



MCW

Central Wisconsin

*Physicians in the Community  
Scholarly Pathway*



**Student Project Showcase**

September 18, 2019

UW Center for Civic Engagement



## **Physicians in the Community Scholarly Pathway**

Our goal is that all the students who train on the Medical College of Wisconsin-Central Wisconsin regional campus will be 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 have forged relationships with community members across many professional disciplines and have explored local health priorities. In partnership with community mentors, the students have identified community needs, collaborated to design appropriate methods, and developed presentations to share their results. Many of the students are building upon projects started by previous medical students and we anticipate the 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 we anticipate will return to live and work in Central Wisconsin communities.

Gratefully,

Handwritten signature of Lisa Dodson, MD.

Lisa Dodson, MD  
Campus Dean

Handwritten signature of Corina Norrbom, MD.

Corina Norrbom, MD  
Course Director

Handwritten signature of Amy Prunuske, PhD.

Amy Prunuske, PhD  
Course Director

# Project Presentations

Poster Session: 5:00-6:00 pm

Program in Theater: 6:00-7:30 pm

## Welcome & Opening Remarks

Corina Norrbom, MD

## Student Project Presentations

- **Melissa Folstad**  
*The prevalence of ACEs by gender in individuals seeking substance abuse and addiction recovery*
- **Josh Shupe**  
*Health Management Psychology in 9th graders at Wausau East High School*
- **Hilary Steltenpohl & Alexa Ernst**  
*Mental Health Screening of D.C. Everest Junior High Students using the GAIN-SS*
- **Alex Haroldson**  
*Impact of Patient Opioid Agreements in Spinal Surgery*
- **Bekah Guthman, Catie Anderson, Madeline Klippel**  
*United Way Senior Wellness Program and its Effect on the Health of the Aging Population*
- **Liz Wendt**  
*PATCH (Providers and Teens Communicating for Health) Program Implementation in Central Wisconsin*

## Community Engagement Awards, Teaching Pins & Closing Remarks

Amy Prunuske, PhD

# Project Abstracts

## Medical Student: **Linnea Blomberg**

### 1. *North Central Wisconsin Healthcare Emergency Readiness Coalition Hospital Surge Test*

Community Mentor: Robert Deede, North Central Wisconsin Healthcare Emergency Readiness Coalition

MCW-CW Collaborator: Corina Norrbom, MD

For the past two years, the North Central Wisconsin Healthcare Emergency Readiness Coalition (NCW HERC) has conducted a coalition surge test (CST) simulating a hospital evacuation. This exercise was conducted as a requirement of the Assistant Secretary for Preparedness and Response (ASPR), an office within the United States Department of Health and Human Services and is to be repeated annually from 2018 to 2022. The goal of this exercise is to identify areas for improvement within a hospital's evacuation protocol by using critical performance measures. These measures include time for hospitals to report available beds, time to report available transport for patients and time for the evacuating facility to place all patients at a suitable facility depending on their acuity. Additional qualitative data was collected during an after-action review for exercise participants to identify what did and didn't go well during the exercise. For year one, Marshfield Medical Center volunteered to be the first facility to simulate this evacuation. Aspirus Wausau Hospital was the evacuating facility for the 2019 exercise. Both evacuating hospitals were successful in evacuating all required patients within the exercise time limits; however both exercises revealed logistic and staff knowledge gaps in hospital evacuation plans. These gaps will be addressed in future CSTs to hopefully foster a prepared and disaster ready North Central Wisconsin.

# Medical Students: **Alyssa Gardner & Anna Sudbury**

## *2. Factors Contributing to Low Volume of Foster Parents in Marathon County*

**Community Mentors:** Sara Klebenow and Julie Jensen, Marathon County Social Services

**MCW-CW Collaborators:** Dr. Corina Norrbom, Dr. Amy Prunuske, Rachel Reamer M2

**Purpose:** As the demand for foster care providers in Marathon County grows, it is critical to identify obstacles that hinder prospective foster parents from filling the need. We set out to uncover commonalities preventing people previously interested in fostering a child from completing the application or training process.

**Methods:** Three interviewers completed a total of 150 phone calls. Of the attempts made, a total of 20 verbal surveys were completed and simultaneously logged in the Qualtrics database. Data included how the person initially heard about foster care, what prevented them from continuing with the application/training process, and whether or not they are still interested in fostering.

**Results:** The surveys revealed general themes deterring people from completing the process including current family dynamics, desire for adoption, and time/scheduling restraints. Additionally, "word of mouth" seems to be the prevailing method by which participants originally heard about foster care.

