## health care systems research network

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# NEWSLETTER

#### **2025 Volume 1**

#### **HCSRN Welcomes Three New Governing Board Members**



Stephen P. Fortmann, MD
Distinguished Investigator,
Senior Director, Science Programs
Kaiser Permanente Center for
Health Research

In January, Stephen Fortmann, MD, joined the Governing Board representing the Kaiser Permanente Center for Health Research. Dr Fortmann is an internist and epidemiologist whose main research interest is heart disease prevention. He has conducted population- and individual-level studies of cardiovascular risk factors and disease rates, smoking cessation, the influence of tobacco marketing on adolescent smoking, and exercise and diet change. He has more than 40 years of experience leading community and clinical research. He has published over 230 peer-reviewed journal articles.

Dr. Fortmann is completing a study to see whether increased access to public transit benefits health or reduces health care costs. He is also jointly leading a study of cardiovascular disease rates among Asians and Pacific Islanders in

Hawaii and California. Both studies are in the final publication phase. An experienced leader of clinical trials, he currently serves as site principal investigator on GRADE, a study funded by the National Institutes of Health that is comparing the effectiveness of second-line drugs for diabetes; the main results were published in 2022, and work continues on other publications. Since 2020 he has participated in a study of exercise promotion in primary care with colleagues at the Kaiser Permanente Southern California Department of Research and Evaluation. Dr. Fortmann is also the site principal investigator on two research partnerships with medical schools, one with Stanford and another with Tufts. Both are designed to enhance clinical and translational science.

During the COVID-19 pandemic Dr. Fortmann served as site principal investigator on a series of trials of the safety and efficacy of Pfizer COVID vaccines, which are coming to a close. He is also collaborating with other CHR investigators on studies of the epidemiology of COVID-19 and the SARS-CoV-2 virus.

Dr. Fortmann came to CHR from Stanford University Medical School, where he was director of the Stanford Prevention Research Center and the Stanford Preventive Cardiology Clinic. He is the C. F. Rehnborg Professor in Disease Prevention (Emeritus) at Stanford and in 2005 was elected to the National Academy of Medicine. Dr. Fortmann received his MD from the University of California, San Francisco, and postdoctoral training at Stanford University.



Laura F. Garabedian, MPH, PHD
Assistant Professor,
Division of Health Policy and
Insurance Research, Department of
Population Medicine
Harvard Medical School and
Harvard Pilgrim Health Care
Institute.

Dr. Laura F. Garabedian, came aboard in February as the representative for Harvard Pilgrim Health Care Institute. The overarching goal of Dr. Garabedian's research is to inform evidence-based health insurance policy to improve population health. She specializes in robust quasi-experimental research designs and analysis using large health insurance administrative and claims datasets. Her research largely falls into two buckets: (1) evaluation of state and national health insurance policies, and (2) evaluation of health insurer strategies to improve value of care delivery. Dr. Garabedian has a strong track record of conducting original, policy-relevant research and has published her work in leading medical and policy journals. Her work has been funded by NIH and foundations.

She has successfully led and worked on interdisciplinary research teams and conducted research in collaboration with insurance and delivery system organizations. She serves as the Department's Liaison to Point32Health, a large regional health insurer in New England.

In addition to her research portfolio, Dr. Garabedian has a strong commitment to teaching and training. At Harvard Medical School, she serves as Director of Essentials of the Profession, a required first-year course that covers health policy, medical ethics, social medicine, and clinical epidemiology and population health. Dr. Garabedian is the Associate Director of the Harvard-wide Fellowship in Pediatric Health Services Research, an AHRQ T32-funded fellowship, and the Co-Director of the Harvard Medical School Fellowship in Health Policy and Insurance Research. She also teaches and mentors students in the Harvard PhD Program in Health Policy.

Dr. Garabedian received her PhD in Health Policy from Harvard University, with a specialization in evaluative science and statistics. She has an MPH from Tufts and a BA from Boston University.

