



# *Physicians in the Community Scholarly Pathway Student Project Showcase 2020*



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 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 appropriate methods, and develop 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.

# *Physicians in the Community*

## *Student Project Showcase*

*MCW-Central Wisconsin*

*July 16, 2020*

*4:00 pm*

### **Welcome & Opening Remarks**

Corina Norrbom, MD

### **Featured Project Presentations**

- Aleksander Downs - The Joseph Project – Wausau
- Ashley Dunton - Intervention to Meet the Health Care Needs of the Wausau Community: Medical Outreach Clinic for Homeless Individuals (MOCHI)
- Shannon Faehling - Prescription Medication Disposal Methods in Marathon County Among the Aging
- Chris Grant - Alcohol and Other Drug Abuse Needs Assessment in Rural Communities: An Example from Central Wisconsin
- Hannah Marti - The Impact of Adaptive Garden Tools in Marathon County
- Joseph Novak - Fatherhood and its Importance in Childhood Speech Development in Childhood Speech Development

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

Amy Prunuske, PhD



## *Student Projects*

- [Anna Bauman, Examining the Social Network of PATCH \(Providers and Teens Communicating for Health\) Teens](#)
- [Sam Carlson, Student Doctor Sam's Healthy Kids](#)
- [Jennifer Dennison, Human Trafficking Awareness for Healthcare Providers](#)
- [Aleksander Downs, The Joseph Project – Wausau](#)
- [Ashley Dunton, Intervention to Meet the Health Care Needs of the Wausau Community: Medical Outreach Clinic for Homeless Individuals \(MOCHI\)](#)
- [Shannon Faehling, Prescription Medication Disposal Methods in Marathon County Among the Aging](#)
- [Jacob Fay-Shields, Impact of Cycling Without Age on Geriatric Loneliness and Depression](#)
- [Kayla Fenton, Anxiety levels in Jr. High Students using GAIN-SS](#)
- [Mitchell Fuller, Measuring the Long-Term Benefits of LENA Start Marathon County](#)
- [Chris Grant, Alcohol and Other Drug Abuse Needs Assessment in Rural Communities](#)
- [Hannah Marti, The Impact of Adaptive Garden Tools in Marathon County](#)
- [James Mayer, Youth Resilience Building in an After-School Diversity Program](#)
- [Joseph Novak, Fatherhood and its Importance in Childhood Speech Development](#)
- [Alexis Papke, Student Feedback on Implementation of D.C. Everest 9<sup>th</sup> Grade Wellness Day](#)
- [Haley Pysick, Provider Knowledge Assessment and Education on Women Infants Children \(WIC\)](#)
- [Rachel Reamer, Marathon County Foster Family Electronic Information Book](#)
- [Krysten Rutzinski, The Effects of Mentorship and ACEs on Student Success](#)
- [Grace Schwantes, Lyme Disease in Northern Wisconsin: Testing and Rates of Infection](#)
- [Brigitte Vanle, Canine Therapy in Addressing Physician Burnout in the Hospital](#)
- [Natalie Weeks, Evidence-Based Decision Making: Marathon County Pre-trial Project](#)



## **Medical Student: Anna Bauman**

**Project Title:** Examining the Social Network of PATCH (Providers and Teens Communicating for Health) Teens

**Community Mentor:** Paula Neiweem, PATCH Central Wisconsin

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

**Purpose:** The Providers and Teens Communicating for Health (PATCH) program employs a group of teens to deliver workshops to peers and health care providers. The teens increase awareness of common adolescent healthcare barriers and through the workshops encourage open discussions between teens, their parents, and their health care providers.

Although many aspects of PATCH have been studied, few have looked into the social network of the teens and whether it evolves during their participation in the program.

**Methods:** A survey was administered to 10 PATCH teens via Qualtrics before, during, and after the 2019-20 PATCH program. The survey asked simple questions regarding their level of comfort with health-related topics, how many peers they provide resources or advice to, and what topics they are most frequently asked about.

**Results:** The results of the survey revealed that while PATCH teens interact with a narrow spectrum of the teenage population, their social networks include adult community members in addition to their peers. The PATCH program was successful in broadening the healthcare and advocacy knowledge base of the 2019-20 cohort of teens.

