



*Physicians in the Community  
Scholarly Pathway  
Student Project Showcase 2022*



*Physicians in the Community  
Student Project Showcase*

*MCW-Central Wisconsin  
Thursday, July 21, 2022  
5:00 pm – 7:00 pm*

## **Our Goal**

All students who train at the Medical College of Wisconsin-Central Wisconsin regional campus will become community-engaged physicians. This means that they will reflect on the impact that the social determinants of health have on their patients' lives and advocate for the overall health of the communities where they choose to practice.

Over the two-year Physicians in the Community course, students forge relationships with community members across many professional disciplines and explore local health priorities. In partnership with community mentors, the students identify community needs, collaborate to design and implement a community-engaged scholarly project, and develop presentations to share their results. Many of the students are building upon projects started by previous medical students, and projects will continue to evolve to meet the needs of our Central Wisconsin community.

We would like to thank our many community teachers and community mentors, as well as the Physicians in the Community Advisory Board for their input into the training of our future doctors, many of whom will return to live and work in Central Wisconsin communities.

## **Welcome & Opening Remarks**

- Corina Norrbom, MD

## **Featured Project Presentations**

- Maarten Colby – Implementation of the Cardiac Arrest Registry to Enhance Survival (CARES) network in North Central Wisconsin.
- Jacob Elliott & Cody Schreiner - Assessing Provider Satisfaction and Clinical Outlook through Consultation of Wisconsin Child Psychiatry Consultation Program (CPCP)
- Alex Kershner – The Babies' Place: Addressing Diaper Need in Central Wisconsin
- Eric Lee – Assessing the Medical Needs of the Central Wisconsin Hispanic Community
- Andrew Sepiol – AHmong Us Mentorship Program

## **Community Engagement Fund Awards & Closing Remarks**

Amy Prunuske, PhD



## *Student Projects*

- *Brian Butterfield, Assessment of Healthcare Satisfaction Among Migrant and Seasonal Agricultural Workers*
- *Maarten Colby, Implementation of the Cardiac Arrest Registry to Enhance Survival (CARES) network in North Central Wisconsin*
- *Mikaela Decoster, Further Delineating Student Mental Health Needs Throughout the COVID-19 Pandemic*
- *Jacob Elliott, Assessing Provider Satisfaction and Clinical Outlook through Consultation of Wisconsin Child Psychiatry Consultation Program (CPCP)*
- *Ryan Gassner, Assessing Opioid Addiction Treatment in Marathon County*
- *Jesslyn Hendrickson, Influenza and COVID-19 Vaccine Outreach in Hmong and Hispanic Populations of Central Wisconsin*
- *Sadie Jackson, Covid Hope Project: The Outcomes of Collaboration and Art in Community Healing*
- *Sara Johnsoni, Creating a Standardized Report Form for Central Wisconsin School Nurses*
- *Alexandra Kershner, The Babies' Place: Addressing Diaper Need in Central Wisconsin*
- *Sofie Kjellesvig, Voices of Wisconsin students: learning, coping, and building resilience during COVID-19*
- *Chloe Lang, Advocates in Medicine Pathways: Addressing provider shortages of Central Wisconsin rural & Hmong populations*
- *Eric Lee, Assessing the Medical Needs of the Central Wisconsin Hispanic Community*
- *Olivia Newgaard, A Medical Student Near Peer Mentoring Program Designed to Mitigate Adverse Childhood Experiences in High School Students*
- *Marissa O'Hair, Recipes for increased food literacy and fresh produce utilization among pantry attendees*
- *Meghan Peterson, Barriers to Healthcare Utilization for Migrant and Seasonal Agricultural Workers*
- *Cody Schreiner, Assessing Clinical Outlook through Consultation of Wisconsin Child Psychiatry Consultation Program*
- *Andrew Sepiol, AHmong Us Mentorship Program*
- *Tommy Voss, Increasing the Awareness and Addressing the Satisfaction of the Women Infant and Children (WIC) Program*
- *Eric Weaver, Medicine in Real Life: Innovative Approach to Interprofessional Education*
- *Emelyn Zaworski, Language Environment Analysis Start Participation and Long-term Effects on Parental Literacy Promoting Behaviors*



## **Medical Student: Brian Butterfield**

**Project Title:** Assessment of Healthcare Satisfaction Among Migrant and Seasonal Agricultural Workers

**Community Mentor:** William J. Kinsey, MD, Family Health La Clinica, Wautoma

**MCW-CW Collaborator:** Corina Norrbom, MD

**Background:** Each year, between five to seven thousand migrant and seasonal agricultural workers (MSAW) travel to Wisconsin for employment. The majority of MSAW are of international origin, and many receive their only medical care while residing in Wisconsin. Language barriers, lack of healthcare access, poor working conditions, and indeterminate legal status contribute to significant healthcare disparities among the MSAW community. Family Health La Clinica offers primary care services to the MSAW community using their mobile health services unit. The purpose of this project was to evaluate MSAW satisfaction with mobile clinic visits.

**Methods:** Patient satisfaction was measured using a ten-question standardized bilingual survey, distributed at the conclusion of mobile clinic visits throughout the 2021 agricultural season. Survey responses were assigned numerical values on a 1 to 5 rating scale, and averages were calculated for each survey question.

