

Oral Presentation Category: Student

Community/Public Health

3:20 - 3:35pm

Monocacy A

Integrating Voter Registration into Primary Care Workflows: Pennsylvania Outcomes from Healthcare-Based Civic Engagement

Julia Kooser [1], Jaclyn Lo [2], Timothy Scheinert [3] [1] Geisinger Commonwealth School of Medicine, Danville, PA (Fourth year medical student) ljkkooser@gmail.com [2] Drexel University College of Medicine, Philadelphia, PA (Third year medical student); jaclyn.lo@drexel.edu [3] Hackensack Meridian School of Medicine, Nutley, NJ (Fourth year medical student); tim@ahealthierdemocracy.org

Presenter: Julia Kooser, N/A*Geisinger Commonwealth School of Medicine*

Since family medicine providers are the frontlines of our healthcare system, they are invaluable in addressing the role of social determinants of health in providing comprehensive and accessible care. While screening implementations and collaborative partnerships continue to progress, upstream factors influencing health policy remain under addressed in practice. As calculated by America's Health Rankings, Pennsylvania (PA) has a composite overall health score of 0.148, based on weighted z-scores across multiple health indicators, placing the state 23rd out of 50 for relative population health. Primary care settings provide universal access points where trusted relationships could facilitate civic engagement as an intervention.

As part of Vot-ER's Healthy Democracy Campaign, we implemented nonpartisan voter registration across Pennsylvania healthcare medical settings, including medical schools, hospitals, and clinics, using QR-coded badges worn by healthcare professionals. Patients and other users accessed voter registration resources via personal devices during patient routine encounters. We analyzed Pennsylvania-specific outcomes from 2024 voter file data, measuring registration rates and electoral participation among healthcare-contacted individuals compared to statewide benchmarks.

Among 1514 Pennsylvania residents who engaged with healthcare-based voter registration resources, 1173 successfully registered to vote, representing a 77.5% registration completion rate. Of these registered voters, 1020 cast ballots in the 2024 general election, achieving 87.0% turnout. This exceeded Pennsylvania's statewide registered voter turnout rate of 81.8% by 5.2 percentage points (95% CI, +3.25-+7.14, $p < .001$), demonstrating that healthcare-based civic engagement mobilized Pennsylvania voters beyond baseline state participation levels.

Oral Presentation Category: Resident

Case Presentation

3:20 - 3:35pm

Monocacy B

A Pediatric Case of Lyme Arthritis With a Septic Synovial Profile

Prabh G. Singh, MD; Aaron Altman, MD, PhD; Velam Madhu, MD; Naila Hussain, MD; D. Shae McKenzie, MD; Munmun Farzana, MD; Alyssa Lee, RN; Jasprabh K. Kaur, MD; Julio A. Rodriguez, MD; Jessica L. Masser, DO; Jeanne P. Spencer, MD; Karl Berger, MD

Presenter: Prabh Singh, MD*Conemaugh Memorial Medical Center*

Lyme arthritis (LA) is the most common late manifestation of Lyme disease and a frequent cause of pediatric monoarthritis in endemic regions of the United States. It typically presents as recurrent or persistent large-joint arthritis, most often involving the knee, with minimal systemic symptoms. Distinguishing LA from septic arthritis (SA) remains challenging, as both conditions may present with acute joint swelling, pain, elevated inflammatory markers, and markedly abnormal synovial fluid analysis. This diagnostic overlap is clinically significant because management differs substantially. We present a pediatric case of LA closely mimicking SA, highlighting diagnostic pitfalls and the importance of epidemiologic context.

A previously healthy 7-year-old boy from a Lyme-endemic region presented with two days of left knee swelling, limp, and fever. Examination revealed a warm, swollen knee with limited range of motion. Laboratory studies showed elevated erythrocyte sedimentation rate (ESR) and C-reactive protein (CRP). Arthrocentesis demonstrated cloudy synovial fluid with 72,700 WBCs/ μ L (93% neutrophils), raising concern for SA. He underwent surgical irrigation and received broad-spectrum intravenous antibiotics. Lyme serology returned positive, with confirmatory IgG Western blot. Cultures remained negative, antibiotics were de-escalated, and he completed a 28-day course of doxycycline with gradual clinical improvement requiring physical therapy.