**Conclusions:** Results will help us identify recruitment and curriculum gaps within the PATCH program. We hope to continue to improve the sustainability of PATCH Central WI and eventually develop a similar program for adults.

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## **Medical Student: Sam Carlson**

**Project Title:** Student Dr. Sam's Healthy Kids

**Community Mentor:** Patty Zemke, Wausau School District

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

**Purpose:** The goal of our project was to try and make health class more engaging for the students, in an effort to make health class more than just a class, and that the students can realize that this is their life. We also tried to alleviate some of the uncomfortableness and awkwardness of middle school health by allowing a safe space for students to ask anonymous questions related to their health and their life.

**Methods:** I met with students bi-monthly over the academic year in to talk about healthy living and teach aspects related to the unit they are currently learning. I had the students fill out a form of a Qualtrics survey to evaluate how much they learned throughout the class, and how much my role benefited or inhibited them and their learning. I used a short survey at the beginning of the year to gauge interest and knowledge in health, and then a longer and more comprehensive survey at the end of the school year to measure changes and get feedback on what role my interactions played

### **Results:**

- Mental health is an issue facing teens in Wausau public schools
- 6<sup>th</sup> grade students have an increase in feelings of stress usually or always during the week
- 6th grade student's self reported increased ability to handle stress through the school year
- Students self report good/complete confidence at understanding healthy meal choices and a 'balanced' plate
- Students did not report increasing frequency of eating healthy, balanced plates through the school year
- Students overwhelmingly enjoyed having student Dr. Sam visit class

### **Conclusions:**

- Continue having a medical student in the public health middle school classrooms to be a bridge and resource for middle school students
- Increase medical student involvement to be weekly
- Have medical students in all middle school health classes
- Expand program to include more interactive activities
- Offer an after-school program led by medical students that can explore health issues and health care fields/activities for students who are interested

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## **Medical Student: Jennifer Dennison**

**Project Title:** Human Trafficking Awareness for Healthcare Providers

**Community Mentor:** Brenda Bayer, The Women's Community, Inc.

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

**Purpose:** Human trafficking is a crime that hides in plain sight, but healthcare providers are at a unique vantage point when it comes to identifying and reporting possible trafficking situations and providing the victims the support they need. The goal of our project was to try to bring awareness of the human trafficking issues in our community to local healthcare providers, offering tips on how to identify those at risk and build a trusting relationship to facilitate providing victims with appropriate, trauma-informed care and the resources available for their unique needs.

**Methods:** We have worked towards our goal by presenting information about human trafficking through presentations to physicians, medical students and student ambassadors of the PATCH program. We presented on how to identify possible victims, how to report possible trafficking situations, how to support possible victims and provide proper care for their unique needs and connect them to the community resources available to them. Surveys were collected both before and after presentations to measure level of awareness, knowledge of human trafficking, and personal level of comfort in providing trauma-based care to victims.

**Results:** Our data show that due to attending our presentation, more healthcare providers understand that majority of human trafficking survivors seek medical attention at some point during the time they are being exploited, feel more confident that they can recognize the signs of human trafficking in their patients, feel they are better informed on what and how to ask their patients about human trafficking in non-judgmental ways, and are better informed on the process to get their patients who are victims of human trafficking the help and support they need. They are also more aware of local resources for human trafficking survivors.

**Conclusions:** The project was originally designed to bring awareness to at-risk populations, however, throughout the development, it evolved into a provider-focused approach. It has been received well and thought by those who have participated that it provides valuable information to a serious problem in our community. In the future, I hope to present to more providers in the community, spreading awareness of this serious issue.

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## **Medical Student: Aleksander Downs**

**Project Title:** The Joseph Project

**Community Mentor:** Pastor Yauo Yang. The Cross of Wausau & Ann Micholic, Kolbe Windows & Doors

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

**Purpose:** Social factors are significant determinants of health outcomes. Individuals who have been incarcerated, suffered from drug addiction, or experienced tragedy often struggle to obtain a full-time job thus exacerbating the difficult circumstances they may be in. The Joseph project strives to connect chronically unemployed individuals with employment opportunities that already exist therefore facilitating long-term, gainful employment that will provide stable income and healthcare to our graduates. Furthermore, the Joseph Project seeks to diminish the transportation barrier that exists for many individuals by providing transportation to and from work.

