
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<tr>
<td>Total # Dental Encounters</td>
<td>14,420,355</td>
<td>1,198,612</td>
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<tr>
<td>Total # Medical/Dental Users</td>
<td>25,860,296</td>
<td>2,038,538</td>
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</table>
CDN has enrolled >1,367,000 low income, minority, medically underserved patients into clinical trials and observational studies.
CDN N²: Building a Network of Safety Net PBRNs

A PRACTICE-BASED RESEARCH NETWORK (PBRN) THAT WORKS WITH FEDERALLY QUALIFIED HEALTH CENTERS (FQHCS) AND OTHER PRIMARY HEALTH CARE SAFETY-NET PRACTICES

CDN has built a scalable research infrastructure to serve the needs of the clinicians who practice in the health care safety-net by building on existing infrastructure, creating new relationships, providing external practice facilitators (online, remote), and dissemination channels.

CDN N²-PBRN

FACILITIES, PATIENTS & VISITS

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DHHS – HRSA: The Primary Health Care Safety-Net

PBRN Partners

- Access Community Health Network (ACCESS)
- Alliance of Chicago (ALLIANCE)
- Association of Asian Pacific Community Health Organization (AAPCHO)
- Center for Community Health Education Research and Service (CCHERS)
- Clinical Directors Network (CDN) [LEAD PBRN]
- Community Health Applied Research Network (CHARN)
- Fenway Institute (FENWAY)
- New York City Research and Improvement Group (NYCRING)
- Oregon Community Health Information Network (OCHIN)
- South Texas Ambulatory Research Network (STARNet)
- Southeast Regional Clinicians Network (SERCN)
- Florida Clinical Research Consortium (One Florida)

Funded by AHRQ Grant: P30HS021667
PI: Jonathan N. Tobin, PhD (CDN)
KEY STAKEHOLDERS FOR CDN’S PRACTICE-BASED RESEARCH NETWORK (PBRN) RESEARCH & EDUCATIONAL ACTIVITIES
CDN N² PBRN
Network of Safety-net PBRNs

CDN

CAPriCORN
One Florida
NYC-CDRN

Access Community Health Network (ACCESS)
Alliance Chicago (Alliance)
The Fenway Institute (FENWAY)
Center for Community Health Education Research and Service (CCHERS)
Southeast Regional Clinicians Network (SERCN)
South Texas Ambulatory Research Network (STARNet)
Oregon Community Health Information Network (OCHIN)
Association of Asian Pacific Community Health Organization (AAPCHO)
New York City Research and Improvement Group (NYCRING)

36 FQHCs Chicago, IL
200 FQHCs AZ, CA, FL, GA, HI, IL, IN, MI, NY, NC, TX
3 FQHCs Boston, MA
15 FQHCs Boston, MA
221 FQHCs AL, FL, GA, KY, LA, MS, NC, SC, TN
108 FQHCs TX
729 FQHCs AK, CA, HI, MA, MN, MT, NV, NC, OH, OR, TX, WA, WI
33 FQHCs AZ, CA, FL, GA, HI, IL, LA, MA, MN, NV, NY, OH, TX, WA, GU, P.R., VI
35 FQHCs New York, NY
• Albert Einstein College of Medicine/Montefiore Medical Center
• Boston University
• Columbia University
• Dartmouth Medical School
• Harvard University
• Kaiser Permanente Center for Health Policy Research
• New York University
• Northwestern University
• Oregon Health and Science University
• University of California/San Francisco (UCSF)
• University of California/Los Angeles (UCLA)
• RAND Corporation
• The Rockefeller University
• Tufts University
• University of Chicago
• University of Illinois at Chicago
• University of Miami
• University of Michigan
• University of Oregon
• University of Washington
• Weill Cornell
• Yale University
The Rockefeller University

- Unique structure
  - 82 heads of labs
  - 26 Nobel prizes, 24 Lasker Awards, 20+ National Medals of Science
  - 100+ year tradition of translational research
  - 40 bed JCAHO-accredited research-only hospital
  - AAHRPP-accredited
- 250 protocols
  - 80% investigator-initiated
  - 20% phase I, II, III or device trials
- Center for Clinical Translational Science (2006 – Present)
  - Community Engaged Research Core:
    - Addressing Basic Mechanistic Questions
    - Within Community-based Comparative Effectiveness Studies
A Practice-based Research Network (PBRN) that works with Federally Qualified Health Centers (FQHCs) and other Primary Health Care Safety-net Practices

Research Infrastructure to build a Learning Healthcare System

A collaboration among:

- Access Community Health Network (ACCESS)
- Alliance of Chicago (ALLIANCE)
- Association of Asian Pacific Community Health Organization (AAPCHO)
- Center for Community Health Education Research and Service (CCHERS)
- Clinical Directors Network (CDN) [LEAD PBRN]
- Community Health Applied Research Network (CHARN)
- Fenway Institute (FENWAY)
- New York City Research and Improvement Group (NYCRING)
- Oregon Community Health Information Network (OCHIN)
- South Texas Ambulatory Research Network (STARNet)
- One Florida

Funded by AHRQ Grant: P30 HS 021667
Principal Investigator: Jonathan N. Tobin, PhD (CDN)

www.CDNetwork.org
BUILDING COMMUNITY-ACADEMIC TRANSLATIONAL RESEARCH PARTNERSHIPS

CDN/N² = PBRN INFRASTRUCTURE¹
- Quality Improvement
- Clinical Outcomes
- Comparative Effectiveness Research
  Patient Centered Outcomes Research (CER/PCOR)
- Training Clinician Investigators
- Implementation Science
- Disseminating Methods & Clinical Outcomes Results

ROCKEFELLER = CTSA INFRASTRUCTURE²
- Laboratory Investigation
- Mechanistic Questions
- Protocol Navigation
- Clinical Scholars
- Bioinformatics/Phenotyping
- Disseminating Translational Research Methods

CEnR

CER/PCOR + Embedded Mechanistic Studies

CEnR-Navigation Process (CEnR-Nav)²
[Investigators and partners may enter at any stage]

KEY ATTRIBUTES OF THE RU-CDN TRANSLATIONAL RESEARCH MODEL

• Conducting rigorous practice-based comparative effectiveness/health outcomes research in collaboration with academic investigators, community-based clinicians and staff, patients, and other stakeholders

• Engaging FQHCs and Primary Care Clinicians as investigators

• Embedding basic science & mechanistic questions into clinical studies conducted in practice-based settings

https://ncats.nih.gov/translation/spectrum
LITTLE DATA
CAMP1 & CAMP2 Stakeholders and Partners