**Results:** 34 surveys were collected over a two-month period. Average satisfaction scores ranged from 4.56 to 4.94 out of 5 for all survey questions.

**Conclusions:** MSAW satisfaction with mobile health services was overwhelmingly positive and highlights the value of seasonal healthcare access in this population. The results from this project can be used as a baseline of comparison for future seasons, as well as across different modalities of healthcare delivery.

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**Medical Student: Maarten Colby**

**Project Title:** Implementation of the Cardiac Arrest Registry to Enhance Survival (CARES) network in North Central Wisconsin

**Community Mentor:** Michael Clark, MD, Aspirus

**MCW-CW Collaborator:** Corina Norrbom, MD

**Background:** Out of hospital cardiac arrest (OHCA) is a complex problem that has remained unchanged even with the advent of modern technologies. The CDC developed CARES with the aim of improving cardiac arrest outcomes.

**Objectives:** Evaluate and compare OHCA trends of Northcentral Wisconsin (NCW) EMS agencies.

**Methods:** Nontraumatic cardiac arrests were logged in CARES by 7 NCW EMS agencies using a standardized form. CARES data was evaluated.

**Results:** 397 nontraumatic OHCA were logged. Marathon County has the highest number of OHCA while Vilas and Lincoln had the fewest. 44.3% of OHCA were witnessed by bystanders. 20.7% of patients presented with VT/VF while 79.3% of patients presented with a non-shockable rhythm. Total survival for OHCA in NCW was 9.8% compared to 9.0% nationally. Bystander witnessed survival was 13.6% and unwitnessed survival was 5.0%. Bystander CPR for OHCA was 31.0% in NCW as compared to 40.2% nationally. Bystander CPR was highest in Oneida county with 48.6% of OHCA cases receiving B-CPR and lowest in Wood County at 12.3%. 13.0% of OHCA received bystander AED. The highest percentage of OHCA B-AED was 16.7% in Vilas, Oneida, and Marathon County.

**Conclusion:** Two thirds of NCW counties recorded Bystander CPR rates lower than that of the national average; further research is needed to better understand this phenomenon. A renewed initiative in Bystander-CPR for the NCW could be an avenue for future efforts to increase OHCA survival.

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## Medical Student: Mikaela Decoster

**Project Title:** Further Delineating Student Mental Health Needs Throughout the COVID-19 Pandemic

**Community Mentors:** Taylor Seehafer and Erin Lauersdorf, D. C. Everest Junior High

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Overview:** The D.C. Everest Kind Minds Student Wellness Day in Wausau, WI was initiated in 2017 with the goal of providing students additional mental health resources through both formal sessions as well as interactive activities. The COVID-19 pandemic brought unprecedented changes, making mental health resources and outreach even more crucial for students.

**Problem Statement:** Determine whether students found the 2021 Wellness Day helpful, identify which sessions had the greatest impact and characterized student wellbeing and experience during the pandemic.

**Methods:** An anonymous survey was made available to all 8th & 9th grade students participating in the Wellness Day. The survey collected information on whether students felt the Wellness Day gave them a greater understanding of mental wellbeing, which sessions out of the four (Understanding Depression and Suicide, Rise Together, Testing, Performance & Academic Anxiety, Art Therapy) were most useful, students' views regarding mental health during the pandemic, and what they wished adults knew about how COVID-19 has affected them.

**Results:** There was a 56.3% survey completion rate. Of those students, 90.3% felt the Wellness Day improved their understanding of mental wellbeing and ways to improve it. 88% of students felt they received useful information regarding available resources; 89.6% found all four sessions helpful. While 42% of students self-reported their mental health throughout the pandemic as "healthy" or "thriving", 24% felt they were "coping", and over a third (34%) felt they were "struggling" or "unwell".

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**Medical Student: Jacob Elliott**

**Project Title:** Assessing Provider Satisfaction and Clinical Outlook through Consultation of Wisconsin Child Psychiatry Consultation Program (CPCP)

**Community Mentor:** Gabriella Hangiandreou, MD, MCW, Aspirus

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Introduction:** Prior to the COVID-19 pandemic, it was estimated that 11.6% of pediatric patients suffered from clinically significant anxiety and 12.9% from depressive symptoms. Those numbers have risen to 20.5% and 25.2%, respectfully. The lack of practicing child and adolescent psychiatrists (CAPs) across America exacerbates this need, particularly in our state of Wisconsin where 48 of 72 counties have no child psychiatrist. Primary care consultation programs like Wisconsin Child Psychiatry Consultation Program (WICPCP) have been initiated to assist primary care practitioners (PCPs) in managing pediatric mental health care cases via phone and email consultation with certified CAPs.

**Methods:** Data obtained through WICPCP surveys from April - November 2021 via emailed satisfaction surveys following consultation. The survey utilized a 5-point Likert Scale (Strongly Disagree - Strongly Agree) for most questions, including provider agreement of consultation impact on: hospitalization and referral prevention, reduction of self-harm or suicidal risk, earlier diagnosis or medication changes, and recent encounter effectiveness on patient care. Each of these were then stratified by specialty and credentials. A qualitative, select all that apply question with free response was also used to assess provider options had WICPCP not been available to them.