**Methods:** The JP-Wausau hosts a five-day faith-based program to prepare our students for a job interview, for the workforce, and for long-term maintenance of employment. Class sessions are adapted to share the gospel as a common thread and cover topics such as time management, conflict resolution, and mock interviews. On the final day of the program, graduates earn an interview with a local employer. Participants are surveyed upon completion of the class and following one year of employment to assess housing, healthcare, and transportation changes.

### **Results:**

#### Summary Data (August 2017 – June 2019)

Total Participants: 60

Total Number Hired: 45

Number Currently Working: 15

#### Survey Data

- 42% of Joseph Project graduates did not have health insurance prior to obtaining employment.
- 35% of Joseph Project graduates have visited an Emergency Department or Urgent Care for a personal health emergency within one year prior to completing the program.
- 63% of Joseph Project graduates plan to walk, bike, or use Joseph Project-sponsored transportation to commute to and from work.
- 47% of Joseph Project graduates lived in temporary housing prior to completing the Joseph Project.

**Conclusions:** The Joseph Project-Wausau has been effective in facilitating job acquisition for our participants. Long-term retention rates are a target for improvement. Future classes will receive routine follow-up contact from the Joseph Project and other community partners to provide support, encouragement, and resources as needed. The Joseph Project is a valuable program that provides service to individuals and to the community.

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## **Medical Student: Ashley Dunton**

**Project Title:** Intervention to Meet the Health Care Needs of the Wausau Community: Medical Outreach Clinic for Homeless Individuals (MOCHI)

**Community Mentor:** Jeff Oswald, MD, Marshfield Clinic

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

**Purpose:** As the only free clinic in Marathon County, the Wausau Free Clinic (WFC) strives to provide personalized, basic and preventative health care services to individuals experiencing homelessness with a goal to minimize the health disparities prominent in this population and mitigate the usage of acute-care services for non-emergent conditions. In doing so, promote overall well-being, identify healthcare needs, and coordinate appropriate medical referrals.

**Methods:** The clinic is facilitated according to the standards of the Wisconsin Association of Free and Charitable Clinics (WAFCC). During each visit, de-identified information was collected via interview regarding patient demographics, presenting concerns, diagnosis/treatment, and insurance status. Patients completed a voluntary post-visit survey to gauge satisfaction, usage of other healthcare facilities, and unmet health care needs. The study was determined quality improvement by the MCW IRB.

**Results:** A total of 54 visits were completed during the 2019-2020 season. Of these, approximately half (51.85%) represent new patients and less than a quarter (12.96%) female patients with the majority being White men over the age of 50 with insurance (BadgerCare). The majority of visits were completed in January with musculoskeletal and dermatology representing the most common visit diagnoses. Several patients indicated that they did not seek services in the Emergency Department because their main concerns were addressed by the clinic.

**Conclusions:** The WFC is able to provide basic health care services to individuals experiencing homelessness who would not otherwise seek care. By addressing patient concerns, the clinic prevented the use of acute-care facilities for non-emergent conditions. It is evident that additional support and resources are still needed to mitigate health disparities. The WFC plans to move and expand its services by the end of 2021 as part of Wausau's new Community Partners Campus.

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## **Medical Student: Shannon Faehling**

**Project Title:** Prescription Medication Disposal Methods in Marathon County Among the Aging

**Community Mentor:** Melissa Moore, Marathon County Health Department

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

**Purpose:** Opioid abuse is a public health priority in Marathon County. Access to expired and unused prescription medications are a major source of opioids available for abuse. Medications can be disposed of properly in various ways including permanent drop-box locations and Deterra Pouches, which are single-use bags that deactivate drug ingredients, rendering them safe to discard in the regular trash. The goal of this study was to evaluate current medication disposal methods, while making disposal methods more available to the aging and disabled in Marathon County.

**Methods:** 175 Meals on Wheels participants in Marathon County were provided with Deterra Pouches, infographics about drug drop-box locations, and a survey. The survey assessed current disposal methods, Deterra Pouch use, and availability of expired medications in the home.