**Conclusion:** The data indicates that although there are many possible ways to modify the application/training process, the predominant barriers for completion are intrinsic to the lives of perspective parents. There is a possibility that the verbal administration of surveys confounded results, but at this time it seems the most valuable allocation of resources would be to motivate perspective parents and encourage promotion of fostering to personal contacts. Future directions for this project include contacting other counties to see how they handle the low volume of foster care providers and potentially repeating data collection to perspective parents more anonymously.

# Medical Students: **Dennis Jilka** & **Josh Shupe**

## 3. *Health Management Psychology in 9th graders at Wausau East High School*

**Community Mentors:** Jessica Truax & Dr. Brad Peck, Wausau East High School  
**MCW-CW Collaborator:** Dr. Amy Prunuske

**Purpose:** Obesity is a prevalent and growing issue in our nation. If this trend continues unabated, it is predicted that half of our children will be overweight within the next generation and 86% of adults will be obese by the year 2030. With growing concerns for addressing obesity, movements are being established to address weight management in adolescents. Unfortunately, these interventions may be exacerbating student weight stigma by focusing on weight rather than healthy habits. Ironically, creating an overemphasis on shape and weight is associated with increased BMI and negative internalized health issues.

**Methods:** At Wausau East High School a one session intervention was ran in the 9th grade health class. The intervention focusing on healthier self-talk and how it effects one's health. A pre-test and post-test survey were given which measured emotional intelligence and body image. The data was analyzed as a paired T test.

**Results:** Out of the 28 students in the intervention group, we had 21 fill out the initial survey and 17 students at the end (vs. 19 pre-test and 19 post-test in the control). For the paired T test there was 11 students at both pre and post-test in the intervention and 13 students in the post test. The calculated P value was .30 in the intervention group.

**Conclusions:** There was no statistical difference found in the pre-test or post- test when comparing the same subject or the intervention vs the control group. The use of changing self-talk and evaluating emotional intelligence in this age group is a novel approach to this problem. We had issues with executing our originally intended 4 sessions over a semester without those extra sessions knowledge atrophy would have contributed to the results.

# Medical Student: **Alison Benda**

## 4. *Comparing Self Efficacy to Weight Loss Maintenance*

Community Mentor: Kelly O'Heron, Aspirus Wausau Cardiology/Ideal Weight Loss Clinic

MCW-CW Collaborator: Dr. Amy Prunuske

**Purpose:** Patients participated in weekly health coaching and followed a meal plan emphasizing low carbohydrate, low fat, and normal protein to promote weight loss. There was an average of 23% weight reduction in surveyed population. Previously uninvestigated, weight regain at 1 year after completion of weight loss program was examined in comparison to Self-Efficacy (initial metric) and the factors of Self Efficacy (secondary metric).

**Methods:** A chart review was conducted on 1112 patients who began the program in 2015 or 2016. Weight regain was calculated at 1-year  $\pm$  200 days from program completion. Participants were emailed a DIET-SE screener that calculates overall self-efficacy and breaks into three factors: High Caloric Food Temptations (HCF), Social and Internal Factors (SIF), and Negative Emotional Events (NEE).

Questionnaire scores were recorded using Qualtrics technology. Overall SE score and HCF/SIF/NEE scores were compared to weight regain.

**Results:** 1112 patients started the meal plan in 2015-2016. 726 participants were contacted and 173 returned survey (24% response rate). 68 that returned the DIET-SE screener met inclusion/exclusion criteria and were analyzed. Linear regression of DIET-SE on weight regain indicates that for one unit increase in overall self-efficacy score, weight regain is expected to have an average decrease of about 0.74 units (-0.74, p-value 0.0022). Linear regression of DIET-SE subscores are all negatively correlated with weight regain: HCF (-1.02, p-value 0.0708), SIF (-1.72, p-value 0.0067), and NEE (-2.14, p-value 0.0011).

**Conclusions:** Negative emotional eating played the greatest role of the three in creating lower self-efficacy (that corresponds with higher weight gain). DIET-SE questionnaire could be used to predict weight regain predisposition. Negative emotional events played a greater role in creating lower self-efficacy (strongest of the three factors to correspond with weight gain).

