



COPRH Con

Colorado Pragmatic
Research in Health
Conference



ACCORDS

UNIVERSITY OF COLORADO
CHILDREN'S HOSPITAL COLORADO



Colorado Clinical and Translational
Sciences Institute (CCTSI)

UNIVERSITY OF COLORADO DENVER | ANSCHUTZ MEDICAL CAMPUS

Conference Program

May 21, 2026, 8:00am – 3:00pm MT

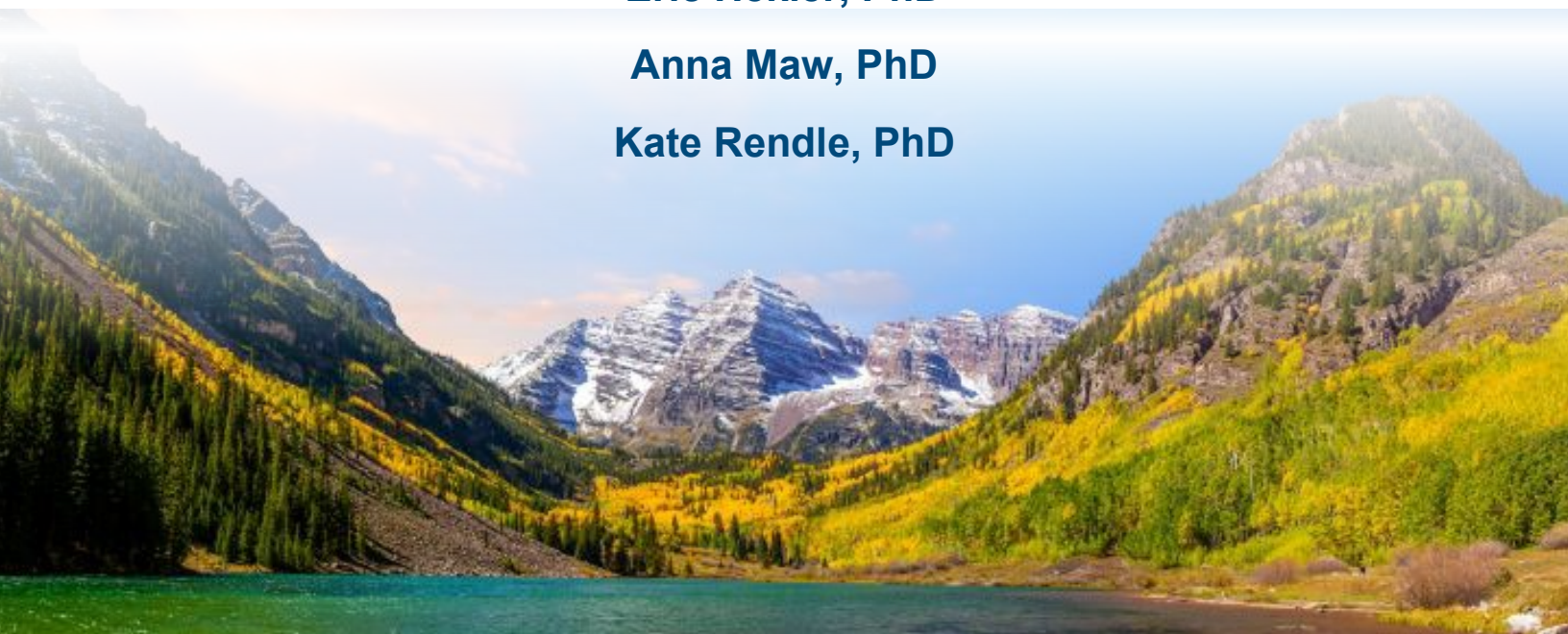
Pragmatic Research: Methods, Tools, and Technology for Rapidly Changing Contexts

Featured Speakers:

Eric Hekler, PhD

Anna Maw, PhD

Kate Rendle, PhD



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Welcome to COPRH Con 2026

Pragmatic Research:

Methods, Tools, and Technology for Rapidly Changing Contexts

We are delighted you are able to join us for the seventh Colorado Pragmatic Research in Health Conference (COPRH Con).

There are a variety of ways of conceptualizing pragmatic research – from pragmatic clinical trials to drug trials focused on real-world evidence to dissemination and implementation research. For COPRH Con, we conceptualize pragmatic research as research designed to be conducted in the real world using usual care settings, resources, and structures.

Pragmatic research is intended to help support a decision by service and care providers – and policy makers, patients, and other partners – on whether and in what context to adopt, deliver, or make use of an intervention. COPRH Con brings both established and emerging pragmatic methods, measures, and models, many of which come from the blossoming field of dissemination and implementation (or ‘D&I’) science. These methods help to ensure that pragmatic research is not seen as messy or poorly done research, but rather relevant AND rigorous.

Of great importance is the fact that conducting research in diverse, real-world settings helps to ensure that our evidence can be applied successfully across different populations and contexts – which is critical for promoting health equity.



[The Adult and Child Center for Outcomes Research and Delivery Science \(ACCORDS\)](#), at the University of Colorado Anschutz Medical Campus, is proud to welcome you to the sixth Colorado Pragmatic Research in Health Conference.

The University of Colorado Anschutz Medical Campus (AMC), located just outside of Downtown Denver, is the largest academic health campus in the Rocky Mountain region and is at the forefront of transformative education, research, medicine, and healthcare. The Anschutz Health Sciences Building (AHSB), home to ACCORDS and COPRH Con 2026, officially opened on AMC in December of 2021 and boasts nearly 400,000 square feet of translational health sciences research, mental and behavioral health, education, and personalized clinical care.

Warmest of welcomes,
Sarah Brewer, PhD and the COPRH Con Planning Committee



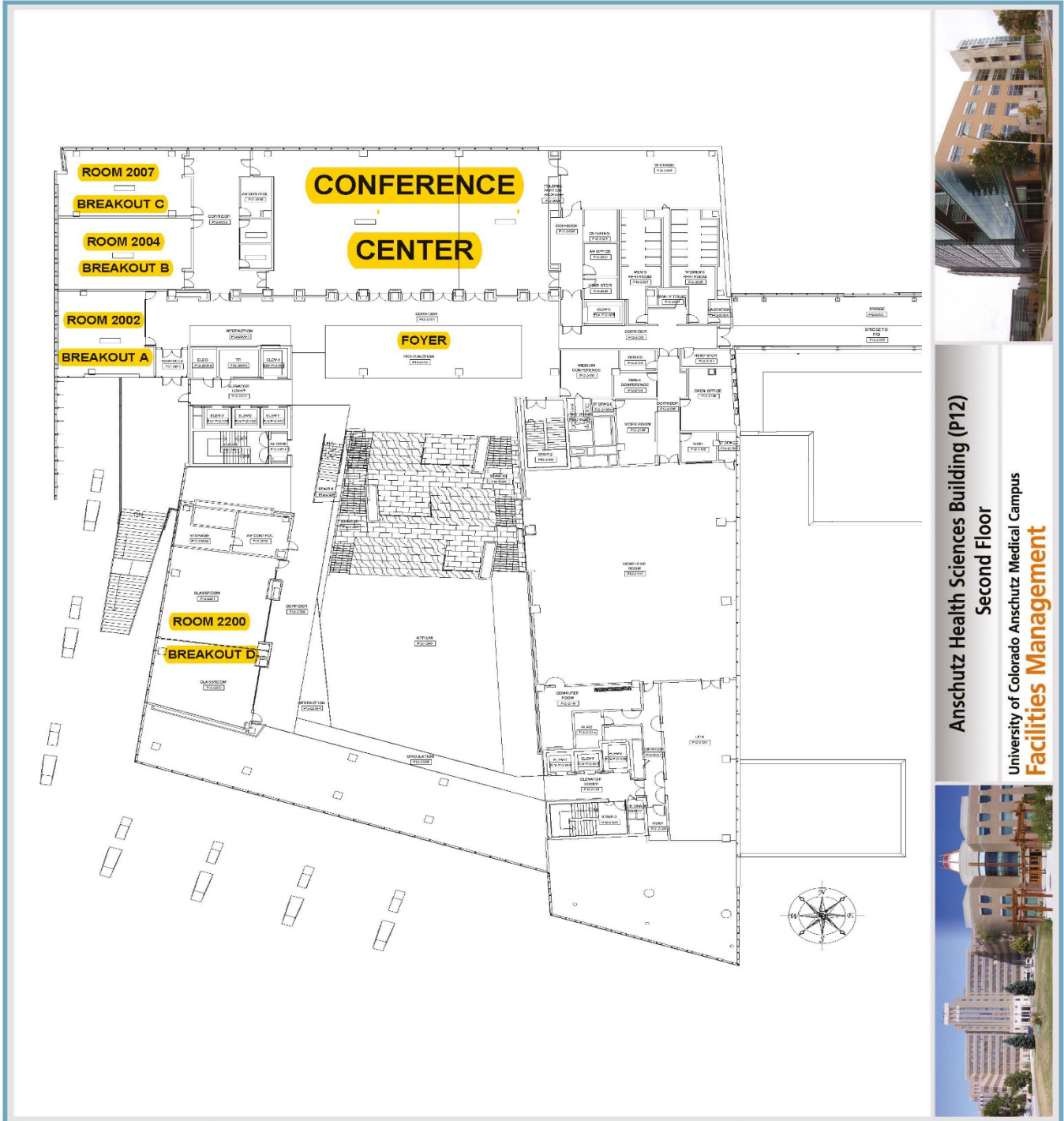
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COPRH Con Facilities

2ND floor, Anschutz Health Sciences Building

- Don Elliman Conference Center: P12-2010/2011
- Breakout Room A: P12-2002
- Breakout Room B: P12-2004
- Breakout Room C: P12-2007
- Breakout Room D: P12-2200/2201



Anschutz Health Sciences Building (P12)
Second Floor
 University of Colorado Anschutz Medical Campus
Facilities Management




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Conference Planning Committee

Sarah Brewer, PhD, MPA
Conference Chair



Sarah Brewer, PhD, MPA directs the ACCORDS Education Program, serves as a Qualitative and Mixed Methodologist in the ACCORDS Qualitative and Mixed Methods Core, and is Assistant Professor of Family Medicine. She is also Associate Director for the Colorado Children's Outcomes Network, a state-wide practice-based research network (PBRN) of pediatric practices in Colorado focused on answering clinically relevant research questions. Dr. Brewer's research interests include disease prevention and establishment of healthy behavior in pediatric care, the role of community in refugee health during resettlement, and effective implementation of community engagement in health research and the health care system. She earned a PhD in Health and Behavioral Sciences from the University of Colorado Denver, a graduate certificate in Public Health Sciences from the Colorado School of Public Health, and Master of Public Administration with a focus in health policy from University of Colorado Denver, and B.A. in International Studies and German Languages and Literature from the University of Denver.

Jerica Berge, PhD, MPH, LMFT, CFLE



Jerica Berge, PhD, MPH, LMFT, CFLE, is the director of ACCORDS and a Professor in Family Medicine. Dr. Berge is a distinguished researcher and licensed behavioral medicine clinician. Her NIH-funded research focuses on promoting child and family health across the life course using innovative mixed-methods and dissemination science. With over 225 publications, 300 presentations, and 35 book chapters, she is a leading voice in integrative health research. Dr. Berge is dedicated to mentoring the next generation of scholars and supporting underrepresented researchers through various training grants and initiatives.

Liza M. Creel, PhD, MPH



Dr. Liza Creel is an Associate Professor in the Division of Health Care Policy and Research and Affiliate Faculty in the Farley Health Policy Center at the University of Colorado Anschutz Medical Campus. Her research is in maternal/child health, organizational collaboration in health care and social service systems, and policy evaluation. Dr. Creel serves as PI and Co-I on several studies, including projects supported by the Robert Wood Johnson Foundation, NIH, and Colorado's Behavioral Health Administration and Department of Health Care Policy and Financing. Dr. Creel has taught courses in health policy analysis, health policy research, and microeconomic theory.