**Results:** 35.3% of participants had expired and/or unused medications at home. In the aging population, taking medications to drop-box locations was the most popular method of disposal (58.1%) followed by throwing in the trash (22.6%) and flushing down the toilet (12.9%). 100% of participants who reported having expired/unused medications at home also reported that they used their provided Deterra Pouch to dispose of said medicines.

**Conclusions:** Among the aging and disabled in Marathon County, drop-box locations are frequently used for drug disposal. Also, if provided, Deterra Pouches have a very high likelihood of being utilized for disposal as well. Moving forward, the Marathon County Health Department obtained additional Deterra Pouches in efforts to continue reducing expired/unused prescription drug availability and misuse in our community.

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## **Medical Student: Jacob Fay-Shields**

**Project Title:** Impact of Cycling Without Age on Geriatric Loneliness and Depression

**Community Mentor:** Halle Veenstra, Cycling Without Age

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

**Purpose:** The *Cycling Without Age* program has the potential to combat feelings of isolation and depression which continue to disproportionately plague the geriatric demographic (Kim, 2012).

**Methods:** The CWA program is an opt-in program. Inhabitants of the nursing homes will have the option to participate in the CWA program and go on free rides offered by volunteer pilots. Inhabitants can decline participation the study, program or both. Study includes but is not limited to male and female residents at MVCC over the age of 65. We will interview every willing person that chooses to participate in the program and interview the same number of people who chose not to participate in the program – using them as a baseline standard or control group for the research done. Participants will be evaluated before and after the participation/lack thereof and the Geriatric Depression Scale & UCLA Loneliness surveys will be used to evaluate their mental health. The first interviews will be given in the winter months to better ascertain the patient's baseline of mental health. They will then be reevaluated using the same survey in September (end of the CWA riding season). Study was reviewed by the MCW IRB

**Results:** Of the 3 post-surveys administered, participants reported either equal or lessened feelings of loneliness following participation in CWA.

Of the 3 post-surveys administered, participants reported either equal or lessened feelings of depression following participation in CWA.

**Conclusions:** While population size is still far too small to draw any statistically significant conclusions, early survey results are promising and show a correlation in CWA participation and decreased feelings of loneliness and depression. This body of data is limited after its inaugural year in Wausau, but we will continue adding to our data pool with each consecutive riding season through collection of more post-participation surveys. With continued participation from residents, volunteers and partners, we hope this research will continue highlighting the beneficial impacts of CWA on feelings of loneliness and depression in our elderly populations and further inspire future chapters of CWA to better serve their community's seniors.

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**Medical Student: Kayla Fenton**

**Project Title: Anxiety levels in Jr. High Students using GAIN-SS**

**Community Mentor:** Taylor Hardinger, D.C. Everest School District

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

**Purpose:** Our study was looking at the prevalence of anxiety-type disorders amongst 8<sup>th</sup> and 9<sup>th</sup>-grade students at DC Everest Jr. The high school in Wausau, Wisconsin. The purpose of the study is to identify prevalence to address potential anxiety in students by providing them with psychiatric resources and coping mechanisms.

**Methods:** The students were given permission forms to be filled out by their parents to be able to participate in the study. Students that returned their signed permission form were given the GAIN-SS (Global Appraisal of Individual Needs- Short Screener) in a 15 minute during their first class. They were instructed to fill out a consent form before taking the screener. Students could opt out of the study at any time. The GAIN-SS screener is divided into 4 sections, internalizing disorders, externalizing disorders, substance use, and crime/violence. A score of 3+ in any subcategory indicated a high likelihood of disorder diagnosis and students would benefit from follow up with an appointment with a mental health professional. A score of 1-2 indicated a moderate likelihood of diagnosis and a score of 0 indicated a low probability. The subsection of interest in our case was the internalizing disorder category.

**Results:** Our data showed 39 students scored in the moderate category and 36 students scored in the High category out of a total of 123 students.

**Conclusions:** These results are complicated by the fact that anxiety, depression, and schizophrenia are all disorders classified under the internalizing disorder category, and they all have similar symptoms. We conclude that this data warrants follow up with a more specific screener for anxiety to determine the true prevalence. Future directions include improving delivery of consent forms to parents, selecting a screener more specific to anxiety disorders. Steps that have been taken include creation of a mental health resources website for teens and addition of more counselors to DC Everest Jr High.