# Medical Student: **Melissa Folstad**

## 5. *The prevalence of ACEs by gender in individuals seeking substance abuse and addiction recovery*

Community Mentor: Daniel Shine, Lakeside Recovery at North Central Health Care

MCW-CW Collaborator: Drs. Amy Prunuske & Corina Norrbom

Though still not clearly understood, it is evident that having Adverse Childhood Events (ACEs) leads to significant mental, social, and physical outcomes in adulthood. This is of particular interest to rehabilitation facilities due to the connection between ACEs and high-risk behaviors like alcohol and drug abuse. Lakeside Recovery at North Central Health Care is one such 21-day rehabilitation program that has been collecting ACE questionnaires upon admission of individuals seeking addiction recovery. Knowing the connection between ACEs and substance abuse, this project focused on exploring the distribution of ACEs among this high-risk group. Specifically, it examined the total number of ACEs between the two genders, in hopes to better understand how adversities in childhood are affecting men and women differently (or similarly) in the Central Wisconsin community.

An unpaired t-test was performed between the total number of ACEs of the men versus the women who have utilized Lakeside Recovery's services, providing a p-value of 0.11. This is not statistically significant, and the null hypothesis, that there is no difference in the total ACEs between the two genders in this high-risk population, is supported. This is useful information for treatment facilities, particularly in Central Wisconsin, as it will help them better understand their target population and know that the prevalence of ACEs is equal among the two genders. Further research is indicated to identify any significant differences among the specific types of ACEs, which may provide information to tailor treatment for the individual seeking substance abuse and addiction recovery services.

# Medical Student: **Rachel Lange**

## *6. Healthcare for the Homeless*

Community Mentors: Pam Anderson & Dr. Jeff Oswald, The Warming Center

MCW-CW Collaborator: Drs. Corina Norrbom & Amy Prunuske, Ashley Dunton M2

Healthcare is becoming an increasingly difficult commodity to access, particularly for those with limitations to income and transportation. To this end, Wausau Free Clinic was established in 2018. It is our mission to serve the uninsured and underserved in the community who lack the resources to access the healthcare system.

Wausau Free Clinic was operational November 2018 through April 2019 for its first season. Patients were seen for 2 hours every Wednesday night, consisting primarily of guests at the Warming Center. Surveys were offered following visits, and anonymized data was collected regarding the conditions treated.

We saw 32 unique patients in 68 visits, with over half of the visits being related to musculoskeletal, respiratory, or dermatologic complaints. Survey respondents indicated that we were the only free clinic that they were making use of. A vast majority of survey respondents also indicated that they had no unmet healthcare needs following their visit.

Wausau Free clinic has created an avenue for individuals who otherwise would not seek out care, by fostering a personal relationship with the patients and building trust. In addition, the clinic has provided an additional safety net for individuals unable to afford other services. In the future, the clinic has plans to expand into a larger clinic serving additional underserved populations for whom it is a significant financial hardship to seek medical care, and to do so in a more permanent setting.

# Medical Student: Owen Krueger

## 7. *Evaluating the Impact of Community Correction Programming on Modifying Criminal Thinking Domains*

**Community Mentor:** Shawn Yeager, Alternative to Traditional Incarceration of Citizens (ATTIC)

**MCW-CW Collaborator:** Dr. Corina Norrbom

**Purpose:** Community Corrections Programs, such as ATTIC-Wausau, are alternatives to incarceration for offenses deemed by the court system to be mild in manner. This patient population is complex and diverse, and ATTIC is attempting to evaluate their program efficacy. Thus, we retrospectively analyzed criminal thinking domain scores from participants' pre and post-treatment surveys to analyze changes.

**Methods:** The TCU-CTS survey was administered to 120 ATTIC clients enrolling in the "Thinking for a Change" program from January 2015 - January 2018. This self-reporting question-based survey grades several established Criminal Thinking Domains, being Entitlement, Justification, Power Orientation, Cold Heartedness, Criminal Rationalization, and Personal Irresponsibility. The survey was then re-administered if clients successfully completed all treatment sessions. Pre-treatment and post-treatment TCU-CTS scores were then assessed to identify possible changes in criminal thinking domains after participating in the program.

**Results:** Score changes were assessed in each domain of the TCU-CTS survey of participants who both successfully completed the program and completed pre and post treatment surveys (n=28). These participants showed mean 4.89-point decrease in TCU-CTS score after treatment. All measured domains showed improvements, except for Cold Heartedness. The domain that improved the most was Justification, which showed a 2.25-point decrease on average ( $p=0.03$ ).

