Making Connections: Technology to Support Population Health

*Thursday, March 9, 3:30-4:45 pm*

**HealthViz: Interactive Platform for Mapping Social Determinants with Health Outcomes**
Jonathan Giuffrida, MPP, Community Benefit Specialist, Presence Health
William Snyder, System Vice President, External Affairs, Presence Health

HealthViz is a new collaborative platform for visualizing, interpreting, and analyzing data about social determinants and health outcomes. Its tools help health care professionals answer the question, “How does a given place stand out on health outcomes, and why?” Aggregated geographic data is presented through user-friendly visualizations, such as maps and scatterplots, to explore correlations that help explain how social determinants influence health outcomes throughout a given region. HealthViz incorporates statistical analysis and machine learning techniques to better understand communities, and its open-source nature welcomes collaboration. It draws on data from multiple public and private sources, including partner organizations, and includes layers of authentication so that users can incorporate and share their own private data. The current site is a prototype and the platform is being redesigned to incorporate new tools and visualizations.

Our presentation will explain what HealthViz is designed to do, provide a brief demo of the tool and work through specific scenarios with participants at each table based on their own interests. For instance, if participants are interested in how the availability and quality of public transportation influences health outcomes, we will lead the participants through an analysis of this topic using the tools in HealthViz, from maps and graphs to the specific health outcomes that appear to be influenced by public transportation. We will also provide participants with an overview of how the analysis in HealthViz could be used within their organizations. Finally, we will discuss how Presence Health has used HealthViz in Community Health Needs Assessments and community benefit to work with partners to improve population health throughout our service areas, especially in regions where high-quality geographic data has historically been difficult to find.

*Learning Objectives:*
- Identify a free, open-source tool for mapping and analyzing social determinants and health outcomes
- Summarize statistical and machine learning techniques that move from a descriptive understanding (“What is the rate of [health outcome] in Cook County?”) to a contextualized and predictive analysis (“Why is the rate of [health outcome] so high in Cook County, and what are some factors that influence it?”)
- Apply your own organization’s data in new ways with these open-source methods in order to gain a deeper understanding of the predictors of health outcomes in your service areas
Thursday, March 9, 5:00-6:15 pm

Marketing Works! Reaching Communities Through Mass Media
Joe Smyser, PhD, MPSH, Chief Executive Officer, The Public Good Projects

Hospital systems recognize the importance of promoting healthy communities and are using community benefit funding to that end. However it can be difficult for hospitals to design, implement and evaluate interventions that have evidence of effectiveness and cost-effectiveness in changing community health. This session will describe the evidence for mass media campaigns for health promotion, and use a case study to show how a hospital can collaborate with other organizations on a mass media campaign. Evidence-based reviews have shown moderate to strong evidence that mass media campaigns can change the behaviors that matter most to health, such as smoking, diet and physical activity. Mass media messages have been shown to be substantially more cost-effective than clinical counseling in altering what is arguably the most important health behavior: smoking. However, implementing a mass media campaign to promote population health requires capabilities that not every hospital has. In this session, we will describe how two regional hospital systems collaborated with a nonprofit public health organization, a state health department, a foundation and an advertising agency to create a mass media campaign to address obesity by reducing consumption of sugary drinks. We will demonstrate the rationale for the campaign, how the campaign was developed, the implementation of the campaign and the evaluation results. From this case study, participants will learn what it takes to conduct and evaluate an effective mass media campaign and the collaborations that they need to succeed.

Learning Objectives:
• State the evidence for effectiveness and cost-effectiveness of mass media messaging to change health-related behavior
• Describe the process for designing messages that are likely to change health-related behavior
• Outline the process for evaluating the impact of a mass media campaign

Friday, March 10, 8:45-10:00 am

Going Upstream: GIS and Neighborhood Disparities in Social Determinants of Health
Kasey Decosimo, MPH, Research Associate, North Carolina Institute for Public Health
Maria Reese, MS, Director, Corporate Community Benefit, Carolinas HealthCare System
Matthew Simon, MA, GISP, Research Associate, GIS Analyst, North Carolina Institute for Public Health

Carolinas HealthCare System is one of the leading healthcare organizations in the Southeast and one of the most comprehensive, not-for-profit systems in the country with over 900 care locations in North Carolina and South Carolina. According to Healthy People 2020, Social Determinants of Health (SDOH) are conditions in the environment in which people live, work, play, and worship that affect a wide range of health and quality of life outcomes. These “upstream” factors not only influence overall quality of life, but also have a significant influence on population health outcomes. In 2016, Carolinas HealthCare System initiated a Community Health Improvement Plan Study to understand the social and economic factors that influence health in their service region and to inform the work of their community outreach and community health teams.

