





Department of Family Medicine and Public Health Sciences

Dear Students, Residents, Faculty and Friends,

Welcome to the 2022 Annual Research Day of the Department of Family Medicine & Public Health Sciences. I want to congratulate and thank our research day planning committee who have done a great job organizing this virtual conference. We are all grateful to be a part of this exciting event that is so well planned.

Throughout the pandemic, we have persevered in the face of challenges, focused intensely on the tasks laid before us. Thanks to all of you, we continue to perform as a top department in the country (ranked in the top 10% for NIH funding this year again, based on the Blue Ridge Institute for Medical Research), developing research that improves lives and training of our students and residents as they grow into their role of leading us into a healthier future.

With this background, today we are proud to share with you the scholarly work of our students, residents, faculty and collaborators at our 6th Annual DFMPHS Research Day. The theme for this year's event – "Public Health is Where You Are" – was selected to align our focus with that of the American Public Health Association's (www.apha.org) theme for its 2022 Public Health Week. Our keynote speaker features Dr. Edward Bujold, MD, a Wayne State University School of Medicine alumnus, who will reflect on the life of a Clinician Researcher and the impact he has made in his community before and during the COVID-19 pandemic by engaging and establishing partnerships for better health of all in his community and beyond. In addition, we share the scholarly work of our students, residents, faculty, and colleagues within the broader Warrior community in the pursuit of better healthcare and more equitable public health.

I hope you find our work informative and inspiring. Thank you for taking the time to be part of this exciting day. We hope to see you in person next year!

Jinping Xu, MD, MS, FAAFP
Professor and Interim Chair

Our Vision

The Department of Family Medicine and Public Health Sciences will promote health equity and well-being of individuals, families and communities.

Our Mission

The Department of Family Medicine and Public Health Sciences will improve health and well-being by advancing the science and practice of Family Medicine and Public Health through innovation, interdisciplinary collaboration, and excellence in partnership with our communities.

Our Core Values

*Excellence, Collaboration, Innovation, Integrity
Diversity & Inclusion, Social Justice*

Educational Programs

Master of Public Health Program
Medical Student Education Program
Family Medicine Residency Program
Transitional Year Residency Program
Preventive Medicine Residency Program

Research Day Planning Committee

Amanda Compton, BS
April Idalski Carcone, PhD
Rachel Mahas, PhD
Erin Madden, PhD, MPH
Rhonda Dailey, MD
Angulique Outlaw, PhD
Elizabeth Towner, PhD

Research Divisions

Population Health Sciences
Behavioral Sciences

Patient Care

Wayne Health




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Abstract Key

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|  | Projects that have been accepted and will be/have been presented at a national conference |
| * | Denotes faculty mentor |

Day at a Glance

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|---------------|-----------------------------|--|
| 8:30am | Opening of Event | April Idalski Carcone, PhD |
| 8:35-8:45am | Welcome Address | Dr. Jinping Xu, MD |
| 8:45-9:45am | Keynote Address | Dr. Edward Bujold, MD, FAAFP |
| 9:50-10:30am | Student/Trainee Award Talks | Felicia Frabis, MPH Student Danny Garcia, MD, MPH; Haria Henry, MD; & Matthew Ellison, DO |
| 10:30-11:30am | Poster Session | See below schedule |
| 11:30am | Closing of Event | Rachel Mahas, PhD |

Poster Session Schedule

| Breakout Room | 1 | 2 | 3 | 4 | 5 |
|---------------|---------------------------|---|------------------------|----------------------------------|------------------------|
| Theme | Maternal and Child Health | Health Inequities | COVID Research | Cardiovascular Health and Cancer | Enhancing Patient Care |
| Moderator | Rachel Mahas | Elizabeth Towner | Erin Madden | Rhonda Dailey | April Carcone |
| 10:30 – 10:45 | Paige Smalley | Elizabeth Towner | Zachary Cichon | Danni Feng, Irene Chen | David Kazanowski |
| 10:45 – 11:00 | Alisa Gefter | Alicia Steele, Irobun Frances Osaigbovo, Erich Shroff | Julie Gleason-Comstock | Leo Brayman, Donald Johnson | Dana Achmar |
| 11:00 – 11:15 | Liyang Zhang | Ghadir Mozeb, Sadia Yasmin, Sahla Syeda | Siddharth Tirumala | Justin Woo | Lauren McKenzie |
| 11:15 – 11:30 | Christian Nguyen | Sahar Elminini | Zainab Khatib | | Madeline Reardon |

Keynote Speaker

Edward Bujold, MD, FAAFP

“The Life of a Clinician/Researcher: Why would you want to become one?”



An Alumnus of the Wayne State University School of Medicine, Dr. Bujold is a family physician who has participated in an independent solo practice for 37 years in Granite Falls, North Carolina. Dr. Bujold serves as the only permanent member of the American Academy of Family Physician's (AAFP) National Research Network.

<https://bujoldmd.com/>

Oral Presentations

Of all abstracts submitted for the 2022 DFMPHS Research Day, two representing the medical resident trainees and the MPH students were selected by the Research Day Committee as excellent overall abstracts.

Master of Public Health Student Excellent Abstract Awardee

Understanding Stigma Toward Opioid Use Disorders and Harm Reduction Through Community-Driven Ethnographic Comics



Katie Zaman, PhD; Savannah Eley, CPSS; **Felicia Frabis, MPH Student**; Cris Meler, PhD; Suzanne Prevedel, MEd;
Randy Williams, MS; Erin Fanning Madden, PhD, MPH*; Claire Warnick, MA; Sandra Sulzer, PhD
Department of Family Medicine and Public Health Sciences

Substance use disorders (SUDs), such as opioid use disorders (OUDs), are highly stigmatized conditions. Stigma is one of the biggest barriers to recovery for people with SUDs because it prevents them from seeking help from their social networks and health care providers. Harm reduction refers to a range of evidence-based approaches that reduce the negative consequences of substance use. Despite scientific research that supports the effectiveness of harm reduction interventions and demonstrates how stigma worsens health outcomes among people with SUDs, negative attitudes and discrimination persist. Research on effective interventions to reduce SUD stigma among the general public is limited. However, “contact-based” education and critical reflection opportunities have been shown to help reduce stigma. To explore and address these forms of stigma in the Southwestern United States, a community-driven ethnographic project using comics was launched in Utah and New Mexico. The comic format is accessible to a broad audience beyond academia. The images in the comics provide context and facilitate human connection and help to create an emotional connection between the reader and the story. This connection can bring awareness to stigmatizing beliefs about people with SUD. Our project uses comics based on real-life stories to reduce stigma around OUD and harm reduction by humanizing the subjects and engaging readers in a process of co-imagination that allows them to see and feel the humanity of the subject’s experience and connect with empathy and compassion. Narratives from people with SUDs were collected in Utah and New Mexico between 2018 and 2021. Convenience sampling methods were used to recruit community scholars. Utah community members in recovery work assisted with interviews and recruitment. Recruitment flyers were sent out to recovery centers in New Mexico and Utah. Individuals who were affected by substance use problems and who had used harm reduction interventions personally or through family members were invited to participate. One-hour semi-structured qualitative interviews were conducted with qualifying participants in person (pre-pandemic) and via Zoom. All interviews were audio and/or video recorded and transcribed. Interview transcripts were reviewed by community scholars for accuracy before being added to the digital collection. Selected narratives were then transformed into comics by the lead author and community scholar, with assistance from the other study team members. A total of 31 interviews were collected and 4 were selected for the first graphic novel. The resulting comics are being published into a two-volume series that will be distributed in community reading groups led by the study team. Future research will collect mixed methods data on how the comics and discussions of their content affect stigmatizing attitudes and planned actions among the general public. Public Health Implications: This project illustrates how academic researchers can partner with marginalized community members to co-create graphic novels that may reduce stigma. Addressing stigma among the general public may improve health and access to treatment and harm reduction services among people with SUDs. This project is funded by a SAMHSA Rural Opioid Technical Assistant Grant Award #H79-TI-083267-01 and supported by Utah State University.