**Results:** 242 surveys were completed from 147 unique providers. 98.4% felt more effective patient care was provided, 68.7% felt they prevented referral or hospitalization, 69.5% diagnosing or changing medications earlier, and 46.5% preventing self-harm or suicide attempt. Without WICPCP, 48.3% of providers would have referred their patient to mental health, 35.1% consulted another professional, and 35.1% researched on their own.

**Discussion:** Increasing pediatric mental health care cases and shortages of CAPs means more cases are being handled by PCPs. Our survey shows that PCPs believe WICPCP is a valuable resource in helping manage complicated cases and improving patient care. With the severe shortage of CAPs across the state of Wisconsin, WICPCP can help PCPs effectively care for pediatric mental health cases despite the lack of CAPs and expanded utilization across the state by PCPs should be encouraged.

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## **Medical Student: Ryan Gassner**

**Project Title:** Assessing Opioid Addiction Treatment in Marathon County

**Community Mentor:** Jerry Wistein, Wausau Comprehensive Treatment Center

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Purpose:** The purpose of this project was to survey the patient population at the Wausau Comprehensive Treatment Center (WCTC) to assess demographic information, their relationship with primary care providers, and their experience with the Treatment Center. This information will ultimately be used to increase physician awareness of the WCTC.

**Methods:** A survey was distributed to clients of the WCTC to assess their demographic information, experience with the WCTC, relationship with primary care physicians, and how addiction treatment has affected their lives. 92 responses were received.

**Results:** 63% of respondents report a household income less than \$25,000 per year, while 60% of respondents spent greater than \$5,000 per year on opioids before seeking treatment. 66% of respondents see a primary care provider regularly, while 33% do not. 53% rarely or never discuss addiction at doctor's visits, while 61% feel it is extremely or somewhat important for PCPs to ask about addiction. Only 8% of respondents were referred to the WCTC by a PCP. 87% of respondents were somewhat or extremely likely to recommend the WCTC to someone who is struggling with addiction.

**Conclusions:** There is room for improvement to increase PCP referrals to the WCTC. Addiction is an important topic to discuss in PCP visits, but many clients do not talk about addiction in these visits for a variety of reasons. The majority of clients recommend the WCTC to others struggling with addiction.

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**Medical Student: Jesslyn Hendrickson**

**Project Title:** Influenza and COVID-19 Vaccine Outreach in Hmong and Hispanic Populations of Central Wisconsin

**Community Mentor:** Mariana Savela and Jennifer Banarez, Hmong and Hispanic Outreach Network (H2N)

**MCW-CW Collaborator:** Corina Norrbom, MD and Amy Prunuske, PhD

**Purpose:** There is widespread vaccine misinformation in the Hmong and Hispanic communities of Central Wisconsin during the COVID-19 pandemic, leading to vaccination rates at 23% in Hispanics and 29% in Asians for influenza. This is below the Wisconsin average of 41%. Vaccination rates for COVID-19 in Hispanics is at 47% and 59% in Asians with the Wisconsin average being 55.5%. It is important to note that the Hmong community is the predominant Asian population in Central Wisconsin, making up 12% of the population. Through community liaisons from the Hmong & Hispanic Outreach Communication Network (H2N), we plan to improve vaccination rates for influenza and COVID-19 by providing cultural and reading-level appropriate educational content on the associated vaccines.

**Methods:** Surveys were created for community liaisons for each population evaluated. Questions examined ethnicity of respondents, prior influenza or COVID-19 vaccination status, likelihood of obtaining one or both vaccines pre- and post-vaccine education, and free response for reasons of vaccine hesitancy to create pertinent educational content. Surveys were completed by the community liaisons and verbally given to avoid problems with illiteracy. In addition, reported ethnicities of individuals presenting to pop-up clinics were taken and evaluated for post-education vaccination turn out.

**Results:** In the Hmong population, 101 surveys were completed. 88.1% stated that they planned on receiving a COVID-19 and/or influenza vaccine prior to education and outreach. In the Hispanic population, 45 surveys were completed. 64.4% stated that they planned on receiving a vaccination prior to outreach. After outreach and education, targeted pop-up clinics showed that 40.4% of those presenting for influenza vaccinations were Hispanic, 30% were Hmong, and 29.6% identified as other out of 402 total. For COVID-19 vaccinations, 42.2% were Hispanic, 32.8% were Hmong, and 25% identified as other out of 866 total.

**Conclusions:** Survey results displayed that increasing outreach and vaccine education in the Hmong and Hispanic communities increased influenza and COVID-19 vaccination rates in Hispanic populations and increased vaccination rates for influenza in Hmong populations. With the COVID-19 pandemic and annual occurrence of influenza, it is important to improve vaccination rates in these populations to improve health outcomes. Further outreach and education will be necessary to continue improvement.

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## **Medical Student: Sadie Jackson**

**Project Title:** Covid Hope Project: The Outcomes of Collaboration and Art in Community Healing

**Community Mentor:** Christin Keele, Rise Up Central Wisconsin, Inc.

**MCW-CW Collaborator:** Corina Norrbom, MD

**Purpose:** Modeled after the non-profit program Porch Light in Philadelphia, PA, Rise Up Central Wisconsin aims to promote community engagement, education, and healing through art. To achieve this goal, there are three phases of community engagement during mural development: 1) Rise Up volunteers engage with a community cohort through workshops to facilitate relationship-building and idea sharing. 2) Rise Up artists create imagery in the form of a mural that summarizes workshop contributions. 3) The mural is generated during community paint days, where participants can learn about the mural's topic and help paint the mural's base. Rise Up plans to develop several smaller "COVID Hope" murals that incorporate stories from the community about the impact of the COVID-19 pandemic. The purpose of this study was to assess participant demographics and qualitatively measure the impact that community-based collaboration and creativity has on community connection during the pandemic.