**Conclusions:** The ATTIC Thinking for a Change program successfully modified all participant domains except for Cold Heartedness. Participants with higher TCU-CTS pre-treatment scores in domains of Cold Heartedness, as well as with higher scores overall, are more likely to not complete the program. Further research needs to be completed with better follow up and using populations that are larger and more diverse before conclusive impacts of curriculum on criminal thinking domains can be determined.

# Medical Student: **Elizabeth Wendt**

## 8. *PATCH (Providers and Teens Communicating for Health) Program Implementation in Central Wisconsin*

**Community Mentors:** Nicole Thill, North Central Area Health Education Center. Kimberly Pufahl, The Women's Community, Inc.

**MCW-CW Collaborators:** Drs. Amy Prunuske and Corina Norrbom, Anna Bauman M2

Adolescents demonstrate a need for access to sexual health, mental health, and substance use counseling, but many report never having discussed these sensitive health topics with a healthcare provider. Healthcare providers are a reliable source of knowledge, but there is a critical gap in communication with adolescent patients. The PATCH (Providers and Teens Communicating for Health) Program aims to bridge communication gaps between adolescent patients and healthcare providers by facilitating open and honest conversations about sensitive health topics. In collaboration with the North Central and Northern Highlands Area Health Education Centers, The Women's Community, Inc., and local high schools, we were able to implement the PATCH program in Central Wisconsin. To do this, Teen Educators, a diverse group of students selected from local high schools, were hired to lead two types of workshops - one targeting peers and the other healthcare providers - in order to increase utilization of healthcare resources by young people and improve communication in the provider's office. After participating in a PATCH workshop, providers demonstrated increased knowledge of adolescent concerns and preferences and of best practices to ensure honest conversations about health history. Their understanding of minor's rights increased significantly. Teens demonstrated greater understanding of the importance of patient/provider communication and increased self-efficacy. Overall, there was significant improvement in the areas of provider and teen knowledge, self-efficacy, and behavioral intentions to seek and provide quality healthcare. Further, providers reported actual behavior change in how they interact with teen patients.

# Medical Students: **Rebekah Guthman, Catie Anderson & Madeline Klippel**

## *9. United Way Senior Wellness Program and its Effect on the Health of the Aging Population*

**Community Mentor:** Tony Omernik, RSVP Program at United Way of Marathon County

**MCW-CW Collaborators:** Drs. Amy Prunuske and Corina Norrbom

Individuals 65 and older comprises 16.9% of the population of Marathon county, and this percentage is expected to grow in the coming years. It is critical that their needs are evaluated and managed to maintain health and well-being. The goal of our project is to provide an opportunity for older adults to learn more about healthy aging and specific challenges that present to this population. We presented talks about three topics to seniors at the Biannual Senior Wellness Programs at the United Way of Marathon County and 3 senior apartment complexes with the mission to accomplish this task. Following each presentation, surveys were distributed to the participants. Survey questions included demographics and education level, satisfaction of program, topics of interest for future presentations, and their views on aging. The surveys showed that most participants had a positive view on aging and felt confident to navigate the changes of aging. Our project had certain limitations such as limited participants and a certain selection bias since those who attended already had an interest in healthy aging. Beyond the task of evaluating views on aging, we worked to facilitate socialization within each group and were able to build positive relationships with the United Way participants as well as residents at the senior living facilities. We had the opportunity to engage and educate seniors about navigating the changes that occur with aging as well as provide a means of community and engagement among seniors within the Wausau area, thus battling isolation within this specific population.

# Medical Student: **Shane White**

## *10. The Open Door of Marathon County: A Study on Recidivism*

Community Mentor: Linda Glazner, The Open Door of Marathon County

MCW-CW Collaborator: Dr. Amy Prunuske

**Purpose:** The Open Door aims to help recently released inmates from the Marathon County Jail or the Wisconsin prison system. Having hard data regarding their mission will allow the Open Door to improve their model and prove their worth to potential donors.

**Methods:** Data collection was performed using private Open Door logbooks containing the names and date of birth of individuals who have utilized their services. These names were cross-checked with CCAP, with the end data point being either "Recidivism" determined by the individual appearing in CCAP for a violation beyond a misdemeanor within one year of utilizing services provided by The Open Door, or "No Recidivism" for those who did not reappear within one year.

**Results:** 170/260 individuals (65%) identified as recently released from jail or prison were found in CCAP. Of the 170 found in CCAP, 62 had committed a crime within the year following their contact with Open Door, giving a one-year recidivism rate of 36%.