The Rockefeller University
Barry Coller, MD
Rhonda G. Kost, MD
Alexander Tomasz, PhD
Herminia de Lencastre, PhD
Maria Pardos de la Gandara, MD, PhD
Marilyn Chung, BA
Cameron Coffran, MS
Joel Correa da Rosa, PhD
Kimberly Vasquez, MPH
Teresa Evering, MD, MS
Mina Pastagia, MD, MS
Majia Neville-Williams, MPH
CDN
Jonathan N. Tobin, PhD
Chamanara Khalida, MD, MPH
Brianna D'Orazio, BA
Tameir Holder, MPH
Musarrat Rahman, BS
Sisle Heyliger, BA
Anthony Bhabb
Cynthia Mofunanya
Jessica Ramachandran
Uma Siddiqui

Metropolitan Hospital Center
Getaw Worku Hassen, MD, PhD
Jessica Ramachandran, MBBS
*Van Johnson

Coney Island Hospital
Regina Hammad, DO
Slava Gladstein, DO
Rosalee Nguyen, DO, MS
*Ronnett Davis

Community Healthcare Network
Satoko Kanahara, MD
Katrina Adams

Academic Stakeholders
Christopher Frei, PharmD, MSc, FCCP, BCPs
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Christopher Mason, PhD
Weill Cornell Medical College
Eric Lofgren, PhD
Washington State University College of Veterinary Medicine
Susan Huang, MD, MPH
University of California Irvine

NYU Lutheran Family Health Centers
William Pagano, MD, MPH
Paula Clemons, PA
Jason Hyde, MA
Jasbir Singh, MBBS
*Keenan Millan

Open Door Family Medical Center
Daren Wu, MD
Asaf Cohen, MD

Urban Health Plan
Samuel DeLeon, MD
Franco Barsanti, PharmD
Shirish Balachandra, MD
Claude Parola, MD
Tracie Urban, RN
*Brenda Gonzalez

Hudson River Health Care
Carmen Chinea, MD
Nancy Jenks, NP

Manhattan Physician's Group
Ronda Burgess, RN

PCORI Project Officers
Anne Tronell, MD, MPH
Jess Robb

Funded by:
Patient Centered Outcomes Research Institute (PCORI, CONTRACT # CER-1402-10800)
The Rockefeller University Center for Clinical and Translational Science (CCTS)
Pilot Grant and Administrative Supplement (NIH-NCATS Grant # 8-UL1-TR000043)
AHRQ Grant # P30 HS 021667

* Participated in Previous MRSA Studies

Community Health Centers
Community Hospitals
CAMP1 (Observational Cohort) & CAMP2 (CER/PCOR RCT)
Stakeholders and Partners

The Rockefeller University
Barry Coller, MD
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University of California Irvine

*Patient/Community Stakeholders

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Shirish Balachandra, MD
Claude Parola, MD
Tracie Urban, RN
*Brenda Gonzalez

Denny Moe’s Superstar Barbershop
*Dennis “Denny Moe” Mitchell

PCORI Project Officers
Anne Trontell, MD, MPH
Jess Robb

*Denotes new names not included in the original list.
Community Associated MRSA Projects (CAMP 1&2)

CCTS Pilot → CTSA Administrative Supplement → PCORI CER R01
CAMP
• Protocol
• Consent
  o English
  o Spanish
• Methods
• Database
• Ontology
• Biospecimen Repository

CDN PBRN²

CDN (New York)

CHC
Brooklyn Family Care Center
n=2

CHC
Hudson River Health Care
n=34

CHC
Manhattan’s Physician Group 95 St.
n=6

CHC
Manhattan’s Physician Group 125 St.
n=14

CHC
Open Door Family Health Center
n=23

CHC
Urban Health Plan
n=50

STARNet (Texas)

CHC
Treviño Family Clinic
n=8

ACCESS (Chicago)

CHC
University Health System
n=7

CHC
Kling Adult Medicine
n=0

CHC
Madison Adult Medicine
n=0

CHC
LFHC (Family Physician)
n=0

CHC
LFHC (Park Slope)
n=8

LFHC*

CHC
Brooklyn Family Care Center
n=2

CHC
Open Door Family Health Center
n=23

CHC
Manhattan’s Physician Group 125 St.
n=14

CHC
Hudson River Health Care
n=34

CHC
Urban Health Plan
n=50

CHC
StarNet (Texas)

CHC
ACCESS (Chicago)

CHC
LFHC*

CHC
Treviño Family Clinic
n=8

CHC
University Health System
n=7

CHC
Kling Adult Medicine
n=0

CHC
Madison Adult Medicine
n=0

CHC
LFHC (Family Physician)
n=0

CHC
LFHC (Park Slope)
n=8

CAMP
Incision/Drainage Specimens & Nasal Specimens

BioReference Labs
(Culture & Sensitivity)
(Antibiograms)
(Purified Sub-Cultures)

MIRSA

MSSA

Rockefeller/Tomasz Lab
for Molecular EPI & Whole Genome Seq

Local Clinical Labs
(Culture & Sensitivity)

* Incubator PBRN

SPECIMENS
n=318

PATIENTS
n=159

CHCs
n=12

PBRNs
n=4
CA-MRSA Molecular Epidemiology: (T1 Laboratory Investigator Expertise/Interest)

Molecular profile of USA 300 MRSA wound isolates

Clonal distribution of MRSA wounds

CC8 (USA300)
CC30 (USA1100)
CC5 (USA100)
CC88
ST72 (USA700)

Molecular Types of Staphylococcus aureus and Staphylococcus epidermidis Cell Wall Components and Their Relevance to the Host Response and Immune Response. Identification of CA-MRSA Strains Associated with Community-Acquired Methicillin-Resistant Staphylococcus aureus (CA-MRSA) Wund Infections in New York City.

All MRSA wound isolates belonging to the USA 300 clone (ST 8) were:
- pvl +
- ACME type 1
Patient-Centered CER Study of Home-based Interventions to Prevent CA-MRSA Infection Recurrence: CA-MRSA Project 2 (CAMP2)

Patient Centered Outcomes Research Institute (PCORI), Grant # CER-1402-10800
The Rockefeller University Clinical and Translational Science Award Program (CTSA) and an Administrative Supplement and Pilot Project Awards (NIH-NCATS Grant #UL1-TR-000043)
N²-PBRN: Building a Network of Safety Net PBRNs (AHRQ Grant #I P30-HS-021667)
OBJECTIVES

To evaluate the comparative effectiveness of a CHW/Promotora-delivered home intervention (Experimental Group) as compared to Usual Care (Control Group) on the primary patient-centered and clinical outcome (SSTI recurrence rates) and secondary patient-centered outcomes (pain, depression, quality of life, care satisfaction) and public health outcomes (household transmission) using a two-arm randomized controlled trial (RCT).
CAMP2 Specific Aims

- **Aim 1:** To evaluate the **comparative effectiveness of a CHW/Promotora-delivered home intervention** (Experimental Group) as compared to Usual Care (Control Group) on the primary patient-centered and clinical outcome (SSTI recurrence rates) and secondary patient-centered and clinical outcomes (pain, depression, quality of life, care satisfaction) **using a two-arm randomized controlled trial (RCT)**