This case highlights the diagnostic challenge of differentiating LA from SA, where synovial fluid leukocytosis and neutrophil predominance have limited specificity. Markedly elevated synovial WBC counts and purulent-appearing fluid do not reliably distinguish between these entities and frequently prompt surgical intervention. Early Lyme serologic testing and careful consideration of epidemiologic risk are therefore critical. Multidisciplinary collaboration, particularly infectious disease consultation, supports antimicrobial stewardship and appropriate clinical decision-making. Although surgical intervention may be reasonable when SA cannot be excluded, early recognition of LA can reduce unnecessary procedures. Ongoing rehabilitation remains essential, as functional recovery may be prolonged despite appropriate antimicrobial therapy.

Oral Presentation Category: Student

Quality Improvement

3:35 - 3:50pm

Monocacy A

Decreasing Risk by Reducing Co-Prescribing Benzodiazepines and Opioids*Courtney Humphrey MD, Arghyadeep Sarkar DO***Presenter:** Nikolas Pham, BA and Courtney Humphrey, MD*Temple/St. Luke's School of Medicine*

Around 2 million Americans are co-prescribed a benzodiazepine and an opioid. Taking both medications concurrently results in a 2-4x increased risk of overdose compared to solely using an opioid. Although the CDC recommends against co-prescribing, there is still a persistently large number of co-prescribed individuals, displaying the need for public health educational interventions to reduce this at-risk population. Therefore, Star Community Health (Bethlehem, PA) initiated a quality improvement study intended to reduce co-prescribing locally that will hopefully shape future public health interventions on a broader scale.

We hosted physician education sessions in August 2024 and August 2025 that aimed to reduce the risks of co-prescribing. These sessions highlighted risks, deprescribing strategies, tapering guidelines, and utilizing naloxone (rescue medication). At the start of the study, we divided co-prescribed patients into Group 1 (infrequent or prescribed from source outside of clinic; focus on adding naloxone) and Group 2 (frequent, in-office prescriptions; focus on deprescribing and adding naloxone). We tracked our initial co-prescribed patients at 4-6 month intervals, while also including newly co-prescribed patients to evaluate trends in co-prescribing and naloxone usage.

After 17 months, the number of co-prescribed patients in Group 1 decreased from 28 to 18 (~36% decrease) and the number of co-prescribed patients in Group 2 decreased from 5 to 3 (~38% decrease). Furthermore, the percent of co-prescribed patients that were prescribed naloxone increased for both groups, with Group 1 going from 3.57% to 38.89% and Group 2 going from 50% to 60%. Physician education sessions were feasible to implement in a community clinic setting and seemed to decrease opioid/benzodiazepine co-prescriptions and increase naloxone prescriptions. Overall, we hope that our quality improvement study will guide future initiatives focused on reducing co-prescribing risks and improving patient safety.

Oral Presentation Category: Resident

Traditional Research Design

3:35 - 3:50pm

Monocacy B

A Pilot Study on Psychological Safety and The Johari Window: An Intentional Approach to Safe Spaces for Learning*Lauren Woolhiser, MD and Karla Felix, PhD***Presenter:** Lauren Woolhiser, MD, and Karla Felix, PhD*LVHN Family Medicine- Allentown*

Throughout medical education, students experience numerous learning environments, both positive and negative. Psychological safety allows for “feeling able to show oneself without fear of damage to self-image, status, or career”. The Johari Window is a grid-model for self-awareness corresponding to behaviors or information that are either known or hidden to self and others. Our aim is to develop a psychologically safe learning environment through an intentional approach that increases student willingness to ask questions and participate in teaching rounds. This approach also seeks to expand the Johari Window Open Quadrant by encouraging students to express more of their interpersonal qualities.