Melissa Poulsen, PhD, MPH
Associate Professor,
Department of Population Health
Sciences,
Geisinger College of Health Sciences



Another transition occurred in February when HCSRN welcomed Dr. Melissa Poulsen. She is an Associate Professor in the Department of Population Health Sciences in the Geisinger College of Health Sciences. She has a background in public health, environmental epidemiology, and behavioral science. Dr. Poulsen conducts epidemiologic and translational research to understand connections between individual, social, healthcare, and community contexts and health, with a goal of using that understanding to inform prevention efforts and improve healthcare delivery. Her epidemiologic research focuses on community and environmental determinants of health, including the impact of the socioeconomic, built, and natural environment on a range of disease outcomes. She also leads and collaborates on behavioral intervention trials that integrate community-engaged approaches, focusing on treatment and recovery from substance use disorders and pediatric obesity.

The Governing Board gratefully acknowledges the many contributions of Alan Bauck, MBA, Kaiser Permanente Center for Health Research, Darren Toh, ScD Harvard Pilgrim Health Care Institute and Eric Wright, PharmD, MPH, Geisinger's Center for Pharmacy Innovations and Outcomes.

# HCSRN Launches Early Career Investigator Webinar Series

On February 27, HCSRN held its first in a series of webinars for Early Career Investigators entitled, What Can HCSRN Do for Early Career Investigators? Recognizing the importance of supporting researchers to drive innovation, build the future workforce, encourage retention, and expand the knowledge base, HCSRN gathered three experts to share their experience and answer questions.

The panel included Teaniese "Tina" Davis, PhD, MPH, Investigator in the Center for Research and Evaluation at Kaiser Permanente Georgia, Stephanie Hooker, PhD, MPH, Research Investigator at HealthPartners Institute, and Tony Olson, PharmD, PhD, Research Scientist II at the Essentia Institute of Rural Health.

Participants learned how to leverage HCSRN resources including the Scientific Interest and Work Groups to gain impactful research experience, strategies to find mentors in and outside of their institution, practical advice on reaching out to more senior researchers and making the most of networking to find collaborators at the annual conference.

You can find the recorded webinar here. If you have topic ideas for upcoming programs, please send them to <a href="mailto:admin@hcsrn.org">admin@hcsrn.org</a> with the subject line: Early Career Webinar Series Topics.

### **Scientific Interest Group Updates**

One of the priorities identified by the HCSRN Path Forward Task Force was to "Develop guidance and optimize HCSRN Special Interest Groups (SIGs) as vehicles to foster inter-site collaborations." A survey was conducted inquiring about areas of interest for new group creation. Later this year, it is planned to start new groups in cancer, primary care, and infectious diseases. More information will be forthcoming in the month ahead. In addition to developing new SIGs, the task force has implemented a new naming convention to provide consistency in how the groups are referenced.

#### **GROUP DEFINITIONS:**

- **Scientific Interest Group** A group of persons having a common scientific interest that often provides a basis for action.
- Work Group A group of persons having a common administration/operations interest that often provides the basis for action.
- · VDW Implementation Group A group of persons having a common

interest in implementing the methodologies of the Virtual Data Warehouse.

The new naming conventions were initiated March 14, 2025.

Current Name	New Name
Aging Scientific Interest Group	No change
Institutional Review Board Work Group	No change
Patient Engagement in Research (PER) Scientific Interest Group	No change
Pharmacy Scientific Interest Group	No change
Research Administrators Working Group	Research Administrators Work Group
Research Project Management Team Interest Group	Research Project Management Work Group

# HCSRN Merchandise Store Features New Merchandise





Check out the merchandise with the new Virtual Data Warehouse logo and see the expanded offerings featuring the HCSRN logo!

Production time is 10 days and is created on demand. So, place your order now.

Show your HCSRN pride. Don't Delay. Order today!

### Scientific Data Resources Forum Recap



### Clinical Decision Support on FHIR

**January 14, 2025** 



Deepika Appana
Licensed and Board Certified Clinical Health Psychologist
Director of Technology, HealthPartners Institute

The widespread adoption of HL7 Fast Healthcare Interoperability Resources (FHIR) allows for major advancements in clinical decision support (CDS) systems, addressing long-standing challenges in interoperability, scalability, and security. We recently transitioned our legacy CDS system which is Epic EHR specific custom solution to a FHIR-based implementation, successfully streamlining integration using HL7 CDSHooks and SMART on FHIR. By leveraging standardized APIs, medical coding standards such as LOINC, ICD-10, RxNorm, and SNOMED CT, and standardized EHR integration security protocols, we minimized the need for custom development, making the system vendor-agnostic and adaptable across diverse electronic health record (EHR) environments. Furthermore, its availability in the Epic Vendor Services App Market allows for widespread adoption, enabling healthcare organizations to seamlessly implement advanced, standardized CDS capabilities.