- **Aim 2:** To understand the **patient-level factors** (CA-MRSA infection prevention knowledge, self-efficacy, decision-making autonomy, prevention behaviors/adherence) and environmental-level factors (household surface contamination, household member colonization, transmission to household members) that are associated with differences in SSTI recurrence rates

- **Aim 3:** To understand **interactions of the intervention with bacterial genotypic and phenotypic variables** on decontamination, decolonization, SSTI recurrence, and household transmission

- **Aim 4 [Exploratory]:** To explore the **evolution of stakeholder engagement and interactions** among patients and other community stakeholders with practicing community-based clinicians and academic laboratory and clinical investigators over the duration of the study period
CAMP2 Specific Aims & Logic Model

**Aim 1:** To evaluate the comparative effectiveness of a CHW/Promotora-delivered home intervention (Experimental Group) as compared to Usual Care (Control Group) on the primary patient-centered and clinical outcome (SSTI recurrence rates) and secondary patient-centered and clinical outcomes (pain, depression, quality of life, care satisfaction) using a two-arm randomized controlled trial (RCT).

**Aim 2:** To understand the patient-level factors (CA-MRSA infection prevention knowledge, self-efficacy, decision-making autonomy, prevention behaviors/adherence) and environmental-level factors (household surface contamination, household member colonization, transmission to household members) that are associated with differences in SSTI recurrence rates.

**Aim 3:** To understand interactions of the intervention with bacterial genotypic and phenotypic variables on decontamination, decolonization, SSTI recurrence, and household transmission.

**Aim 4 [Exploratory]:** To explore the evolution of stakeholder engagement and interactions among patients and other community stakeholders with practicing community-based clinicians and academic laboratory and clinical investigators over the duration of the study period.
CAMP2 Home Visit Assessment:
Household Surface Sampling

Collected at Baseline and 3 Months Post Intervention from:

- Index patients (n=186)
- Consenting household members
- Home Environment Surfaces

**Index Patients and Household Members**
(n=3 per participant)
Baseline and 3-Months

- Front doorknob
- Kitchen floor
- TV remote
- Bathroom sink handle
- Telephone
- Hair brush
- Kitchen light switch
- Toilet seat
- Kitchen countertop
- Bedroom floor
- Refrigerator door handle
- Favorite child's toy (non-plush)
- Kitchen sink handle

**Environment**
(n=13 surfaces per household)

<table>
<thead>
<tr>
<th>Surface to Swab</th>
<th>Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front doorknob</td>
<td>Kitchen floor</td>
</tr>
<tr>
<td>TV remote</td>
<td>Bathroom sink handle</td>
</tr>
<tr>
<td>Telephone</td>
<td>Hair brush</td>
</tr>
<tr>
<td>Kitchen light switch</td>
<td>Toilet seat</td>
</tr>
<tr>
<td>Kitchen countertop</td>
<td>Bedroom floor</td>
</tr>
<tr>
<td>Refrigerator door handle</td>
<td>Favorite child's toy (non-plush)</td>
</tr>
<tr>
<td>Kitchen sink handle</td>
<td></td>
</tr>
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Axilla
Nares
Groin
### CA-MRSA Molecular Epidemiology:
#### (T1 Laboratory Investigator Expertise/Interest)

**CAMP2 Case #32: Clinical samples**

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<tr>
<th>Location</th>
<th>Material</th>
<th>spa</th>
<th>MLST</th>
<th>meCA</th>
<th>PVL</th>
<th>ACME</th>
<th>ATB</th>
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<tbody>
<tr>
<td>Wound</td>
<td></td>
<td>t318</td>
<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td>OXA, ERY</td>
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<tr>
<td>Nasal</td>
<td></td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
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<tr>
<td>Axilla</td>
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<td>ND</td>
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<td>ND</td>
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<tr>
<td>Groin</td>
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<td>ND</td>
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<td>Front Door Knob</td>
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<td></td>
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<tr>
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<td>ND</td>
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<td>Kitchen Refrigerator Handle</td>
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<td>ND</td>
<td>ND</td>
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<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Kitchen Floor</td>
<td>Vinyl</td>
<td>—</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
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<td>ND</td>
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<tr>
<td>Bathroom Sink Handle</td>
<td>Metal</td>
<td>t318</td>
<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Bathroom Hairbrush</td>
<td>N/A</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
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<tr>
<td>Bathroom Toilet Seat</td>
<td>Plastic</td>
<td>—</td>
<td>ND</td>
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<td>ND</td>
<td>ND</td>
<td>ND</td>
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<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Bedroom Child’s Toy</td>
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<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>

**Household #32, T1 Results**

<table>
<thead>
<tr>
<th>Location</th>
<th>Material</th>
<th>spa</th>
<th>MLST</th>
<th>meCA</th>
<th>PVL</th>
<th>ACME</th>
<th>ATB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Index Patient</td>
<td>nasal</td>
<td>t318</td>
<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>H.H. Member #1</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #2</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #3</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #4</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #5</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #6</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>H.H. Member #7</td>
<td>axilla</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Front Door Knob</td>
<td>Metal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living TV Remote</td>
<td>Plastic</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Living Cell Phone</td>
<td>Glass</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kitchen Light Switch</td>
<td>Plastic</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Kitchen Countertop</td>
<td>Formica</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Kitchen Refrigerator Handle</td>
<td>Plastic</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Kitchen Floor</td>
<td>Vinyl</td>
<td>—</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Kitchen Sink Handle</td>
<td>Metal</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Bathroom Sink Handle</td>
<td>Metal</td>
<td>t318</td>
<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Bathroom Hairbrush</td>
<td>N/A</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Bathroom Toilet Seat</td>
<td>Plastic</td>
<td>—</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
<tr>
<td>Bedroom Floor</td>
<td>Vinyl</td>
<td>t318</td>
<td>ST30</td>
<td>—</td>
<td>+</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>Bedroom Child’s Toy</td>
<td>Plastic</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
<td>ND</td>
</tr>
</tbody>
</table>
Environmental Samples vs. Isolates:

One Codex: A Sensitive and Accurate Data Platform for Genomic Microbial Identification, Samuel S Minot, Niklas Krumm, Nicholas B Greenfield
bioRxiv 027607; doi: https://doi.org/10.1101/027607
### CAMP2 Baseline Results (4/17/17)

<table>
<thead>
<tr>
<th>Surveillance Site</th>
<th>Patient Colonization (n=135)</th>
<th>Household Member Colonization (n=40)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nares</td>
<td>51.9%</td>
<td>10.0%</td>
</tr>
<tr>
<td>Axilla</td>
<td>17.8%</td>
<td>17.5%</td>
</tr>
<tr>
<td>Groin</td>
<td>34.1%</td>
<td>25.0%</td>
</tr>
</tbody>
</table>

| 0 Colonized sites | 33.3% | 67.5% |
| 1 Colonized site  | 35.6% | 15.0% |
| 2+ Colonized sites| 29.7% | 65% | **63%** |

