What is ACCORDS?

ACCORDS conducts pragmatic research in real-world settings to improve health care and outcomes, by providing:

- A multi-disciplinary, collaborative research environment to catalyze innovative and impactful research
- Strong methodological cores and programs, led by national experts
- Consultations & team-building for grant proposals
- Mentorship, training & support for junior faculty
- Extensive educational offerings, both locally and nationally
**ACCORDS Upcoming Events**

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Presenters</th>
</tr>
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<tbody>
<tr>
<td>April 20, 2022</td>
<td>12:00-1:00 PM MT</td>
<td>Qualitative and Mixed Methods Research Mini-Series: <em>Rapid Qualitative Analysis: Techniques for Rigor and Impact</em></td>
<td>Karen Albright, PhD</td>
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<td>May 9, 2022</td>
<td>12:00-1:00 PM MT</td>
<td>Learning Health Systems: <em>Models &amp; Methods for Embedded Research</em> <em>The Swiss Learning Health System: A National Initiative to Support Evidence Uptake in Policy and Practice</em></td>
<td>Stefan Boes, PhD</td>
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<td>May 18, 2022</td>
<td>3:00-4:00 PM MT</td>
<td>Qualitative and Mixed Methods Research Mini-Series: <em>Dissemination of Qualitative Research</em></td>
<td>Allison Tong</td>
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<td>May 23, 24, &amp; 25</td>
<td>10:00 -3:00 PM MT</td>
<td>COPRH Con 2022: <em>Disseminating, Scaling and Sustaining Pragmatic Research</em> Registration NOW OPEN; visit COPRHCon.com</td>
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Colorado-based Learning Health Systems Models: The Experience of Kaiser Permanente Colorado, Denver Health, and NavLab

Presented by: Michael Ho, MD, PhD; John Steiner, PhD; Laura Jean Podewils, PhD
Denver Health’s
Learning Health System Journey

Laura Jean Podewils, PhD
Associate Director, Learning Health Systems & Evaluation
Office of Research
Our Journey as an LHS

• Academic, urban, safety-net institution

• Office of Research

• Recent focus on LHS
  • Generating data, research, rigorous quality improvement (QI) & evaluation
  • Dissemination and translating evidence into practice
Unique Qualities

- Diverse Patient Population
- Hospital, Community Clinics/FQHCs, School-Based Health Clinics
- EPIC & Data Exchange w/ Community Partners
- Anchor Institution
- Community Engagement Committees
- Quality Improvement Review Committee
- Pilot Grant Funding
- National Learning Health Systems Panel
- LEAN Continuous Improvement
Current Work & Future Direction

• Continue to support independent clinical research, program evaluation, and QI
• Integrating evidence into our healthcare delivery system
  • Healthcare and social needs for persons with housing instability or who are unhoused
• Evaluation of key organizational initiatives
  • Equity Blueprint
  • Pipeline programs
  • Health-related social needs
• Future direction
  • Expand capacity for community-based participatory research and stakeholder engagement
  • Continue work with AHRQ to identify topics for evidence-based syntheses
  • Refine approaches to prioritize and implement practice changes through collaboration
Mission: Partner with UCHealth to perform rigorous and timely evaluation, implement and disseminate new knowledge and innovation, and engage relevant stakeholders within a Learning Health Systems (LHS) framework.
Inpatient Nurse Staffing
Float Pool Utilization Prediction

GOAL/AIM
Using data-driven statistical modeling, estimate the appropriate size of the UCH float pools to meet the expected future demand for staffing inpatient RNs and CNAs.

BACKGROUND
• Staffing inpatient nurses is challenging due to variability in planned and unplanned nurse absences.
• Float pool coverage reduces overtime expenses for core staff, avoids diversion, and improves patient outcomes.

EVALUATION
• Used variability in historical staff absences to predict float pool utilization to optimize staffing levels.
• Many approaches estimate nurse absences using only historical averages (middle estimates).

FINDINGS/RESULTS
• Contrary to long-held assumptions, weekends are not the primary time of unplanned call-in absences.
• UCH changed the number of RN and CNA shifts allowed as planned PTO.
• Michelle Feller, the UCH Dir. of Nurse Resource Center, hopes to use the tool in the future to help determine the correct size of the both float pools and core staff.
• If the use of the NavLab Dashboard provides 15% reduction in the use of TASC and Overtime hours for core staff, annual savings would be approximately $200K at UC Hospital only.
• Operationalizing the prediction tool has been limited because data is from pre-COVID-19 period.
Too Much of a Good Thing  
Saving Blood, Reducing Risk, Lowering Costs

BACKGROUND
- Excess blood transfusions are costly and can harm patients.
- UCH and UCH health practices are not consistent with evidence-based transfusion guidelines.

EVALUATION
- EHR blood order does not direct providers to guidelines.
- Strategies for improving accordance with guidelines have been utilized by other health systems successfully.

INTERVENTION
- A randomized trial of EHR blood order-sets to ‘nudge’ providers to follow guidelines at UCHospital. Best version to be implemented system-wide.
  - Arm 1 = general improvements
  - Arm 2 = non-interruptive in-line help text
  - Arm 3 = interruptive alert

GOAL/AIM
Achieve a 20% reduction in the total number of pRBC units transfused by decreasing non-guideline-concordant orders.

Estimated cost savings $1.55M annually.
The Learning Health System in Kaiser Permanente Colorado

ACCORDS LHS Series, April 11 2022
John F. Steiner MD, MPH
Institute for Health Research, Kaiser Permanente Colorado
KPCO assets that support a learning health system

- “Embedded” research department
  - Fosters a sense of inter-dependence with health care system
  - Mix of internal (30%) and extramural (70%) funding

- Denominated population of >500,000 adult and child members
  - Users and non-users of care

- Clinicians who exclusively serve this population
  - Studies of clinician behavior change

- Comprehensive research data warehouse with >15 years of data
  - Facilitates building study datasets
Innovative Methods Promoting Regional Operational Value and Efficiency (IMPROVE) Program

• Successor to program established in 2015
  • Most researchers have long-standing collaborations with the delivery system

• Broad array of topics/departments
  • “Hard” problems cross departmental lines

• Core funding for leader (JFS) and project manager

• Prioritization process for new requests

• Some funding for approved projects
  • Leverage additional internal or external funding
  • Portfolio of ≈ 10 projects at any time

• Project designs
  • Secondary data analyses (predictive analytics)
  • Limited primary data collection (mixed-method, member surveys)
  • Interventions (pragmatic trials, interrupted time series designs...)
Creative tensions in IMPROVE (and LHS generally)

- The funding “dance” between research and operations
  - Researchers: Fund us and then we will demonstrate our value.
  - Operational leaders: Demonstrate your value and then we will fund you.
- Selecting simple or complex problems
  - Quick “wins” vs. high impact
- Rigor of results
  - Sufficient to support timely leadership decisions vs. publishable
- Adaptability
  - Inflexible research designs vs. changing organizational demands
- Level of engagement of system partners
  - Early and continued vs. sporadic or retrospective
- Selecting sites
  - Pilot testing vs. implementation at scale