Resident Excellent Abstract Awardee

Improving Pediatric Lead Screening Exams Performed at 1 and 2 Years of Age at Community Health and Social Services (CHASS) Center

Danny Garcia, MD, MPH; Haria Henry, MD; Matthew Ellison, DO;
Mariam Japaridze, MD; Tahlianna Almonte, MD; Elizabeth K. Towner, PhD*
Department of Family Medicine and Public Health Sciences

Elevated blood lead levels in children 5 years old are a large health risk (e.g., headache, abdominal pain, learning difficulties, and developmental delay) and disproportionately affect underserved populations. CHASS center is located in Southwest Detroit and serves a low-income, majority Hispanic population, who are largely uninsured or on Medicaid/Medicare. Homes in Southwest are also old, further increasing lead exposure risk. Centers for Medicare and Medicaid Services guidelines' requires all children enrolled in Medicaid have their blood lead level tested at 12 and 24 months of age, or between 36 and 72 months of age if not previously tested. From 2018-2020, only 34% of eligible children seen at CHASS completed lead screenings. Early detection and treatment of lead toxicity in asymptomatic children can prevent long-term sequelae such as peripheral nervous system damage. The overall goal of this quality improvement (QI) initiative is to increase lead screening compliance by 25%. Provider behavior was identified as the initial intervention target, with the goal of yielding an increase of 17% in blood lead screening compliance. Plan-Do-Study-Act methodology was applied. The intervention in our first PDSA cycle included examining whether posting reminder signs to order screening for eligible children at provider workstations would achieve an increase in blood lead screening compliance. Change was evaluated by visual inspection of screening compliance rates in the two months before and two months after signs were posted. Data was obtained via electronic medical record extraction. A follow-up survey of provider knowledge of lead screening guidelines and barriers to ordering lead screenings was administered to inform subsequent PDSA cycles. Signs were developed and posted by residents on the QI team. Lead screening compliance was 34% prior to intervention and 51% after intervention. The follow-up survey was completed by 80% (n=16) of providers who see children at CHASS. Survey results revealed approximately half (56.25%; n=9) of providers knew the lead screening guidelines. Forgetting (n=38%; n=6), caregiver non-compliance with screening orders (25%; n=4), and difficulty with pediatric blood draws (25%; n=4) were noted as barriers to improving blood lead screening completion rates. Providers reported EPIC pop-ups (44%; n=7) and templates (25%; n=4) are preferred interventions for increasing screening compliance. Posting reminder signs for providers was a moderately effective intervention, yielding a 17% increase in blood lead screening ineligible children seen at CHASS center. Based upon survey findings, our next PDSA cycle will examine additional impact of provider education on screening guidelines and pop-up reminder messages in the electronic medical records during patient visits on improving blood lead screening compliance rates at CHASS. The pediatric patient population at CHASS is at particularly high risk for elevated lead levels as many are immigrants to the U.S. from underdeveloped countries and 68% live below the calculated poverty level. Improving lead screening compliance maximizes opportunities for timely intervention to prevent harmful effects of lead intoxication.



Poster Presentations: Maternal and Child Health

Impact of Access to Care on Severe Maternal Morbidity Rates in Detroit

Paige Smalley; Noor Abou-Rass; Zahra Dawson, BS; Afsana Rinky, BS; Rachel Mahas, PhD*, MS, MPH
Department of Family Medicine and Public Health Sciences

Reducing infant and maternal morbidity and mortality has been indicated as a key objective by the Michigan Department of Health and Human Services. Initiatives in Detroit are critical, as the Detroit metro area has the state's second-highest severe maternal morbidity (SMM) rate. In 2019, there were 216 cases per 100,000 inpatient delivery hospitalizations due to SMM in Detroit. Decreasing disparities between Black and white mothers and children is also a priority. A secondary needs assessment was conducted using online peer-reviewed article databases to assess health indicators from three main domains (behaviors, stress, and physical condition; social, environmental factors and economic factors; and health outcomes) and analyze their contribution to SMM. Access to care was highlighted as a key health indicator, and a primary data assessment was conducted to collect first-hand community perspectives. Interviews were conducted with community leaders at Birth Detroit and the Perinatology Research Branch, as well as community members who had accessed care and given birth in Detroit. Prenatal care, mental health, and a healthy lifestyle are the major sectors within which challenges to access resources are most prevalent. Lack of transportation and lack of childcare were emphasized as the most important factors that prevented consistent access to care. Other barriers included mistrust between patients and providers, and an inability to access online resources due to improper health education or a lack of technological devices. Mobile clinics are a potential intervention that has been used in other contexts to offer flexible, responsive care that is customized to the community's needs. They can also provide a comfortable and approachable environment with a less formal setting and familiar environment. Maternal health-focused mobile clinics can help overcome these barriers and provide preventative care for pregnant people in Detroit. The establishment of a mobile clinic centered towards providing perinatal care for people who give birth will decrease gaps in care and social support for vulnerable families in Detroit.

Twenty-Two Year Trend Comparison Showed Racial/Ethnic Disparities in School Based HIV/AIDS Education Among Adolescents

Alisa Gefter (1), BS; Rachel Mahas (1), PhD, MS, MPH*; Jiunn-Jye Sheu (2), PhD; Chi-Chia Cheng, PhD
(1) Department of Family Medicine and Public Health Sciences (2) University of Toledo, School of Population Health

Approximately 37,968 individuals were diagnosed with HIV in 2018. 21% (7,891) of those who were diagnosed with HIV were among youth aged 13-24. To identify the priority populations (which were the people ages 13-24) for this important school health issue, this study compared 1991-2013 trends to display the similarities and differences among high school students who reported never being taught about HIV/AIDS infection in school. It is important to have education on HIV/AIDS infection in schools because it will help reduce the amount of HIV/AIDS cases and will also provide knowledge for safer sex practices in adolescents and young adults. We analyzed 1991-2013 national Youth Risk Behavior Survey (YRBS) data to compare the trends stratified by gender; race/ethnicity; and, grade level and displayed the longitudinal trends in a series of line charts. The YRBS is conducted by the CDC in order to learn more about the youth and their behaviors. The data that was selected for analysis was youths who have never been taught about HIV/AIDS and the trends that were sampled included those in African American and Hispanic groups, high schools that had a higher enrollment of minority groups, and sampled different grade levels. Surveys were conducted in order to collect data and those were applied and shown in graphs/chart form. Males and females in high school reported similar proportions of not being taught about HIV/AIDS in school. The 22-year trends among Caucasian adolescents appeared U-shaped, while Hispanic and African American adolescents had fluctuating trends (W-shaped). U-shaped graph means that on the graph Caucasians had more people who did not have education on HIV/AIDS at the start of the survey and then less during the middle and the more people once again in later years creating a U like shape when looking at the graph. In contrast, a W-shaped graph means that the data showed that at the start of the data collection many people did not receive the education and then it fluctuated quite significantly and then continued to increase near the end of the data collection period. When analyzing the information from the data collected, gender did not seem to play a role except in African Americans and that by grade level those who were in 9th grade did not seem to get as educated on HIV/AIDS in school compared to the other grade levels. In general, a higher proportion of Hispanic adolescents reported never being taught about HIV/AIDS in school, followed by African Americans and Caucasians respectively. From 2011, Hispanic adolescents show a sharp decrease. The 22-year longitudinal trends showed that Hispanic boys and girls reported the highest prevalence of not being taught about HIV/AIDS in school. Cultural/religious reasons may have contributed to such trends. Gender differences were found in African Americans. African American males had a higher proportion of not getting HIV/AIDS education compared to African American females. Caucasians and Hispanics did not have any gender differences. From the data, trends showed that Hispanics that were never taught about HIV/AIDS had two peaks around 2001 and 2011 but then drastically declined in 2013. Trends fluctuated the most in the Hispanic and African American populations in comparison to Caucasian populations. Therefore, cultural-sensitive sex education in schools is recommended. The findings from the study can be applied today because the study evaluates prevalence of HIV/AIDS in schools between different ages, genders, and races. This data is important in order to evaluate what information needs to be taught to adolescents in schools and to see how beneficial it would be. After reviewing the data, the educational trends can be linked to the rate of HIV/AIDS infection by seeing that those who received the education were more likely to practice safer sex. Overall, having this knowledge can prevent or reduce the risk of adolescents getting HIV/AIDS and will allow them to receive more cultural-sensitive sex education through their schools.