<table>
<thead>
<tr>
<th>Kitchen Surface Site</th>
<th>Household Surface Contamination (n=52)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kitchen floor</td>
<td>19.2%</td>
</tr>
<tr>
<td>Toilet seat</td>
<td>23.1%</td>
</tr>
<tr>
<td>Bedroom floor</td>
<td>21.2%</td>
</tr>
<tr>
<td>Refrigerator handle</td>
<td>13.5%</td>
</tr>
<tr>
<td>TV remote</td>
<td>11.5%</td>
</tr>
<tr>
<td>Telephone</td>
<td>11.5%</td>
</tr>
<tr>
<td>Bathroom sink handle</td>
<td>11.5%</td>
</tr>
<tr>
<td>Kitchen countertop</td>
<td>9.6%</td>
</tr>
<tr>
<td>Kitchen light switch</td>
<td>5.8%</td>
</tr>
<tr>
<td>Front doorknob</td>
<td>5.8%</td>
</tr>
<tr>
<td>Child’s toy</td>
<td>3.8%</td>
</tr>
<tr>
<td>Hairbrush</td>
<td>3.8%</td>
</tr>
<tr>
<td>Kitchen sink handle</td>
<td>1.9%</td>
</tr>
<tr>
<td>No Contamination</td>
<td>(0 surfaces) 40.4%</td>
</tr>
<tr>
<td>Moderate Contamination</td>
<td>(1-3) 48.1%</td>
</tr>
<tr>
<td>High Contamination</td>
<td>(&gt; 4) 11.5%</td>
</tr>
</tbody>
</table>
Clinical & Secondary Outcomes
Aim 1

- To evaluate the comparative effectiveness of a CHW/Promotora-delivered home intervention (Experimental group) as compared to usual care (Control group) on the primary patient-centered and clinical outcome (SSTI recurrence rates)

- Secondary outcomes included patient-centered and clinical outcomes (pain, depression, quality of life, care satisfaction)
Notes:

1Prospective recurrence is defined as report of a new SSTI in the 6-month period following the initial (baseline) infection for which the participant was recruited. EHR-based outcomes were assessed at 6-months post-baseline and include the time period 12 months prior and 6 months after the baseline infection. Self-report prospective recurrence was assessed at the 6-month telephone assessment (T4).

2The observed prospective recurrence rate at 6 month EHR review for the Observation Only Group (n=66, 10.5%) was not different from either the Experimental (11.3%) or Usual Care (11.0%) or Total (10.8%).
Notes:

1Prospective recurrence is defined as report of a new SSTI in the 6-month period following the initial (baseline) infection for which the participant was recruited. Retrospective recurrence is defined as report of SSTI prior to the initial (baseline) infection for which the participant was recruited. EHR-based outcomes were assessed at 6-months post-baseline and include the time period 12 months prior and 6 months after the baseline infection. Self-report retrospective recurrence was assessed at the baseline telephone assessment (T0), and prospective recurrence was assessed at the 6-month telephone assessment (T4).

2The observed prospective recurrence rate at 6 month EHR review for the Observation Only Group (n=66, 10.5%) was not different from either the Experimental (11.3%) or Usual Care (11.0%) or Total (10.8%).
Summary of Logistic Regression Analyses of SSTI Recurrence Within Six-Months By Key Subgroups (Heterogeneity of Treatment Effects)

<table>
<thead>
<tr>
<th>Model</th>
<th>Outcome: SSTI Recurrence within 6 months by EHR (1=Experimental, 0=Usual Care)</th>
<th>Odds Ratio</th>
<th>95%CI Lower</th>
<th>95%CI Upper</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Planned Subgroup Analyses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Overall</td>
<td>1.14</td>
<td>0.36</td>
<td>3.65</td>
<td>0.82</td>
</tr>
<tr>
<td>2</td>
<td>By Culture Type (MRSA vs MSSA)</td>
<td>1.03</td>
<td>0.22</td>
<td>4.70</td>
<td>0.96</td>
</tr>
<tr>
<td>3</td>
<td>Non-USA Born</td>
<td>2.36</td>
<td>0.35</td>
<td>15.87</td>
<td>0.38</td>
</tr>
<tr>
<td></td>
<td>USA Born</td>
<td>1.12</td>
<td>0.23</td>
<td>5.46</td>
<td>0.89</td>
</tr>
<tr>
<td>4</td>
<td>High Household Contamination Level</td>
<td>1.385</td>
<td>0.213</td>
<td>9.009</td>
<td>0.73</td>
</tr>
<tr>
<td>5</td>
<td>Low Household Contamination Level</td>
<td>1.042</td>
<td>0.234</td>
<td>4.651</td>
<td>0.96</td>
</tr>
<tr>
<td>6</td>
<td>Household Members Colonization Present</td>
<td>UE</td>
<td>UE</td>
<td>UE</td>
<td>0.95</td>
</tr>
<tr>
<td>7</td>
<td>Household Members Colonization Absent</td>
<td>0.83</td>
<td>0.24</td>
<td>2.95</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td><strong>Unplanned Subgroup Analyses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Emergency Department (ED)</td>
<td>1.44</td>
<td>0.42</td>
<td>4.88</td>
<td>0.56</td>
</tr>
<tr>
<td>8</td>
<td>Federally Qualified Health Center (FQHC)</td>
<td>UE</td>
<td>UE</td>
<td>UE</td>
<td>0.96</td>
</tr>
<tr>
<td>8</td>
<td>I&amp;D Treatment</td>
<td>0.80</td>
<td>0.17</td>
<td>3.90</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>No I&amp;D Treatment</td>
<td>1.58</td>
<td>0.25</td>
<td>9.80</td>
<td>0.62</td>
</tr>
</tbody>
</table>

*Unestimatable due to sparse data
Self-Report From Index Patient of Household Member SSTI

- One-month report of SSTI:
  - Experimental (n=63): 5.6%
  - Usual Care (n=56): 10.2%

- Six-month report of SSTI:
  - Experimental (n=63): 6.7%
  - Usual Care (n=56): 10.3%
Self-Report From Index Patient of Household Member Seeking Treatment for SSTI

Experimenal (n=63) vs Usual Care (n=56)

One-month report of seeking treatment:
- Experimental: 33.3%
- Usual Care: 100%

Six-month report of seeking treatment:
- Experimental: 80.0%
- Usual Care: 66.7%
Proportion of Index Patient Colonization at Household Visits by Site