**Methods:** Pre- and post-participations surveys were created for community members engaged in mural development. The pre-participation survey QR code was distributed as part of an informational flier during a community paint day at the Moving Experience in May 2021.

**Results:** 11 responses were received for the pre-participation survey. Participants overall reported feelings of involvement with and connection to their community and a sense of hope for the future. COVID-19 restrictions interrupted the mural development process and therefore further evaluation was not able to be done.

**Conclusions:** This preliminary community participant data provides a baseline for assessing if Rise Up is achieving its goals to promote community connection and may help inform future project development and grant applications.

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**Medical Student: Sara Johnson**

**Project Title:** Creating a Standardized Report Form for Central Wisconsin School Nurses

**Community Mentor:** Jeff Lamont, MD, Marshfield clinic and Laura Beranek, BSN, RN

**MCW-CW Collaborator:** Corina Norrbom, MD

**Purpose:** Central Wisconsin School Nurses (CWSN) is a growing group of over 20 school nurses who meet regularly to help one another solve health-related concerns of their respective districts. Many school nurses have a similar concern regarding end-of-year review of health data and emergency services. Without accurate data, administrations and community stakeholders are not informed on current health trends and school nurses may be left without necessary support. A standardized report form for use among CWSN could simplify and organize data submission to the Wisconsin Department of Public Instruction, encourage more frequent communication of health trends and needs to district administration, and maintain compliance with Wisconsin state statutes.

**Methods:** An electronic pre-survey was made available to nurses in the Central Wisconsin School Nurses group (n=22) to evaluate individual school nurses' methods of health trend tracking. Information gained was subsequently utilized to develop a standardized report form. Following implementation of the form a post-survey to assess the form's usefulness was to be administered.

**Results:** School nurses in central Wisconsin do not uniformly report individual school district health trends and needs. Pre-survey results indicated that 24% of the nurses do not fully understand state requirements to report district health data. 29% do not report district health data at least annually. 47% do not have effective method for data tracking and reporting. 88% feel effective in communicating to administration and community stakeholders.

**Conclusions:** School nurses in central Wisconsin struggle with reporting health data and have difficulty complying with state reporting statutes. Based on their input, a standardized reporting form has been developed. The next step is to implement utilization of the form and evaluate usefulness through a post-survey.

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**Medical Student: Alexandra Kershner**

**Project Title:** The Babies' Place: Addressing Diaper Need in Central Wisconsin

**Community Mentor:** Donna Ambrose, The Neighbor's Place

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Purpose:** More families than ever lack access to diapers leading to a public health crisis. Diaper need is a basic need and is defined as an inadequate supply of diapers to change a child as often as needed. 1 in 3 families struggle to provide clean diapers for their babies. Yet, there are no federal programs to assist with diaper needs and diapers cannot be purchased with Supplemental Nutrition Assistance Program (SNAP) benefits. Diapers are essential to a baby's healthy development and are key to providing a solid foundation for children to reach their full potential. In addition, an insufficient supply of diapers negatively impacts maternal mental health by diminishing maternal sense of competence and increasing maternal stress. In Wisconsin, 8 diaper banks struggle to keep up with increased diaper need – none of which are within 100 miles of Wausau. In spring of 2020, The Babies' Place, diaper and feminine hygiene bank, opened in Wausau, Wisconsin to address diaper need in Central Wisconsin. The Babies' Place has formed community partnerships to increase awareness and distribute resources. There are now over 100 families registered with the program.

**Methods:** To address diaper need in the Wausau area, we sent a survey to families who service local daycares, the Hmong American center, and Head Start. To increase awareness and outreach, a pilot program is being developed with a local health system. Our goal of the pilot program being part of the pediatrics department is families will get screened for diaper need, be able to receive diapers at their appointment, get connected to The Babies' Place for immediate and long-term support, and create stronger connections between resources, providers, and patients.

**Results:** Survey results assessing the diaper need in the Wausau community shows around 50% of respondents experience a financial burden from money spent purchasing diapers every month. Personal needs and clothes are top items parents forego to afford diapers.

**Conclusions:** Survey results show diaper need is present within Central Wisconsin. Next steps for The Babies' Place pilot program include increasing awareness, assessing the diaper bank community impact, and evaluating the pilot program's effectiveness and possible expansion into other locations or specialties.

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**Medical Student: Sofie Kjellesvig**

**Project Title:** Voices of Wisconsin students: learning, coping, and building resilience during COVID-19

**Community Mentor:** Sharon Belton, PhD, Wisconsin Institute for Public Policy, and Brooke Davis, D.C. Everest Area School District

**MCW-CW Collaborator:** Corina Norrbom, MD and Amy Prunuske, PhD

**Purpose:** Adolescent mental health is already a significant public health concern. This project was developed to assess how changes to WI students' school environments during the COVID-19 pandemic have affected teens' learning and their mental health. We also wanted to look at ways that students are coping and whether they feel they have sufficient resources. Finally, we hoped that teens would feel less alone after hearing from peers and like adults were listening to their voices on this issue.