A knowledge test on the Johari Window with 6 short-answer and 5 multiple-choice questions was completed by faculty and residents (i.e., teachers) rotating on the Family Medicine Inpatient Service. Prior to the intervention, teachers taught students as usual. The intervention began when teachers received an educational slide deck on psychological safety with recommended prompts. Before starting the inpatient week, students received a pre-survey assessing self-awareness of Johari Window quadrants and prior experiences in medical teaching environments. Students also completed a post-survey on the last day that assessed knowledge gaps, comfort in rounds, willingness to ask questions, and changes in self-awareness.

A total of 19 participants completed pre-intervention surveys and 25 completed surveys post-intervention. The average Johari Window Test score across teachers was 84%. Thirteen students responded to the Johari Window survey. There was a statistically significant median decrease in the hidden quadrant post-intervention (pre-Mdn = 30% vs post-Mdn = 15%, $z = -2.77$, $p < .05$) but no significant increase in the open quadrant. The blind and unknown quadrants decreased, suggesting greater student self-awareness after the learning experience. Students reported increased willingness to disclose learning gaps at week's end (Mdn = 8 vs 6; $z = -2.19$, $p < .05$).

Oral Presentation Category: Student

Traditional Research Design

3:50 - 4:05pm

Monocacy A

Beyond the Cure: Survivorship Symptoms After RAI Treatment for Thyroid Cancer in Premenopausal Women*Priya Devanarayan, B.S., Meghan Hartman, B.S., Michael Partin, M.D., FAAP***Presenter:** Priya Devanarayan and Meghan Hartman*Penn State College of Medicine*

Radioactive iodine is commonly given after thyroid cancer surgery and is generally considered low risk. Its use in premenopausal women, however, is increasingly debated. Most research has focused on cancer outcomes, fertility, or short-term psychological effects, with limited attention to symptoms relevant to primary care after treatment. Longer-term survivorship symptom burden, mental health outcomes, and outpatient care needs in this population remain poorly described. This study examines whether radioactive iodine treatment after thyroid cancer surgery in premenopausal women is associated with increased symptom burden, new mental health diagnoses, and greater primary care utilization within the first year following treatment.

This retrospective cohort study used the TriNetX research database to compare premenopausal women (ages 18-49) diagnosed with thyroid cancer (ICD-10 C73) and received thyroid surgery, by presence or absence of radioactive iodine treatment codes. Propensity score matching balanced baseline demographics and comorbidities. Outcomes assessed within one year of the index visit included new diagnoses of fatigue and malaise, anxiety disorders, depressive episodes, sleep disorders, cognitive symptoms, and outpatient primary care utilization. Risk ratios (RR) with 95% confidence intervals (CI) compared outcomes among cohorts.

Among 10,822 matched patients, those who received radioactive iodine experienced higher rates of fatigue and malaise (RR: 1.239, 95% CI: 1.031 - 1.490; $p = 0.0223$), depressive episodes (RR: 1.344, 95% CI: 1.043 - 1.732, $p = 0.0217$), sleep disorders (RR: 1.281, 95% CI: 1.006 - 1.630, $p = 0.0441$), and outpatient primary care visits (RR: 1.476, 95% CI: 1.330 - 1.638, $p < 0.0001$). These findings highlight that premenopausal thyroid cancer survivors who receive radioactive iodine may require closer symptom monitoring and additional primary care support during survivorship.

Oral Presentation Category: Resident

Quality Improvement

3:50 - 4:05pm

Monocacy B

A Modular Clinical Decision-Support and Documentation Framework to Reduce Hazy Reasoning and Reinforce Clinical Reasoning in Family Medicine

Saif Islam, MD

Presenter: Saif Islam, MD

St Luke's Scared Heart

Family medicine clinicians routinely manage complex patients across inpatient and outpatient settings while integrating recommendations from specialists, multidisciplinary teams, and evidence-based care pathways. In daily practice, these tools are often underutilized or inconsistently applied, leading to hazy clinical reasoning, redundant re-analysis of workflows, and unnecessary variability in assessment and plan (A&P) documentation. This fragmentation reduces efficiency, limits consistency across physicians, and results in repeated reinvention of decision-making processes that have already been optimized elsewhere in the health system.