**Conclusions:** The largest issue facing The Open Door in their desire to analyze their client population is in their current methods of collecting data. In order for useful information to be obtained from their records, a percentage far greater than 65% must be discoverable on CCAP. This issue has been discussed with The Open Door staff and measures have been made to improve their record collection process. The 36% recidivism rate obtained is relatively close to the Wisconsin average. However, with such a small sample size and with so many individuals undiscoverable in CCAP, it is hard to accept this number as a significant value. A far greater sample size is needed before meaningful data can be interpreted.

# Medical Student: **Alexander Haroldson**

## *11. Impact of Patient Opioid Agreements in Spinal Surgery*

**Community Mentor:** Andrew Beaumont, MD/PhD, Aspirus Wausau Hospital Department of Spine and Neurosciences

**MCW-CW Collaborators:** Brenden Herrod M4 and Dr. Amy Prunuske

**UWSP Nursing Student:** Austin Gilbert

Opioid use and abuse have increased dramatically in recent decades, garnering considerable attention as to best practices in management, treatment and prevention. There is a need to investigate the impact of Patient Opioid Agreements (POAs). The medical community at large is still determining the best practice for implementation and effectiveness. Concerns have been raised about impact on the patient-physician relationship, and whether the time investment is beneficial.

This retrospective chart review investigated opioid usage for 12 months following spinal surgery at Aspirus Wausau Hospital for 38 patients with no POA in place and 40 patients who signed a POA. Average daily morphine-equivalent opioid usage and the number of patients taking an opioid were quantified at 6 weeks, 3 months, 6 months, and 12 months post-surgery. Additionally, the average cumulative morphine-equivalent opioid usage over 12 months following surgery was quantified. Datasets were analyzed using unpaired, one-tailed t-tests, and variance was assessed using standard error.

The results of this study suggest that patients under a POA take less opioids and for a shorter duration following surgery. The average daily morphine-equivalent dose was significantly less for POA patients 3 months following surgery (3.6mg vs. 9.1mg,  $p = 0.043$ ). There was a trend that at 12 months the average cumulative opioid was less for POA patients (2188mg vs. 3819mg,  $p = 0.059$ ). Fewer patients with a POA were taking any form of an opioid at all time points.

The data supports that POA usage after elective surgery can help reduce the amount and duration of opioid use. The exact mechanism by which POAs influence opioid use is not clear. Possibilities include improved patient education, increased accountability among clinical staff to increase the rate of medication weaning, and epiphenomenon related to increased public and professional awareness of the opioid problem.

## Medical Student: **Aaron Weaver**

### *12. The Impact of Mentorship on Students with Adverse Childhood Events (ACEs) and Their Future Success*

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

**MCW-CW Collaborators:** Drs. Jeff Fritz and Corina Norrbom, Courtney Schwebach M4, Krysten Rutzinski M2

Adverse childhood events (ACEs) have been linked to numerous negative health outcomes throughout life and have specifically been shown to set kids on an unhealthy trajectory that affects the rest of their lives. Mentorship however may be able to alleviate some of these effects. To better elucidate this idea, we partnered with EEA Learning Academy, a school in the Wausau School District for at-risk kids who have struggled in the traditional school setting. Medical students from MCW-CW were recruited to serve as a mentor to kids at the school. We surveyed kids both before and after mentorship about their attitudes toward school, themselves, and life in general. We also surveyed mentors at the end about their attitudes and how mentorship affected them. Differences between mentored and unmentored students were not statistically significant due to small sample size. However, there were trends which indicated students were impacted positively by mentoring. Additionally, the data suggests kids who possess more ACE's may be less responsive to mentorship. Mentorship also appeared benefit the mentors.

# Medical Student: **Boris Berman**

## 13. *The Joseph Project*

**Community Mentors:** Chaplain Ray Slatton, Pastor Yauo Yang, Ann Micholic, Kolbe Windows & Doors

**MCW-CW Collaborators:** Christopher Zeman M4, Aleksander Downs M2, Drs. Corina Norrbom and Amy Prunuske

**Purpose:** Unemployment is associated with poor health outcomes such as depression, obesity, and increased usage of drugs and alcohol. We propose that reducing unemployment rates for individuals with barriers-to-hire, such as ex-convicts and those in substance abuse recovery, can lead to improved health outcomes and increased utilization of health insurance. The purpose of our study was to track employment and retention, as well as health insurance coverage for Joseph Project participants pre and post-employment.

**Methods:** The Joseph Project is a 4-day class with courses consisting of personal financial management, conflict resolution, time management, and interviewing skills. Joseph Project course graduates are guaranteed an interview with a local partnering employer. Employment and retention outcomes were assessed by measuring employment turnover and average days worked.