<table>
<thead>
<tr>
<th>Site</th>
<th>Experimental Baseline</th>
<th>Experimental Three months</th>
<th>Usual Care Baseline</th>
<th>Usual Care Three months</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nares</td>
<td>41.3%</td>
<td>15.9%</td>
<td>32.1%</td>
<td>28.6%</td>
</tr>
<tr>
<td>Axilla</td>
<td>34.9%</td>
<td>17.5%</td>
<td>32.1%</td>
<td>21.4%</td>
</tr>
<tr>
<td>Groin</td>
<td>49.2%</td>
<td>23.8%</td>
<td>44.6%</td>
<td>35.7%</td>
</tr>
</tbody>
</table>
Proportion of Index Patient Colonization at Household Visits by Number of Sites

<table>
<thead>
<tr>
<th></th>
<th>0 Colonized sites</th>
<th>1 Colonized site</th>
<th>2 Colonized sites</th>
<th>3 Colonized sites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>25.4%</td>
<td>34.9%</td>
<td>28.6%</td>
<td>11.1%</td>
</tr>
<tr>
<td>Usual Care</td>
<td>51.8%</td>
<td>22.2%</td>
<td>17.9%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Experimental</td>
<td>51.8%</td>
<td>35.7%</td>
<td>19.6%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Usual Care</td>
<td>33.9%</td>
<td>34.9%</td>
<td>19.6%</td>
<td>19.6%</td>
</tr>
</tbody>
</table>

Baseline chart indicates the proportion of colonized sites at different time points for experimental and usual care conditions.
Household Contamination by Surface Type

*p=0.0614
Household Contamination by Surface Amount

![Graph showing the percentage of surfaces contaminated by household contamination over time. The graph compares baseline data to data collected three months later, with experimental and usual care conditions.](image-url)
Conducting Community-Engaged Team Science Across the Translational Research Spectrum
Translational Research & NIH “Blue Highways”


What made the partnership work:

**Aim 1**: To evaluate the comparative effectiveness of a CHW/Promotora-delivered home intervention (Experimental Group) as compared to Usual Care (Control Group) on the primary patient-centered and clinical outcome (SSTI recurrence rates) and secondary patient-centered and clinical outcomes (pain, depression, quality of life, care satisfaction) using a two-arm randomized controlled trial (RCT).

**Aim 2**: To understand patient-level factors (CA-MRSA infection prevention knowledge, self-efficacy, decision-making autonomy, prevention behaviors/adherence) and environmental-level factors (household surface contamination, household member colonization, transmission to household members) associated w/diffs in SSTI recurrence rates.

**Aim 3**: To understand interactions of the intervention with bacterial genotypic and phenotypic variables on decontamination, decolonization, SSTI recurrence, and household transmission.

**Aim 4**: To explore the evolution of stakeholder engagement and interactions among patients and other community stakeholders with practicing community-based clinicians and academic laboratory and clinical investigators over the duration of the study period.
Big Data
Obesity, Cardiometabolic Risk and Adolescent Pregnancy:

Building a De-Identified EHR Research Database to Examine the Biological and Social Determinants of Nutritional Status, Pregnancy and Birth Outcomes

FUNDED BY:

The Sackler Center for Biomedicine and Nutrition (SCBN) Research at The Rockefeller University; The Sackler Institute for Nutrition Science at The New York Academy of Sciences; (3) N^2: Building a Network of Safety-Net PBRNs (AHRQ.1-P30-HS-021667); (4) The National Center for Advancing Translational Sciences/The Rockefeller University Center for Clinical and Translational Science (NIH-NCATS Grant #UL1-TR-000043)
TYPES OF STAKEHOLDERS

- Physicians
  - Pediatrics
  - OBGYN
  - Family Medicine
  - Bariatric Surgery
- Midwives
- Nurses
- Nutritionists
- Researchers
- IT Analysts
- Biostatisticians
- Bioinformaticians
- Basic Scientists
- Funders
- Scientific Publishers
The Rockefeller University***
- Jan L. Breslow, MD*
- Peter R. Holt, MD
- Caroline S. Jiang, MS
- Bruce S. McEwen, PhD
- Rhonda G. Kost, MD
- Kimberly S. Vasquez, MPH
- Joel Correa da Rosa, PhD
- Cameron Coffran, MS
- Donna Brassil, MA, RN, CCRC

The Sackler Institute for Nutrition Science/The New York Academy of Sciences
- Megan Bourassa, PhD*
- Mireille McLean, MPH
- Julie Shlisky, PhD
- Gilles Bergeron, PhD

Clinical Directors Network, Inc. (CDN)
- Jonathan N. Tobin, PhD**
- Amanda Cheng, MPH
- Dena Moffah, BA
- Julie Wilcox, MFA

Albert Einstein College of Medicine/Montefiore Medical Center***
- Peter S. Bernstein, MD, MPH
- Rebecca Mahn, MD/MS candidate
- Siobhan Dolan, MD
- Stephanie Morgan, MS
- Daryl Wieland, MD, MSMI

Clinician Advisory Committee
- Tyler Evans, MD
- Elizabeth Dubois, MSN, FNP-BC, AAHIVS
- Mayer Sagy, MD
- Abbe Kirsch, CNM, MSN, MPH

NYU-Langone / Lutheran Medical Center***
- William Pagano, MD, MPH
- Barry Kohn, MD, PhD
- Isaac Dapkins, MD, FAAP
- Rabih Nemr, MD

*Project Officers
**Principal Investigator
***CTSA hubs

Funded by:
The Sackler Center for Biomedicine and Nutrition (SCBN) Research at The Rockefeller University; The Sackler Institute for Nutrition Science at The New York Academy of Sciences; (3) N°: Building a Network of Safety-Net PBRNs (AHRQ 1-P30-HS-021667); (4) The National Center for Advancing Translational Sciences/ The Rockefeller University Center for Clinical and Translational Science (NIH-NCATS Grant #UL1-TR-000043, #001866)
OBJECTIVES

This community-academic partnership involves the creation of a multisite de-identified Electronic Health Records (EHR) database that will demonstrate the feasibility of using available measures conducted as part of routine clinical care to explore associations and identify targets for future interventions that address adolescent nutritional and pregnancy outcomes.