To develop and pilot a modular clinical decision-support framework that standardizes clinical reasoning and documentation while reinforcing deliberate data synthesis, efficient workflow execution, and clinician judgment across all levels of training.

We designed a vendor-agnostic, web-based clinical pathway framework organized around problem-based modules rather than disease silos. For each clinical problem, users are guided through structured entry of contextually relevant variables, encouraging intentional data gathering and reducing reliance on ad-hoc reasoning. Embedded logic surfaces key safety considerations and aligns decision-making with established multidisciplinary care principles. Each module generates a tailored, copy-ready A&P note designed to map cleanly to electronic medical record systems without requiring direct integration.

The framework produces standardized, transparent A&P notes that reflect complete data synthesis and intentional reasoning. Early pilot use demonstrated improved efficiency, reduced inter-physician variability in documentation, and increased resident confidence in applying structured clinical reasoning alongside specialty-informed care frameworks.

Oral Presentation Category: Resident

Community/Public Health

4:05 - 4:20pm

Monocacy A

Tag, You're It: Taking Aim at Resident Burnout

Muhammad Hamza Bangash MD, Shehar Bano Awais MD, Nicole Pfaff LPC PhD, Sukhjeet Kamboj MD FAAFP

Presenter: Muhammad Hamza Bangash, MD and Shehar Bano Awais, MD

WellSpan Good Samaritan Hospital

Burnout and stress among resident physicians remain significant public health concerns, impacting physician well-being, team dynamics, and patient care. Residency programs are increasingly tasked with developing effective, accessible wellness interventions that promote teamwork, physical activity, and work life balance. This project aimed to evaluate a structured recreational wellness activity designed to support resident well-being, foster social connection, and encourage sustainable stress-management strategies within a family medicine residency program.

A resident wellness event was organized at a local Laser tag facility, featuring team-based laser tag matches and unlimited arcade access. Residents from multiple postgraduate years participated, with teams intentionally mixed to promote inter-year collaboration. The activities emphasized cooperative gameplay, communication, physical activity, and social interaction outside the clinical environment. Participant feedback was collected informally following the event to assess perceived purpose, skills gained, and anticipated impact on stress management and workplace dynamics.

Participants identified the activity as a means of promoting teamwork, relieving stress, boosting morale, and fostering relationships beyond the clinical setting. Residents reported improved camaraderie, enhanced communication skills, and appreciation for intentional time dedicated to wellness. The combination of physical activity, healthy competition, and shared leisure encouraged residents to recognize the value of incorporating recreational breaks into demanding schedules. Participants will apply communication skills learned during the event to clinical practice and to advocate for wellness initiatives within their program. Overall, the intervention was perceived as a meaningful, low-cost strategy to support resident wellness and strengthen professional relationships.

Oral Presentation Category: Resident

Quality Improvement

4:05 - 4:20pm

Monocacy B

Mind the Gap: Pap Smears Falling Through the Cracks for Women with HIV

Sasheenie Moodley MD PhD MPH ; Jillian Dawson MD ; Emily Brown MD

Presenter: Sasheenie Moodley, MD, PhD, MPH and Jillian Dawson, MD

Lancaster General Hospital FMR

Women living with HIV require more frequent and prolonged cervical cancer screening than the general population due to increased risk of persistent HPV infection and cervical dysplasia. However, electronic medical record (EMR) tools frequently default to general population guidelines. Inconsistent incorporation of HIV-specific screening intervals may contribute to cervical cancer underscreening in this high-risk population. To assess cervical cancer screening rates among women living with HIV and evaluate discrepancies between HIV-specific screening guidelines and EMR-based care gap reminders. This quality improvement study aimed to identify gaps in care and inform strategies to improve screening.

We conducted a retrospective, physician-led chart review of 198 HIV-positive women receiving care at a semi-rural clinic affiliated with Lancaster General Hospital. Patients without a cervix, including those status post hysterectomy for benign indications and transwomen, were excluded. Screening status was determined using NIH HIV-specific cervical cancer screening guidelines and compared with EMR care gaps. Demographics, prior abnormal papanicolaou results, and gynecologic history were analyzed using de-identified data.