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## Medical Student: Mitchell Fuller

Project Title: Measuring the Long-Term Benefits of LENA Start Marathon County

Community Mentor: Dr. Louis Rossetti, ACHIEVE Center

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

**Purpose:** The purpose of this study is to assess the efficacy of the 13-week Project LENA curriculum on cognitive development of LENA participants compared to a control group having not completed the LENA curriculum.

**Methods:** A cohort of Project LENA graduates, having completed the program 12-18 months prior, were recruited to undergo neurodevelopmental assessment using the LENA screener (a modified Rossetti assessment tool). Following formal assessment, each child was given a LENA recorder to perform two additional recordings at home with chronological age-matched percentile ranking. Next, a matched control cohort (matched using early life maternal and personal health history) was recruited to undergo the LENA screener for comparative analysis. Demographic data was collected for reference.

**Results:** Data showed that LENA Start Marathon Co graduates are a high-risk population for developmental impairment. The LENA screener identified 2/16 LENA graduates with a relative language delay and professional clinical assessment identified 4/16 with a developmental delay. This was compared to a control group, which did not participate in the LENA Start curriculum prior to assessment, with 0/12 control subjects showing delay by the LENA screener tool and 1/12 showing developmental delay by professional clinical assessment. There were major limitations to this study which prohibited the use of statistics to draw any statistically significant conclusion. The most significant limitation was a small preliminary data set (N=28), non-randomized LENA Start graduate enrollment in the study, and poor control subject match parameters.

**Conclusions:** In conclusion to this study, the LENA Start Marathon Co group is a high-risk population for language delays and other developmental delays. The greater Wausau community found great value in the thorough clinical feedback from trained MCW medical students and Achieve Center pediatric development professionals. Major limitations of the study subjects prevented any statistical conclusion, but the insight gained from this protocol will enable future research to measure the long-term benefits of LENA Start Marathon Co on child participants.

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## **Medical Student: Chris Grant**

**Project Title:** Alcohol and Other Drug Abuse Needs Assessment in Rural Communities: An example from Central Wisconsin

**Community Mentor:** Laura Scudiere, Langlade County

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

**Purpose:** Central Wisconsin has recognized several issues of alcohol and other drug abuse (AODA) as well as a lack of resources to help combat these AODA issues. By connecting resources in communities through networking and collaboration, we can all expand upon the foundational knowledge of what causes AODA issues in rural communities

**Methods:** A needs assessment was conducted to analyze the prevalence of AODA in rural communities throughout the United States and identify evidence-based resources that could be implemented in communities.

**Results:** This needs assessment found that breaking the cycle of generational addiction, providing a sober social support network for AODA individuals, and generating hope for a better life are all integral parts in order to combat alcohol and drug addiction in Central Wisconsin and other rural communities.

**Conclusions:** This qualitative analysis led to the development of a sober living facility where individuals are provided a structured housing opportunity that supports existing substance treatment.

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## **Medical Student: Hannah Marti**

**Project Title:** The Impact of Adaptive Garden Tools in Marathon County

**Community Mentor:** Elise Schuler, Monk Botanical Gardens and Brianna Wright, UW-Extension

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

**Purpose:** Gardening is an activity that individuals can enjoy their entire life and has been shown to have many positive health impacts. However, individuals of advanced age or those with disabilities are often faced with barriers to accessing a garden or having the ability to fully experience gardening activities.

The goal of this project was to establish a collection of adaptive garden tools for those individuals, to use during community programs and to try out at home in their own garden. If we improve access of garden tools designed for people with reduced or limited physical ability, then individuals will utilize the tools and be positively impacted by removing a barrier to activity.

**Methods:** At multiple locations in Marathon County, I presented about all aspects of adaptive gardening. From garden design and plant selection to the types of tools available and how to maintain our health while gardening. Next I introduced and demonstrated the tools, then participants were able to come try them out. At the end of the program, I gave an informed consent and offered a survey to anyone that wanted to participate.