**Methods:** MCW-CW partnered with WIPPS Research Partners to conduct 23 virtual focus groups with 160 students in December 2020 and January 2021. The groups were separated into middle and high school cohorts, but otherwise included students from multiple grades at different schools across the state. Students were asked about the challenges they faced this year, how they coped, and about any positive outcomes they may have experienced. Afterwards, they were provided a link to an optional anonymous survey regarding how they felt after participating.

**Results:** Students reported themes of isolation, difficulty managing their mental health (along with new challenges in getting help for this), and feeling disconnected from their peers and teachers. Students also described new coping strategies and resilience. Survey results indicated students felt that their voices were heard and their mental health was positively impacted by participating. Additionally, open-ended survey feedback suggested that many students felt less alone after hearing about others' experiences and they gained unique perspectives about how peers across the state were experiencing the pandemic.

**Conclusions:** As a medical student, being extensively involved in this project allowed me to learn about effectively engaging with teens about mental health. The virtual groups also allowed teens to feel heard and to hear about experiences both like and unlike their own, which some students indicated allowed them to gain perspective and feel more connected. These benefits that students experienced in addition to the unique breadth of data gathered support the idea of potentially using groups of this nature to address other teen health concerns.

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## **Medical Student: Chloe Lang**

**Project Title:** Advocates in Medicine Pathways: Addressing provider shortages of Central Wisconsin rural & Hmong populations

**Community Mentor:** Sheng Khang and Nicole Thill, North Central Wisconsin Area Health Education Center

**MCW-CW Collaborator:** Amy Prunuske, PhD and Corina Norrbom, MD

**Purpose:** MCW-CW aims to address the health care provider shortage by training community-focused physicians that will serve the healthcare needs of Central Wisconsin. Wausau is home to a predominant Hmong and rural population, both of whom are greatly underserved in medicine. Literature suggests that placing a medical school near target populations is not sufficient to help under-represented students successfully navigate the medical school admissions process.

**Methods:** The Advocates in Medicine Pathway (AMP) was developed to support the professional development of undergraduates from Wisconsin interested in attending medical school at MCW-CW. Programmatic elements aimed to contribute to a successful medical school application and help address barriers that underrepresented students in medicine encounter when applying to medical school. Students were surveyed throughout and following the program to determine its efficacy.

**Results:** The first cohort of AMP was comprised of 10 students and ran from January-July 2021. Students completed a 1-week clinical job shadowing experience, participated in 8 medical school advising sessions, completed a “Wicked problems” seminar course, and completed an 8-week public health internship. The first cohort was comprised of 7 women and 3 men, and 7 individual of Hmong background and 3 individuals of rural background.

**Conclusions:** Participating students believed that AMP provided tools, information, and opportunities that were beneficial in their efforts applying to medical school. For future cohorts, AMP is looking to add MCAT prep support, create a one-on-one mentorship component with current medical students, and to continue to track participants success as they apply to medical school.

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**Medical Student: Eric Lee**

**Project Title:** Assessing the Medical Needs of the Central Wisconsin Hispanic Community

**Community Mentor:** Jeffrey Todd, Wausau Free Clinic

**MCW-CW Collaborator:** Corina Norrbom, MD

**Background:** The Wausau Free Clinic (WFC) was originally developed to serve homeless patrons of Wausau’s seasonal warming shelter. In Fall of 2021 they opened their doors to uninsured and underinsured people in the general public, a substantial proportion of which have come from the Hispanic community. The purpose of this project was to evaluate demand for specific medical services within the Central Wisconsin Hispanic population so that the WFC can best serve this population.

**Methods:** Participants were recruited from Hispanic community events and pop-up vaccination clinics targeting rural Hispanic populations in Central Wisconsin. Individuals completed a written or online survey. The survey contained questions regarding general demographics, access to insurance, use of medical services and what specific services were thought most valuable to them and their community.

**Results:** A total of 26 surveys were completed. Participants were 65% male, 35% female with ages from 18 to 69 (mean age range 26-36). Approximately 30% were insured vs 70% uninsured. Two-thirds of the uninsured had seen a provider in the last 12 months. The most common reason for seeking a provider was for acute illness or injury (80%). Desired services included acute injury and illness (55%), treatment of hypertension (38%), high cholesterol (25%), and diabetes (21%) and women’s health services (22% of female participants).

**Conclusions:** Acute care services are the most valued by members of the Central Wisconsin Hispanic Community. As the WFC expands as a part of the Wausau Community Partners Campus, however there is a need for maintaining affordable and accessible care for acute illnesses and injuries and for management of chronic illnesses. Future research could explore the cultural and socioeconomic factors influencing lack of emphasis on routine care in this community, plus education to improve attitudes towards preventative care.