**Results:** Over the course of eight classes we graduated fifty individuals from the Joseph Project. Thirty-eight were hired with an average of one-hundred-and-fifty-seven days worked. Eight continue to be employed. 54% of our class participants were not insured before employment. 31% were on Medicare/Medicaid/Badgercare.

**Conclusions:** The Joseph Project Wausau has been successful in getting class participants jobs but there is significant difficulty with employee retention. Our future plans are to evaluate how to improve the program's employment retention rates and to further demonstrate that by facilitating employment, the Joseph Project Wausau leads to subsequent improvements in health outcomes.

## Medical Student: **Joshua Denk**

### *14. Effect of Mentoring and Guidance Interventions on Academic Performance and Behavior in Adolescents*

Community Mentor: Patty Zemke, Wausau School District

MCW-CW Collaborator: Drs. Amy Prunuske and Corina Norrbom

At-risk youth are susceptible to many of society's problems. This population is more likely to develop problems with drug abuse, crime, unemployment, and increased utilization of the healthcare system, making childhood an opportune time to intervene. In this project, we attempted to evaluate the effectiveness of a mentoring and guidance program that was a part of the student's regular school day. This program was implemented for 7<sup>th</sup> graders and involved three weekly group meetings in addition to high school student mentoring. Objectives included building resiliency and responsibility, promotion of goal-oriented behavior, and encouraging healthy choices. For evaluation of the program, students were surveyed at the start and end of their semester in the program. Questions on this survey were adapted for the program's goals from other youth assessment tools and assessed student perspectives on future goals, social support, personal achievement, and attitudes regarding unhealthy behaviors. Pre and post survey results were compared. Often there was little change in the student responses while other responses changed in an unexpected direction. Student grades, attendance, and disciplinary reports were also evaluated. From survey results alone, the program may appear to be ineffective, but successes were noted in individual student grades, attendance, and discipline.

## Medical Students: **Natalia Okon & Isaac Melin**

### *15. Investigating Factors of Repeat Domestic Abuse Victims*

Community Mentor: Shannon Jarecki, The Women's Community, Inc.

MCW-CW Collaborator: Dr. Amy Prunuske, Gina Groshek- Class 2019

This research aimed to determine common factors that may predispose victims to repeatedly enter abusive relationships. Additionally, we sought to identify what tools and strategies provided by The Women's Community survivors found useful in recognizing violence and removing themselves safely from a situation. Finally, we hoped to aid the Women's Community in preventing victims from entering multiple abusive relationships and provide feedback on how the organization can better assist its clients. To gather data, both a modified Danger Assessment Scale (DAS) and open-question interview were used. Despite several changes to research methods and incentivization, we were only able to obtain three participants, all of whom completed the questionnaire and one participant who completed the interview. Due to this small sample size, we were unable to draw conclusions or inform the Women's Community on their programming.

# Medical Student: **Alexa Ernst**

## *16. Mental Health Screening of D.C. Everest Junior High Students using the GAIN-SS*

**Community Mentor:** Brooke Davis, DC Everest Junior High School

**MCW-CW Collaborators:** Hilary Steltenpohl M3, Drs. Amy Prunuske and Corina Norrbom

**Background:** The Marathon County Youth Risk Behavior Survey reported that 31.5% of students described their mental health as not good during the past 30 days for 3 days or more. Prevention and early intervention during adolescence is crucial. The Global Appraisal of Individual Needs Short Screener (GAIN-SS) is an evidence-based survey that identifies needs for further assessment in areas of mental health. The GAIN-SS has been used in the clinical setting but has not yet been implemented in schools. This study aims to determine if the GAIN-SS is an effective tool to be implemented in schools for mental health screening of adolescents.

**Methods:** A consent form was sent to all parents of D.C. Everest Junior High students to allow their student to participate in the GAIN-SS. Students who obtained parental consent were then required to give or decline individual assent the day that the screener was administered. Of the students who gave assent to taking the GAIN-SS, those who reported thinking about committing suicide were flagged by student services.

**Results:** Active consent from parents was low with 134/877 (15.3%) forms being signed and returned to the school. 130/134 (97.0%) students gave individual assent. 7 screeners were not included in data analysis due to computer error not recording data. 20/123 (16.2%) of successfully recorded screeners were flagged for having suicidal thoughts and these students received intervention from the school. 48.7% of students who completed the screener had a total GAIN-SS score considered to be high risk and in need of further assessment.