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Lisa DeCamp, MD, MSPH



Lisa Ross DeCamp, MD, MSPH, is an associate professor in the Department of Pediatrics at the University of Colorado School of Medicine and Children's Hospital Colorado. As a clinician scientist she is focused on understanding and addressing health disparities using a community-engaged approach, with a particular focus on Latino children in immigrant families. Dr. DeCamp is a practicing general pediatrician bilingual in English and Spanish. Dr. DeCamp has expertise in the clinical care and research participation of populations who primarily communicate in languages other than English.

Russell Glasgow, PhD



Russell Glasgow, PhD is Director of the Dissemination and Implementation Program of ACCORDS and research professor in the Department of Family Medicine at the University of Colorado School of Medicine. Prior to Fall 2013, he was Deputy Director for Implementation Science in the Division of Cancer Control and Population Science at the U. S. National Cancer Institute (<http://cancercontrol.cancer.gov/IS/>). Dr. Glasgow is an implementation scientist and evaluation expert who has worked on many transdisciplinary research issues including chronic illness self-management, worksite health promotion, primary care based interventions, and community-based prevention programs involving community health centers.

Mark Gritz, PhD



R. Mark Gritz, PhD, is Director of Operations for ACCORDS, an Associate Professor and Head of the Division of Health Care Policy and Research, and the Director of Operations at the Farley Health Policy Center. He received his PhD in Economics from Stanford University and has over 30 years of experience in directing and managing demonstrations, evaluations, research, and technical assistance projects designed to improve economic, health and other outcomes affecting the well-being of economically-disadvantaged and other vulnerable populations. Many of these projects have involved youth, women from low-income families, veterans, elderly, and other targeted populations, including several research and evaluation efforts examining the needs and experiences of low-income youth, unemployed workers, working single mothers, socio-economically disadvantaged populations, and disabled veterans. Before returning to Colorado he held several corporate management positions where he directed over 100 scientific and technical staff, had responsibility for the financial performance of international business units, and managed intellectual property portfolios. His current work focuses on healthcare value and its association with socio-economics factors with an eye towards rapidly responding to research and policy analysis needs of government agencies in Colorado.



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Andrea Jimenez-Zambrano, PhD, MPH



Andrea Jimenez-Zambrano, a native Peruvian, is an Assistant Professor in the Department of Pediatrics, specializing in qualitative and mixed methods research as well as health services research. As a Latinx immigrant growing up in Colorado, she observed disparities in health outcomes across diverse communities. This experience inspired her to pursue interdisciplinary training in public health and social science through a double major in Spanish (BA) and Biology (BS), an MPH in Community and Behavioral Health, and a PhD in Health and Behavioral Science. She recently completed a T-32 Primary Care Research Fellowship at the Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS) at the University of Colorado. As part of this fellowship, she earned a Graduate Certificate in Dissemination and Implementation Science. Her research focuses on addressing health inequities by facilitating the dissemination and implementation of evidence-based interventions in marginalized communities. Her work has employed a wide range of methodologies to explore the influence of social drivers of health on the engagement of Latinx parents and children with various interventions, including a postpartum contraception intervention, a school-based asthma program, and a primary care-based language-promoting intervention in infancy.

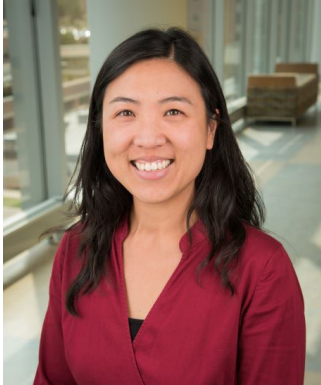
Bethany Kwan, PhD, MSPH, FSBM



Bethany Kwan, PhD, MSPH is an Associate Professor and Associate Vice Chair for Research in the Department of Emergency Medicine at the University of Colorado School of Medicine, Anschutz Medical Campus. She received her PhD in social psychology from the University of Colorado Boulder in 2010, following a MSPH from the University of Colorado Health Sciences Center in 2005. She holds a BS in Chemistry and Psychology from Carnegie Mellon University ('01). As an investigator in the University of Colorado's Adult & Child Center for Outcomes Research and Delivery Science (ACCORDS), she conducts pragmatic, patient-centered research and evaluation on health and health care in a variety of areas. With an emphasis on stakeholder engagement and dissemination and implementation (D&I) methods, her work addresses the integration of physical and behavioral health, chronic disease self-management, improving processes and systems of care to achieve the Quadruple Aim, pragmatic trials using electronic health data, and enhancing quality of life for patients and care partners. She works with patients and other stakeholders at all phases of research, from prioritization, to design, implementation, and dissemination of research. She mentors and teaches students, trainees, and fellow faculty on Designing for Dissemination to ensure that research innovations are efficiently and effectively adopted, used, and sustained in real world settings to improve health and well-being for all. Dr. Kwan is a member of the ACCORDS D&I program and directs the Colorado Clinical & Translational Sciences Institute (CCTSI) Dissemination & Implementation Research Core.



Hillary Lum, MD, PhD



Hillary Lum, MD, PhD is an Associate Professor of Medicine in the Division of Geriatric Medicine in the Department of Medicine at the University of Colorado School of Medicine, Anschutz Medical Campus, and research physician at the VA Eastern Colorado Geriatric Research Education and Clinical Center (GRECC). She is a geriatrician, palliative medicine physician and researcher. Dr. Lum's work focuses on improving care for older adults with serious illnesses, including those with Alzheimer's disease and related dementia, and family care partners. She is particularly interested in designing real-world interventions with diverse older adult stakeholder input for primary care and community settings. Her work includes design and testing of novel interventions to improve patient-centered outcomes related to advance care planning, use of the patient portal, telehealth to reach older rural veterans, and virtual reality and music therapy. She mentors trainees and junior faculty through her roles as Co-Director for the Clinical Faculty Scholars Program, NIA T32 Palliative Care and Aging Fellowship Program Executive Leadership Team, and the GRECC.

Yaxu Zhuang, PhD



Dr. Zhuang is an Assistant Professor in ACCORDS and the Department of Medicine, Division of Healthcare Policy and Research at the University of Colorado Anschutz Medical Campus. With a Ph.D. in Biostatistics, Dr. Zhuang specializes in leveraging biostatistics, data science, and artificial intelligence to advance healthcare outcomes and delivery. His research includes machine learning, statistical methods in electric health records, collaborations on NIH-funded projects and methodological innovations.



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COPRH Con 2026 Agenda

Agenda | Thursday, May 21, 2026

SCHEDULE (MT)	TITLE	SPEAKERS
7:30-8:30 AM	ACCORDS Breakfast Reception and Conference Check-in	--
8:30-8:45AM	Conference Welcome and Overview	Sarah Brewer, PhD, MPA
Conference Center		Jerica Berge, PhD, MPH, LMFT, CFLE
8:45-9:45 AM	Opening Keynote^	Katharine Rendle, PhD, MPH
Conference Center		<i>University of Pennsylvania</i>
9:45-10:45 AM	Plenary^ Evidence, Equity, and Advocacy: The Essential Role of Health Services Research in the Era of Artificial Intelligence	Anna Maw, MD, MS
Conference Center		<i>University of Colorado Anschutz</i>
15 MINUTE BREAK		
11:00 – 12:00 PM	Conference Talks:	
	Novel Community Engagement Methods	Fardus Ahmed, MSW, LCSW Lisa Decamp, MD, MSPH Sheila Morgan Charmant Moussatta Monical Peres Jolles, PhD, MA
	Qualitative Research Methods	Elena Broaddus, PhD Jodi Summers Holtrop, PhD MCHES Talia Thompson, PhD
	Pragmatic Research Debates and Tradeoffs	Dan Matlock, MD, PHD Heather Smyth, PhD Katy Trinkley, PharmD, PhD
12:00 – 12:45PM	Networking Lunch	
Conference Center		
12:45 – 1:45PM	Poster Session	

1:45 – 2:45PM	<p>Conference Talks:</p> <p>Pediatric Pragmatic HER-Embedded Trials: Where we are and how to do more?</p> <p>Quantitative Methods</p> <p>Patient-Reported Outcomes</p>	<p>Yangun Gao, PhD Suchitra Rao, MBS, MSCS Sarah Schmidt, MD, MSHI Halden Scott, MD, MSCS</p> <p>Jiayuan Shi, MS Nannan Wang Yonghua Zhuang</p> <p>Tyler Buckner, MD, MSc Allison L'Hotta, PhD, OTD Ajay Major, MD, MBA</p>
15 MINUTE BREAK		
3:00 – 3:45PM	<p>Panel[^]</p> <p>Pragmatic Research (Web)Tools Expo</p>	
3:45 – 4:45PM Conference Center	<p>Closing Keynote Address[^]</p> <p>Decision-Focused Evidence Production and Benchmarking: a Proposed Unifying Framework for Advancing Individual, Community, and Population Health</p>	<p>Eric Hekler, PhD</p> <p><i>University of California, San Diego</i></p>
4:45 - 5:00 PM Conference Center	<p>Conference Wrap Up[^]</p> <p>Looking forward to COPRH Con 2027</p>	<p>Sarah Brewer, PhD, MPA</p> <p>Jerica Berge, PhD, MPH, LMFT, CFLE</p>
5:00 PM	CLOSE OF COPRH CON 2026	

[^] available on virtual stream through Zoom

Keynote and Plenary Speakers

May 21, 2026

**Katharine Rendle, PhD, MSW,
MPH**
Opening Keynote Address



Katharine A. Rendle is an Associate Professor of Family Medicine and Community Health and of Epidemiology in the Perelman School of Medicine at the University of Pennsylvania, and Director of the Penn Center for Cancer Care Innovation (PC3I) at Abramson Cancer Center. Dr. Rendle leads a robust research program that integrates diverse quantitative and qualitative methods to improve the equity, effectiveness, and implementation of high-quality cancer screening and care. She currently leads several large pragmatic trials funded by the NCI focused on increasing lung cancer screening and improving access to cervical cancer treatment globally. Dr. Rendle earned her PhD in Anthropology and Social Work from the University of Michigan. She also earned her MPH in Epidemiology from the University of California, Berkeley, and completed her postdoctoral training at the National Cancer Institute's Cancer Prevention Fellowship.

Anna Maw, MD MS
Plenary



Dr. Maw is an adult hospitalist, clinical informatician, health services researcher and Associate Professor of Medicine at the University of Colorado. She is a member of the Dissemination and Implementation Science Program and Learning Health Systems Core at Adult & Child Center for Outcomes Research & Delivery Science (ACCORDS). Her research focuses on implementation of Artificial Intelligence (AI) interventions into health systems to promote health for all and using AI to advance health services research methods.



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Eric Heckler, PhD
Closing Keynote Address



Eric Hekler is a transdisciplinary psychologist and methodologist whose work is organized around a simple but challenging premise: people are different, context matters, and things change. He holds this conviction in both directions at once: developing frameworks and principles that advance how health science is done, while remaining genuinely embedded in the specific people, communities, and places those methods are meant to serve. Drawing on health psychology, public health, systems science, and design, his research has expanded across five interconnected domains — personal health, community health, ecosystem health, the health of research systems themselves, and cultural health — each growing naturally towards a more holistic understanding of health. He is recognized internationally as an expert in digital health and applied health science methods, and is a Professor at UC San Diego's Herbert Wertheim School of Public Health and Human Longevity Science and UC San Diego's Design Lab.