This “Big Data” EHR-based study addresses the disproportionate health burdens experienced by overweight and obese adolescents and their infants up to the age of 24 months.
All Females Cardiometabolic Measures (Sites A, B, C, D; n=6,295-8,853)

N = 8,853
Trend p < 0.0001

N = 7,229
Trend p < 0.0001

N = 6,501
Trend p = 0.0002

N = 6,295
Trend p < 0.0001

12/8/2017
Linking Maternal & Neonatal EHR Data: Maternal Weight Influences Birthweight

Birth Weight by Maternal BMI Group

McDonald et al. 2010:
RR = 0.84, 95% CI: 0.75, 0.95

Baby Birth Weight by Maternal BMI Group for Pregnant Adolescents (Sites A, B, C, D: n=2,866)

<table>
<thead>
<tr>
<th>Birth Weight Group</th>
<th>Underweight (n=94) (3%)</th>
<th>Normal (n=1,278) (45%)</th>
<th>Overweight (n=809) (29%)</th>
<th>Obese (n=685) (23%)</th>
<th>Total (n=2,866) (100%)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extremely LBW</td>
<td>0%</td>
<td>0.5%</td>
<td>0.7%</td>
<td>0.9%</td>
<td>0.6%</td>
<td>0.001*</td>
</tr>
<tr>
<td>Very LBW</td>
<td>1.06%</td>
<td>0.7%</td>
<td>0.5%</td>
<td>0.3%</td>
<td>0.6%</td>
<td></td>
</tr>
<tr>
<td>LBW</td>
<td>8.5%</td>
<td>7.4%</td>
<td>4.9%</td>
<td>3.8%</td>
<td>5.9%</td>
<td></td>
</tr>
<tr>
<td>Normal</td>
<td>90.4%</td>
<td>90.3%</td>
<td>92.6%</td>
<td>91.7%</td>
<td>91.3%</td>
<td></td>
</tr>
<tr>
<td>Large</td>
<td>0%</td>
<td>1.2%</td>
<td>1.2%</td>
<td>3.4%</td>
<td>1.7%</td>
<td></td>
</tr>
</tbody>
</table>

*P-value from logistic regression after combining [ELBW, VLBW, LBW] and [Normal, Large] with BMI group as a continuous variable for trend testing and site as a fixed effect.

Inference of multi-generational health effects

F0 Grandmother → F1 Mother → F2 Child → F3 Grandchild

9/13/2016
Allostatic Load

- The wear and tear on the body over time
- Reflects impact of life experiences, genetic load, lifestyle habits, developmental experiences, patterns of behavior and physiological reactivity

ELE Conceptual Model

A transgenerational approach to clinical care: Early life exposures and later life health

Measurable Early Life Exposures (Defined as perinatal to age 20)
- Genetic and Epigenetic Mechanisms
- In Utero Environment
- Physical Environment
- Psychosocial Environment

Measurable Outcomes throughout the Life Course
- Overall Health and Well-Being
  - Physical
  - Psychosocial

*Note: Click boxes above for more detail
Intergenerational Consequences: Women’s Experiences of Discrimination in Pregnancy Predict Infant Social-Emotional Development at 6 Months and 1 Year

Lisa Rosenthal, PhD,* Valerie A. Earnshaw, PhD,† Joan M. Moore, MA,* Darrah N. Ferguson, BA,* Tenë T. Lewis, PhD,‡ Allecia E. Reid, PhD,§ Jessica B. Lewis, MFT,** Emily C. Stasko, MPH,** Jonathan N. Tobin, PhD,***††† Jeanette R. Ickovics, PhD

ABSTRACT: Objective: Racial/ethnic and socioeconomic disparities in infant development in the United States have lifelong consequences. Discrimination predicts poorer health and academic outcomes. This study explored the first time intergenerational consequences of women’s experiences of discrimination reported during pregnancy for their infants’ social-emotional development in the first year of life. Methods: Data come from a longitudinal study with predominantly Black and Latina, socioeconomic disadvantaged, urban young women (N = 704, M.age = 24.53) across pregnancy through 1 year postpartum. Women were recruited from community hospitals and health centers in a Northeastern US city. Linear regression analyses examined whether women’s experiences of everyday discrimination reported during pregnancy predicted social-emotional development outcomes among their infants at 6 months and 1 year of age, for potentially confounding medical and sociodemographic factors. Path analyses tested if pregnancy distress, anxiety, or depressive symptoms mediated significant associations. Results: Everyday discrimination reported during pregnancy prospectively predicted greater inhibition/suppression problems and greater negative emotionality, but did not predict attention skills or positive emotionality, at 6 months and 1 year. Depressive symptoms mediated the association of discrimination with negative emotionality at 6 months, and pregnancy distress, anxiety, and depressive symptoms mediated the association of discrimination with negative emotionality at 1 year. Conclusion: Findings support that there are intergenerational consequences of discrimination, extending past findings to infant–social-emotional development outcomes in the first year of life. It may be important to address discrimination before and during pregnancy and enhance support to mothers and infants exposed to discrimination to promote health equity across the life span.

SACKLER DISSEMINATION


2. NIH-NCATS article entitled “NCATS Enables Scientists, Community Clinicians to Collaborate on Health Initiatives” (Posted August 2017 at https://ncats.nih.gov/pubs/features/rockefeller)
SPECTRUM OF TRANSLATIONAL RESEARCH

**CAMP2**
- Metagenomics
- Molecular Epidemiology/Genotyping
- Incision & Drainage Antibiogram
- CDC Guidelines Dissemination and Implementation
- Prevention of Recurrence and Transmission

**Sackler**
- Micronutrient & Macronutrient
- Allostatic Load Index
- Efficacy and Effectiveness Studies of Health Care: Preconception Prenatal Postnatal Pediatric
- Implementation and Dissemination Studies of Health Care: Preconception Prenatal Postnatal Pediatric
- Validation with NCHS Surveys and Meta-Analysis
CONDUCTING FULL-SPECTRUM TRANSLATIONAL RESEARCH: BIG DATA MEETS EMBEDDED MECHANISTIC STUDIES

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Assistant Professor of Medicine
Columbia University Medical Center
Rockefeller University
Clinical Scholar Alumna

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General Surgery, Bariatric Surgery
Assistant Professor of Surgery
NYU Langone Brooklyn (Lutheran) Medical Center

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The Rockefeller University Center for Clinical and Translational Science

Jonathan N. Tobin, PhD
President/CEO
Clinical Directors Network, Inc.
Co-Director, Community Engaged Research
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Professor, Department of Epidemiology & Population Health
Albert Einstein College of Medicine/Montefiore Medical Center
NYC Clinical Data Research Network (NYC-CDRN) INSIGHT Network

22m Patients

Clinical Data
EHR: 300M clinical encounters

Claims Data:
Medicare: 1m patients
Medicaid: 600k patients
1199: 430k patients
HealthCore

Additional Data
Social Determinant data (40 data elements, new Social Index Scale)
Patient reported outcomes

PCORnet represents: ~110 million patients who have had a medical encounter in the past 5 years
Bariatric Metabolic Outcomes Project (BMOP)
Ana Emiliano MD MSc (2014-2015)

**Retrospective Study**
Using Electronic Health Records (EHR) data to Examine Measures of change in cardiometabolic parameters (BMI; BP; A1c; FBG; LDL, HDL, TG) and medications before and after bariatric surgery overall and by clinical subgroups (Diabetes; Obstructive Sleep Apnea; Rheumatoid Arthritis; Depression)

**Prospective Study**
Consecutively enrolled bariatric surgery patients will be invited to undergo a brief series of

**Questionnaires** (completed by a telephone online interview with NYC-CDRN Funding)
- Quality of life – SF12; NYC-CDRN Obesity Measures
- Depression – PHQ9;
- OSA – Eppworth and Stopbang;
- RA – Rapid3

**Biological Specimens:**
- Blood – CRP, ESR, IL-6, leptin, ghrelin, adiponectin
- Rectal swab – to characterize the microbiome
"Comparative Effectiveness of Bariatric Procedures for Weight Loss and Safety: A PCORnet Cohort Study"

*Annals of Internal Medicine – In Press, 2018*

M17-2786
Baseline Patient Characteristics in Predicting Metabolic Response to Bariatric Surgery: A Community Health Center Study

Ana Emiliano, MD, Rabih Nemr, MD, Joel Correa da Rosa, PhD, William Pagoano, MD, MPH-Jonathan N. Tobin, PhD.