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## Medical Student: Olivia Newgaard

**Project Title:** A Medical Student Near Peer Mentoring Program Designed to Mitigate Adverse Childhood Experiences in High School Students

**Community Mentor:** Dr. Shannon Young, Ed.D., Enrich, Excel, Achieve Learning Academy

**MCW-CW Collaborator:** Amy Prunuske, PhD and Jeffrey Fritz, Ph.D

**Purpose:** Adverse Childhood Experiences (ACEs) are events or actions experienced by a child before the age of 18 that fall within three categories: abuse, neglect, and household dysfunction<sup>1</sup>. Standardized ACE scores can be calculated and have been proven to significantly affect future health outcomes. However, resiliency, defined as “the capacity to adapt successfully to challenges that threaten function, survival, or future development” has shown to be a protective factor against ACE-associated mental and physical health outcomes. A medical student led initiative was developed in collaboration with Enrich, Excel, Achieve Learning Academy (EEA) as a near peer mentoring program for high school student with traditionally high ACE scores. The purpose was to foster positive relationships while developing social and emotional skills to promote resiliency with the intent to mitigate high ACE scores.

**Methods:** Twenty-five students from EEA were identified and assigned to a medical student mentor for a year-long mentoring relationship. The pair met monthly in person or via a virtual video platform. Monthly materials were provided to each medical student mentor to help facilitate the monthly meetings.

**Results:** Survey results show the goal of creating positive longitudinal relationships was achieved. Before the mentoring program, 55% of the EEA students felt that had someone to reach out to for support compared to 78% during the mentoring program. 78% felt they could contact their mentor for anything, 89% felt their mentor was a safe person to talk to, and 100% stated they felt their mentor was a reliable person in their life.

**Conclusions:** The near peer mentoring program had a positive impact on fostering positive relationships and resiliency skills with students who have high ACE scores. This program is easily adoptable to environments with community engagement efforts focused on mitigating ACES among high school learners.

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## **Medical Student: Marissa O'Hair**

**Project Title:** Recipes for increased food literacy and fresh produce utilization among pantry attendees

**Community Mentor:** Ben Lee, United Way of Marathon County Hunger Coalition

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Purpose:** Much of the produce donated to The Neighbor's Place is a unique variety not commonly known in Midwestern Wisconsin. According to observations by the United Way of Marathon County Hunger Coalition, both food literacy and complete usage of received produce was not being obtained. To reduce food waste and excite pantry attendees about healthy eating, an analysis of common produce at The Neighbor's Place was completed. From that data, recipes were created along with data compiled on storage and preservation of said produce.

The goal of this project was to create a printed recipe booklet for distribution to the attendees of The Neighbor's Place in Wausau, Wisconsin. This goal was modified due to the COVID-19 Pandemic to a website and a printed booklet, with the printed booklet being withheld for a later date of distribution.

**Methods:** Attendees of The Neighbor's Place received QR code flyers in their pre-packaged food kits. They were encouraged to scan the code which would bring them to a website of recipes and link to a short Qualtrics Survey. The survey was incentivized with the chance to win small kitchen appliances.

**Results:** Inconclusive due to lack of data and the barriers of the COVID-19 pandemic.

**Conclusions:** As the multi-year pandemic comes to an end and The Neighbor's Place completes its transition to its new location, more data will be gathered and exposure to the recipes will increase. With feedback from the current version of the website and printed booklet, recipes can continue to be added and/or modified. At the Grand Reopening of The Neighbor's Place, trained volunteers, Ben Lee, and Marissa O'Hair plan to personally distribute copies of the printed recipe book to encourage its use.

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**Medical Student: Meghan Peterson**

**Project Title:** Barriers to Healthcare Utilization for Migrant and Seasonal Agricultural Workers

**Community Mentor:** Netzali Pacheco Rojas, Family Health La Clinica

**MCW-CW Collaborator:** Corina Norrbom, MD

**Background:** Migrant and seasonal agricultural workers (MSAWs) have historically experienced poorer health outcomes in concurrence with many barriers to healthcare access. A previous study conducted in 1978 and 1989 interviewed MSAWs in Wisconsin. These data suggest perceived lack of illness, hesitancy to bother a physician, and lack of financial resources were the most common barriers to healthcare utilization.

This study was conducted in 2021 among Wisconsin MSAWs in partnership with the same federally qualified health center (FQHC) used to collect data from the 1970s and 1980s. Lack of financial resources, perceived lack of illness, hesitancy to bother a physician, and lost wages from work were the most common barrier to healthcare utilization in 2021. All barriers to healthcare were reported with a lower frequency compared to previous data except for lack of financial resources.

**Methods:** Thirty-eight participants were interviewed at mobile health clinic at employee work camps in seven Wisconsin counties in September and October 2021. Informational letters and surveys were distributed in both Spanish and English. Participants were given the option to answer questions orally or in writing.

**Results:** Participants' lack of financial resources was the most reported barrier to healthcare access, which increased from 19.5% in 1989 to 23.7% in 2021. Perceived lack of illness decreased from 44.2% to 21.1%. Hesitancy to bother a physician also decreased from 25.7% to 7.9%.

**Conclusions:** Access to affordable healthcare continues to be a relevant barrier for migrant and seasonal agricultural workers in the state of Wisconsin. Perceived lack of illness has decreased among this population over the last 40 years but remains a common barrier to healthcare utilization.