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Supporting Presenters

**denotes COPRH Con Planning Committee Member*

Farduus Ahmed, MSW, LCSW



Farduus Y. Ahmed, MSW, ST, LCSW, is an Assistant Professor in the Department of Psychiatry at the University of Colorado School of Medicine and the Clinical Director of the Immigrant and Refugee Mental Health Program (IRMHP) within the CU Medicine Outpatient Psychiatry Clinic. Her clinical and leadership work focuses on delivering trauma-informed, culturally and linguistically responsive mental health services to immigrant and refugee populations affected by forced migration, interpersonal and gender-based violence, such as FGM/C, and complex trauma, including war-related experiences. She brings over 18 years of experience working with refugee and immigrant communities in health and wellness, leading community-engaged initiatives that build capacity, elevate community voice, and advance equitable systems of care. Her work addresses the complex social, cultural, and structural factors shaping mental health outcomes and is dedicated to reducing disparities and improving access to high-quality behavioral health services for historically underserved communities. She provides institutional and community-based consultation and delivers training to clinicians, organizations, and community partners on culturally responsive care, program development, and best practices in serving diverse populations. Her academic contributions center on teaching, mentorship, supervision, and community-engaged scholarship and research in refugee mental health and cultural psychiatry. She provides didactic and experiential training to psychiatry residents, trainees, and interdisciplinary professionals on refugee mental health, cultural humility, and clinical best practices. Her work emphasizes multilingual engagement and centers lived experience in both research and clinical practice, contributing to workforce development and the advancement of culturally responsive mental health care systems. Through her clinical, academic, and community leadership, she continues to shape the field of refugee mental health at local, national, and global levels.

Elena Broaddus, PhD, MSPH



Elena is an Assistant Professor in the Department of Family Medicine and a methodologist in the ACCORDS Qualitative and Mixed Methods Core. She holds a PhD in Public Health and has trained in Dissemination & Implementation Science (D&I) via the ACCORDS D&I certificate program and completed a 3-year primary care research fellowship. Her interests include innovative mixed methods analysis approaches like Qualitative Comparative Analysis and Coincidence Analysis as well as pragmatic approaches like AI-supported rapid qualitative analysis.



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Tyler Buckner, MD, MSc



Tyler Buckner, MD, MSc, is the Director of the University of Colorado Hemophilia and Thrombosis Center. Tyler grew up in Tennessee and attended Rhodes College in Memphis. He completed medical school, Internal Medicine/Pediatrics residency, and combined Adult and Pediatric Hematology fellowship at the University of North Carolina – Chapel Hill. Dr. Buckner is a former member of the National Bleeding Disorders Foundation Medical and Scientific Advisory Council (MASAC). Dr. Buckner’s research focuses on pain assessment and management in people with bleeding disorders.

YanJun Gao, PhD



Dr. Yanjun Gao is an Assistant Professor in the Department of Biomedical Informatics and Co-Director of the Center for Health AI at CU Anschutz. She leads the Language, Reasoning, and Knowledge (LARK) Lab, where her research focuses on developing and evaluating natural language processing (NLP) and large language model (LLM) methods to improve healthcare decision-making, clinical communication, and trustworthy AI deployment. With a PhD in Computer Science and Engineering, she works at the intersection of AI, language technologies, and healthcare to develop clinically grounded and deployable AI systems. Dr. Gao works closely with health systems, EHR vendors and industry partners on the design, deployment and evaluation of AI-enabled clinical technologies. Dr. Gao’s research has been supported by the National Institutes of Health through a K99/R00 Pathway to Independence Award and published in leading clinical informatics journals and top AI conferences including npj Digital Medicine, npj Health Systems, JAMIA, NeurIPS and ACL.

Jodi Holtrop, PhD, MCHES



Jodi Summers Holtrop, PhD, is a Professor and Vice Chair for Research in the Department of Family and a Co-Director of the Dissemination and Implementation Science Program at the Adult and Child Consortium for Health Outcomes Research and Delivery Science (ACCORDS) at the University of Colorado Denver School of Medicine. Dr. Holtrop has extensive experience as an implementation scientist, qualitative and mixed methods researcher, health educator and primary care research director. Dr. Holtrop has participated in primary care research for over 29 years; this includes serving as a Principal Investigator on NIH, AHRQ, PCORI and foundation grants. Her personal research is focused on implementation of evidence-based intervention to prevent and manage chronic disease in primary care.



Alison L'Hotta, PhD, OTD



Dr. L'Hotta's research aims to improve access to rehabilitation services for children with cancer across the continuum of care. She uses community-engaged approaches to better understand how we can enhance cancer care delivery by centering the perspectives of children and families with lived experience. Her work focuses on identifying common cancer symptoms using patient-reported outcome measures and developing strategies to triage children to evidence-based interventions that reduce cancer-related morbidity and improve quality of life. In addition to her research, she provides clinical care as an occupational therapist in the Center for Cancer and Blood Disorders at Children's Hospital Colorado.

Ajay Major, MD, MBA



Dr. Major is an assistant professor of medicine and malignant hematologist specializing in the treatment of lymphomas, with particular interest in indolent non-Hodgkin lymphomas, CLL/SLL, and Waldenstrom macroglobulinemia. He is a patient-reported outcomes (PRO) methodologist and his outcomes and health services research is focused on using PROs to measure health-related quality of life, treatment tolerability, and the short- and long-term symptom burden from lymphoma and anti-cancer therapies throughout survivorship.

Dan Matlock, MD, MPH



Dr. Matlock is the Director of the Colorado Program for Patient Centered Decisions at ACCORDS (The Adult and Child Consortium for Outcomes Research and Delivery Science). He is board certified in Internal Medicine, Geriatrics, and Palliative care. His research is aimed at fundamentally changing and improving how patients make decisions around invasive cardiovascular technologies. He has been funded under several NHLBI, NIA, NCI, and PCORI awards studying shared decision making among older adults making decisions around invasive technologies.

Sheila Morgan



Sheila Morgan is a Health Navigator on the Asthma COMP Team at Children's Colorado. She is a Proven leader of connecting communities with commonalities; bridging the health facilities with community needs, while sparking talk and focus on health education.



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Mónica Pérez Jolles, PhD, MA



Mónica Pérez Jolles, PhD, is an Associate Professor at the University of Colorado School of Medicine and faculty at ACCORDS' Dissemination & Implementation Science Core Program. She draws from complex systems and implementation science methods and frameworks to align interventions to local contexts, and from collaborative engagement approaches such as implementation and process service mapping, prioritization exercises, and Co-creation workshops. Dr. Perez Jolles currently leads a PCORI-funded Science of Engagement project validating a bilingual in Spanish measure of co-creation in partner research engagement.

Suchitra Rao, MBS, MSCS



Suchitra Rao is Associate Professor of Pediatrics in the Sections of Infectious Diseases and Hospital Medicine at the University of Colorado School of Medicine. She is a successful federally funded investigator, with current grant funding from NHLBI, AHRQ, PCORI and CDC. Her expertise is in respiratory pathogens in children, with over 140 publications evaluating the epidemiology of influenza, RSV, SARS-CoV-2, vaccination effectiveness, vaccine delivery in different healthcare settings and the host response to vaccines and natural infection. She has expertise in data science using large EHR networks. She is the site PI and Steering Committee chair of PEDSnet, which is a multi-center learning health systems network of pediatric institutions in the US.

Sarah Schmidt, MD, MSHI



Dr. Sarah Schmidt is a pediatric emergency medicine physician and senior informaticist at Children's Hospital Colorado, where she also serves as the Medical Director of Clinical Research Informatics for the Colorado Child Health Research Institute. She has partnered extensively with researchers, applying her informatics expertise to advance studies in STI testing, antibiotic stewardship, clinical decision support, and discharge education. Nationally, Dr. Schmidt chairs the Epic ASAP Steering Board for Pediatric Emergency Medicine, contributing her clinical and informatics leadership to the development of foundational tools that strengthen pediatric emergency care.

Halden Scott, MD, MSCS



Halden Scott is a Professor of Pediatrics at the University of Colorado School of Medicine and is a pediatric emergency physician and Director of Research in Pediatric Emergency Medicine at Children's Hospital Colorado. Dr. Scott's research focuses on improving diagnosis, resuscitation, and systems of emergency care in pediatric sepsis through clinical research, implementation science, informatics and predictive modeling. She has shaped clinical sepsis care as a member of the Surviving Sepsis Campaign, the International Pediatric Sepsis Definition Taskforce, and the Improving Pediatric Sepsis Outcomes collaborative. Her research has recently focused on sepsis in children in general emergency settings outside of specialized children's hospitals, which is where most children receive their first hours of emergency care.



Jiayuan Shi, MS



Jiayuan Shi is a Ph.D. candidate in Biostatistics at the Colorado School of Public Health, University of Colorado Anschutz Medical Campus. Her research focuses on advanced statistical methodology, including joint modeling of longitudinal change points and recurrent events, with applications in cystic fibrosis and aging research. She previously served as a Senior Biostatistician at Sanofi Pasteur and held roles at Bristol-Myers Squibb and Novartis, leading statistical design and analysis for Phase I–III clinical trials. Her work spans clinical trial methodology, survival analysis, biomarker research, and regulatory submissions, with publications in leading medical and statistical journals.

Heather Smyth, PhD



Heather Smyth, PhD, is a Research Associate in the Department of Biostatistics and Informatics at the University of Colorado School of Medicine, Anschutz Medical Campus. She is a collaborative team scientist with the Colorado School of Public Health's Center for Innovative Design and Analysis (CIDA) and an affiliate researcher with the University of Colorado's Adult & Child Center for Outcomes Research and Delivery Science (ACCORDS). As a collaborative biostatistician, she provides statistical support in the design and analysis of both pragmatic and explanatory research studies, data management and quality assurance, statistical modeling of outcomes, and the interpretation and dissemination of results.

Talia Thompson, PhD



Talia Thompson is a licensed psychologist and an Assistant Professor in the Graduate School of Professional Psychology at the University of Denver. Her research centers on promoting the wellbeing and quality of life of children with complex medical conditions and their families. She employs community-engaged, qualitative, and strengths-based methodologies to produce research that reflects and responds to the priorities, needs, and lived experiences of the communities she partners with.

Katy Trinkley, PharmD, PhD



Katy Trinkley is an Associate Professor and implementation scientist at the University of Colorado in the Department of Family Medicine. She is also a clinical informaticist and Director for the ACCORDS Learning Health Systems Core. Dr. Trinkley's research focuses on advancing the visionary goals of learning health systems and leveraging data and implementation science to create innovative health information technologies to optimize safe, effective, and equitable medication use. Much of her research focuses on clinical decision support tools within the electronic health record and identifying ways to improve accessibility of the PRISM implementation science framework through integration with other methods and approaches such as user-centered design and artificial intelligence.



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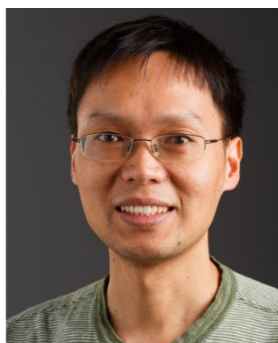
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Nannan Wang, MS



Nannan Wang is a PhD candidate in Biostatistics and Bioinformatics at the University of Colorado Anschutz Medical Campus. Her research focuses on causal inference and biomedical imaging analysis, where she develops statistical and machine learning methods to address complex clinical and biological questions. She has contributed to interdisciplinary research projects and produced first-author publications and conference presentations. Nannan is experienced in working with large-scale clinical data and applying advanced analytical approaches using SAS, R, and Python.

Yonghua Zhuang, PhD



Dr. Yonghua Zhuang is an assistant professor in the Department of Pediatrics and Cancer Center at the School of Medicine. He earned his PhD in Biostatistics from the University of Colorado Anschutz Medical Campus, where he developed statistical methods for network inference and graph convolutional neural networks for genomic disease classification. His research focuses on developing and applying statistical methods to analyze multi-omics data and understand gene and protein interactions in human disease.



