

# Fellowship Symposium



Department of Family Medicine  
and Community Health

UNIVERSITY OF WISCONSIN  
SCHOOL OF MEDICINE AND PUBLIC HEALTH

May 14, 2024 – 8:00 am – 12:30 pm

Department of Family Medicine and Community Health Administrative Office

Oak Room, 2<sup>nd</sup> Floor

610 Whitney Way, Madison WI, 53705

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This symposium will feature short presentations by fellow representatives of the following Department of Family Medicine and Community Health fellowships:

Academic (A)  
Addiction Medicine (AM)  
LGBTQ+ Health (LH)  
Primary Care Research (PCR)

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## Schedule of Events

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|---------------------|--|---------------------|--|
| 7:30 am - 8:00 am   | <b>Room opens – Presenting Fellows Technology Check</b>  | 10:30 am - 10:50 am | <b>Miena Hall, MD, IBCLC (PCR)</b><br><br>Imaging Biomarkers of Breast Glandular Tissue for Predicting Lactation Sufficiency   |
| 8:00 am - 8:30 am   | <b>Breakfast</b>   | 10:50 am - 11:10 am | <b>Laura Andrea Prieto, PhD (PCR)</b><br><br>Community-Engaged Recruitment Networks and Preliminary Findings on Physical Activity Participation of Latine Individuals with Parkinson Disease and their Care Partners |
| 8:30 am - 8:45 am   | <b>Welcome &amp; Opening Remarks</b><br><br>Earlise Ward, PhD, LP<br>Director, PCR Fellowship  | 11:10 am - 11:30 am | <b>Sydney Tan, MD (PCR)</b><br><br>Relationship Between Work Hours, Burnout, and Well-being in Residents   |
| 8:45 am - 8:50 am   | <b>Intro: Addiction Medicine Fellowship</b><br><br>Randy Brown, MD, PhD<br>Director  | 11:30 am - 11:35 am | <b>Intro: Academic Fellowship</b><br><br>Jessica Dalby, MD<br>Director   |
| 8:50 am - 9:10 am   | <b>Ana Pearson, MD (Add)</b><br><br>Long-Acting Injectable Buprenorphine: A Tool for Discontinuing Buprenorphine MOUD  | 11:35 am - 11:55 am | <b>Estefan Beltran, MD (A)</b><br><br>Implementation and Evaluation of a URiM Pathway Program  |
| 9:10 am - 9:15 am   | <b>Intro: LGBTQ+ Health Fellowship</b><br><br>Bill Schwab, MD<br>Co-director   | 11:55 am - 12:15 pm | <b>Kane Laks, MD (A)</b><br><br>University of Wisconsin-Madison Family Medicine Residency: Evaluating Outcomes of an Urban Program's Rural Training Spectrum   |
| 9:15 am - 9:35 am   | <b>Justin Temple, MD (LH)</b><br><br>Interpretation of HIV Serologies in the Era of PrEP - Two Cases of False Positives  | 12:15 pm - 12:20 pm | <b>Closing Remarks</b><br>Elizabeth Cox, MD, PhD<br>Associate Director, PCR Fellowship<br>David Feldstein, MD<br>Associate Director, PCR Fellowship  |
| 9:35 am - 9:55 am   | <b>Asma Ali, PharmD, PhD (PCR)</b><br><br>Developing the RAMADAN Instrument: Responding to Access and Management Adversities in Diabetes among American Nationwide Muslims (RAMADAN) | 12:20 pm - 12:30 pm | <b>Lunch Setup</b>   |
| 9:55 am - 10:15 am  | <b>David Mallinson, PhD (PCR)</b><br><br>Preventing Infant Mortality through Medicaid-administered Prenatal Care Coordination: Evidence from Wisconsin                               | 12:30 pm            | <b>Lunch</b>   |
| 10:15 am - 10:30 am | <b>Break</b>   |                     |  |

**Name:** Ana Pearson, MD (Add)

**Title:** Long-Acting Injectable Buprenorphine: A Tool for Discontinuing Buprenorphine MOUD

**Abstract:** Authors: Ana Pearson, MD; Alison Miller, DO

Introduction: Many patients with a history of opioid use disorder in long-term recovery have a desire to discontinue medications for opioid use disorder (MOUD) but often find it challenging to taper off sublingual buprenorphine. Due to its long half-life, long-acting injectable (LAI) buprenorphine is one potential way to assist patients with a goal of tapering off buprenorphine. Currently there is a paucity of information published describing how clinicians can utilize LAI buprenorphine in this manner—to date only 2 case series have been published with no formalized protocol or guidance on dosing regimens.

Methods: 10 patients with opioid use disorder who wished to discontinue MOUD were included. Patients had previously been treated with sublingual buprenorphine MOUD and had elected to transition to LAI buprenorphine as a means of tapering off buprenorphine. Included patients received various dosing regimens of LAI buprenorphine, but all eventually discontinued buprenorphine MOUD completely. Data was collected via manual chart review of the electronic medical records.