**Results:** Through this project, I have presented to over 200 people. Of those who completed a survey, 95% have said that the programming had value to them and 85% are interested in adaptive garden tools as a result of the program and would utilize a collection of tools if available to them.

**Conclusions:** There are two complete sets of adaptive garden tools now available. One will be housed at Marathon County Public Library and can be loaned out, just like other library resources. The second will be at Midstate Independent Living Choices where it will be available to anyone in the state of Wisconsin through the assistive technology program, AT4ALL. The tool collection will come with a booklet that gives information about the tools, their use, cost and where they can be purchased. A cleaning protocol will also be in place to prevent spread of disease by the tools.

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**Medical Student: James Mayer**

**Project Title:** Youth Resilience Building in an After-School Diversity Program

**Community Mentor:** Patty Zemke, John Muir Middle School

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

**Purpose:** Ambassadors of Diversity is an inclusive after school club at John Muir Middle School for those who are LGBTQ+ and allies of diversity. The club was created with the aim to help kids manage a positive identity and support changes they want to bring in themselves and their community. Since many middle schoolers in Wausau share similar values, backgrounds, and identity; those with a diverse background or outside the majority may need help creating healthy ways to understand and represent themselves. Many of these students have had adverse childhood experiences related to their diversity.

**Methods:** Workshops and field trips to community organizations were developed to help them understand power, privilege, gender, sexuality, and resilience.

**Results:** The longer the kids were in the club, the more they expressed positive feelings about themselves and diversity.

**Conclusions:** While many kids developed healthier outlooks, some workshops got too emotionally deep too fast, which shutdown some of the kids in discussions. Plans for next year include changing the club to gradually build in emotional connection with synchronicity activities like a drum circle before having emotionally vulnerable workshops and discussions.

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## **Medical Student: Joseph Novak**

**Project Title: Fatherhood and its Importance in Childhood Speech Development**

**Community Mentor:** Eric Giordano, Wisconsin Institute for Public Policy and Service (WIPPS)

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

**Purpose:** Currently in the United States, about 69% of children are being raised in a two-parent household. Of the single parent households, 77% is where the mother is the primary caretaker, which shows a deficit trend for father involvement. Fatherless homes bear increased developmental consequences such as poor academic performance and risk-taking behavior.

Fathers who devote time toward their children's learning opportunities pay dividends in future outcomes. There is a need for a positive biological male role model in the lives of children. A crucial bonding experience happens during language exchange and the acquisition of speech. Fathers communicate, love, play, discipline, teach, and role model differently.

**Methods:** Children who were enrolled in the LENA Start program (N=116) were analyzed using the LENA recording device for the adult word count by gender and conversational turns. Screeners were filed by parents to view developmental gain.

### **Results/Conclusions:**

- On average, males speak less than females, which can be related to gender differences in speech.
- Males show a preference to speaking to male children, while females do not.
- Overall, increased adult word count equals increased conversational turns, which validates the purpose of speaking more effectively to children.

### **Future Directions:**

- Male and female adults need to be measured in isolation for more accurate results.
- Screenshots need to reduce bias, by being performed by outside parties, not parents.
- Longitudinal studies need to be implemented, as the payoff can be seen in later life.
- Marathon County needs more fatherhood support groups.

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**Medical Student: Alexis Papke**

**Project Title: Student Feedback on Implementation of D.C. Everest 9<sup>th</sup> Grade Wellness Day**

**Community Mentor:** Taylor Hardinger, DC Everest Area School District

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

**Purpose:** In 2015, the Youth Risk Behavior Survey was conducted in Marathon County to high school students. Findings from this survey showed that 21.3% of high school students from the Marathon County School District had felt sad or hopeless almost every day for two or more weeks. This was a much higher percentage of students than in Wisconsin (13.2%) and across the U.S. (17.0%). In an effort to combat these numbers, the D.C. Everest 9th Grade Mental Wellness Day was created to increase awareness regarding the importance of maintaining mental wellness. With the objective of creating a valuable, recurrent, experience, a screener was developed to assess students' impressions of the day.

**Methods:** Following the completion of the Wellness Day, all 9th grade students in attendance completed an anonymous, online, survey on google forms.