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Conference Materials



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Colorado Pragmatic
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Advancing Equitable Implementation: The Promise & Peculiarities of Pragmatic Trials

Katharine A. Rendle, PhD, MSW, MPH

Abstract

In the field of implementation science, there has been a rapid rise in both the use of pragmatic trials and the ethical imperative to implement equitably. In many ways, pragmatic trials are particularly well designed to support the goals of implementation science as both are driven by the central question of making “things” (i.e., evidence-based interventions) work effectively in the dynamic and uncontrolled “real world”. Equitable implementation requires that we not only make things work but we do so in such a way that all individuals and settings benefit equally. This imperative in many ways means we must overcome the realities of the real world that produce inequities, highlighting the promise and peculiarities of using pragmatic trials to advance equitable implementation. In this talk, using the example of a large pragmatic trial designed to increase equity and effectiveness of lung cancer screening through digital navigation and outreach, I will reflect upon how these promises and peculiarities emerge in practice – highlighting challenges, opportunities, and areas for future development in the field. More than philosophical reflections, I will focus on tangible steps that we can collectively take in pragmatic trials to not only advance effective and equitable implementation but also challenge the very real-world structures that replicate inequities from the start.

By the end of the session, participants will be able to:

- Reflect upon the concepts of pragmatism and equitable implementation.
- Understand the importance of understanding context – and its dynamic nature – when designing, conducting, and evaluating pragmatic trials
- Identify why pragmatic trials are particularly promising to advance equitable implementation.
- Recognize the peculiarities, in concept and practice, that can arise when using pragmatic approaches to advance equitable implementation.
- Learn about the opportunities and challenges of using digital health strategies and adaptive trials to improve shared decision making and lung cancer screening in pragmatic ways.

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Evidence, Equity, and Advocacy: The Essential Role of Health Services Research in the Era of Artificial Intelligence

Anna M. Maw, MD, MS

Abstract

Artificial intelligence (AI) is being adopted rapidly and broadly across healthcare and other sectors of society, largely without rigorous evaluation of its effects on health, equity, or the environment. Many in the health services research (HSR) community have watched this acceleration with concern that profit-driven development will widen existing health disparities, displace our workforce, and exact a meaningful environmental toll. These concerns are well-founded. They are also precisely why engagement from the HSR community is essential.

In this plenary, I will describe how the HSR community is uniquely positioned, by virtue of both expertise and values, to guide the responsible integration of AI into healthcare and the broader social systems that shape health. Because social determinants so dramatically impact human health, HSR's relevance is not bounded by any single clinical context, disease, or care setting. Drawing on recent work, I will illustrate how HSR can generate the evidence base needed to inform AI policy that can mitigate the unintended consequences of its implementation.

At the same time, AI applications are able to advance the rigor, robustness, and feasibility of HSR methods, expanding what we can measure, how quickly we can learn, and whom we can reach. I will share examples of how AI tools, in conjunction with learning health system principles, can augment the detection of bias, disparities, and the speed and scope of our measures. I will describe an aspirational virtuous cycle: HSR that guides responsible AI deployment, and applications of AI that in turn enhances the methods HSR needs to evaluate and adapt interventions in pursuit of health for all. This session invites participants to locate their own expertise and agency within this critical moment and to consider the research, partnerships, and advocacy needed to ensure that AI serves all people.

By the end of this session, participants will be able to:

1. Describe why HSR is uniquely positioned to guide AI's integration into healthcare and the social systems that shape health.
2. Recognize the potential harms of AI implementation at scale.
3. Articulate examples of how HSR methods can be applied to the evaluation of AI interventions in ways that advance the quintuple aim and mitigate unintended consequences.
4. Articulate examples of how AI applications can advance the rigor, robustness and feasibility of HSR methods.
5. Reflect on our role as health services researchers and global citizens in ensuring that AI benefits all people.

Key Points

- Effectiveness and equity of AI interventions is an implementation problem not a technology problem.
- AI presents an opportunity to greatly enhance patient engagement and health equity.
- Integration of AI into HSR methods can improve their speed, rigor, scope and feasibility.
- Application of HSR methods can help ensure the potential harms of AI use are mitigated.
- The field of HSR must reflect on its role in advocacy of AI policy that benefits all people.

Questions

1. Where are the highest leverage points for HSR engagement with AI in your area of work?
2. What are the opportunities for AI to augment HSR methods and measures?
3. How should HSR researchers balance rigorous evidence generation with advocacy? Are these in tension, or does the translational research paradigm reframe them as complementary?



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Methods for Engaging Multilingual Communities In Pragmatic Science: Concept Mapping, Asthma Navigators and Measurement Co-Development Examples

Fardus Ahmed, Lisa DeCamp, MD, MSPH, Charmant Moussaka, Sheila Morgan, and Monica Jolles PhD, MA

Abstract:

Multilingual populations remain underrepresented in research due to persistent linguistic, cultural, and structural barriers. This session describes three community-engaged approaches that facilitate engagement and partnership with multilingual communities. We will describe applying a concept mapping to understand concepts of mental health among refugee women. Next participants will learn about an integrated approach to asthma management applying a combination of engagement methods to meet the needs of immigrant children and their families. Finally, participants will learn about a co-design process to create a Spanish-language measure of co-creation in research contexts.

This session will share actionable recommendations for team structure, communication, and steps to increase partnership with communities who speak languages other than English and foster equitable participation and shared prioritization across language groups. These strategies can support more inclusive, community-responsive research across Colorado's diverse populations.

Resources:

<https://dicemethods.org/concept-mapping>



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Approach to Language Transfer to Validate an Engagement Measure

Mónica Pérez Jolles, PhD, MA

Abstract

This session will present the newly 2026 PCORI-funded Science of Engagement validated measure in Spanish called COCREANDO. This measure is designed to assess partner experiences during their engagement process when they are engaged as collaborators or 'co-creators'. Our approach to the Spanish language for this measure was comprehensive and multi-pronged. We followed the English version (COCREATE) first, followed by a Transcreation approach and development of best practices document, to then use group reflections, and ongoing discussions with bilingual/bicultural researchers, patients, community members, and healthcare professionals. Language and cultural nuances were captured through this approach. The presenter will walk the audience through three concrete phases that can be replicated by other teams.

The concept of Transcreation and how it is different from Translation.

Translation vs. Transcreation

 <p>Strives for accuracy</p>	 <p>Strives for resonance</p>
 <p>It can be performed by machines</p>	 <p>It depends on human creativity</p>
 <p>Jobs can be done pretty independently</p>	 <p>A detailed brief is crucial</p>
 <p>Translation memories are really helpful</p>	 <p>Entails producing original and unique texts each time</p>
 <p>It tends to be charged by the word or page</p>	 <p>It tends to be charged by the hour</p>
 <p>Less expensive</p>	 <p>More expensive</p>

Resources

1. <https://www.crisoltranslations.com/our-blog/transcreation/>
2. Online blog (the presenter is not linked to this blog at all): <https://poeditor.com/blog/transcreation-vs-translation/>
3. Interpretation institute in UK: <https://www.iti.org.uk/resource/transcreation-explained.html>



By the end of this session, participants will be able to:

- Familiarize yourself with the COCREANDO measure and usability.
- Increase knowledge on the Transcreation approach to language transfer as opposed to direct/back translation.
- Reflect on this approach and engage in a lively discussion with presenters and audience on the pros and cons of this approach and future steps.

Thought Questions:

- 1) How to do see this approach in general?
 - a. And compared to usual practices that may include back-to-back translation?
- 2) Pros and cons of using Transcreation in your work or in general?
- 3) What approaches to language transfer have you used?
- 4) Can you think of concrete ways to incorporate a Transcreation approach and/or principles in your work?
- 5) How do you see the role of Artificial Intelligence in language translation efforts?
 - a. Pros and cons?

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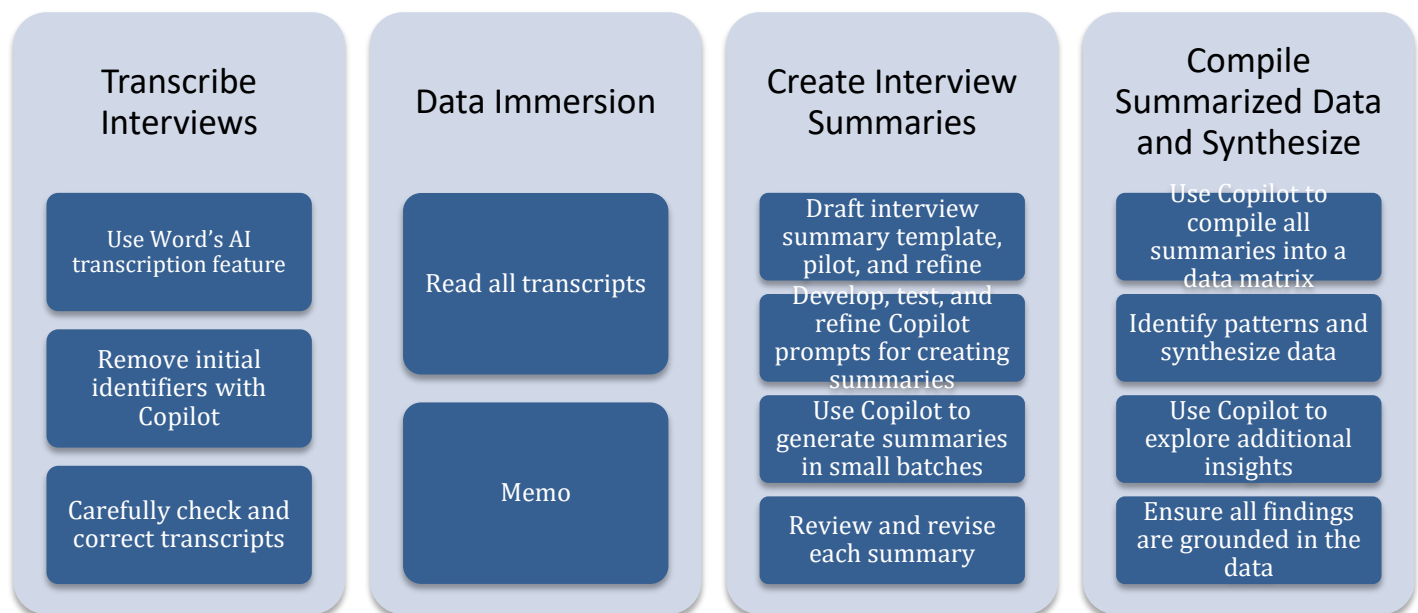
A Pragmatic, Non-Expert Workflow for Rapid Qualitative Analysis with AI

Elena Broaddus, PhD, MSPH

Abstract

With the proliferation of large language model (LLM)-based AI platforms, many qualitative researchers are exploring strategies to integrate these tools into their work. This is particularly true in the area of applied D&I research where rapid analysis approaches can facilitate timely turnaround of findings to inform ongoing implementation. Little clear guidance exists on how to use AI tools in ways that are ethical, rigorous, efficient, and comply with institutional regulations. This presentation will first provide a very brief overview of what is currently (as of April 2026) permitted and recommended regarding use of AI platforms with qualitative data. It will then describe a workflow for integrating the AI platform Copilot into a rapid qualitative analysis process while keeping a human “in the loop” at every step. This workflow has been/is being applied successfully by qualitative researchers without AI expertise on several projects to date. Troubleshooting required and lessons learned along the way will also be briefly described.