Outcomes: The majority of patients had achieved long-term sustained remission with sublingual buprenorphine MOUD (mean time on sublingual buprenorphine 8.3 years). In addition to MOUD, most patients had significant recovery capital supporting their clinical stability (8 with stable housing noted, 7 with stable employment). The majority were on relatively low doses of sublingual buprenorphine prior to transition to LAI buprenorphine (9 patients receiving total buprenorphine doses of 8 mg/day or less). Patients on buprenorphine doses of 8 mg/day or lower received an initial dose of 100 mg LAI buprenorphine followed by a second 100 mg dose 3–4 weeks later. Patient courses after the 2 initial doses varied, with 5 patients opting not to receive further injections while 4 patients received additional monthly injections for varying lengths of time prior to discontinuing. Overall, the LAI buprenorphine-assisted tapers were well tolerated with minimal symptoms of opioid withdrawal or other side effects. Patients remained stable at follow up after discontinuation of MOUD with no patients reporting return to use.

Conclusion: Transition to LAI buprenorphine is a feasible, patient-friendly, and well-tolerated method for tapering off sublingual buprenorphine in patients wishing to discontinue MOUD.

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## Abstracts

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**Name:** Justin Temple, MD (LH)

**Title:** Interpretation of HIV Serologies in the Era of PrEP - Two Cases of False Positives

**Abstract:**

Background: Prescription of pre-exposure prophylaxis (PrEP) for the prevention of HIV acquisition is increasing in the United States. Subsequently, there is an increase in need for HIV testing and the interpretation of such test results, oftentimes performed by primary care providers. Rarely, false positive or negative results may occur, which can lead to distress and confusion for both the patient and provider.

Methods: We investigated two cases of false positive HIV antigen/antibody tests – one in a patient taking PrEP and one in a patient not taking PrEP. We reviewed potential factors leading to these incorrect results and the steps taken to clarify the patients' HIV status.

Discussion: Through evaluation of our cases and a review of the current literature, we describe the current testing algorithm and necessary steps for the diagnosis of HIV, potential points of interference with the interpretation of HIV serologies (such as PrEP and heterophile antibodies), and tools that the primary care provider may utilize for clarifying such ambiguous cases.

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## Abstracts

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**Name:** Asma Ali, PharmD, PhD (PCR)

**Title:** Developing the RAMADAN Instrument: Responding to Access and Management Adversities in Diabetes among American Nationwide Muslims (RAMADAN)

**Abstract:**

Background and objectives. Fasting for a month every year from dawn to sunset is an integral part of faith for Muslims. Muslims who wish to fast and are diagnosed with diabetes mellitus face challenges in navigating fasting while managing diabetes. This research aims to develop a patient-centred instrument to assess these challenges.

Methods. This research builds on collaboration with a Muslim community organization and previous qualitative research. First, we developed a pool of items using results from semi-structured one-on-one interviews with US Muslims diagnosed with diabetes. Second, we consulted with questionnaire design experts (University of Wisconsin Survey Center) who provided recommendations based on best survey practices, in order to increase accuracy and reliability of questions and reduce overall cognitive burden for respondents.

Results. We developed an innovative initial draft of the RAMADAN clinical assessment tool. We derived around 200 items from the qualitative interviews with an estimated response time of about 65 minutes. Modifications included identifying duplicate questions from various domains to reduce instrument length, using transitional statements to cue the respondent's cognitive processing about topics shifting, adding reference periods (e.g., Ramadan of 2023) when asking about events or behaviors that happened in the past, and creating filter questions to establish the respondent's eligibility for follow-up questions about details. The instrument has six domains that align with diabetes self-management activities (medication use, eating/diet, exercising, blood sugar monitoring), patient-provider interactions, and health outcomes.

Conclusion. Further testing, shortening, and validation of the instrument will be conducted in future projects. This patient-facing instrument will be used to facilitate patient-clinician communication to help clinicians' ability to strengthen patients' diabetes self-management during Ramadan.