Despite these advancements, the transition to FHIR uncovered several challenges, including limited trigger points, incomplete EHR vendor adoption of HL7 FHIR, data extraction latency issues because of bulky message payloads, and pre-fetch data retrieval limitations due to missing query functionalities such

as dynamic date ranges and sorting within CDSHooks. To mitigate these issues, we split data fetching, introduced asynchronous calls on chart open event, and relied on predefined timeframes for retrieval of patient medical history. While this approach allowed us to successfully extract all necessary patient data—except for certain elements like referrals—it led to larger-thannecessary data loads, increasing processing overhead. Additionally, many lab results lacked LOINC codes, and RxNorm implementation was incomplete, further complicating standardized data retrieval efforts.

Achieving seamless, high-performance CDS integration will require continued collaboration with EHR vendors to enhance support for the latest versions of FHIR and establishment of more granular and efficient data retrieval mechanisms by standards organizations. As FHIR adoption expands and vendor support strengthens, it will play a pivotal role in shaping the future of CDS, ensuring that vital decision support tools remain accessible, scalable, and cost-effective for all healthcare organizations.

Human-Centered Design in Clinical Informatics: Implementing and Improving Informatics Interventions with Design Thinking

**February 11, 2025** 



# Katrina M. Romagnoli, MLIS, MS, PhD Assistant Professor Department of Translational Data Science and Informatics Geisinger

Katrina Romagnoli, PhD, MS, MLIS, gave a virtual talk to the HCSRN Scientific Data Resources Forum on February 11, 2025 titled "Human-centered design in clinical informatics: Implementing and improving informatics interventions with design thinking". Dr. Romagnoli is an assistant professor in the Department of Population Health Sciences in the Geisinger College of Health Sciences. She completed her secondary education at the University of Pittsburgh: a bachelor's degree in molecular biology, a master's in library and information sciences and a master's and PhD from the Department of Biomedical Informatics in the School of Medicine. Her research focuses on using human-centered design research and methodologies to inform the design and implementation of clinical informatics tools.

In her talk, Dr. Romagnoli provided a brief introduction to human centered design in informatics, and how design thinking principles and methodologies

can inform the design and implementation of informatics resources by helping to shape the problem space. She shared recent work as examples of the use of HCD in informatics. In the first example, she introduced the audience to design thinking workshops and how to immerse participants (clinicians, specialists, informaticists, etc.) in the findings from in-depth qualitative research to understand the problem, then guide them through the process of designing a prototype to solve it. She then provided an overview of a multi-site clinical trial which involved a qualitative, human-centered design aim to inform the site-specific implementation of an opioid use disorder risk evaluation tool. She showed participants how human-centered design and design thinking can support the implementation of an informatics tool even when the tool itself cannot be significantly altered – by adjusting the training for the people who are using based on what was learned from the pre-implementation research. Finally, she introduced attendees to sustainability planning, a component of a clinical trial of implementation strategies to increase screening and diagnosis of Familial Hypercholesterolemia, a common genetic condition that significantly increases mortality at a young age. Planning for sustainability beyond the funding period of a grant is part of the iterative, continuous human-centered design process, to ensure impactful interventions can continue. More information about Dr. Romagnoli's work can be found at her Google Scholar profile page.

#### **HCSRN Job Board**



Want a rewarding job in health research? Check out the HCSRN Job Board to browse career opportunities. We list faculty and staff positions at HCSRN research centers and academic institutions as a service to the research community.

#### **Spread the Word!**

Be sure to forward this email to share the latest from HCSRN with you peers and colleagues!

# Share this Link with Your Colleagues to Receive the Latest HCSRN Information

Keeping the HCSRN communication list current is an ongoing task. We don't always know when new people join our member institutions and others leave. Please share this <u>link</u> with people in your organization who should know about

the latest HCSRN happenings. Whether it's conference updates, information about the next SDRF presentation, Governing Board news or job postings, the best way to stay up to date, is by completing the link above.



Health Care Systems Research Network | 230 Washington Avenue Ext. Suite 101 | Albany, NY 12203 US

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