Carolinas HealthCare Systems partnered with the North Carolina Institute for Public Health at the UNC Gillings School of Global Public Health to develop an interactive online map of SDOH by census tracts for a 10-county service region. The team mapped 12 indicators within three domains (social & neighborhood, economic, and housing & transportation). Data was collected from the American Community Survey 5-year estimates and the US Department of Agriculture and mapped using the ESRI Story Map platform. To display neighborhoods in the service area with the highest disparities among the SDOH, the team created an index by standardizing and averaging all of the SDOH indicators within each of the 3 domains to create an overall z-score. The result is an interactive web map that includes multimedia components to report SDOH but also can be used as a planning tool for hospital facilities around community benefit investments and initiatives. This session describes the opportunity to partner with an academic institution to use GIS technology for assessing SDOH, resources needed, and lessons learned.
Learning Objectives:
• Describe how a hospital-academic partnership used Geographic Information Systems (GIS) technology to develop an interactive online map of the Social Determinants of Health (SDOH)
• Discuss key components of the SDOH Story Map and the development of an index used to compare neighborhoods within a 10-county service region
• Explain the impact of the GIS Story Map in informing the work of community benefit outreach and fostering collaborations with local public health departments

Friday, March 10, 10:30-11:45 am
**Mapping New Orleans Crisis Response Systems to Develop HIT Solutions**
Clayton Williams, MPH, Director, Clinical Transformation, The Louisiana Public Health Institute
Jessica Riccardo, MPH, Associate Director, Clinical Transformation, The Louisiana Public Health Institute
Autumn Kaerwer, MPH, Health Information Technology Project Manager, The Louisiana Public Health Institute

New Orleans, like many cities, faces challenges at the intersection of behavioral health, criminal justice, and crisis response. The Louisiana Public Health Institute, with support from ONC and Academy Health’s Community Health Peer Learning Program (CHP), partnered with EMS, police, emergency departments, the jail, behavioral health providers, and the city health department to better coordinate care for a population of approximately 400 individuals with severe and persistent mental illness, with the goal of avoiding unnecessary hospitalization and/or incarceration. The initial purpose of the initiative was to better understand the needs and utilization patterns among individuals cycling through the participating systems, and to explore how leveraging the Greater New Orleans Health Information Exchange (GNOHIE) could facilitate more coordinated care leading to more favorable health outcomes. A valuable programmatic activity that this presentation will provide an in-depth explanation and training on includes the mapping of crisis response pathways, initiating with a person entering crisis and a 9-1-1 call. Although based on the Sequential Intercept Model to address over-representation of people with mental illness in the criminal justice system, this mapping moved beyond partner mapping to identify process and data challenges and opportunities within each for more successful communication and collaborative care. This unique activity provides an opportunity to engage partners in collaborative processes around better understanding larger systems, process and data—all as key intersecting areas that impact the development of short and long term technology solutions. Another valuable activity that will be presented on will be the utilizations of the GNOHIE’s clinical data repository to conduct a comprehensive utilization analysis for the population across participating systems which provided a basis for program evaluation, including cost estimates.

Learning Objectives:
• Recognize how exchange of information through a Health Information Exchange and data analysis can facilitate better care specifically for people diagnosed with severe and persistent mental illness
• Explain how to use an interactive systems mapping activity with community partners to identify process and data gaps within crisis response systems including emergency medical services, police departments, emergency rooms and city health departments
• Identify community action planning processes that incorporate health information technology and utilization analysis for planning processes, intervention development and implementation

Friday, March 10, 2:45-4:00 pm
Building Cross-Sector Community Information Exchange: Care to Community Connections and 2-1-1 San Diego
Marina Baroff, MA, MPH, Vice President, Service Integration, 2-1-1 San Diego
Jillian Barber, MPH, Program Manager, Community Benefits and Health Improvement, Sharp HealthCare
Karis Grounds, MPH, Health Programs Manager, 2-1-1 San Diego
Kelcey Ellis, MPH, Director, Programs, Feeding San Diego

Community Information Exchange San Diego (CIE) is a technology and trust network powered by 2-1-1 San Diego to promote seamless care coordination to improve health and social outcomes in vulnerable populations. Secure cross platform information sharing and integration are central to our person-centered care approach and to building bridges across data siloes. These insights and connections help front-line staff and executive leaders better manage workload, craft evidenced based policy plans and transform care models. Under the auspices of 2-1-1 San Diego, CIE provides a novel, real-time and batch, electronic information exchange and multi-party legal structure for social service and healthcare organizations to share information while viewing a client record within a native case management system. The CIE dashboard has multiple tabs of information (e.g.: housing, program history, provider support contacts, health, etc.) which are accessible to service providers across organizations working with the same client. Such enhanced care coordination enabled by CIE enrollment and data sharing facilitates more effective care planning, reduces duplication of services and results in cost reduction. The presentation will begin with an overview of CIE by describing the overarching goals and key target populations including chronic homeless individuals and seniors living in downtown San Diego. We will also discuss significant privacy and data sharing issues and collaboration with other infrastructure/backbone or data exchange organizations. Findings from an independent program evaluation will highlight impacts on ambulance usage, street homelessness and retention in temporary housing. To conclude, we will share lessons learned for building and expanding an information exchange in your own community.