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## Abstracts

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**Name:** David Mallinson, PhD (PCR)

**Title:** Preventing Infant Mortality through Medicaid-administered Prenatal Care Coordination: Evidence from Wisconsin

**Abstract:**

Medicaid-funded obstetric care coordination programs supplement prenatal care with tailored medical, educational, and social services with the goal of improving pregnancy outcomes. Whether these programs prevent infant mortality is uncertain. The goal of this study is to estimate overall and racial/ethnic-stratified associations between Wisconsin Medicaid's Prenatal Care Coordination (PNCC) program and infant mortality using a linked cohort of Wisconsin birth records, infant death records, and Medicaid claims. The sample consisted of 231,540 Medicaid-paid births during 2010-2018. Of these, 45,009 (19.4%) were Black non-Hispanic (NH); 36,918 (15.9%) were Hispanic; and 126,613 (54.7%) were white NH. Our exposure was PNCC receipt during pregnancy (none; assessment/care plan only; service receipt). Our outcome was infant mortality (death at age <365 days), and we measured survival time in days. We tabulated infant mortality by PNCC, and we measured associations with hazard ratios (HR) and corresponding 95% confidence intervals (CI) using Cox proportional hazards regressions that adjusted for maternal health and demographic characteristics. We conducted analyses for the whole sample and within selected racial/ethnic subgroups (Black NH; Hispanic; white NH). Infant mortality was lower among PNCC assessment/care plan only births (5.0 deaths/1000 births) and PNCC service receipt births (6.1 deaths/1000 births) relative to non-PNCC births (6.8 deaths/1000 births). This pattern was consistent in Black NH and Hispanic subgroups, but infant mortality did not vary by PNCC among white NH deliveries. Overall, any PNCC was associated with a lower incidence of infant mortality (HR 0.8; 95% CI 0.7-0.9) compared to no PNCC, and this association did not vary by PNCC service level. Any PNCC was associated with a lower incidence of infant mortality among Black NH births (HR 0.7; 95% CI 0.6-0.9) but not in Hispanic or white NH births. Thus, Medicaid-funded PNCC services during pregnancy may improve infant survival, particularly among Black families.

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**Name:** Miena Hall, MD, IBCLC (PCR)

**Title:** Imaging Biomarkers of Breast Glandular Tissue for Predicting Lactation Sufficiency

**Abstract:**

Lactation insufficiency (LI) affects approximately 5-15% of breastfeeding dyads with inadequate breast growth during pregnancy showing a strong association with low milk production. In current practice, insufficient glandular tissue (IGT) is diagnosed retrospectively when an infant gains weight poorly despite good breastfeeding management and the parent reports minimal breast changes during pregnancy. This method of self-report of breast growth is inadequate, hence this line of research determines whether prenatal imaging of breast fibroglandular tissue (FGT) volume can predict insufficient milk production. In this proposed feasibility study, we will use ultrasound and MRI, the current imaging standard to quantitatively assess FGT, to measure mammary gland development during each trimester in pregnancy. Our aims are to (1) determine the feasibility of using ultrasound and MRI to measure longitudinal FGT volume changes during pregnancy, (2) correlate FGT imaging biomarkers between ultrasound and MRI, and (3) analyze whether FGT changes are predictive of 24-hour postpartum milk production. We will use ultrasound and MRI to scan the breasts of multiparous subjects during each of their three trimesters. Imaging biomarkers will be analyzed longitudinally and between modalities. Milk production will be assessed at 4 weeks postpartum via 24-hour milk volumes and then correlated with imaging features. Project findings will inform a pilot study to guide the planning of a large-scale investigation and provide initial data for use in subsequent grant applications. Our long-term goal is to develop and validate screening protocols for identifying pregnant individuals with IGT early, so that patients can receive anticipatory guidance regarding their risk of low milk production, set infant feeding expectations and goals, provide appropriate postpartum lactation support in a timely manner, and decrease both risks of infantile failure to thrive and parental depression.

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## Abstracts

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**Name:** Laura Andrea Prieto, PhD (PCR)

**Title:** Community-Engaged Recruitment Networks and Preliminary Findings on Physical Activity Participation of Latine Individuals with Parkinson Disease and their Care Partners

**Abstract:**

Participation in physical activity (PA) is critical for symptom management and quality of life for people with Parkinson disease (PwP). Yet less than 8% of research studies on PwP include Latine PwP. Thus, little is known about PA for Latine PwP and even less so about their family care partners, who may facilitate PA participation. This study aims to recruit 20 Latine PwP in the Midwestern United States to participate in a descriptive qualitative design to describe the PA experiences of Latine PwP and their CPs, specifically factors that impact motivation, access, and participation in PA. This presentation will discuss community informed recruitment strategies and networks across 102 contacts and 37 organizations, including medical systems, exercise-specific organizations, faith institutions, non-profit organizations, and governmental bodies that have facilitated the recruitment of the first 3 participants. Preliminary findings using reflexive thematic analysis on participants' engagement with PA will be explored, and implications for recruiting underrepresented study samples across community and health-based systems will be considered.