Family and Community Environmental Factors and Sleep in Chinese Adolescents

Liying Zhang, PhD, MD; Zhenzhen Liu, PhD; Yanyun Yang, PhD; Cunxian Jia, PhD; Steven Korzeniewski, PhD; Rhonda Dailey, MD; Julie Gleason-Comstock, PhD*, MCHES; Phillip Levy, MD, MPH; Jinping Xu, MD, MS, FAAFP; Xianchen Liu, MD, PhD
Department of Family Medicine and Public Health Sciences

Sleep problems are prevalent in adolescents worldwide. Both quality (e.g., insomnia) and quantity (e.g., short sleep duration) in sleep have been critical public health issues in adolescents. The prevalence of insomnia in adolescents varies in studies ranging from 7%-37%. Insufficient sleep may result in sleep deprivation in adolescents. However, the impact of family and community social environments on sleep has not been consistently addressed for this population. The current study examined the associations between family and community social environmental factors and sleep problems with a large sample of Chinese adolescents. Data of baseline survey with 11,831 middle and high school students from Shandong province in China were used. Perceived family environment covered four dimensions (Cronbach's $\alpha = 0.69$) including parents' education, perceived parents' health status, parents' marital relationship, and family economic status. Perceived community social environment was assessed using four domains (Cronbach's $\alpha = 0.73$) including safety, economic situation, hygiene, and relationship with neighbor communities in their living community. Descriptive analyses and multiple logistic regression models were performed. Mean age of the sample was about 15 years old (SD=1.46) and 50.9% were male. Mean sleep duration was 7 hours (SD=1.43). Of the participants, 15.6% slept for ≤ 5 hours, 33.6% slept for 6 hours, 23.5% slept for 7 hours, 15.6% slept for 8 hours, and 11.8% slept for ≥ 9 hours. The prevalence of insomnia was 17.1%. After controlling for adolescents' age, gender, cigarette smoking, alcohol use, and anxiety/depression, adolescents who lived in a poor family environment (aOR=1.2, $p<.05$) were more likely to have short sleep duration, and adolescents who lived in a poor family environment (aOR=1.4, $p<.001$) or a poor community social environment (aOR=1.7, $p<.001$) were more likely to have insomnia. This study found that adolescents who were older, female, smokers, alcohol users, and who had anxiety/depression were more likely to have short sleep duration and suffer from insomnia. Poor family environment and poor community social environment were independently associated with short sleep duration and insomnia in adolescents after controlling for adolescents' individual factors. Low Cronbach's alpha is a limitation. Public health or behavioral interventions focusing on improving family and community social environments need to be considered in future sleep related interventions, especially for older female adolescents.

The authors would like to thank the Lijin County Center for Disease Control and Prevention, Zoucheng City Center for Disease Control and Prevention, and Yanggu County Center for Disease Control and Prevention, Shandong Province, China. We appreciate the class teachers' assistance with data collection and students for their voluntarily participating in the survey.

Human Cytomegalovirus: A Lack of Counseling by OB/GYNs

Christian Nguyen, Rameesha Shaheen, BS; Jillian Green, BS; Alisa Geftter, BS; Maleka Mohamed; Rachel Mahas, PhD, MS, MPH*
Department of Family Medicine and Public Health Sciences

Unlike commonly discussed health concerns, human cytomegalovirus (HCMV) is a fairly unknown virus. HCMV can be passed vertically and can cause long term birth defects. HCMV is rarely discussed in counseling session between an OB/GYN and their patient. The aim of this study involves measuring the rates of HCMV counseling by OB/GYNs to observe the awareness of HCMV in women of reproductive age. Twelve OB/GYNs affiliated with the Wayne State University School of Medicine were contacted to determine their knowledge of HCMV. Questions regarding knowledge of birth defects and infant mortality rates due to HCMV were asked about in this survey. Various social determinants of health and environmental factors related to HCMV were also included. Although no responses were obtained from OBGYNs, literature suggests that there is a lack of counseling about HCMV performed by healthcare providers to women of reproductive age. From a global and local perspective, HCMV is not widely known or discussed. This study attempts to show the lack of counseling by healthcare providers to raise awareness to HCMV and its vertical transmission. Prevention is a pillar of public health, and because physicians play an important role in patient education, they too should be educated on dangerous diseases that can affect their patients. Public health research is what allows us to understand the prevalence of HCMV in communities.

Poster Presentations: Health Inequities

Building Capacity for PCOR to Reduce Early Childhood Obesity Inequities

Elizabeth Towner; Angulique Outlaw; Rachael Vitale, Knoll Larkin, Voncile Brown Miller, Hayley Thompson
Department of Family Medicine and Public Health Sciences

Guidelines suggest pediatric obesity prevention and treatment begin in primary care; provider (e.g., less screening in preschoolers and lack of pediatric weight management training) and caregiver (e.g., not understanding growth charts and feeling blamed) barriers challenge partnership to achieve the common goal of child health. In Detroit, 80% of residents are from a minority background and 43% of children live in poverty. Community-academic partnerships in Detroit are thus uniquely positioned to conduct patient-centered outcomes research (PCOR) to reduce preschool obesity inequities. This project aimed to develop the infrastructure necessary to achieve this goal by adapting the Michigan Cancer HealthLink community research capacity building model to 1) increase community capacity for preschool obesity PCOR and 2) build community-academic partnerships to address community PCOR priorities. Method. Project aims were achieved by: 1) establishing an action council of caregivers of preschool-aged children, pediatricians, and Detroit-based community organizations, 2) adapting a formal capacity-building curriculum for preschool obesity PCOR, 3) training action council members in and assessing satisfaction with the adapted curriculum, 4) identifying community PCOR priorities and questions, and 5) establishing the Community-Based Obesity Research Network (CORN). Action council members (N=14, all female, 80% African American, 27-61 years-old) were identified by referral and community events in partnership with Greater Detroit Area Health Council, Brilliant Detroit, Detroit Parent Network, and the Offices of Cancer Health Equity & Community Engagement and Community Engaged Research (WSU). A committee of community members and academic researchers adapted the research capacity building curriculum, which was then completed by the action council. All modules were rated as "very good" or "excellent" and members reported information was interesting, easy to understand, relevant, and increased their understanding of presented topics. Identified PCOR priorities included 1) decreasing sugary drink intake, 2) teaching food resource management skills to support healthy eating, 3) increasing well-child visit attendance, and 4) caregiver modeling healthy eating/activity habits. Action council members presented priorities and their top PCOR question (Are sugary drinks addictive in young children?) to four researchers at the inaugural CORN meeting. Engagement was high (1-2 meetings per month; average attendance = 79%) despite mostly virtual meetings due COVID-19. Members learned from each other and had meaningful dialog about ways to prevent obesity in their families and the community, which fostered trust, strong bonds between group members, and 87% retention. Conclusions: The Michigan Cancer HealthLink model successfully engaged community and provider stakeholder and built capacity and infrastructure to support a community-driven PCOR agenda to reduce preschool obesity inequities in Detroit. Public Health Implications. Community engagement across the research continuum is imperative improving health equity. Partnerships and infrastructure established in this work provide a promising start towards reducing preschool obesity inequities. PCORI #14510-WSU; Cielo Foundation