Learning Objectives:
• Describe privacy and security myths and realities related to cross-sector data sharing
• Identify three program impacts of dashboard use on health and social outcomes for homeless populations
• Recall at least five key elements required to build a community information exchange in your own community

Friday, March 10, 4:30-5:45 pm
Deepening Collective Impact: Building Multi-Level Collaborative Action for Systems Change
Sandra Allen, LAPSW, Director, Center for Children and Parents, Methodist LeBonheur Community Health and Well-Being
Trina Gillam, MA, Manager, Center for Children and Parents, Methodist LeBonheur Community Health and Well-Being

The Early Success Coalition (ESC) is a collective impact initiative to develop a comprehensive early childhood system of high quality services for children from pre-conception to age eight that engages families, promotes resiliency and supports positive early childhood development for children and their families in Shelby County, TN. Formed in 2009, its membership has grown to include over 85 public and private agencies from healthcare, early care and education, social services, and family support. The ESC is imbedded in a broader community cradle-to-career initiative, which is further imbedded in a comprehensive community initiative for jobs, public safety and community health spearheaded by two mayors and CEO’s of the area’s largest businesses. The ESC is housed at Methodist Le Bonheur Healthcare Community Health and Well-Being and led jointly with Shelby County Government’s Office of Early Childhood and Youth. The recipient of 2016 TN Governor’s Award for Excellence in Early Foundations and the TN Academy of Pediatricians Friend of Children Award, the ESC is recognized as a statewide model for scalable methods to sustain broad-based coalitions for systems change. The ESC has been awarded $1.1 million in new, recurring funds for evidence-based early home visitation, and nearly $10 million federal grant dollars to test service delivery demonstrations that have spun off into sustained practices. The ECS works at the “grass tops” with community leaders for policy change and resource development, and the “grass roots” of front-line providers and family representatives to improve workforce capacity and shared service delivery transformation. This presentation will share the ESC’s journey from high-level concept of a “coalition of the willing,” to implementing concrete infrastructure and practice change that elevates impact together.
These include sustaining stakeholder engagement, creating a rigorous results-based dashboard and shared online data systems, and fostering a “no wrong door” approach with a referral toolkit.

Learning Objectives:
- Explain proven methods and tools for governance, resource development and practice transformation to consistently engage diverse stakeholders from executives to front-line staff, in systems change for health improvement
- List effective approaches to designing a shared accountability performance dashboard and data-sharing agreements among diverse agencies to guide quality improvement and collective impact
- Recall how to develop and implement a standardized referral toolkit to establish a “no-wrong door” approach that empowers diverse agencies to provide access to a collaborative set of comprehensive resources for health and well-being

Saturday, March 11, 9:00-10:15 am

**Can Electronic Health Record Data Measure Community Health?**
Tracy Flood, MD, PhD, CEO & Founder, BroadStreet
Brenda Rooney, MPH, PhD, Epidemiologist, Community and Preventive Care Services, Gundersen Health System
Barbara Terry, RN, MS, NHA, DMin, Senior Consultant, Tripp Umbach
Ha Pham, Consultant, Tripp Umbach
Nicole Englert, Consultant, Tripp Umbach
Kathleen Dowler, RN, Director, Community Integration, Dignity Health

Are you achieving best practices and leveraging clinical data from the electronic health records for your community health improvement projects? In this fun and interactive workshop we will define best practices collaboratively and hear examples from a variety of organizations on how clinical data is currently being used to guide community health improvement projects. Working collaboratively, participants will network, share experiences, resources, and tools; and will walk away from this session with practical advice on the technology and teams needed to achieve best practices in their own organization. Specifically, we will cover the topics of how clinical data can be used in: (a) community health needs assessments, (b) deep dives of patient populations, and (c) evaluating progress. Please come ready to share!

Learning Objectives:
- Define best practices after hearing examples of how organizations are using clinical data from the electronic health record to assess and evaluate community health
- Assess how well-equipped your team is to achieve best practices
- Identify tools for achieving the data goals of your organization