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## Abstracts

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**Name:** Sydney Tan, MD (PCR)

**Title:** Relationship Between Work Hours, Burnout, and Well-being in Residents

**Abstract:**

**Objective:** Assess moderators of the relationship between work hours, stress, burnout, and well-being in residents.

**The Question:** What well-being measures moderate the relationship between work hours, stress, and burnout?

We hypothesized that higher levels of meaning and purpose would moderate the relationship between work hours with stress and burnout, such that participants who report higher meaning and purpose will report lower levels of stress and burnout even when exposed to longer work hours

**Methods:** A nationwide, cross-sectional survey assessed stress, burnout, well-being, and self-efficacy measures. Participants were recruited from residency programs in a high burnout specialty (emergency medicine, family medicine, internal medicine, obstetrics and gynecology, surgery, and surgical sub-specialties). Regression analysis was used to examine the interaction between measures of meaning and purpose and connection with work hours as predictors of stress and burnout.

**Results:** A total of 431 participants completed the survey, comprising 66% women and 65% white. The majority of participants were in family medicine (36%), followed by internal medicine (25%), general surgery (20%), and ob-gyn (10%). The mean work hours reported was 65 hours on average per week (SD=11.5). There was no association between work hours and burnout. Meaning and purpose, connection, and loneliness were not significant moderators of work hours and burnout. There was a positive association between work hours and personal accomplishment ( $p < 0.05$ ).

**Conclusions:** Surprisingly, burnout was not significantly associated with average hours worked, and increased work hours were positively correlated with higher personal accomplishment. This challenges the notion that further work-hour restrictions alone will mitigate burnout in residents and suggests a more complex relationship between hours worked and well-being for residents.

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## Abstracts

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**Name:** Estefan Beltran, MD (A)

**Title:** Implementation and Evaluation of a URiM Pathway Program

**Abstract:**

Background: Despite the 2003 Unequal Treatment Report's call to increase the recruitment of people of color in healthcare, racial/ethnic asymmetry continues to exist between UW clinicians and patients. The Enhancing Representation to Improve our Community's Health (EnRICH) program was launched in 2022 and offers mentorship combined with clinical and community experiences for medical students interested in Family Medicine who identify as underrepresented in medicine (URiM). Specific aims include increasing (1) participant sense of belonging in medicine and congruency of self-identity with family medicine, (2) graduation rates and Family Medicine match rates of URiM students, and (3) work satisfaction for mentor participants.

Methods: 14 mentees (11 M1, 3 M2) and 17 mentors participated in the first year. Mentees were recruited via email and in-person advertising with the assistance of the Office of Multicultural Affairs. Mentors were recruited via listserv email and advertising during a faculty meeting. Participants were matched based on academic and personal interests. A quantitative survey based on validated measures was administered at the beginning of the year, which probed self-reflection of the above specific aims. Mentors and mentees completed an end of the year quantitative survey to elucidate the impacts of the program.

Results: After 1 year, students reported increased congruence between "self" and "medical student." There was also a larger spread of students identifying with "family medicine," even some reporting complete overlap. Students also reported improved peer group interactions and higher self-esteem. Mentees identified "mentor relationship," "large group activities," and "community building among EnRICH students" as the highest perceived benefits of the program.

Conclusions: EnRICH has started to see positive impacts after its first year of implementation. Collaboration with both the residency and school of medicine administration was essential to success. Some identified barriers include mentor-mentee background incongruence, limited survey completion, and need for administrative structure.

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## Abstracts

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**Name:** Kane Laks, MD (A)

**Title:** University of Wisconsin-Madison Family Medicine Residency: Evaluating Outcomes of an Urban Program's Rural Training Spectrum

**Abstract:**

**Objectives:** The goals of this poster are to describe University of Wisconsin-Madison Family Medicine Residency's rural training programs, evaluate impacts of specific curricular components on rural practice, and explore strengths and limitations of various rural training models and role of specific curricular components in training rural physician leaders.

**Purpose/Background:** University of Wisconsin-Madison Family Medicine Residency has a long history of promoting rural training opportunities in residency education and has recently added additional training programs with the goal of increasing rural placement and training rural physician leaders, including the Rural Health Equity Track (RHET), rural pathway, and Baraboo Rural Training Track.

**Methods:** Qualtrics surveys were created and distributed to the 2020-2023 graduating classes of the main UW-Madison, RHET, rural pathway, and Baraboo programs. Comparisons between rural and urban programs were conducted using Fisher's Exact Test and we will present respondent characteristics including rural background, practice scope, and practice location; as well as perceived impact of various curriculum components on preparation for rural practice.

**Results:** Graduates from rural backgrounds were more likely to choose rural programs and graduates of the rural programs are more likely to work in rural practice. Strengths of the programs include strong networking opportunities with many residents rotating at their future practice site and most graduates feeling well-prepared for rural practice. Gaps in training include urgent care, newborn resuscitation, splinting/casting, and wound care.

**Conclusions:** To enhance rural practice preparation, future steps involve expanding recruitment efforts targeting students from rural backgrounds and addressing gaps through targeted curriculum additions. Presentation of our data will provide an opportunity to discuss the strengths and limitations of various rural residency training models and the role of specific curricular components in training rural physician leaders.

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