Bringing Testing Back: An Effort to Increase HIV Screening at CHASS Center in Southwest Detroit

Alicia Steele, MD; Irobun Frances Osaigbovo, MD; Erica Shroff, MD; Ronald Benard, MD; Elizabeth Towner, PhD*
Department of Family Medicine and Public Health Sciences

The US Preventive Services Task Force (USPSTF) recommends all persons ages 15-65 be tested for HIV at least once in their lifetime. In 2019, 25% of those living with HIV and 29% of new HIV infections were Hispanic/Latino; only 84 out of every 100 Hispanic/Latino people living with HIV knew their HIV status. The Community Health and Social Services (CHASS) Center is located in Southwest Detroit and serves a primarily Hispanic/Latino patient population. As such, CHASS Center has the potential to contribute substantially to HIV prevention and treatment efforts with this high-risk group in Detroit through adequate HIV screening. In 2020, 16% of CHASS patients ages 15-65 were in compliance with USPSTF HIV screening recommendations. The long-term goal for this quality improvement (QI) initiative is thus to increase compliance with USPSTF recommendations to 95% of CHASS patients. The first phase of this initiative focused on changing provider behavior and aimed to achieve an increase in screening compliance of 25%. Plan-Do-Study-Act (PDSA) methodology was applied. In PDSA cycle 1, the intervention included providing education to all CHASS staff and personnel about the importance of HIV screening compliance and how to use the EPIC electronic medical record (EMR) "Care Gaps" tool to increase screening compliance. Data on HIV screening compliance was extracted from the EMR in the two months before and after this intervention and visual comparison applied to determine whether the targeted goal for improvement was met. Results. Three residents from the QI team led the educational presentation, which was attended by the CEO, CMO, CFO, clinic supervisors and managers, doctors, and mid-level practitioners. HIV screening compliance was 54.81% before the intervention and 55.18% after our intervention. Education about the importance of completing HIV screening and the available EMR tool to help providers remember to discuss screening with eligible patients was not sufficient to change compliance with HIV screening in our targeted population. The next step in this QI initiative is to gather information about provider use of the EPIC EMR "Care Gaps" tool and strategies that have worked to improve their compliance with other care guidelines. Information will inform intervention development and shape goals regarding change. The HIV pandemic continues to disproportionately affect people of color and those from low social economic backgrounds. What was once an uncontrollable disease can now be treated and managed effectively through early detection. Early detection is also paramount to stopping new infections. Prevention efforts through clinics like CHASS center have the potential to minimize HIV disparities in Detroit given their trusted relationship in high-risk communities.

The Importance of HeartB Health Education to African American Adults

Julie Gleason-Comstock, PhD, MCHES; Ghadir Mozeb, BSPH; Sadia Yasmin, BS; Sahla Syeda, Cardell Louis, MD
Department of Family Medicine and Public Health Sciences

Heart disease is a leading cause of death in the United States and Michigan, and accounted for 31.6% of reported deaths in the City of Detroit, an African American majority city. A major risk factor for heart disease, high blood pressure (BP), is higher among Detroit residents (42.9%) than the national average. Objectives: The primary objective of HeartB was to reduce heart disease risk in Detroit by increasing participants' knowledge of heart disease, recognition of potential risk for developing heart disease through knowledge of family health history and personal risk factors, and facilitation of lifestyle changes to reduce risk. Method: We conducted a one-group feasibility study using a quasi-experimental (pre-posttest) design. Short-term program outcomes were presented in a Logic Model and assessed at enrollment (baseline) and follow-up (six-month) visits. The intervention entailed 1) community health worker (CHW) training, 2) an outreach heart health education intervention implemented by CHW using evidence-based CDC and NHLBI resources, and 3) a six-month follow-up survey to evaluate program outcomes and satisfaction. Project staff used their prior Detroit community research experience and resources from the National Heart, Lung and Blood Institute, Centers for Disease Control and American Heart Association to develop knowledge questions, conduct cardiovascular risk assessment and participant risk reduction planning. Risk reduction focused on blood pressure, nutrition, physical activity and smoking. The intervention received Institutional Review Full Board approval. CHW recruited one hundred participants from community-based organizations (46%), churches (36%) and home /community visits (12%) from 27 zip codes throughout the City of Detroit. The majority (95%) of participants were African American; 55%female, 39% male and 6% transgender, with a mean age of 44.57 years (SD=15.9). Most (92%) reported having health insurance, with over half (52%) on Medicaid. At six-month follow-up, slightly more participants (n=77, 80.2%) had a BP<120/80 mmHg at six months than at baseline. Participants were asked to score the importance of their participation in ten HeartB intervention activities. On a scale of (1) Very important to (5) Not important, analysis for all three genders showed perception of the three most important activities to be "Creating a plan to reduce my risk for heart disease," "Getting my blood pressure checked" and "Learning about heart disease and high blood pressure." The Community Advisory Group recommended expanding the intervention from six to 12 months, and incorporating telehealth with home blood pressure monitoring. The limited intervention duration of six months did not provide the opportunity to meet longer term objectives such as better control of high blood pressure and discussing risk reduction strategies with participants' primary care providers.

Funding: Detroit Medical Center Foundation; Wayne State University Cardiovascular Research Institute

The Impact of the COVID-19 Pandemic on Emerging Adults with Type 1 Diabetes

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In March 2020, COVID-19 began spreading across the US. People with underlying health conditions, like type 1 diabetes (T1D), were at elevated risk for a severe COVID-19 infection. Recommended mitigation strategies included mandatory lockdowns, quarantines, and mask mandates. Emerging adults' (EA, age 16-25) unique developmental stage, with its focus on the development of identity, independence, and autonomy, places EAs at greater risk for sub-optimal diabetes management. In this study, ten EAs with T1D were recruited from a diabetes clinic within an urban children's hospital to participate in qualitative interviews during the beginning of the COVID-19 pandemic (May-June 2020). Using framework analysis, two researchers analyzed interviews, where five themes emerged from EA's experiences were specific to COVID-19 (perceptions of the pandemic and strategies for coping with it) and three described personal experiences (disruptions to daily life, impacts on diabetes, and affective responses). Half the EAs interviewed agreed that having diabetes placed them at elevated risk for severe COVID-19 and strictly adhered to mitigation strategies. Disruptions in daily life included changes in sleeping, eating, and socialization patterns and economic stability (job loss and increased hours among essential workers). EAs' experienced challenges in maintaining their diabetes supplies and disruptions/irregularities in their diabetes care. EAs' described increased stress and worry. Understanding EAs' experiences may provide insight into their specific needs and how to support EAs with T1D during unexpected crises. In particular, telehealth has expanded during the pandemic to ensure access to mental and physical healthcare. Furthermore, there are public health implications we can draw from the data. Mainly, it's known that poor nutrition and lack of physical activity can lead to worsening health outcomes. We can extrapolate that most participants had a change in nutrition and/or physical activity during the pandemic and with this knowledge, we can work to better provide food security and education on at-home exercises to better physical activity.