The Rockefeller University, New York, NY; the NYU Lutheran Medical Center, Brooklyn, NY; and Clinical Directors Network, Inc. (CDN), New York

ABSTRACT:

Baseline characteristics (age, sex, BMI, ethnicity, diabetes duration) have been shown to affect the metabolic response to bariatric surgery. Given the increasing use of bariatric surgery in non-academic centers and the lack of data on outcomes in community health centers, we aimed to assess the metabolic effectiveness of bariatric surgery in a community health center population.

METHODS:

We extracted de-identified data from electronic health records at a community health center (Lutheran Medical Center). We examined baseline characteristics (age, sex, BMI, ethnicity, diabetes duration) and efficacy of surgery (HbA1c, BMI). We compared the outcomes of patients who underwent bariatric surgery with a steeper decrease in BMI and HbA1c.

RESULTS:

Patients who underwent bariatric surgery showed a significant improvement in BMI and HbA1c compared to patients who did not undergo surgery. The greatest improvement was seen in patients with diabetes, with a decrease in BMI of 12.5% and a decrease in HbA1c of 4.6%.

CONCLUSIONS:

Baseline characteristics such as age, sex, BMI, and ethnicity can affect the metabolic response to bariatric surgery. Patients with diabetes who undergo bariatric surgery show the greatest improvement in BMI and HbA1c.

REFERENCES:


Figure 1: Types of bariatric surgery performed at the Lutheran Medical Center.

Figure 2: Patients with diabetes who underwent bariatric surgery showed a greater decrease in BMI and HbA1c compared to patients who did not undergo surgery.

Table 1: Baseline demographic and clinical characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Non-diabetes</th>
<th>Diabetes</th>
<th>P-value</th>
</tr>
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<tbody>
<tr>
<td>Age (years)</td>
<td>54.2 ± 10.6</td>
<td>49.8 ± 11.4</td>
<td>0.26</td>
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<tr>
<td>Female (%)</td>
<td>59.0%</td>
<td>61.3%</td>
<td>0.19</td>
</tr>
<tr>
<td>Average BMI</td>
<td>48.7 ± 0.3</td>
<td>34.6 ± 0.6</td>
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</tr>
<tr>
<td>Average HbA1c</td>
<td>6.0 ± 0.3</td>
<td>7.8 ± 0.4</td>
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</tr>
</tbody>
</table>

Figure 3: Patients with diabetes who underwent bariatric surgery showed a greater decrease in BMI and HbA1c compared to patients who did not undergo surgery.
Collaboration with PCORnet Bariatric Study

Observational Comparative Effectiveness

-- Outcomes Study

-- Methodological Study


Thomas H. Inge et al. “Comparative effectiveness of bariatric procedures among adolescents: the PCORnet bariatric study” Surgery for Obesity and Related Diseases 2018;14:1374-1388

PCORnet Organizational Structure

PCORnet STEERING COMMITTEE

Members represent:
- Each Clinical Data Research Network
- Each Patient-Powered Research Network
- Patients
- HHS agencies:
  - NIH
  - FDA
  - AHRQ
  - CDC
  - CMS
  - ONC
  - ASPE
- Medical product and device manufacturers
- PCORI and Coordinating Center

PCORnet Executive Committee

COORDINATING CENTER

11 CLINICAL DATA RESEARCH NETWORKS

18 PATIENT-POWERED RESEARCH NETWORKS

TASK FORCES
- GOVERNANCE
- DATA PRIVACY
- ETHICS & REGULATORY
- DATA STANDARDS & SECURITY
- HEALTH SYSTEMS INTERACTIONS
- PATIENT & CONSUMER ENGAGEMENT
- PATIENT GENERATED OUTCOMES
- CLINICAL TRIALS
- RARE DISEASES
- BIOREPOSITORIES
- OBESITY

PROJECT MANAGEMENT OFFICE

CDN CLINICAL DATA NETWORK
• Large diverse population
• Geographic co-location in a fragmented healthcare market
• Centralized structure
• Largest concentration of AMCs

CLINICAL DATA RESEARCH NETWORKS (CDRNs)

System-based networks that originate in healthcare systems, such as hospitals, health plans, or practice-based networks, and securely collect health information during the routine course of patient care.
Changing the research landscape: the New York City Clinical Data Research Network

Rainu Kaushal, 1,2 George Hripczas, 3 Deborah D Ascheim, 4 Toby Bloom, 5 Thomas R Campion Jr, 6 Arthur L Caplan, 6 Brian P Currie, 2 Thomas Cheek, 12 Emmie Levin Deland, 2 Marc N Gourevitch, 6 Raffaella Hart, 4 Carol R Horowitz, 4 Isaac Kastenbaum, 2 Arthur Aaron Levin, 9 Alexander F H Low, 1 Paul Meissner, 9 Parsa Mirhaji, 1 Harold A Pincus, 2,3 Charles Scaglione, 12 Donna Shelley, 6 Jonathan N Tobin, 10,11 on behalf of the NYC-CDRN

ABSTRACT

The New York City Clinical Data Research Network (NYC-CDRN), funded by the Patient-Centered Outcomes Research Institute (PCORI), brings together 22 organizations including seven independent health systems to enable patient-centered clinical research, support a national network, and facilitate learning healthcare systems. The NYC-CDRN includes a robust, collaborative governance and organizational infrastructure, which takes advantage of its participants’ experience, expertise, and history of collaboration. The technical design will employ an information model to document and manage the collection and transformation of clinical data, local institutional staging areas to transform and validate data, a centralized data processing facility to aggregate and share data, and use of common standards and tools. We strive to ensure that our project is patient-centered; nurtures collaboration among all stakeholders; develops scalable solutions facilitating growth and connections; chooses simple, elegant solutions wherever possible; and explores ways to streamline the administrative and regulatory approval process across sites.

For numbered affiliations see end of article.

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rainu2010@med.cornell.edu
Received 28 February 2014 Revised 15 March 2014 Accepted 25 March 2014

ORGANIZATIONAL AND SCIENTIFIC APPROACH

The NYC-CDRN includes a robust and collaborative governance and organizational infrastructure, which takes advantage of its participants’ experience, expertise, and history of collaboration.