**Conclusions:** Of the students screened, 16.2% reported suicidal thoughts and received interventions from the school counselors. However, 48.7% of students screened had a high-risk total GAIN-SS score which is recommended to have further assessment. This was not possible for the school with their current resources. This shows the need for further support at the school level for mental health resources.

# Medical Student: Hilary Steltenpohl

## 17. *Mental Health Education and Promotion via “Kind Minds” Event for D.C. Everest 9th Graders*

**Community Mentors:** Brooke Davis, D.C. Everest Area School District, and Beth Krueger, Achieve Center

**MCW-CW Collaborators:** Drs. Amy Prunuske and Corina Norrbom, Lexi Papke M2

Many of the medical students helped to make this day a success!

**Purpose:** During mental health screening of DC Everest 8th/9th graders, it was found that 20/123 (~16%) students had thoughts of suicide in the last year. With over 900 students in the school, that rate correlates to over 144 students. At DC Everest there were only 2 counselors for these 900 students during the year 2019-2020. When tackling the issue of adolescent mental health, healthcare systems alone are not enough. Studies have shown that as many as 1/3 of adolescents had no preventative healthcare from ages 13-17 years.

**Methods:** Local businesses, healthcare providers, and other resources within the community of Wausau were utilized to create presentations and activities for a mental wellness day. The event was named “Kind Minds,” voted on by the students themselves, and took place at Dales Weston Lanes in Weston, WI in March 2019. Topics covered included: testing anxiety, mindfulness meditation, social media safety and its impact on mental health, lowering stigma in relation to mental health, substance abuse and mental health, understanding and addressing teen dating violence, how to talk to healthcare providers about your mental health, yoga, pet therapy, horticulture, and reflective writing.

**Results/Conclusions:** Preliminary data analysis, showed that an overwhelming majority of students surveyed (~80%) found the day to have given them, “a better understanding of mental wellbeing and ways to improve it.” Additional survey data analyzation is to be determined. Future directions of the event include utilizing the D.C. Everest High School as a venue in order to have more spaces and therefore smaller groups of students with each presenter. We also plan to utilize the survey results of students and presenters to improve on this pilot year. Topics students wanted to have more of next year included: how to help friends struggling with mental illness, bullying, music therapy, and more physically active sessions.

## Medical Student: **Taylor Feuling**

### *18. Reducing Recidivism with Medical Case Management*

Community Mentor: Dr. Linda Glazner, The Open Door of Marathon County

MCW-CW Collaborator: Dr. Amy Prunuske

**Purpose:** 4,875 inmates are released from Marathon County jail each year. 64 percent suffer from mental health issues that require treatment, and whose healthcare and prescription coverage are terminated upon discharge. Unfortunately, mental health services and reentry programs are limited in Marathon County; and with little to no support systems in place, 1 in every 3 ex-offenders reoffend within three years of release. The Open Door, a non-profit organization in downtown Wausau, was established to address these issues by providing ex-offenders with much needed support including employment and housing resources as well as a new medical case management program. The purpose of this program is to help ex-offenders manage their medical and mental health issues and provide them with the tools they need to re-contribute to society and ensure the safety of our community.

**Methods:** Guests are assigned a case manager for an agreed upon number of visits. To establish the validity of the program, guests are surveyed at three intervals: once at the initial interview, once after a month of enrollment, and once after six months of enrollment. This allowed case managers address what their needs are and what barriers obstructed their previous attempts to re-integrate. These surveys are then used to monitor their progress.

**Results:** Seven pre-service questionnaires were completed. Of the seven participants, five ranked untreated mental illness as a factor contributing to past recidivism. Four ranked poorly managed medical conditions as another factor. These challenges, among others, are the proclaimed reasons why 86 percent of guests have been incarcerated four or more times in their lifetime. Conclusions: Recidivism is a significant problem in Marathon County, particularly because there are limited resources available to ex-offenders. Guests at Open Door have indicated a great need to have their medical and mental health issues addressed, which makes them more likely to reoffend.

## Medical Student: **Jack Roets**

### *19. Community Paramedicine Project*

Community Mentor: Tracey Kujawa, Wausau Fire Department, and David Cao, MD

MCW-CW Collaborator: Dr. Amy Prunuske

The purpose of the community paramedicine project is to reduce the 30-day readmission rate of local patients suffering from Chronic Obstructive Pulmonary Disorder (COPD). This is done through in-home visits by paramedics immediately following discharge from a recent hospital admission. During the visits, the paramedics connect community members with resources and reconcile newly prescribed medications. Although more longitudinal statistical analysis of readmissions was unable to be performed, surveys provided afterwards showed that patients perceived the program to be very successful.