Poster Presentations: COVID Research

How Socioeconomic Status Effects Vaccination Beliefs and Behaviors



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Declining vaccination rates in children is a problem facing many countries today. According to the World Health Organization global coverage dropped from 86% in 2019 to 83% in 2020. In recent years there has been a resurgence of vaccine-preventable communicable diseases. This is a dire issue in the world of public health. These declining vaccination rates put vulnerable populations at risk and increase the likelihood of epidemics. To address this issue the question was posed, to what degree is there an association between Socioeconomic status and beliefs and behaviors regarding vaccinations in countries with universal health care? It was hypothesized that there would be an association between socioeconomic status and vaccine beliefs and behaviors because socioeconomic status often impacts health altogether. High SES and low SES was determined with different criteria in the various studies included in this review. High SES was generally characterized by high income, higher level of education, and where participants lived. Lower SES participants were generally lower income, had lower levels of education and lived in areas with less amenities as well as rural areas. There will be an association between socioeconomic status and vaccine uptake among children in countries with universal healthcare. ProQuest was used to gather a total of 10 articles. Keywords that were used in the database searches included socioeconomic status, perceptions, beliefs, behaviors, vaccination, and universal healthcare. The inclusion criteria for articles were as follows, post 2005 primary research articles conducted in countries with universal healthcare systems, with public vaccination programs. Articles were excluded if they were written in another language, published before 2005 and if they were systematic reviews or tertiary research of any kind. This review was a Capstone research project and only primary and secondary studies were to be included. Articles were also excluded if the purpose or data available did not meet the scope of my own research question. Throughout the course of the research, a total of 32 abstracts were reviewed. Articles with both quantitative and qualitative data were included to not only identify the issue but provide context as well. The hypothesis was supported, although I had mixed findings. The findings indicated that there is a strong association between socioeconomic status and vaccination belief and behaviors. Several studies included pointed to lower vaccine uptake among higher children of SES parents while other studies found lower uptake for children in lower SES ranges. Individuals in the higher ranges of socioeconomic status refused vaccination due to negative vaccine perceptions. Reasons for negative vaccine perceptions were commonly a result of a lack of health literacy. Individuals often had misconceptions of vaccines and concerns about adverse effects. Those in lower SES ranges were under-vaccinated due to negative health behaviors, resulting from lack of access issues. Barriers to health contributed to this finding. The main themes that can be gathered from all ten of the included study's findings were, Higher SES led to negative vaccine beliefs, parents held negative vaccine perceptions and often believed that vaccination was not safe. Lower SES led to negative vaccine behaviors; lower SES parents were less likely to seek vaccination for their children. However, a lack of access still seems to be an issue in childhood immunization for lower SES parents as well, even with public vaccine programs, vaccines were still less accessible. Public health officials need to provide further education regarding vaccination to dispel the myths of adverse effects and promote the importance of vaccines. Additionally, programs and policies are required to meet the vaccination needs of underserved communities in order to address health disparities in vaccination availability.

Global Public Health Education: Introducing an Expert Panel for Reflection on Public Health Transformation and the COVID-19 Pandemic

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A public health education panel, developed in an online seminar format designed to explore global public health practice, ethics and research, was offered to public health and allied health students. Expert panelists included a global health dean, emergency medicine physician, pediatric anesthesiologist, and public health researchers. The panel was titled "Global Public Health: The 2020 Decade in Public Health: Transformation and the New Normal." Objective The objective was to provide a two-hour virtual session with an academic assignment (reflection paper) to introduce participants to public health practice, ethics and research during the COVID-19 pandemic, using the evaluative platform of American Association of Schools of Public Health (ASPPH) Global Health Competencies. ASPPH Learning Objectives (LO): 1) Analyze roles, relationships and resources of entities influencing global health; 2) Apply ethical approaches in global health research and practice and 3) Display critical self-reflection, cultural humility and ongoing learning to global health. Method Quantitative evaluation was a survey based on the ASPPH Global Health LO. Qualitative assessment was a web-based one-page reflective statement assignment: 1) What are important global public health transformation issues for this decade (2020-2030) and how do Social Determinants of Health (SDOH) affect those challenges? 2) Why are the 2021 Global Public Health panelists involved? 3) How might global public health challenges they addressed influence your future? 4) What do you perceive to be global public health opportunities in this decade? Public health students in Spring/Summer 2021 FPH 7120 Global Public Health completed assignments through WSU Canvas and evaluations through Student Assessment of Teaching supplemental questions. Physician assistant students in Fall 2021 PAS 707 Fall Semester viewed assignments through WSU Canvas Global Public Health Research and completed surveys through WSU Qualtrics. Seventeen public health graduate students and 50 first year physician assistant students participated. Fourteen (82.4%) public health students completed the SET and 40 (80.0%) of physician assistant students completed Qualtrics surveys. Quantitative Likert score results on a scale of (1) Strongly Disagree to (5) Strongly Agree were consistently in the high affirmative range for all items. Qualitative feedback showed strong interest in expert panelists' presentations on ethics, and expressed a desire for ongoing discussion of future public health implications of the COVID-19 pandemic. The intersection of public health ethics, practice and research during the COVID-19 pandemic were discussed. Enhanced outcomes include subsequent student presentation submissions to a peer-reviewed research conference and projected use of the panel presentation in a certificate-based global health research seminar. This public health education venue is designed to provide a sequence of public health education panels available to WSU students and research partners. The approach holds potential as a module for medical students/residents or in a continuing education series. Evaluation results suggest SDOH in the COVID-19 pandemic, especially health care access and social and community context, impact public health locally as well as globally.

Development and implementation of the panel/online seminar format utilized existing WSU resources.

Building Primary Care Research Capacity for COVID-19 related PCOR/CER in Metro Detroit

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Many COVID-19 survivors have long-term complications. Given limited knowledge about post-acute COVID-19 syndrome (“Long-COVID”), collaboration between primary care providers (PCPs), patients, and researchers is essential for patient-centered outcomes/comparative effectiveness research (PCOR/CER). However, effective engagement of PCPs and their practices in research is challenging, with lack of research training being a key barrier. Additionally, strategies for engaging primary care practices serving low-income and minority groups in PCOR are lacking. This project aims to address this critical gap by partnering with the Metropolitan Detroit Practice-Based Research Network (MetroNet PBRN) to build primary care research capacity for COVID-19-related PCOR/CER, with a focus on Long-COVID. The project aim will be achieved by: 1) establishing an advisory and oversight council (AOC) of researchers, PCPs, office staff, and Long-COVID patients to adapt and merge three established curricula (Building Your Capacity for PCOR, PBRN Fellowship Training, and PCORI Research Fundamentals) for primary care Long-COVID PCOR; 2) engaging a primary care action council (P-CAC) of PCPs, office staff, and patients/caregivers from 4 MetroNet practices in this adapted curriculum; 3) identifying Long-COVID PCOR questions and priorities, and 4) developing and disseminating strategies that support the replication of our engagement and capacity building effort. The project team created a map outlining overlap in learning objectives and content across the three curricula to guide curriculum adaptation. To date, the AOC has reviewed two adapted modules. As part of this process, AOC members are engaged in mock delivery of the session (virtually) and provide feedback on how to improve the learning experience. AOC members have shared that content is presented in language that can be understood across our diverse stakeholder group, they like integration of research examples, and they find polls engaging. Suggestions for improvement include more text on the slides and shortening the handle/providing more visual cues for how to access polls. P-CAC recruitment is underway with all 4 participating practices having been identified. An unanticipated challenge associated with this partnership work is difficulty with PCP compensation due to conflicting rules/regulations across practice sites. Close collaboration between PCPs, patients, and researchers is essential for effective PCOR/CER. Preliminary lessons learned include: 1) balancing content presentation so it is understandable to those with less research training but engaging for those with more experience; 2) the importance of active and experiential learning for engagement and knowledge retention; and 3) the need for strategies ensuring physician compensation for time dedicated to community-academic partnerships. MetroNet is a platform for primary care practice recruitment into the project, showing the impact of PBRNs in physician-patient and physician-researcher partnership. Effective partnership among these stakeholders can increase knowledge about Long-COVID and improve strategies for engaging physicians and patients in PCOR/CER to improve health outcomes. This project is being funded by a Eugene Washington PCORI Engagement Award (EASC-COVID-00268).