Example Workflow Overview



Resources & References

Colorado Data Center Policy

1. Server Country. *Colorado Policy*. <https://servercountry.org/policy/colorado/>
2. Colorado Renewable Energy Society. *Policy*. <https://www.cres-energy.org/policy.html>

Approved AI Platforms at CU Anschutz

1. University of Colorado Anschutz Medical Campus. *AI Tool Comparison*. <https://www.cuanschutz.edu/offices/iss/artificial-intelligence/ai-tool-comparison>
2. University of Colorado Anschutz Medical Campus. *Reviewed University Applications*. <https://www.cuanschutz.edu/offices/information-security-and-it-compliance/resources/reviewed-university-applications>
3. University of Colorado. *Data Classification*. <https://www.cu.edu/data-governance/resources-support/data-classification>



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Ethical Considerations for Use of AI in Qualitative Analysis

1. Samuel, G., & Wassenaar, D. (2025). [Joint Editorial: Informed Consent and AI Transcription of Qualitative Data](#). *Journal of Empirical Research on Human Research Ethics*.
2. Davison, R. M., Chughtai, H., Nielsen, P., Marabelli, M., Iannacci, F., van Offenbeek, M., ... & Panteli, N. (2024). [The Ethics of Using Generative AI for Qualitative Data Analysis](#). *Information Systems Journal*.

Theoretical Considerations and Guidance for Use of AI in Qualitative Analysis

1. Friese, S. (2026). [From Coding to Conversation: A New Methodological Framework for AI-Assisted Qualitative Analysis](#). *Qualitative Inquiry*.
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Expanding Methods Options: Qualitative Methods to Consider for Pragmatic Research

Jodi Summers Holtrop, PhD, MCHES

Abstract

Qualitative methods are critical to the conduct of pragmatic research because they illuminate processes, relationships, contexts, and other phenomena known to influence implementation and dissemination. In other words, the how and why interventions and implementation strategies happen and what might be causing them to be effective or not. Yet, many studies do not include qualitative methods, or rely on a limited number of methods, both for data collection and analysis, limiting what is learned from the research completed. Given the multitude of methods available, choosing appropriate and feasible methods can be challenging, so guidance on methods choices is often needed. This presentation outlines ways to think about qualitative methods choices, provides guidance on considerations in choosing a method, offers suggestions on methods that could be selected, and shares decision pathways based on the goal of the research. This presentation will highlight a recent publication by the presenter on this topic.

Resources & References

Referenced paper

- Holtrop J Summers, Dorsey-Holliman B, Hamilton A. Navigating qualitative and mixed methods choices in dissemination and implementation research: considerations and guidance for the field. *Implementation Science*. 2025 Dec 17;21(1):11. doi: 10.1186/s13012-025-01476-x.

Other methods guidance from the presenter (selected, with method underlined)

- Holtrop J Summers, Williams J, Broaddus E, et al. Applied concept mapping to explore how clinicians conceptualize weight management in primary care. In press, *Journal of the American Board of Family Medicine*.
- Tolle LW, Owen V, Kreisel C, et al. How integrated behavioral health works in primary care: an observational analysis. In press, *Journal of Clinical Psychology in Medical Settings*.
- Holtrop J Summers, Williams J, Tietbohl C, Connelly L, Smith PC, Perreault L. Primary care patient and practice member perspectives on weight loss medications: challenges and opportunities. *Frontiers in Medicine: Primary Care*. *Front Med (Lausanne)*. 2025 Jul 7;12:1584799. doi: 10.3389/fmed.2025.1584799.eCollection 2025.
- Hinrichs-Kenney L, Derlein D, Pontiff ME, et al. Using the Implementation Research Logic Model to examine high-intensity resistance rehabilitation implementation in skilled nursing facilities: a mixed methods multi-site case study. *Implementation Science Communications*. 2025 May 21;6(1):62. doi: 10.1186/s43058-025-00747-4.
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11. Holtrop J Summers, Rabin B, Glasgow RE. Qualitative approaches to use with the RE-AIM Framework: rationale and methods. *BMC Health Services Research*. 2018 Mar 13;18(1):177. doi: 10.1186/s12913-018-2938-8.
12. Holtrop J Summers, Feters M, Green LA, Potworowski G. Analysis of novel care management programs in primary care: an example of mixed methods in health services research. *Journal of Mixed Methods Research*. September 27, 2016 as doi:10.1177/1558689816668689.
13. Holtrop J Summers, Potworowski G, Fitzpatrick L, Kowalk A, Green LA. Understanding effective care management implementation in primary care: a macrocognition perspective analysis. *Implementation Science*. 2015;10:122.

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From rapid insights to deeper understanding: A two-phased approach to qualitative analysis within a clinical trial

Talia Thompson, PhD

Abstract

Randomized clinical trials (RCTs) of behavioral health interventions increasingly incorporate qualitative methods to better understand participant experiences, intervention acceptability, and potential mechanisms of change. Rapid qualitative analysis approaches are often used within trials to generate timely, actionable insights that can inform trial oversight and future adaptation. However, rapid approaches may privilege surface-level patterns and are often insufficient for capturing the meaning participants assign to their experiences. This presentation describes the use of a dual qualitative analytic strategy within a multisite pilot RCT of telehealth-delivered group behavioral interventions for adolescents. Drawing on focus group data, the presentation illustrates how rapid analysis was used during the trial to summarize cross-case patterns related to implementation, and how a subsequent team-based reflexive thematic analysis provided a more nuanced understanding of how experiences differed across intervention arms. This example highlights the complementary roles of rapid and in-depth qualitative approaches in clinical trials and offers practical considerations for designing qualitative components that balance timeliness with interpretive rigor.

Resources & References

Referenced study

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Methodological references

2. Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. <https://doi-org.cuanschutz.idm.oclc.org/10.1191/1478088706qp063oa>
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Pediatric Pragmatic EHR-Embedded Trials: Where are we now and how can we do more?

Moderators: Jerica Berge, PhD, MPH, LMFT, CFLE, Lisa Ross DeCamp, MD, MSPH
Panelists: Yanjun Gao, PhD, Suchitra Rao, MD, Sarah Schmidt, MD, Halden Scott, MD

Session overview:

In this session we will provide examples of pediatric pragmatic EHR-embedded trials and lessons learned, as well as opportunities for future growth of this design from the perspectives of researchers and EHR and data science experts. We will then conduct a panel discussion expanding on lessons learned and visioning future directions and strategic collaborations for pediatric pragmatic EHR-embedded trials that will include time for audience questions.

Session Learning Objectives:

1. Describe strengths, challenges, opportunities, and lessons learned in current and recently completed pediatric pragmatic EHR-embedded trials
2. Apply lessons learned from current and prior pediatric pragmatic EHR-embedded trials to guide future research and collaborative opportunities

Session Resources and References:

1. *A real-time EHR implementation of LLM-assisted patient messaging, illustrating workflow integration and safety considerations: Prompt Engineering with a Large Language Model to Assist Providers in Responding to Patient Inquiries: A Real-Time Implementation in the Electronic Health Record*, Afshar et al, JAMIA Open 2024. <https://academic.oup.com/jamiaopen/article/7/3/ooae080/7737652>
2. *Office of the National Coordinator for Health Information Technology AI & Health IT Resources*: <https://www.healthit.gov/topic/artificial-intelligence> Practical guidance on deploying AI in health IT systems, including evaluation, safety, and regulatory considerations.
3. *A validated framework for evaluating LLM-generated clinical summaries, focusing on accuracy, completeness, and clinical usefulness: Development and Validation of the Provider Documentation Summarization Quality Instrument for Large Language Models*, Croxford et al, JAMIA2025 <https://doi.org/10.1093/jamia/ocaf068>
4. *PEDSnet website*: <https://pedsnet.org/>
5. *Examples of PEDSnet publications*: <https://pedsnet.org/research/publications/>
6. *PCORnet website*: <https://pcornet.org/>
7. *Reporting guidelines*: <https://www.equator-network.org/reporting-guidelines/code-ehr-best-practice-framework-for-the-use-of-structured-electronic-health-care-records-in-clinical-research/>
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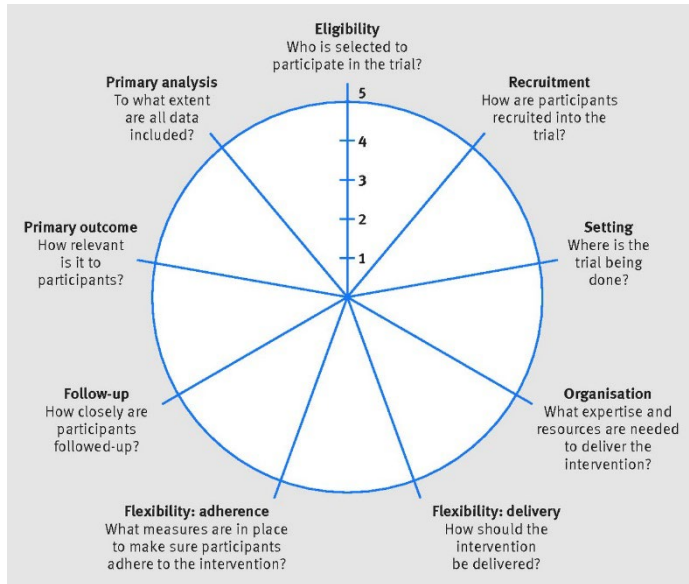
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Pragmatic Research Debates and Tradeoffs

Moderators: Bethany Kwan, PhD, MSPH, Hillary Lum, MD, PhD

Panelists: Katy Trinkley, PharmD, PhD, Dan Matlock, MD, MPH, Heather Smyth, PhD

The Pragmatic-Explanatory Continuum Indicator Summary (PRECIS-2) Tool



How Pragmatic is your Study? For

example:

Setting: how different are settings of the trial from usual care?

Highly pragmatic (rating of 5): setting is nearly identical to location where results are intended to be applied (usual care)

In-between (rating of 3): setting is partially representative of usual care sites; at least 2 sites are involved.

Highly explanatory (rating of 1): study is not at all representative of usual care – highly specialized center or tertiary-care center, only one center involved.

Thought Questions to Panel:

What matters more in pragmatic research – internal or external validity?

What are the tradeoffs between individual-level and cluster-level randomization (e.g., stepped wedge, cluster randomized) in pragmatic research?

What are the tradeoffs between primary data collection and secondary use of existing data (e.g., EHR data) in pragmatic research?

What outcomes are most important to measure in pragmatic trial pilot and feasibility studies?



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- *A real-time EHR implementation of LLM-assisted patient messaging, illustrating workflow integration and safety considerations: Prompt Engineering with a Large Language Model to Assist Providers in Responding to Patient Inquiries: A Real-Time Implementation in the Electronic Health Record*, Afshar et al, JAMIA Open 2024. <https://academic.oup.com/jamiaopen/article/7/3/ooae080/7737652>
- *Office of the National Coordinator for Health Information Technology AI & Health IT Resources*: <https://www.healthit.gov/topic/artificial-intelligence> Practical guidance on deploying AI in health IT systems, including evaluation, safety, and regulatory considerations.
- *A validated framework for evaluating LLM-generated clinical summaries, focusing on accuracy, completeness, and clinical usefulness: Development and Validation of the Provider Documentation Summarization Quality Instrument for Large Language Models*, Croxford et al, JAMIA2025 <https://doi.org/10.1093/jamia/ocaf068>
- *PEDSnet website*: <https://pedsnet.org/>
- *Examples of PEDSnet publications*: <https://pedsnet.org/research/publications/>
- *PCORnet website*: <https://pcornet.org/>
- *Reporting guidelines*: <https://www.equator-network.org/reporting-guidelines/code-ehr-best-practice-framework-for-the-use-of-structured-electronic-health-care-records-in-clinical-research/>
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A Joint Model for Longitudinal Change Point Analysis and Recurrent Events with Application to Cystic Fibrosis Outcomes

Jiayuan Shi, MS

Abstract

This paper presents a Bayesian joint modeling framework for situations in which a longitudinal biomarker changes abruptly while recurrent clinical events occur over time. Using the EPIC observational study in children with cystic fibrosis, the model links subject-specific changes in *Pseudomonas aeruginosa* (PA) infection trajectories to recurrent pulmonary exacerbation (PE) events through shared random effects, allowing event risk to be associated with individual biomarker trajectories.