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**Medical Student: Cody Schreiner**

**Project Title:** Assessing Clinical Outlook through Consultation of Wisconsin Child Psychiatry Consultation Program

**Community Mentor:** Dr. Gabrielle Hangiandreou, WI Child Psych Consult Program

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Purpose:** Prior to the COVID-19 pandemic, it was estimated that 11.6% of pediatric patients suffered from clinically significant anxiety and 12.9% from depressive symptoms. Those numbers have since risen to 20.5% and 25.2%. The lack of practicing child and adolescent psychiatrists (CAPs) across America exacerbates this need, particularly in our state of Wisconsin where 48 of 72 counties have no child psychiatrist<sup>2</sup>. Primary care consultation programs like Wisconsin Child Psychiatry Consultation Program (WICPCP) have been initiated to assist primary care practitioners (PCPs) in managing pediatric mental health care cases via phone and email consultation with certified CAPs.

**Methods:** Data obtained through WICPCP post-consultation surveys from April - November 2021 via emailed satisfaction surveys following consultation. The survey utilized a 5-point Likert Scale (Strongly Disagree - Strongly Agree) for most questions. A qualitative, select-all-that-apply question with free response was also used to assess provider options had WICPCP not been available to them.

**Results:** 242 surveys were completed from 147 unique providers. 98.4% of providers reported that CPCP led to more effective patient care, 68.7% felt they prevented referral or hospitalization, 69.5% believed CPCP supported diagnosing their patient or changing medications earlier than without WICPCP, and 46.5% believed the consultation prevented self-harm or suicide attempt. Without WICPCP, 48.3% of providers would have referred their patient to mental health, 35.1% would have consulted another professional, and 35.1% researched on their own.

**Conclusions:** Our survey shows that PCPs believe WICPCP is a valuable resource in helping manage complicated cases and improving patient care. With the severe shortage across the state of Wisconsin, WICPCP can help PCPs effectively care for pediatric mental health cases despite the lack of CAPs and expanded utilization across the state by PCPs should be encouraged.

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## **Medical Student: Andrew Sepiol**

**Project Title:** AHmong Us Mentorship Program

**Community Mentor:** Nkauj Khang, Sheng Khang, and Mang Xiong, Hmong American Center

**MCW-CW Collaborator:** Corina Norrbom, MD

**Background:** Health disparities exist for minority patients. Multiple factors may contribute to worse health outcomes. One way to improve health care delivery is to increase the probability that people from minority communities see doctors and other health care professionals of their race or ethnicity. Wausau has the highest density Hmong population in Wisconsin, with 12% of residents identifying as Hmong, but Hmong health professionals are significantly underrepresented.

**Methods:** Through a partnership with school personnel, an informational flyer was shared with Hmong high school students interested in health careers. 10 Hmong students from 4 local high schools applied and were accepted into the program. AHmong Us teens met virtually with a medical student mentor from the Medical College of Wisconsin-Central Wisconsin 7 times during the Spring 2021 semester. Hmong Community Coordinators assisted. Education was provided about topics such as selecting a college and writing an application essay. Participants met health professionals and were given opportunities to volunteer with community health workers doing vaccine outreach. A focus group was conducted upon completion of the program.

**Results:** Of the initial 10 participants, 9 completed the program and 6 participated in the focus group discussion. The students reported that they felt the sessions helped them feel more comfortable writing an essay and the process of applying to college, interest in health professions, and the Advocates in Medicine Pathway program increased. They appreciated the introduction to MCW-CW.

**Conclusions:** AHmong Us is a promising model to provide mentorship for and build confidence in aspiring Hmong healthcare professionals.

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## **Medical Student: Tommy Voss**

**Project Title:** Increasing the Awareness and Addressing the Satisfaction of the Women Infant and Children (WIC) Program

**Community Mentor:** Jessica Scharfenberg, HealthFirst Women, Infant and Children Program

**MCW-CW Collaborator:** Corina Norrbom, MD

**Purpose:** The purpose of this project was to spread the awareness of the WIC program to the Wausau community and beyond. The goal was that eligible individuals would see materials around Wausau and be able to join the program. With these goals in mind, referrals were monitored over time to examine how people were hearing about WIC. Additionally, WIC satisfaction survey results were evaluated.

**Methods:** Using the individual handouts from HealthFirst, materials were delivered to Wausau businesses and the surrounding communities. These businesses and locations included, but were not limited to, food pantries, churches, emergency housing, and physician offices. Additionally, WIC satisfaction surveys were evaluated to address the perceived effectiveness of the program and to see if there was anything WIC could improve upon.

**Results:** In comparing referrals from 2019-2021, referrals from relatives, individuals on WIC previously, and referrals due to seeing a brochure stayed relatively constant. The area that saw improvement in all 3 years was referrals from physician offices.

**Conclusions:** WIC is a supplemental nutrition program that can have an immense impact on a large group of people. In monitoring referrals to WIC from 2019-2021, referrals from relatives continues to be the largest group. There was also widespread satisfaction with the program. Moving forward, individual presentations given to local physicians about WIC and the services provided may continue to increase referrals going forward.

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## **Medical Student: Eric Weaver**

**Project Title:** Medicine in Real Life: Innovative Approach to Interprofessional Education

**Community Mentor:** Kate Kipp, University of Wisconsin – Stevens Point

**MCW-CW Collaborator:** Amy Prunuske, PhD

**Purpose:** Social workers are integral healthcare team members with many areas of expertise outside the scope of physicians. Despite extensive professional interactions, social workers are often overlooked for interprofessional education (IPE) experiences with medical students.