The cohort's mean age was 53 years (range 20–79). Thirty-four percent had a history of abnormal Pap results (CIN1 or higher). Using HIV-specific guidelines, 46% (92/198) of patients were overdue for cervical cancer screening, whereas only 15% (31/198) were identified as overdue by the EMR. Pap history could not be visualized for 8% of patients. EMR-based reminders relying on general population guidelines substantially underestimate cervical cancer screening needs in women living with HIV. Aligning EMR tools with HIV-specific recommendations is essential to reducing underscreening and improving preventive care in this vulnerable population.

Oral Presentation Category: Resident

Community/Public Health

4:20 - 4:35pm

Monocacy A

Providers Perception of and Comfort with Rapid HIV Testing

Trevor Losego, MD, Patricia Donovan DO and Renata Carneiro, PhD

Presenter: Trevor Losego, MD

St Luke's Bethlehem Family Medicine Residency Program

Per the Centers for Disease Control and Prevention, there were 39,201 HIV diagnoses among persons aged 13 years and older in 2023 in the United States, with a diagnosis rate of 13.7 per 100,000. In 2023, there were 4,496 HIV-related deaths among persons aged 13 years and older in the United States. A systematic review of the literature has identified that often due to stigma, HIV is not identified early. The inclusion of HIV screening in value-based primary care has aimed to increase the volume of patients screened for HIV, as well as focus on patient outcomes such as early detection, viral suppression, and improved quality of life. Rapid in office point of care testing can assist physicians in identifying HIV infections early and can expedite arranging a HIV treatment plan. Systemic review indicates, however, that providers may not feel comfortable with in-office HIV rapid testing as well as counseling patients about the importance of HIV screening.

This will be a mixed method survey study aiming to uncover providers perception of and comfort level with using HIV rapid testing. Questions will be a mix of Likert scale and open ended.

The goal of this mixed method survey study is to obtain a baseline level of: how comfortable providers are screening for HIV and counseling about HIV screening, need for and or interest in further education about HIV screening and counseling, and determine interest in and or concerns about HIV rapid testing in clinic.

Oral Presentation Category: Resident

Quality Improvement

4:20 - 4:35pm

Monocacy B

Expanding Access Through Self-Collection: A Quality Initiative for Primary HPV-Based Cervical Cancer Screening

Hendrik Marais, MD, MS. Kavya Bathula, MD. Kristen Frank-Dixon, MD, MPH. Julie Woolworth Hirschhorn, PhD, HCLD (ABB)

Presenter: Oluwabukola Oluwalade, MD and Debra Aderibigbe, MD
Geisinger Lewistown Rural Family Medicine Program

Rural communities face significant disparities in cervical cancer screening and outcomes. Studies show that unscreened populations also have higher cervical cancer incidence and mortality rates. In 2025, Geisinger's Juniata County clinic reported a 69.7 percent screening compliance rate—lower than the national average of 75 percent and the Healthy People 2030 goal of 79.2 percent. Research demonstrates that self-collected HPV vaginal specimens can boost screening rates. Our clinic participated in a validation study comparing self-collection HPV screening results with traditional Pap with co-testing.

We performed analytical verification of the Abbott Alinity m high-risk HPV assay with extended genotyping and the Simpli-Collect device, which is FDA-approved for self-collection in healthcare settings. Forty-two specimens were evaluated: 20 paired clinical samples (matched self-collected and clinician-collected specimens) and 22 contrived samples with known high-risk HPV target material. Concordance with clinician-collected co-testing Nucleic Acid Amplification Test results was assessed. Sensitivity, specificity, positive and negative predicted values were calculated per the requirements for local laboratory verification.

The validation study demonstrated excellent clinical concordance for self-collected HPV vaginal specimens. All 42 specimens produced valid results, with 100 percent agreement compared to clinician-collected testing (22 high-risk HPV positive, 20 negative), yielding 100 percent sensitivity, specificity, and predictive values (95% CI). Based on these findings, we plan to proceed with a pilot project to offer HPV self-collection to increase access in our rural clinic.