The longitudinal component uses a binary random change point model to capture individualized shifts in PA progression over age, while the recurrent event component uses a counting-process formulation with a Weibull baseline intensity to model repeated PE events. The framework also accounts for left truncation because children entered the study at different ages rather than being observed from birth.

By the end of this session, participants will be able to:

1. Describe how a Bayesian joint model can simultaneously analyze a binary longitudinal process and recurrent event outcomes.
2. Explain why random change points are useful for identifying subject-specific shifts in disease progression.
3. Recognize the importance of accounting for left truncation when the risk process begins before study entry.
4. Interpret how shared random effects connect longitudinal biomarkers with recurrent event risk.
5. Identify practical software and reference resources for fitting, checking, and interpreting joint models with change points and recurrent events.

Core Message

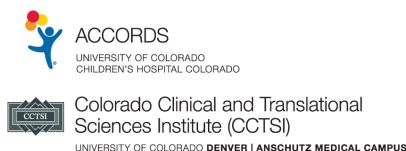
A Bayesian joint modeling framework that combines longitudinal change point analysis with recurrent event modeling can identify when biomarker trajectories begin to change and how those changes relate to recurrent clinical outcomes.

Key Methodologic Features

- **Joint modeling instead of separate analyses** - Modeling PA trajectories and PE events together captures their temporal association more effectively than analyzing them separately.
- **Subject-specific change points** - Individualized transition times allow the model to detect sharp shifts in infection progression rather than assuming a common turning point across children.
- **Shared random effects** - The two sub-models are linked so that recurrent event risk can reflect underlying longitudinal disease progression.
- **Left truncation adjustment** - Properly accounting for delayed entry is essential because participants entered follow-up at different ages.

Software and Resources

- **JAGS** - Bayesian MCMC software used to estimate the proposed model.
- **runjags** - An R interface for fitting JAGS models and assessing convergence across chains.
- **JMbayes2** - An R package for Bayesian joint modeling of longitudinal and time-to-event outcomes; useful as a broader reference for applied joint-modeling workflows in R.



Thought Questions

1. What information would be lost if PA infection and PE events were modeled separately rather than jointly?
2. How could this framework be extended to other chronic diseases with evolving biomarkers and repeated acute events?
3. What advantages do random change points provide when studying disease progression over time?

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Integrating Outcome Evidence from Misaligned Control Variates

Nannan Wang, MS

Abstract

Combining information from multiple studies is increasingly common in causal inference and public health research. However, an important challenge arises when studies do not measure the same primary outcome. In many real-world settings, one study contains the primary outcome of interest while another study only contains related secondary outcomes and shared covariates. We refer to this problem as outcome misalignment. Traditional approaches often either ignore the auxiliary study, sacrificing efficiency, or pool studies under strong exchangeability assumptions that may introduce bias when violated. In this session, we introduce a data-adaptive control variate framework designed for multi-study settings with misaligned outcomes. The proposed method leverages correlated secondary outcomes from auxiliary studies to improve efficiency while adaptively shrinking toward the primary-study-only estimator when incompatibility between studies is detected.

We will discuss the intuition behind control variates, the role of exchangeability assumptions in data fusion, and how penalization can balance efficiency gains and robustness. Simulation studies demonstrate that the proposed estimator achieves meaningful variance reduction under exchangeability while protecting against bias when exchangeability fails.

By the end of this session, participants will be able to:

1. Understand the challenge of outcome misalignment in multi-study causal inference.
2. Learn how control variates can improve efficiency in data fusion settings.
3. Understand how the penalized estimator protects against exchangeability violations.

Key Methodological Ideas

Control Variates

- Use correlated secondary outcomes to reduce variance
- Construct a mean-zero correction term under exchangeability
- Improve efficiency relative to Study-1-only estimation

Data-Adaptive Penalization

- Detect discrepancies between studies
- Shrink the control variate coefficient toward zero when incompatibility is detected
- Balance efficiency gains and robustness

Exchangeability

- Critical assumption for transporting information across studies
- Violations can introduce bias in naive pooled estimators
- Adaptive shrinkage protects against this issue

Simulation Findings

When Exchangeability Holds

- Proposed estimator remains unbiased
- Variance reduction improves efficiency
- Performance approaches oracle estimator

When Exchangeability Fails

- Naive pooling becomes biased
- Penalized estimator shrinks toward the safe baseline estimator
- Robustness is maintained



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Unsupervised Discovery of Phenotype-Specific Multi-Omics Networks: SmCCNet with Scalable Modeling and Interactive Visualization

Yonghua Zhuang, PhD

Overview

Multi-omics integration is essential for understanding complex biological systems and disease mechanisms. Traditional approaches often analyze each omics layer separately or rely on simple correlation structures, limiting biological insight.

SmCCNet (Sparse Multiple Canonical Correlation Network) integrates multiple omics datasets with phenotype information to identify phenotype-specific molecular networks using sparse canonical correlation analysis.

SmCCNet 2.0 extends this framework with improved scalability, flexibility, and an interactive Shiny visualization interface.

Key Methodological Concepts

1. Multi-Omics Integration via sCCA: Identifies correlated features across omics layers and phenotype.
2. Sparsity and Interpretability: Selects key features for robust, interpretable networks.
3. Phenotype-Specific Networks: Focuses on biologically meaningful interactions tied to outcomes.

Key Takeaways

- Provides a principled framework for multi-omics integration
- Enhances biological relevance via phenotype integration
- Improves interpretability through sparsity
- Bridges methodology and usability
- Applicable to biomarker discovery and systems biology

Tools & Resources

- SmCCNet R package
- SmCCNet 2.0 platform with Shiny interface

Typical workflow:

1. Data preprocessing
2. Define phenotype
3. Run SmCCNet
4. Tune parameters
5. Visualize networks

References

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<https://pubmed.ncbi.nlm.nih.gov/30957844/>
2. SmCCNet 2.0 (2024) – BMC Bioinformatics
3. <https://link.springer.com/article/10.1186/s12859-024-05900-9>

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Bringing Patient-Reported Outcomes (PROs) into Clinical Trials and Real-World Clinical Care

Allison L'Hotta, PhD, OTD, Ajay Major, MD, MBA, Tyler Buckner, MD, MSc

Key Considerations in Selecting PRO Tools

- Use validated, reliable instruments (e.g., PROMIS, PRO-CTCAE)
- Ensure clinical relevance (symptoms, function, financial/time toxicity)
- Minimize patient burden (short forms, computerized adaptive testing)
- Consider population needs:
 - Age/developmental appropriateness
 - Proxy-reporting when needed
- Plan for frequency of assessment (balance data needs vs. fatigue)

Implementation Considerations

- Embed PROs into clinical workflows
- Platform selection:
 - Electronic health record (EHR)-integrated- direct integration into workflows, but some limitations with functionality
 - Research platforms- more flexible and customizable but harder to integrate into workflows and EHR
- Address common barriers:
 - Workflow disruption
 - Staff training and engagement
 - Technology access and usability
- Use automated scoring, alerts, and dashboards

Pragmatic Considerations and Planning for Sustainability

- Link PROs to clinical actions (referrals, symptom management)
- Demonstrate value to clinicians and health systems
- Start with pilot programs and scale gradually
- Align with existing infrastructure (EHR, quality initiatives)
- Monitor feasibility, acceptability, and impact over time

Resources

1. <https://www.esymcancermoonshot.org/copy-of-for-researchers>
2. International Society for Quality of Life Research (ISOQOL) User's Guide to Implementing PRO Assessment in Clinical Practice: <https://www.isoqol.org/wp-content/uploads/2019/09/2015UsersGuide-Version2.pdf>
3. <https://theproteusconsortium.org>

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Fit-for-Purpose IS Rigor: Decision-Focused Evidence Production and Benchmarking for Individual, Community, and Population Health

Eric Hekler, PhD

Abstract

The health science enterprise has never fully operationalized its capacity to serve health as a complex, dynamic, evolving target. We have robust infrastructure for producing generalizable knowledge — and systematically underdeveloped infrastructure for the community-centered and person-centered evidence that is needed to serve health. Drawing on findings from a well-powered pragmatic trial that exposed this gap in sharp relief, this keynote introduces Decision-Focused Evidence Production (DFEP) and benchmarking as a unifying framework. The core argument: rigor is not a property of a method but a relationship between a method and a purpose. Attendees will leave with a practical workbook for aligning their evidence production with the decisions it's meant to serve.

By the end of this session, participants will be able to:

1. Describe the structural incompleteness of the health science enterprise and why three complementary research streams (population-centered, community-centered, and person-centered) are needed to serve health in its full sense.
2. Apply Decision-Focused Evidence Production (DFEP) to identify who is impacted, what decisions evidence is meant to serve, what context shapes those decisions, and how learning and correction occur.
3. Specify a meaningful, empirically observable benchmark matched to a decision context — and articulate why fit-for-purpose benchmarking is a form of rigor, not a relaxation of it.
4. Distinguish when proof-of-concept trials, PDSA cycles, RCTs, and N-of-1 designs are the most rigorous choice for a given decision context.
5. Use the DFEP & Benchmarking Workbook to evaluate the fit between their own current research and the decisions it is meant to serve.

Core Message

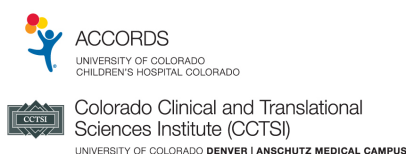
The health science enterprise has robust infrastructure for producing generalizable knowledge but systematically underdeveloped infrastructure for community-centered and person-centered evidence. Decision-Focused Evidence Production (DFEP) and benchmarking provide a unifying framework: evidence production should be designed from the decision it's meant to serve, and rigor is achieved by matching methods to purpose — not by defaulting to any single design.

QUICK START: The 4 Essential Questions

If you do nothing else, answer these four. They capture the core DFEP move.

1. What decision is this evidence meant to serve?

Be concrete. Not “advance knowledge” but “Should this clinic adopt the new screening protocol?”



2. How fast can the decision-maker learn and correct?

Minutes–Hours | Days–Weeks | Weeks–Months | Months–Years | Years–Decades

Faster correction = corrective capacity is a source of rigor. Slower = you need higher certainty upfront.

3. What is your benchmark?

What observable result would the decision-maker need to see to act? Write it as a concrete, measurable threshold.

4. What will you do based on the result?

If benchmark IS met → _____

If benchmark is NOT met → _____

If results are ambiguous → _____

THREE COMPLEMENTARY RESEARCH STREAMS

Stream	Driving Question	Benchmark Logic
Population-centered	Does this work for most people, in general?	$p < .05$, clinical equipoise, meta-analysis, MCID
Community-centered	What works HERE, for THESE people, given THIS context?	Improvement over local baseline, PDSA cycles, POC trials
Person-centered	What works for ME, in MY life, toward MY goals?	Individual baseline, N-of-1, personal response patterns

STUDY DESIGN QUICK REFERENCE

Design	Best When	Benchmark Source	Decision
POC Trial	Testing plausibility, small sample (N=10–30)	Clinical significance	Proceed / refine / abandon
PDSA Cycles	Iterative place-based improvement	Local baseline	Adapt / adopt / abandon
RCT	Population-level evidence, slow correction	Clinical equipoise, TCS	Guideline / policy
N-of-1 / COT	Individual optimization	Personal baseline + goals	Personal adjustment

The Incomplete Enterprise

The WHO defined health as dynamic, contextual, and relational 75 years ago. We built infrastructure for discovering general principles (Newtonian science) but not for fostering adaptive evolution in context (Darwinian science). A well-powered pragmatic trial (HEALthy4You) illustrates this gap: null findings driven not by ineffective interventions but by systems unable to deliver them — a challenge the trial design could identify but not resolve.