**Results:** 316 responses were collected. The results showed that 80% of students thought the day gave them a better understanding about their mental wellbeing and ways to improve it, and 83.6% stated that they obtained information about resources that would be useful if they ever needed help. Additionally, the sessions that were ranked as most useful included "Testing, Performance, & Academic Anxiety", "Substance Abuse & Mental Health", yoga, and pet therapy.

**Conclusions:** With completion of the first annual Wellness Day, we have made changes to the schedule and sessions in concordance with the findings of survey improving for subsequent events.

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## **Medical Student: Haley Pysick**

**Project Title:** Provider Knowledge Assessment and Education on Women Infants Children (WIC)

**Community Mentor:** Jessie Scharfenberg, Healthfirst Network

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

**Purpose:** The goal of this project is to assess medical provider knowledge about Women Infants Children (WIC) services and eligibility, provide accurate information regarding the WIC program to healthcare professionals who interact with families potentially eligible for WIC services, and ultimately expand the knowledge base of WIC in the community to potentially reach more families who may not have otherwise known about WIC.

**Methods:** 'Knowledge of WIC' questionnaire was given to a variety of medical groups, including physicians, residents, medical students, and administrators. We then did a brief presentation provided by the medical student and/or WIC representative with information about WIC eligibility, services provided, and the referral process. A post-session participation survey was administered to assess the value of the session.

### **Results:**

- Questionnaire and post-survey responses: 31
- Nurses had the highest total correct response score of 89%. Medical students scored 73% while physicians/residents scored 68%.
- Questionnaire data on WIC services:
  - Approximately 90% of respondents knew that WIC provides supplemental food benefits.
  - About 66% of respondents knew that WIC provides breastfeeding support and 60% knew WIC provides Farmer's Market benefits.
- Questionnaire data on WIC eligibility:
  - 67% of people correctly answered that income eligibility is 185% the poverty line.
  - Less than 50% of people correctly answered that those eligible for Medicaid, Wisconsin Works, Temporary Assistance for Needy Families, and Food distribution Program on Native American Reservations would also be eligible for WIC.
- Points that resonated with people: Breastfeeding peer support, Auto-qualifications, Foster family/teen criteria, Low utilization rate of WIC currently, Farmer's market benefits
- Information participants would like to know more about: How do people sign up (on their own), Exact qualifications and income restrictions, Type of food options, Local office information + brochures

### **Conclusions:**

- Knowledge deficits exist in the areas of services and eligibility; when making marketing decisions in the future, WIC will use this information to better communicate their services and eligibility requirements with medical providers.
- By conducting on-site educational sessions, we have opened a dialogue between WIC and their healthcare partners including: updating brochures, discussing solutions to referral process, connecting with other departments who may benefit from WIC education and setting up future presentations.

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**Medical Student: Rachel Reamer**

**Project Title:** Marathon County Foster Family Electronic Information Book

**Community Mentor:** Sara Klebenow, Marathon County Social Services

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

**Purpose:** The goal of this project was to provide foster children with a smoother transition into their foster home through having information on the foster home environment and expectations easily accessible for their social workers to share with them, even in the case of an emergency placement.

**Methods:** Utilizing a Qualtrics survey to determine the effectiveness of the electronic book in both emergent and non-emergent placements through survey completions over a 5 month period (September 2019 to February 2020).

**Results:** Though, the data pool is limited to those who responded to the survey. The trend is clear that the book has made the information more accessible to the social workers so that they can alleviate some of the stress of those being placed in emergent and non-emergent placements.

**Conclusions:** Hopefully this book will be able to continue to consistently be updated and improved and future students can continue to get involved with the Foster Care program in Marathon County.

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## **Medical Student: Krysten Rutzinski**

**Project Title:** The Effects of Mentorship and ACEs on Student Success

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

**MCW-CW Collaborator:** Jeff Fritz, PhD

**Purpose:** To assess the effect of mentorship on at-risk teens at EEA over the course of the school year.

**Methods:** Surveys are sent out at the end of the school year to both mentors and mentees to assess their opinions of the program. These surveys are conducted via Qualtrics. In addition, staff at EEA are interviewed to understand the impact the program has on the school environment. The interviews are recorded and analyzed for keywords regarding the program's impact.