Oral Presentation Category: Resident

Community/Public Health

4:35 - 4:50pm

Monocacy A

The effect of pet therapy on physiological biomarkers of stress in Family and Internal Medicine Residents

Presenter: Parneeta Singh, MD

Tower Health Reading Hospital

Burnout and stress amongst residents can lead to elevated blood pressure (BP) and heart rate (HR). I proposed using pet therapy (PT), to reduce stress in Family and Internal Medicine Residents and measuring their BP and HR; physiological biomarkers of stress to assess the efficacy of the intervention.

The Therapy Dog Volunteer Program at Reading Hospital was recruited. Family and Internal Medicine Residents were included in this randomized within-subjects crossover study. Residents on anti-hypertensives, who feared, had allergies to dogs or were pregnant were excluded. Subjects completed the Perceived Stress Scale to measure their baseline stress. Patient interaction was the stressor. The intervention was PT, and the control was a quiet room. They were exposed to each intervention for 5 minutes. BP and HR were measured before and after. Paired t-test was used for pre-post analysis. Group t-tests were used for baseline comparisons and comparisons between post-test values.

Twenty Family Medicine and thirteen Internal Medicine Residents were enrolled. After exposure to the intervention, the mean systolic BP decreased from 116.91 to 116.45, the mean diastolic decreased from 78.09 to 77.67 and the mean HR decreased from 81.06 to 79.06. After exposure to the control, the mean systolic BP decreased from 116.36 to 115, mean diastolic decreased from 76.06 to 74.61 and mean HR decreased from 82.94 to 79.73. When compared to the intervention, the mean BP and HR were lower in the control group. No significant difference was found for baseline comparisons and comparisons between post-test values.

Oral Presentation Category: Resident

Quality Improvement

4:35 - 4:50pm

Monocacy B

Educate to Empower: Advancing Menstrual Health and Hygiene Through a Quality Improvement Project in Pakistan*Saba Sarfraz, MD; Ramsha Mahmood, MD; Sukhjeet Kamboj, MD; Obaid-ur-Rehman***Presenter:** Saba Sarfraz, MD and Ramsha Mahmood, MD*WellSpan Good Samaritan FM residency program*

Menstrual health remains a neglected component of adolescent health in low- and middle-income countries because of stigma, misinformation, and limited access to resources. This global health project aims to improve menstrual knowledge among adolescent girls by increasing understanding of menstrual physiology, promoting safe and sustainable hygiene practices, challenging harmful myths, and reducing menstrual stigma. Additional objectives included encouraging open communication with family members and healthcare providers, as well as evaluating changes in knowledge, attitudes, and self-reported practices following an educational intervention and the distribution of menstrual health resources.

A quality improvement (QI) educational intervention was conducted among adolescent girls in Rawalpindi, Pakistan. A total of 150 participants from a local secondary school attended a structured learning session covering menstrual physiology, hygiene practices, myth-busting, and dignified menstrual management. Demographic data were collected at the baseline. To address resource limitations and enhance engagement, participants received women's health kits containing sanitary pads, hygiene supplies, and educational pamphlets. Anonymous pre- and post-intervention surveys assessed changes in menstrual knowledge, attitudes, stigma, communication, behaviors, and self-reported hygiene practices. Paired statistical analyses evaluated pre- to post-intervention changes.

A total of 150 participants were included (mean age 12.03 ± 2.1 years). Statistically significant improvements were observed in multiple domains following the intervention, including knowledge of menstruation, age of menarche, menstrual physiology, cycle regularity, duration, hygiene practices, and product-use behaviors (all $p < 0.001$). Menstrual stigma decreased significantly ($p < 0.001$), and recognition of the harmful effects of menstrual myths improved ($p < 0.001$). Attitudes toward school attendance during menstruation did not change significantly. Overall menstrual knowledge showed a modest improvement ($p = 0.09$).