**Methods:** A team was assembled including 1 social work (SW) professor, 1 SW student, and 6 allopathic medical students to develop an optional interprofessional learning series for medical and social work students. SW students could explore an interest in clinical social work. Medical students would gain appreciation for the value of social workers. Both parties would develop mutual respect.

This project is being piloted in early iterations. Key aspects of project design include casual introductory meetings over food, MD/SW educator facilitator guidance, a simulated clinical case with standardized patient, subsequent reflection, and a pre/post participation evaluation of interprofessional competency with a validated survey, the Interprofessional Collaborative Competency Attainment Scale (ICASS).

**Results:** Stakeholder interviews were conducted (n=48). Interviewees consisted of medical students and educators (n=25), social work faculty and students (n=9), family medicine residents (n=8), and miscellaneous content experts (n=6). From these interviews, we learned that students would prefer a more human-centered approach to IPEs where they could get to know their interprofessional partners. Areas of interest to students were identified. Preliminary verbal feedback indicates students do prefer the novel IPE approach.

**Conclusions:** We anticipate students will develop improved collaborative competency and comfort. Additionally, we expect students to prefer this novel approach to IPE where they first develop appreciation for interprofessional partners as humans before working together as professionals-in-training.

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**Medical Student: Emelyn Zaworski**

**Project Title:** Language Environment Analysis Start Participation and Long-term Effects on Parental Literacy Promoting Behaviors

**Community Mentor:** Nicole Tank, Children's Wisconsin

**MCW-CW Collaborators:** Amy Prunuske, PhD and Corina Norrbom, MD

**Purpose:** Language ENvironment Analysis Start (LENA-S) is a community-based program that provides ten to thirteen weekly educational sessions for parents of children ages birth to three years. During meetings, facilitators guide parents through standardized content focused on developing speech and reading skills in children. The goals of this study were to ascertain whether parents who participated in LENA-S would continue using techniques they learned and if LENA-S participants engaged in more literacy promoting behaviors than parents who had not participated in LENA-S.

**Methods:** One LENA-S location was studied. All participants from this location at least one-year post-participation were eligible for participation. Those identified as eligible were emailed the study survey. Control, LENA-S naïve, parents were sent a cognate survey disseminated by early childhood education agencies located within the same county. The survey included sections relating to reading and speech. Survey sections were similarly formatted using Likert style questions. Questions assessed parental modeling and parent-child interactions. The Wilson method was used to calculate binomial confidence intervals. Non-pooled, one-tailed T-tests were used to compare between LENA-S and control groups with significance at  $\alpha=0.05$ .

**Results:** A majority of LENA-S parents still used LENA talking tips greater than one year after program participation (33 of 38 [86.8%];  $P<0.05$ ; 95% CI 72.7-94.3). Likert scores were statistically significantly higher on average for LENA-S participants than control parents for the reading portion of the survey (2.84 vs 2.55;  $P=0.012$ ) and the survey overall (2.88 vs 2.64;  $P=0.003$ ).

**Conclusions:** LENA-S engagement strategies were still being used by participants even one year after program participation. Furthermore, LENA-S participation appears to benefit parental engagement in literacy promoting behaviors, particularly reading. In the future, other LENA-S sites should be evaluated for similar results. Additionally, another study could evaluate how to increase program benefits for speech development.

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# *Community Engagement Awards*

The Community Engagement Award was established to help the students invest in the community and has been generously supported by Dr. David and Mary Ann Lillich, Incredible Bank, and the Dan Storey Foundation.

This fund will help support the following projects in the upcoming year:

- Jennifer Backus – Meeting the Nutritional Needs of Families Who Have a Family Member with Down Syndrome
- Lauren Beranek and McKenzie Borkovec – Ongoing Analysis of Pap Smear Guidelines in High-Risk Populations
- Katherine Ernste – Health Disparities for the Spanish Speaking Populations at the Free Clinic
- Jaclyn Schneider – Art for Dessert: The Effect of Art Kits on Depression Scores in Wausau's Elderly Population
- Celine Scholin – DC Everest Senior High Wellness Day
- Dana Warwick and Haley Daigle – Improving Healthcare for Individuals with Intellectual Disabilities
- Nick Weiler – MCW in the Hmong Gardens

**We would like to thank our many community partners, teachers and mentors, as well as the Physicians in the Community Advisory Board for their time and input!**

*Physicians in the Community Advisory Board:*

- William Harris – Wisconsin Judicare, Inc.
- Brian Gumness – BA & Esther Greenheck Foundation
- Mariana Savela – Hmong and Hispanic Communication Network
- Dr. Robert Gouthro – North Central Health Care/MCW Psychiatry Residency
- Katie Rosenberg – Mayor, City of Wausau
- HmongShee Khang – Hmong and Hispanic Communication Network
- Yao Yang – The Cross Church, The Gospel TLC
- Sue Smith – Wood County Health Department

## *Teaching Pins*

**MCW Teaching Pins recognize excellent teachers that advance medical students' learning and support the core missions of teaching and engagement in the community. The following outstanding medical student teachers have been recognized by the MCW Curriculum and Evaluation Committee for 2020-2021.**

- Dr. Michael Clarke, MD
- Gwen Taylor
- Dr. Jeffrey Oswald, MD

**If you would like to contribute to the Community Engagement Fund to assist future students with their community engagement projects, please contact:**

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*Thank you for your support!*

Corina Norrbom, MD  
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