Decision-Focused Evidence Production + Benchmarking

Four parameter sets determine the evidence needed: Stakeholders (who is impacted), Decision Parameters (what choices the evidence serves), Contextual Parameters (assets and constraints), and Corrective Parameters (pace of learning and correction).



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Thought Questions

1. Think about a study you're currently designing or conducting. Who is the actual decision-maker the evidence is meant to serve — and what would they need to see to feel confident enough to act? Is that the same as what a journal reviewer would need to see?
2. How fast can decisions be revisited and corrected in your work? If the answer is months rather than decades, what would it mean to let that corrective capacity count as a source of rigor rather than defaulting to the evidentiary standards designed for slow-correction contexts?
3. If you had to pre-specify a meaningful benchmark for your current project right now — a concrete threshold that would tell you whether you're making progress — what would it be? And what would you do if you didn't meet it?

FULL WORKBOOK

The complete DFEP & Benchmarking Workbook (8 sections, worked examples, reflection prompts) is available at:

<https://docs.google.com/document/d/1gGIUg3arMUjFS2yMNuIlsFkXhHgX37F4>

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Contact: ehekler@ucsd.edu | Full workbook, person-centered slides, and additional resources available on request.

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Web-Based Pragmatic Science Tools



Engagement Cost Tracking Tool

Liza Creel and Jack Cronin

Contact
Liza.Creel@cuanschutz.edu
for more information

COCREATE/COCREANDO Webtool

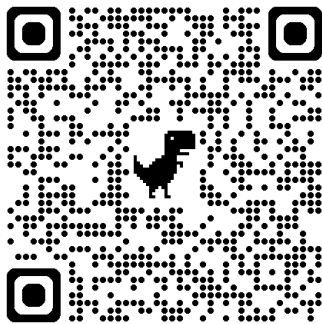
Samantha Rubio, MD, MPH

<https://cocreate-webtool-preview.tiiny.site>

Core Functions and Forms Webtool

Monica Jolles

<https://medschool.cuanschutz.edu/accords/CoresResources/dissemination-implementation-core/functions-forms>



iPRISM Web Tool

Katy Trinkley, Brian Ford

<https://prismtool.org/>



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Pragmatic Tools for Rapid and Rigorous Research

Bryan Ford, Bryan Wallace, Dan Matlock, Russ Glasgow

<https://medschool.cuanschutz.edu/r2p2/home>



SCAN ME

Tools for Planning and Reporting Generalizable Impact: Tracking Multi-level Participation, Representativeness, and Effectiveness

Russ Glasgow, Josh Cockcroft, Amy Huebschmann, Ermyas Birru



Stakeholder Engagement Navigator: Dissemination, Implementation, Communication and Engagement – A Guide for Health Researchers

Bethany Kwan

<https://dicemethods.org/concept-mapping>



Research for Real-World Impact: A Guide to Planning, Conduct & Dissemination of Pragmatic Research in Health

Bethany Kwan and Sarah Kautz

www.pragmaticresearch.org



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CCTSI Dissemination Inspiration Library

Bethany Kwan and Justin Shrader

<https://cctsi.cuanschutz.edu/resources/dissemination#ft-dissemination-inspiration-library-4>



Collaborative PRECIS-2 Scoring Tool

Sarah Brewer



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Poster Listing



Scan to read the full
abstract



COPRH Con Poster Session Listing

Room: P12-2200/2201

Cluster 1: Digital, Data & AI-driven Tools for Adaptive Care

A1 – Neil Aggarwal

An EHR-Embedded Pragmatic Stepped-Wedge Randomized Controlled Trial: Optimizing Care in the Critically Ill by Liberalizing the Target O2 in Mechanically-Ventilated ICU Patients (OCCULT O2)

A2 – Emily Buchanan

Adapting a pragmatic, EMR-embedded clinical trial of prostate cancer patients to enhance enrollment

A3 – Yidan Chao

Designing Precision Feedback for Screening and Referral of Health-Related Social Needs in Pediatric Primary Care

A4 – Maren Clark

Patient, Caregiver, and Nurse Perspectives of the ALERT-ED Intervention: A Digital Fall Prevention Tool for ED Patients

A5 – Jared Heinze

Large language models for rapid qualitative analysis of provider comments within clinical decision support

A6 – Frannie Westlake

Leveraging Large Language Models to Automate Chart Review in an R01 Pragmatic Trial

A7 – Alexander Kotz

ClarifAI: Modular LLM-Augmented Qualitative Feedback Workflows

A8 – Katherine Frasca

Clinical Decision Support Improves HIV Screening & Pre-Exposure Prophylaxis Initiation in the Emergency Department

A9 – Allison L'Hotta

Running the Gauntlet to Attain Sustainable Impact by Embedding Digital Interventions into Health Systems

A10 – Deanna Swain

Caregiver Engagement with a Digital Autism Intervention: Cross-Sample Evidence for Pragmatic Trials

A11 – Dana Steidtmann

Implementation and Feasibility of Technology-Augmented Psychotherapy for Anxiety and Depression

A12 – Abhinav Pundir

Identifying Family Relationships from Electronic Health Records: A Machine Learning Approach



Room: P12-2200/2201

Cluster 2: Pragmatic Methods & Implementation Strategies for Real-World Change

B1 – Shweta Kumar

Outcomes from the Glycemic Excursion Minimization (GEM) Intervention in Primary Care Patients with Prediabetes

B2 – David Bekelman

Patient and Clinician Strategies to Increase Goals of Care Conversations in Primary Care: A Cluster Randomized Clinical Trial

B3 – Cristina Parsons

Championing Care Coordination & Integrated Case Management (CCICM) for Complex Rural Veterans

B4 – Heidi Sjoberg

Application of Brainwriting Premortem to Enhance Sustainment of a Veterans Health Administration Nationwide Practice Change

B5 – Lauren Hinrichs-Kinney

Multi-Phase Mixed-Methods Development and Evaluation of a Leadership Toolkit for Rehabilitation Implementation

B6 – Emily Dunston

Iterative Prototyping of a Primary Care Referral Process to Cancer Rehabilitation and Exercise Services

B7 – Anowara Begum

Community-engaged development and application of a planning guide for sustainment of the Better Asthma Control for Kids (BACK) program

B8 – Avery Schaefer

Qualitative Analysis of Interviews with School Leadership Regarding Maintenance of a School-Based Asthma Program

B9 – Joshua Cockroft

Targeting Impact: Identifying, Mitigating, and Reporting the Loss of Generalizable Impact in Health Outcomes Research

B10 – Liza Creel

Costs of Partner Engagement in Implementation Research: Conceptual, Methodological, and Dissemination Issues

B11 – Dan Matlock

Emerging Challenges and Tensions when Conducting Pragmatic Research: Lessons Learned from the R2P2 Program

B12 – Amy Ladebue

Adapting the AIM-HI Program to the Needs of the Rural Healthcare Workforce

B13 – Mary Fisher

Integrating Programs to create a Streamlined Practice-based Network to Conduct Research, Innovation, and Practice Improvement in Colorado Primary Care: A CAMPHIRE Story



B14 – John Steiner

Short Courses in Scientific Writing for Health Services and Pragmatic Researchers

B15 – Collette Fischer

Delivering the Right Care at the Right Time in Suicide Prevention

Room: P12-2200/2201

Cluster 3: Co-creation & Engagement in Dynamic Contexts

C1 – Evelyn Iriarte Parra

Pragmatic Strategies to Improve Recruitment and Engagement in HIV Research in Colorado

C2 – Rebekah Gomes

Advancing the Science of Engagement: Developing guidance for co-creation engagement in research with multi-sectoral partners.

C3 – Samantha Rubio

Measuring co-creation during the engagement process in research: A pathway forward

C4 – Ramona Koren

On-Ramps to Engagement: Insights for Overcoming Barriers to Collecting Community Input as Revealed by Family and Household Linkage Ethics Engagement

C5 – Bethany Kwan

More than a method: ethics-driven guidance for family and household linkage

C6 – Sarah Brewer

Engaging Multilingual Communities to Plan Research in Refugee Women’s Mental Health: A Concept Mapping Approach

C7 – Sarah Brewer

Understanding Challenges and Opportunities in Neurological Treatment among Resettled Refugees: A Photovoice Approach

C8 – Sarah Brewer

A ‘Modular’ Approach to Group Model Building: The iHOUSE Advisory Pool

C9 – Sarah Brewer

Youth as Partners: Methods for Engaging Youth as Co-investigators and Collaborators on Research Teams

C10 – Sarah Brewer

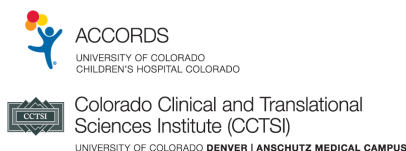
Youth Perspectives on Engagement Processes and Measurement in Youth Advisory Boards for Pragmatic Health Research

C11 – Lisa DeCamp

Comparing Methods to Engage Hispanic and Latino Families and Providers of Autistic Children in Research

C12 – Lina Kleinschmidt

Immersion to Action: A Researcher’s Reflections on Community Engagement Training in Colorado’s San Luis Valley



C13 – Charment Moussata

Improving Asthma Navigation for Language other than English Populations via Community-Engaged Tailoring

C14 – Audrey Keleman

Veteran-Informed Development of an Early Dementia Occupational Therapy Intervention

Room: P12-2200/2201

Cluster 4: Patient-centered Tools, Decisions & Experience Redesign

D1 – Sakthi Asokan

Depression and Anxiety Disorders Present at Breast Cancer Diagnosis Impact Quality of Life Scores

D2 – Keegan Carroll

Financial toxicity in patients with CLL and lymphoma based on initial management strategy

D3 – Bryan Wallace

Clinicians' Perceptions of Using old Data in Shared Decision Making

D4 – Marisa Stahl

RAND Appropriateness Panel for Management of Screening-Identified Celiac Disease Autoimmunity

Room: Elliman Foyer

Cluster 5: Care Delivery Innovation Across Population & Settings

E1 – Lauren Apodaca

A Pragmatic ED-to-Community Medications for Opioid Use Disorder Care Continuum

E2 – Kathy Gleason

Opioid Use Disorder Treatment in Outpatient Clinical Care – Outreach Efforts in Changing Landscapes

E3 – Elizabeth Bollinger

Siblings and Parent Interactions Around Eating and Feeding Behaviors in the Home Food Environment

E4 – Gretchen Domek

Early Language Promotion Through Public Libraries: A Pilot Implementation Study with High Family Engagement

E5 – Gretchen Domek

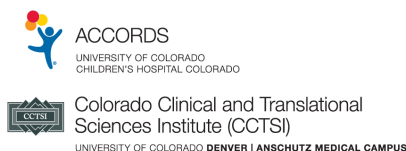
Using Puppets in Primary Care to Support Positive Family Home Engagement During Infancy

E6 – Bailey Martin

Documentation of Maternal Incarceration by Home Visiting Programs: Specificity is Needed to Improve Care

E7 – Jonathan Safer-Lichtenstein

A Pragmatic Tool for Assessing Cognitive Flexibility: The Flexibility Inventory Questionnaire (FIQ)



E8 – Qing Li

Integrating Relationship Education and Violence Prevention in Early Home Visiting in Colorado and Utah

E9 – Lexus Ujano-De Motta

Empowering Veterans and Care Partners: Pragmatic Approaches to Enhance a VA Home Health Research Study

E10 – Melissa Tran

Clinician-perceived patient determinants shaping high intensity rehabilitation delivery and recovery in skilled nursing facilities

E11 – Margaret Milligan

Connection to Adult Primary Care after ED Sexual Assault evaluation: A Quality Improvement Project

E12 – Julia Reedy

Leveraging annual retreats to support program evaluation and adaptation: A collaborative, rapid mixed methods approach

E13 – Rebecca Altshuler

The Scientist Avatar: An Interactive Tool to Promote Higher Education within the Aurora Community