Efficacy of Respirator Decontamination and Disinfection

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Respiratory protection is an important exposure control method for healthcare workers. Commonly used respirators in healthcare settings are disposable N95 filtering facepiece respirators (FFRs), reusable elastomeric half-mask respirators (EHMRs), and reusable powered air-purifying respirators (PAPRs). During a public health disaster such as the ongoing COVID-19 pandemic, N95 FFR supply shortage may prove to be a significant problem for most healthcare organizations. The reuse of disposable N95 FFRs might be necessary, even if not preferable, due to supply chain issues. It is currently not known what decontamination and disinfection methods are most effective for respirators which are meant to be disposable. The objective of this literature research was to identify effective and feasible methods so they can be recommended to healthcare organizations for their considerations. It is hypothesized that some decontamination and disinfection methods are more effective than others in removing bacteria, fungi, and viruses from used respirators while maintaining the integrity (structure and filtration rate) of the respirators. A systematic literature search was conducted using Medline, Google Scholar and JSTOR databases. The years covered included a 10-year span from 2011 to 2021. The keywords used included “N95 respirator”, “powered air-purifying respirator”, “respirator decontamination and disinfection”, “respirator reuse” and in combination. All publications identified were in English. A total of 458 records were identified through the search. After removing duplicates, 311 were retained. After screening on relevance, 251 records were removed which left 60 records. Further screening removed 46 records for reasons including being published before 2011, no original data, irrelevance, and preprint studies. A final 14 studies were chosen for the final quantitative analysis. It is found that for N95 FFRs, heat and moisture, microwave-generated steam, ultraviolet germicidal irradiation (UVGI), particularly UVC, plasma peroxide or hydrogen peroxide vapor (VHP) sterilization are effective in removing microbiota with UVC and VHP showing more efficacy. Few studies have been conducted on PAPRs. A recent laboratory study using soap and water for cleaning and wipe chemical disinfection containing a combination of isopropyl alcohol, hydrogen peroxide, quaternary ammonium compound and bleach showed significant reduction in virus load with another lab study showing similar results. The only field study in hospital settings showed that residual microbiotas were identifiable on PAPR hoods after disinfection. Most available efficacy studies focused on N95FFRs with some identified as more effective than others in removing microbes. Further research is needed to assess the efficacy of decontamination and disinfection particularly on PAPRs. Appropriate decontamination and disinfection are important for N95 FFRs, EHMRs, and PAPRs. Given the chance of supply chain shortages during a pandemic it is important to find a way to make disposable N95 FFRs reusable and PAPRs able to be shared without cross-contamination by different users. Overall, research on respirator decontamination and disinfection is limited and more research needs to be done especially for PAPRs in actual healthcare settings.

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Poster Presentations: Cardiovascular Health and Cancer

Agreement between Self-Report and Medical Charts for PSA Testing and Prostate Biopsy Frequency

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Background: Active surveillance (AS) is the preferred initial option for patients with low-risk prostate cancer (LRPC) since patients are more likely to die with the disease rather than from the disease. Surgery or radiation provides no survival benefit while leading to side effects like impotence and incontinence. However, AS requires patients to undergo regular office visits with periodic testing. Studies suggest a significant number of patients on AS do not follow AS practice guidelines on the frequency of testing. One way of measuring patients AS adherence is looking at their self-reported PSA testing frequency and prostate biopsy frequency. But the accuracy of self-reported PSA testing frequency and prostate biopsy frequency is not known. **Objective:** To assess the accuracy of self-reported frequency of PSA testing and prostate biopsy by comparing the patient's self-report data with medical record data. **Study Design:** Survey of patients from Metropolitan Detroit and state of Georgia. **Setting:** Population-based study. White and Black patients (n=332) with newly diagnosed low-risk prostate cancer (LRPC) on AS identified through two population-based cancer registries were surveyed at baseline (<4 months after diagnosis) and at two years post diagnosis who also consented for medical record access. **Outcome Measures:** Level of agreement between self-report frequency of PSA testing and prostate biopsy and the patient's medical record data. **Analysis:** Agreement was assessed using weighted Kappa. Of the 332 medical records reviewed, 249 of these men also completed the two-year follow up surveys. Of them 90.4 % White and 9.6% Black; 61.6% from Detroit and 38.4% from Georgia; average age 63.3 years old (SD = 6.7, range 47-76). For PSA testing frequency, approximately half of all self-reports (52%) matched the values from the medical charts and 36% only differed by 6 months. For prostate biopsy frequency, 36% of all self-reports matched the values from the medical charts and 26% only differed by 6 months. The weighted Kappa for PSA testing frequency and prostate biopsy frequency were 0.26 (95% CI 0.11-0.42) and 0.28 (95% CI 0.15-0.40) respectively. **Conclusions:** The results showed that the level of agreement between self-report and medical records was only fair for both frequencies of PSA testing and prostate biopsy. Therefore, we need to be cautious when using patients' self-report data as a means of assessing AS adherence. **Future Implications:** It is important that clinicians and researchers are aware of the limitations of using self-reported data on frequency of testing as a part of AS protocol. Ways to improve the accuracy of self-reported data are important to ensure that patients undergoing AS are doing so safely. One way to improve patients' recall is to improve physician-patient communication to help patients better understand the importance of the tests and procedures of AS for better quality of care. Another way is to make better use of patient tracking tools (e.g. cell phone app) that would allow patients to more accurately track what tests and procedures have been done and what tests are needed in the future.