# 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, River Valley Bank, and the Dan Storey Foundation.

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

- **Alexis Papke** – D.C. Everest Area School District Mental Wellness Day
- **Anna Bauman** – Examining the Social Network of PATCH teens (Providers and Teens Communicating for Health)
- **Hannah Marti** – Therapeutic Horticulture Programming
- **Mitchell Fuller** – LENA Start Early Childhood Program
- **Jimmy Mayer** – Ambassadors of Diversity
- **Brigitte Vanle** – Canine Therapy to Reduce Health Care Provider Burnout
- **Haley Pysick** – WIC (Wisconsin, Infant, and Children) Awareness and Relevance to Patient Care

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!

Our current Physicians in the Community Advisory Board reviewed the applications:

- **Molly Bennett** – Marathon County Government
- **Kristine Flowers, MD** – Aspirus General Clinic in Antigo
- **Brian Gumness** – BA & Esther Greenheck Foundation
- **Brian Kowalski** – Wausau City Pages
- **Michael Loy** – North Central Health Care
- **Ann Micholic** – Kolbe Windows and Doors
- **Joan Theurer** – Marathon County Health Department
- **Mang Xiong** – Hmong Wisconsin Chamber of Commerce
- **Yao Yang** – DC Everest School District

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

**Lisa Dodson, MD**

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MCW-Central Wisconsin  
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**Tonnetta Carter**

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# MCW Teaching Pins

**MCW teaching pins are awarded to individuals in recognition of their outstanding contributions to our students in the Physicians in the Community course.**

## **2019**

- Brooke Davis – School Counselor, D.C. Everest Area School District
- Carolyn Nash, MD – Pediatrician, Marshfield Clinic and MCW-Central Wisconsin faculty

## **2018**

- Yaou Yang - Hmong Parent Partner, D.C. Everest Area School District and Pastor, The Cross
- Joan Theurer, RN, MSN - Health Officer, Marathon County Health Department
- Caitlin Harris, DO – Family Medicine Resident, Aspirus Wausau Family Medicine
- Jacob Prunuske, MD, MSPH – Assistant Dean of Clinical Learning, MCW-CW and Family Medicine Physician, Aspirus Wausau Family Medicine

## **MCW-Central Wisconsin Physicians in the Community Faculty & Staff:**

- Corina Norrbom, MD      Course Director
- Amy Prunuske, PhD      Course Director
- Kelly Mulder      Education Program Manager

# *About MCW-Central Wisconsin*

MCW-Central Wisconsin is a regional campus that develops community-focused physicians who will meet the healthcare needs of Central Wisconsin and surrounding regions.

In May 2019, MCW-Central Wisconsin graduated its first class of medical students. MCW-CW offers an innovative and research-backed three-year Discovery curriculum. This curriculum is a calendar-efficient program that allows for graduation one year earlier than traditional programs. This is achieved by reducing the number of electives and the length of the traditional medical school breaks and is appealing if a student prefers to graduate sooner and begin working as a physician sooner.

One of the hallmarks of an MCW education is participating in a Scholarly Pathway, allowing a student to individualize his or her medical education. As an MCW-Central Wisconsin student, the Physician in the Community Pathway links medical education with the resources and needs of the Central Wisconsin area communities and its partners to promote health in the region.

MCW-Central Wisconsin provides an innovative clerkship model and focused program to train primary care physicians, surgeons and psychiatrists who will live and work in the region when they complete their medical education.



# *About the Medical College of Wisconsin*

With a history dating back to 1893, The Medical College of Wisconsin is dedicated to leadership and excellence in education, patient care, research and community engagement. More than 1,400 students are enrolled in MCW's medical school and graduate school programs in Milwaukee, Green Bay, and Central Wisconsin. MCW's School of Pharmacy opened in 2017.

A major national research center, MCW is the largest research institution in the Milwaukee metro area and second largest in Wisconsin. In FY2016, faculty received more than \$184 million in external support for research, teaching, training and related purposes. This total includes highly competitive research and training awards from the National Institutes of Health (NIH). Annually, MCW faculty direct or collaborate on more than 3,100 research studies, including clinical trials. Additionally, more than 1,500 physicians provide care in virtually every specialty of medicine for more than 525,000 patients annually.



**MCW**  
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