E14 – Michael Ladka

Development and Validation of a National Surveillance Survey for Over-the-Counter Medication Use

E15 – David Higgins

Evaluating Immunization Information System Data Use Across Public Health, Policy, and Media Partners

E16 – David Higgins

Co-Designing and Implementing Team HPV Vaccine Communication Supports in Rural Primary Care Clinics

E17 – David Higgins

Translating Vaccine Communication Evidence Into Practice Through a National ECHO Program

E18 – Hanaa Salman

Early Identification and DKA Avoidance in Type 1 Diabetes: Implications for Long-Term Glycemic Outcomes

E19 – Katherine Kissler

Cesarean Birth Outcomes Following Induction vs. Expectant Management in Midwifery Care

E20 – Jamie Cronin

Identifying Breast Cancer Risk In Patients Undergoing Gender-affirming Chest Masculinization Surgery

E21 – Pranav Padmanabhan

Adapting a Nested Model Structure to Inform Housing Services and Policy Decision-Making

E22 – Elise Tsai

Comprehensive Perspectives of a Multidisciplinary Intraoperative Margin Assessment Protocol

E23 – Sarah Leslie

Integrating Sexual Health Care into Breast Oncology One Year Outcomes from an Embedded Clinic

E24 – David Chen

MedED: A tool to improve patient interpretation and perceived understanding of a sample mammography report



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E25 – Jacqueline Grubel

Affective Forecasting in Breast Cancer Surgery - Assessing the Accuracy of Patient Predicted Quality of Life After Surgery

E26 – Sarah Leslie

Designing Patient-Centered Visualizations of Predicted Quality-of-Life Outcomes to Enhance Shared Decision Making in Oncology Surgery

E27 – Cassidy Yoshida

Perceptions and Experiences of Patients at High-Risk for Breast Cancer

E28 – Maren Clark

Co-Designing eGAPcare: Multidisciplinary Stakeholder Perspectives to Inform a Telehealth Fall Prevention Protocol

E29 – Heidi Sjoberg

Enhancing Veteran Care through Relational Facilitation: Strategies and Mixed Methods Outcomes



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About ACCORDS

Adult and Child Center for Outcomes Research and Delivery Science

[The Adult and Child Center for Outcomes Research and Delivery Science \(ACCORDS\)](#) encompasses T3-T4 research across the life spectrum for the University of Colorado (CU) Anschutz Medical Campus, with infrastructure support provided jointly from the Dean's Office of the School of Medicine and Children's Hospital Colorado (CHCO). The program was first established in 1998 as the Colorado Health Outcomes program (COHO). In 2014, COHO merged with the Children's Outcomes Research (COR) program. The name highlights the focus on the entire life spectrum as well as on "delivery science," encompassing comparative effectiveness, patient-centered outcomes, and dissemination and implementation research.

ACCORDS is a group of investigators from multiple disciplines. Some have primary offices on campus, while a much larger group maintain off-site research homes. Currently, over 50 investigators, 15 biostatisticians/analysts, 39 research assistants, four instructors, and 11 administrative personnel have office space with ACCORDS. In FY2019, 32 grants were awarded totaling \$14 million, reflecting a 38 percent success rate for submitted proposals. ACCORDS provided 490 consultations to 28 departments/division in the School of Medicine and assisted with 63 faculty recruitments. ACCORDS houses two fellowship programs focusing on primary and subspecialty clinician scientists and currently has a K12 training grant focused on dissemination and implementation science. During FY2019, ACCORDS hosted four seminar series, two distinguished lecturers, and four educational workshops.

ACCORDS brings together T3-T4 researchers from across the CU Anschutz campus. Collaborating investigators represent all School of Medicine departments, as well as the Colorado School of Public Health, the Skaggs School of Pharmacy and Pharmaceutical Sciences, and the College of Nursing. ACCORDS also has strong research affiliations with the Colorado Clinical and Translational Sciences Institute (CCTSI), Denver Health, Kaiser Permanente, U.S. Department of Veterans Affairs, Colorado Department of Public Health and Environment, and the Colorado Department of Health Care Policy and Financing. ACCORDS is an incubator for research ideas, fosters interdisciplinary collaboration, and develops focused areas of research of national prominence.

The mission of ACCORDS is to improve health, locally and nationally, by supporting state-of-the-art outcomes and community translational research to guide clinical practice and health policy.

The objectives of ACCORDS are to:

- Increase competitiveness of the School of Medicine/CHCO for funding from multiple research, education and training program sponsors, especially Patient-Centered Outcomes Research Institute, Agency for Healthcare Research and Quality, and the National Institutes of Health



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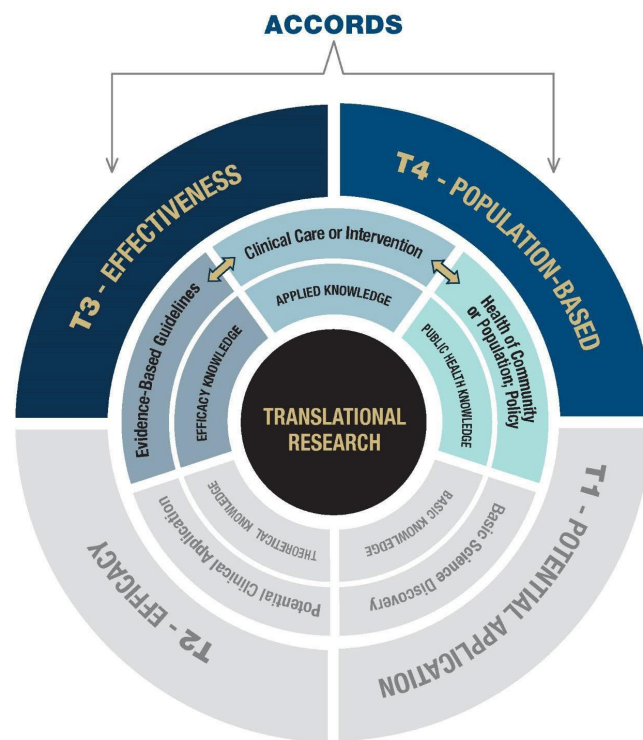
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- Strengthen affiliations with key external partners, including Denver Health, U.S. Department of Veterans Affairs, Kaiser Permanente, and the Colorado Department of Public Health and Environment, to increase access to populations and collaborators necessary for certain grants.
- Improve faculty development for both senior and junior faculty interested in outcomes and delivery research by providing an interdisciplinary home for developing research, a mentored training ground, and substantial educational activities.
- Improve the ability of the School of Medicine/CHCO to recruit senior and junior faculty interested in health outcomes, health services research, dissemination and implementation science, comparative effectiveness, and patient-centered outcomes research.
- Achieve greater national visibility for the School of Medicine/CHCO as leaders in the areas of health outcomes, dissemination and implementation science, comparative effectiveness research, and training.

ACCORDS is organized into programmatic areas: (1) Dissemination and Implementation Science; (2) Education; (3) Research Training and Mentorship; (4) Patient-Centered Decisions; (5) Data Science, and (6) Community Engagement and Outreach.

ACCORDS also has methodological cores in qualitative and mixed methods, practice-based research networks, biostatistics and analysis, economic analysis, and health informatics/mobile health. These cores provide support to the programmatic areas and consultative support to investigators. A major focus of these cores is to provide support for the development of new projects and grant proposals.

For more information, please visit <https://medschool.cuanschutz.edu/accords>.



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Training, Education, and Mentorship (TEaM) Core at ACCORDS

Director: Hillary Lum, MD, PhD | **Co-Director:** Sarah Brewer, PhD, MPA

Our mission: To support training, educational, and mentorship needs related to health services research.

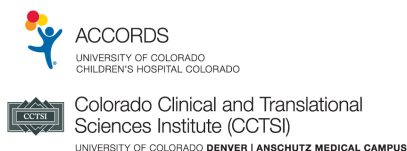
What is TEaM? We assist early career faculty, staff, trainees, and other health services researchers in meeting their training, education, and mentorship needs in career development and in health outcomes and implementation research.

What TEaM offers:

- Mentorship consultations – for faculty and trainees
- Research fellowship training programs for early career faculty.
- Connections to works in progress (WIP) groups.
- Research methods education through seminars, workshops, and conferences.

Visit our website [here](#).

Contact the TEaM Core: ACCORDS_TeM@cuanschutz.edu



COPRH Con Gold Sponsor: The CCTSI

The Colorado Clinical and Translational Sciences Institute (CCTSI)

Accelerating Research to Improve Health



The CCTSI trains the research teams of the future, speeds the development of new treatments and cures, and improves human health. We do this through a collaboration between the University of Colorado Anschutz Medical Campus, the University of Colorado Denver, the University of Colorado Boulder, and Colorado State University. Our partner healthcare institutions include UHealth University of Colorado Hospital, Children's Hospital Colorado, National Jewish Health, Denver Health and Hospitals, and the VA Eastern Colorado Healthcare System. The CCTSI also works together with more than 20 community organizations across Colorado.

We receive essential support from the University of Colorado, UHealth, Children's Hospital Colorado, the School of Medicine, the Provost and the Chancellor at CU Anschutz, as well as grant funding from the National Institutes of Health (NIH).

Each year, we give away more than \$940,000 in pilot grants; we provide research resources for 260 Principal Investigators conducting more than 500 active studies in our Clinical Translational Research Centers; and we offer training on everything from mentoring to science communications, customer discovery to teaming and leading. We also provide mock study sections, microgrants, and support with REDCap, among other services. More than 5,000 CCTSI members benefit from our services, funding sources and programs.

To highlight some of our collaborative accomplishments, we have [developed a CCTSI 2024 annual report](#). The report captures a snapshot of activity that advances biomedical research and innovation and trains the next generation of translational science leaders and their teams. The CCTSI is led by **Ronald J. Sokol, MD**, **Janine Higgins, PhD**, and a team of talented associate directors and administrative staff. For further information on our programs, services and funding opportunities, visit [CCTSI.cuanschutz.edu](https://cctsi.cuanschutz.edu).



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Dissemination & Implementation (D&I) Science Graduate Certificate Program

[The Dissemination and Implementation \(D&I\) Science Graduate Certificate](#) at the University of Colorado was designed to address a local and national need for rigorous training in D&I Science in health services research.

D&I science is the study of methods and strategies to facilitate the spread, adoption, implementation, and sustainment of evidence-based practices, interventions and policies in real world and diverse health settings. As a transdisciplinary scientific field, D&I science can address multiple cross-cutting research topics (e.g., increasing equity in access to and quality of care; use of innovative technologies and data science to improve routine care) and health conditions (e.g., mental health, cancer and cardiovascular disease morbidity and mortality, geriatric care) of high priority. D&I science also has the potential to make precision health more actionable and relevant and can make the translation of discoveries in this and other high priority areas more rapid.

The D&I Science Graduate Certificate Program is designed to provide pragmatic training to researchers who want to develop competencies in D&I science and practice which can be applied across multiple topic areas and settings in health services, clinical and community health, and public health research. The program is intended to provide researchers with solid foundational skills in D&I science, as well as intermediate and advanced skills in select D&I competency areas.

The D&I Science Graduate Certificate Program has two sponsoring units: the Adult and Child Center for Outcomes Research and Delivery Science (ACCORDS) acts as the primary sponsor and the Clinical Sciences Graduate Program at the University of Colorado Anschutz Medical Campus acts as the secondary sponsor. It is coordinated through the ACCORDS Dissemination and Implementation Science Program.

For questions about the D&I Certificate program please [contact Christina Studts, PhD, MSPH, LCSW](#), the program director.



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Dissemination and Implementation Science for Researchers Workshop

~ Returning in 2027 ~

Stay tuned – sign up for ACCORDS emails to be the first to know:

<https://app.smartsheet.com/b/form/92ad874cd4e64265aadcb1b2e4209cf8>



Save the Date for COPRH Con 2027

May 25-27, 2027



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