Improving Resident Comfort with Outpatient Congestive Heart Failure Management with Multidisciplinary Experience

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The care of patients with congestive heart failure (CHF) is complex and requires close monitoring of many factors. In 2014 CMS expanded coverage for cardiac services. More hospital systems have started developing CHF clinics and services to improve care and reduce readmissions. Mostare multidisciplinary centers led by cardiology teams. Despite these changes, in 2018, the second most common diagnosis associated with hospital readmission was still CHF [1]. Evidence-based standards of care are changing in CHF and it can be hard for primary care providers to grasp. Previous studies have shown that cardiologists are more adherent to the latest standards of care than family medicine physicians [2]. We hypothesized that by engaging resident physicians in a multidisciplinary CHF clinic, we could improve their comfort with outpatient management of patients with CHF as well as their knowledge on the most current guidelines in care. **Methods:** Baseline data was collected on family, internal and transitional year resident comfort and knowledge of guideline-directed medical therapy (GDMT) in the outpatient management of CHF. Then, we developed a curriculum for residents to work in our hospital's CHF clinic. Each spent 3-5 days working with the multidisciplinary team tasked with managing CHF patients and reducing readmission rates. In our first cycle, four different residents were enrolled in the curriculum. We collected a narrative description of the experience from them. We surveyed residents again to assess differences between those engaged in the curriculum and those not. **Results:** 22 residents completed the initial survey and the majority were family medicine residents (12). Six were internal medicine and three were in their transitional year. None of the residents had spent time in the CHF clinic but 20% had done a cardiology rotation. 70% never referred a patient to the CHF clinic but all of them had experience in the care of patients with CHF in other settings. 24% of all residents reported feeling comfortable managing outpatient CHF and 100% of the residents who completed a cardiology rotation felt this way. 38% of participants incorrectly thought that a LifeVest was useful in long-term CHF management. The majority of residents were correct in their knowledge about sodium restriction and red-flag signs for patients with CHF (86% and 81% respectively). After our curriculum was established, we repeated the surveys to see if residents who participated were better equipped to manage patients with CHF. This data will be available by March 1st. **Discussion:** Involving residents in a multidisciplinary CHF center may provide them with more tools to effectively manage CHF in the outpatient setting. It may also improve their baseline knowledge of GDMT and the number of referrals sent to the CHF clinic. **Public Health Implications:** Heart disease is the leading cause of death in Michigan. Better cardiac care includes appropriate and evidence-based management of CHF to prevent death and costly hospital admissions. Partnering with multidisciplinary CHF clinics may help train physicians in the skills needed to best care for these patients.

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Comparisons of Perceptions of Active Surveillance and Treatment Recommendations by Urologists and Radiation Oncologists for Low-risk Prostate Cancer

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Due to concerns about overtreatment, practice guidelines recommend active surveillance (AS) as the preferred option for low-risk prostate cancer (LPC). Limited data are available as to specialists' perceptions and recommendations of AS. To assess and contrast opinions of urologists and radiation oncologists about their perceptions of AS and treatment recommendations for LPC. Design: Cross-sectional survey. Setting: Population-based survey. Population studied: Practicing specialists taking care of prostate cancer patients in two locations (Michigan and Georgia) in the US. Instrument: Mailed or online survey. Outcome Measures: Perceptions and experiences of AS, and treatment recommendations for LPC. Overall, 225 practicing urologists and 97 radiation oncologists completed the survey. Most specialists were White (78%), practiced in a single specialty group (55%), and had a mean age of 52 years (SD = 12, range 29-82). More urologists were male (96% vs 85%, $p=0.002$), involved in teaching (67% vs 54%, $p=0.03$) and had been in practice longer (20 vs 17 years, $p=0.02$). More urologists also reported their pay were productivity-based comparing to radiation oncologists (59% vs 38%, $p=0.004$). Both specialists reported that AS is effective (96% vs 89%, $p=0.02$) and over 90% provided AS to eligible patients (99% vs. 95%, $p=0.03$), and discussed AS with all of their low-risk patients (98% vs 91%, $p=0.009$, urologists vs radiation oncologists, respectively). Most urologists and half of radiation oncologists reported offering AS to all of their low-risk patients (61% vs 50%, $p=0.06$). More urologists endorsed that Black men are more likely to have an aggressive LPC (79% vs 61%, $p=0.002$). For men with low-risk prostate cancer and more than 10-year life expectancy, more urologists believed that prostatectomy (75% vs 45%), external radiation (66% vs 43%), and brachytherapy (65% vs 47%) has survival benefit comparing to radiation oncologists (all $p<0.01$). There are no significant differences in specialists' AS perceptions between the two geographical locations. Conclusions: Based on this study, while urologists and radiation oncologists do agree on a variety of issues regarding AS and treatment recommendation for low-risk prostate cancer, specialists differ in some of their AS perceptions and practices.

American Cancer Society, Detroit Medical Center Foundation, Department of Defense

Poster Presentations: Enhancing Patient Care

An Educational Intervention to Improve Hand Hygiene Compliance in Enhanced Contact Precautions

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Enhanced-Contact Precautions (ECP) are instructions to prevent the spread of infectious diseases that are resistant to routine measures. For example, the spore-forming bacteria *Clostridium difficile* is resistant to alcohol-based solutions and requires the use of soap and water to perform adequate hand hygiene (HH). One of the instructions of ECP include using soap and water for HH. HH is the most impactful intervention to prevent health-care acquired infections (1). Studies have shown that even the location of a sink can impact HH behavior (2). The COVID19 pandemic has increased the use of hand sanitizer worldwide (3). We hypothesized that this shift may impact how health-care providers (HCP) perform HH when managing patients with ECP and developed an intervention to encourage proper procedure. Baseline data was collected on ECP HH compliance at Ascension Providence Rochester Hospital in August 2021 by direct observation. 77 observations were completed and categorized for the type of hand hygiene performed: alcohol rub, soap and water or none. Observations included HCP in all fields and departments. After reviewing the observational data we created an intervention that consisted of magnets that nursing staff attached to the door of rooms with ECP. The blue magnets had an image of hands in soap and water and the phrase "If you see blue, use soap and water too!" The environmental service team also started removing alcohol rub from rooms with ECP to encourage use of soap and water instead. Then, in October and January our team led Hand-Hygiene Awareness Weeks and made daily hospital rounds providing education to HCP on the interventions. The education included standard scripting to share the message of the education and "give-aways" to encourage engagement. Post-intervention observations of HH compliance will be completed again. 77 HH observations were performed pre-intervention. The majority were on nursing staff (28), nurse assistants (14), physicians (11) and rehabilitation unit team members (9). HH compliance was defined as the use of soap and water. Only 5% of all HH observations were compliant with 48% of the observed HCPs using alcohol rub and 47% using nothing. During the "Awareness Weeks" a total of 302 HCP engaged in the educational intervention. The breakdown of participants was 24% nursing, 25% resident physician, 4% attending physician and 4% rehabilitation unit team members. The remainder were from a variety of other departments and fields. Post-intervention observations will be completed again in February. This data will be available by March 2022. We hope the combination of an educational intervention with the physical intervention of the removal of alcohol rubs from ECP rooms will have an impact in HH compliance. We would like to see an increase in HH compliance by HCP in ECP circumstances after our interventions. Appropriate HH, can mitigate the transmission of preventable infections like *Clostridium difficile*. With a shift in HH behaviors because of the COVID19 pandemic it is important to look at unanticipated consequences this may have on other infections. Creative hospital-lead interventions may help mitigate these undesired outcomes.