Participating institutions

The NYC-CDRN’s participating institutions (table 1) have several notable features that provide an important foundation for the consortium. The NYC-CDRN includes six Clinical and Translational Science Award (CTSA) centers, which already collaborate on health management, patient-centered clinical trials, observational studies, and precision medicine. Specific goals include aggregating data on a minimum of 1 million patients, engaging patients and front-line clinicians in all phases of the project, embedding research activity into the delivery of healthcare, aligning regulatory oversight across multiple health systems, and disseminating study results across healthcare systems.

This paper describes the project’s goals, governance and organizational structure, and technical approach.

http://jamia.oxfordjournals.org/content/21/4/578
CDN N²-PBRN HAS BUILT A SCALABLE RESEARCH INFRASTRUCTURE TO SERVE THE NEEDS OF THE CLINICIANS WHO PRACTICE IN THE HEALTH CARE SAFETY-NET BY BUILDING ON EXISTING INFRASTRUCTURE, CREATING NEW RELATIONSHIPS PROVIDING EXTERNAL PRACTICE FACILITATORS (ONLINE, REMOTE), AND DISSEMINATION CHANNELS.
EXERCISE #2

Translational Research Spectrum

CE Research Partnership Continuum
Exercise #2: Moving Towards More Engaged Translational Research: An Exercise

1. Form 2-4 academic and community groups

2. Select a health need

3. Write your research question

4. Brainstorm study aims (minimum 1 community and 1 academic) Hint: Try to span the Translational Research spectrum!

5. Indicate with a “X” where your aims and partnership fall on the Translational Research vs CE Partnership plot

6. Indicate on the CE Partnership Continuum how you could make your project more engaged
1. **Role** (Community or Academic):

2. **Health Need** (e.g. Zika, HIV/AIDS, Cardiovascular Disease, Asthma)

3. **Research Question**

4. **Study Aims**: (Minimum one each)
   - **Scientific Aim** (e.g. reliable diagnosis, HIV vaccine, new statin, development of oral treatment)
   - **Community/Patient-Centered Aim** (e.g. avoid mosquito bites, prevent transmission and recurrence)
5. Indicate with a "X" where your aims and partnership fall on the Translational Research vs. Community Engagement/Partnership Plot.
Translational Research vs. CE Partnership
6. How can you make the project more engaged (minimum 3 ideas)? Hint: What activities would allow you to shift your position (e.g. upward, right)
Dissemination and Implementation Science: What is it and Why is it Critical to Translational Science?

CTSA Dissemination & Implementation Research Work Group Webcast:
Dissemination and Implementation Science: What is it and Why is it Critical to Translational Science?

Speakers:

Eula Proctor, PhD, MSW
Director, Center for Dissemination and Implementation at the Institute for Public Health; Director, Center for Mental Health Services Research and Shanti K. Khindka Distinguished Professor at the Brown School

Stephen Bartels, MD, MS
Professor of Geriatrics, and Professor of Psychiatry, Community & Family Medicine, and of Health Policy at The Dartmouth Institute

Laura-Mae Baldwin, MD, MPH (Moderator)
Professor, Department of Family Medicine, Director, Community Engagement, Institute of Translational Health Sciences, University of Washington

www.CDNetwork.org/library
Dissemination of the Rockefeller-CDN Translational Research Model

Helping Basic Scientists Engage With Community Partners to Enrich and Accelerate Translational Research

Rhonda G. Kost, MD, Andrea Leimbanger-Ieber, MPH, Teresa H. Evening, MD, MS, Peter F. Holt, MD, Maya Neville-Williams, MPH, Kimberly S. Vasquez, MPH, Barry S. Culler, MD, and Jonathan N. Tobin, PhD

Abstract

Problem
Engaging basic scientists in community-based translational research is challenging but has great potential for improving health.

Approach
In 2008, The Rockefeller University Center for Clinical and Translational Science partnered with Clinical Directors Network, a practice-based research network (PBRN), to create a community-engaged research navigation (CEn-Rx) program to foster research pairing basic science and community-driven scientific aims. The program is led by an academic navigator and a PBRN navigator. Through meetings and joint activities, the program facilitates basic science-community partnerships and the development and conduct of joint research protocols.

Outcomes
From 2008-2014, 39 investigators pursued 10 preliminary projects through the CEn-Rx program. 25 of those became 23 approved protocols and 2 sub-studies. They involved clinical scholar trainees, early-career physician-scientists, faculty, students, post-doctoral fellows, and others. Nineteen (of 25, 76%) identified community partners, of which 9 (47%) named them as coinvestigators. Nine (of 25, 36%) included T3-14 translational aims. Seven (of 25, 28%) secured external funding. 1 (of 25, 44%) disseminated results through presentations or publications, and 5 (71%) of 7 projects publishing results included a community partner as a co-author. Of projects with long term navigator participation, 9 (of 19; 47%) incorporated T3-14 aims and 7 (of 19, 37%) secured external funding.

Next Steps
The CEn-Rx program provides a model for successfully engaging basic scientists with communities to advance and accelerate translational science. This model’s durability and generalizability have not been determined, but it achieves valuable short-term goals and facilitates scientifically meaningful community-academic partnerships.


www.CDNetwork.org/Rockefeller
Aims to enhance the skills of current PBRN researchers and practicing clinicians who are interested in participating in clinical research

**CONTENT**

- Evidence-based practices and best practices demonstrated to be effective at transforming clinical research into a more clinician-engaged, accelerated research and translation model, with significant clinical and public health impact
- A “Virtual Faculty” of N² PBRN Directors and their PBRN-related research
- N² PBRN Academic Partners “Virtual Faculty” and their PBRN-related research
- Training in research methodology for practicing clinicians who wish to become more active and engaged in practice-based research
- New content added on Pragmatic Clinical Trials, CER & PCOR Research methods

**TRACKS**

1. PBRN Research Management Innovations (for PBRN Senior Staff)
2. PBRN Methods (for PBRN Senior Staff & Academic Collaborators)
3. Introduction to Research (for CHC Nodes Staff & New PBRN Staff)
4. PBRN Study Results (for CHC Nodes, CHC Partners, PBRN Senior Leadership & Staff, Academic Partners)

[www.CDNetwork.org/pbrn](http://www.CDNetwork.org/pbrn)
• As part of N²-PBRN, a total of 93 N²-PBRN webcasts have been conducted and disseminated to clinicians and researchers across the CTSA, N²-PBRNs, FQHCS (9/2012-3/2018) http://www.CDNetwork.org/Rockefeller

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<td>143</td>
<td>1.11</td>
</tr>
</tbody>
</table>

• 82 CME credits awarded to participants from 50 US states and territories, including Puerto Rico and the US Virgin Islands
Jonathan N. Tobin, PhD, FAHA, FACE

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