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Decreasing Hospital Readmission Rate at Ascension Providence Rochester Hospital

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It is estimated that hospital readmissions (HR) cost the US healthcare system 15-20 billion dollars annually. Approximately 1 in 5 Medicare fee-for-service patients discharged are re-hospitalized within 30 days. In 2013 the Hospital Readmissions Reduction Program (HRRP) came into effect, which implemented financial penalties for hospitals with higher than average 30 day readmission rates. At Ascension Providence Rochester Hospital (APRH) the current 30-day HR rate is 11% with a goal to be under 10%. We are partnering with the multidisciplinary Readmission Workgroup at ARPH to conduct a quality improvement (QI) initiative aiming to reduce HRs. HRs are tracked Locally and Nationally using the software program Tableau. We obtained 6 months of 30 day all cause HR data (April - September 2021) from Tableau. The Tableau information is quite brief, therefore we completed a more comprehensive chart review in Cerner, our hospital medical record, to evaluate the circumstances surrounding the initial hospital admission and subsequent readmission to determine 1) Patient characteristics 2) details related to the first hospital admission and 3) any trends that may have led to a readmission. 590 patients were found to have HRs between April - September 2021 (mean age = 68). In examination of the first hospital admission, the Admitting Physician was the Patient's Primary Care Provider 27% of the time, mean length of stay was 5.24 days, and the most common admitting diagnoses were all cause Respiratory, Cardiac and Gastrointestinal related diseases. In examining HR the mean number of days between admissions was 11.5, 38% of readmissions were for the same or related diagnosis as the first admission and 43% of Patients with HR went on to have further readmissions. Our initial chart review reveals several areas for further investigation to prevent HRs. Most notable are examining the HRs with the same diagnosis as the first admission, and examining HR related to patients who go on to experience further frequent hospital admissions. Our focus will be to identify trends and potential areas for intervention to prevent HRs in these groups. Hospital readmissions occur often and have several public health implications. HRs are associated with financial burden for various stakeholders, including: the hospital, government, insurance companies, and patients. Moreover, there are inherent risks for the patient including nosocomial infections. It is our hope that our analysis will help ARPH to identify target areas to improve patient outcomes and decrease hospital readmission rates at ARPH.

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Exploring Caregivers' Impressions of the 3Ms eHealth Intervention

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Carriers of pathogenic variants in cancer susceptibility genes have an elevated risk of developing breast, ovarian, and other cancers. We conducted a medical record review to determine the uptake of genetic counseling and testing in a clinic-based population of women with breast cancer. Medical records of 150 women with breast cancer at the Karmanos Cancer Institute were reviewed to determine the proportion eligible for genetic testing according to National Comprehensive Cancer Network guidelines. We also assessed genetics referral rates, appointment completion and results of genetic testing. Using chi-square and ANOVA tests, we analyzed the association of demographic and clinical factors with eligibility and referral to genetic counseling. There were 91 (60.7%) women who met NCCN criteria for genetic testing. Eligible women were more likely to be younger (52.6 vs. 64.0 years old), White (75.0% vs. 54.5%), and have Medicaid (75.0%) or private insurance (72.9%) vs. Medicare (44.8%). Women were more likely to be referred for genetic counseling if they were eligible (59.3% vs 16.9%), less likely to be referred if they had Medicare (40.0%) compared to Medicaid (71.4%) or private insurance (72.0%), or if they had stage IV disease (48.3%) compared to stages I-III (67.8%). Of eligible women, 59.3% had a genetic counseling appointment scheduled, and of those, 78.0% attended their appointment. There were no apparent differences in appointment completion based on race with similar percentages of Black and White women completing their appointments (74.0% and 77.0% respectively). Women with stage IV disease were more likely to complete their appointments (83.0%) compared to women with stages I-III (74.0%). Fewer women with Medicare completed their genetic counseling appointment (56.0%) compared to women with Medicaid (83.0%) and women with private insurance (83.0%). Among women who attended their appointment, 95.9% underwent genetic testing and among eligible women overall, 46.2% had genetic testing. Of women who had genetic testing, 8.5% had a pathogenic variant, 60.9% had negative results, and 30.4% had a variant of unknown significance. Our findings support other studies that suggest genetic counseling referrals are underutilized among women at high risk for a hereditary cancer syndrome. Furthermore, our results show that, when offered the opportunity, Black women are just as likely as White women to utilize genetic counseling services. Other literature which suggests lower referral rates for Blacks compared to Whites provides evidence to suggest that it is important to intervene in a more proximal part of the referral process, that is, to evaluate barriers to genetic counseling referral, such as lack of physician recommendation. The results of this study indicate that lack of genetic counseling referrals contribute to a gap between the need for and completion of genetic testing. By understanding barriers to genetic counseling and testing, future clinical initiatives could effectively improve accessibility to genetic counseling services.

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Implementing The 3Ms eHealth Intervention in Clinical Settings: Exploring Health Care Providers' Impressions

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Adolescence is a high-risk period during which youth with type 1 diabetes (T1D) often experience declines in illness management and increases in HbA1c, or glycated hemoglobin, a measure of the average blood sugar over the past two to three months. Black youth with T1D demonstrate worse illness management and diabetes health compared to White youth, elevating their risk. Parental monitoring, i.e., direct supervision and monitoring of adolescents' daily diabetes care, is associated with improved diabetes outcomes. eHealth approaches offer a flexible and accessible strategy to deliver parenting interventions during routine diabetes clinic visits. However, health care providers (HCP) are crucial stakeholders in the delivery of such behavioral health interventions in the clinic setting. Thus, obtaining HCP perspectives on such programs is vital. **OBJECTIVE.** The present study explored HCP's impressions of The 3Ms, a brief, three session eHealth intervention to increase parental monitoring of Black adolescents' daily diabetes management, delivered at the time of routine diabetes clinic visits for health monitoring. **METHOD.** Research assistants interviewed HCPs (N=7) from various disciplines at clinics where The 3Ms was delivered. Interviews were analyzed using content analysis by two coders who resolved all coding discrepancies to consensus. **RESULTS.** Overall, HCPs viewed The 3Ms as fitting into their clinical practice and as consistent with family centered care values in pediatric diabetes management. They reported the psychosocial support provided by The 3Ms, in conjunction with routine clinical care, would help improve diabetes health. When asked about the logistics of delivering an intervention like The 3Ms during routine clinical care, HCPs identified two main facilitators; institutional and HCP buy-in. HCPs expressed that the intervention aligns with current family-centered approaches to adolescent diabetes management within the institution and noted that The 3Ms could further enhance and standardize current management practices within the clinic. HCPs also agreed that the intervention fits with their individual provider goals regarding patient care and patient needs, highlighting their belief about the importance of family involvement within adolescent care. However, HCPs also raised concerns related to clinic-based delivery of the intervention, particularly the impact on use of space, workflow and efficiency and who would coordinate intervention delivery. Finally, HCPs were concerned about the technology that would be required to deliver the intervention and possible organizational resistance obtaining the technology from their institution. **CONCLUSION.** HCPs reported facilitators of the use of a brief eHealth intervention to be institutional and clinician buy-in and barriers to be in clinic intervention delivery coordination. However, future research could investigate alternative methods of intervention delivery, such as fully remote delivery through cellular apps. **PUBLIC HEALTH IMPLICATIONS.** The 3Ms intervention was generally well received by HCP serving Black youth with T1D and may provide a useful tool to optimize parenting strategies to support adolescents' diabetes self-management which in turn could decrease the risk for adverse health complications.

National Institute of Diabetes and Digestive Kidney Diseases (NIDDK)

A Snapshot of the Scholarly Work of the Department of Family Medicine & Public Health Sciences In 2021



Ranking

- *15th in the Nation (2nd in Michigan) for NIH Research Funding*
- *4 faculty among the top 100 NIH-funded family medicine researchers*



Grants

- *55 extramural grants submitted*
- *\$32.2 million requested*



Funding

- *23 grants funded*
- *\$8.3 million awarded*



Papers

- *72 peer-reviewed publications in scholarly journals*



Public Speaking (selected)

- *25 podium presentations*
- *55 poster presentations*



Honors (selected)

- *Dr. Ghosh named Charles H. Gershenson Distinguished Faculty Fellow*
- *Dr. MacDonell received WSU SOM Career Development Chair Award*
- *Drs. Ghosh and Janisse promoted*

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