**Results:** Students expressed varying levels of confidence in themselves academically and personally. Of the students that participated in the mentorship program with EEA, there tended to be a more positive view of the experience they had with the MCW tutors. This was also observed in the interviews conducted with staff members, in which many expressed a favorable opinion of the mentorship program.

**Conclusions:** After reviewing responses from students and staff members at EEA, it appears that the mentorship program has had an impact on some students. Several of the mentored students have indicated that the program has been a valuable experience and that they would recommend mentorship to their fellow students. Staff have been supportive of the program as well, and many believe that it is helpful to the overall learning environment at EEA. More data will be needed in the future to further support or refute this.

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**Medical Student: Grace Schwantes**

**Project Title:** Lyme Disease in Northern Wisconsin: Testing and Rates of Infection

**Community Mentors:** Deakin Washakto; Adam Clements, DO

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

**Purpose:** Lyme disease is a growing health concern in communities in Northern Wisconsin, with many believing rates are on the rise in these communities.

**Methods:** The rates of Lyme disease, according to positive ELISA laboratory testing, were investigated at 22 Aspirus clinics in Northcentral Wisconsin.

**Results:** The results showed no significant increase in rates of Lyme disease in these communities between 2016-2018.

**Conclusions:** This data can be used to track rates of Lyme and other tick-borne illnesses in the future and provide local community data to those in these regions.

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**Medical Student: Brigitte Vanle**

**Project Title:** Canine Therapy in Addressing Physician Burnout in the Hospital

**Community Mentor:** Yolanda Voight, Aspirus

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

**Purpose:** The objective of this project was to analyze the effect of a single canine session on physicians and other healthcare staff in the inpatient hospital setting.

**Methods:** The canine therapy session lasted approximately 5 minutes. Subjects completed a questionnaire immediately before and after the dog session. The questionnaires are validated measures of wellbeing, feelings of anxiety and depression and burnout.

**Results:** A single canine session increased well-being and decreased feelings of anxiety and depression.

**Conclusions:** This intervention may potentially be utilized a low-cost and valuable tool to improve wellness for physicians and healthcare staff.

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## **Medical Student: Natalie Weeks**

**Project Title:** Evidence-Based Decision Making: Marathon County Pre-trial Project

**Community Mentor:** Laura Yarie, Marathon County Justice System

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

**Purpose:** The purpose of this project is to help build a systemwide framework to guide Marathon County justice system starting from the initial arrest through final disposition and discharge to result in more collaborative evidence-based decision making and practices in state and local criminal justice systems.

### **Methods:**

- Subjects were compiled into a list based on the fact that the offense occurred recently in
- marathon county.
- Random sampling to try to get a good idea of the average need and level of risk for our system.
- 250 people scored with the Public Safety Assessment Tool and PSA Matrix.
- Information was gathered through CCAP.

**Results:** With an n=250, 10% were considered needed maximum conditions, 22% were level 4, 10% were level 3, 17% were level 2, 41% were level 1

**Conclusions:** The long-term goal of the EBDM team is to implement this scoring system on each pre-trial detained inmate for evidence-based decision making on new cases.

Decisions about whether to incarcerate can be tailored to the individual's needs and risk level, with the goal of being as least restrictive as necessary. The intervention should match the risk level of the individual. Evidence-based decisions help balance the need for public safety and the consequences for the individual being held while giving equal opportunity for pre-trial release to all persons, regardless of race, gender, and SES. Decreasing recidivism rates has harm reduction effects on the entire community. It helps minimize the negative health outcomes of incarceration on individuals and their families.

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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:

- Satchel Beranek - Improving Down Syndrome Outcomes through Parental Education
- Vince Berry & Marko Ivancich - Snow Sports Concussion Peer Education Program
- Colton Brown - LENA Start Developmental Screeners
- Dima Jaber - Hands-Only CPR Training
- Sarah Steffen - Needs & Barriers to Care Assessment – Wausau Free Clinic
- Katelyn Zuelsdorff - Healthy Babies

**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 award applications:

- Kristine Flowers, MD – Aspirus Clinic, Antigo
- Brian Gumness – BA & Esther Greenheck Foundation
- Brian Kowalski – Wausau City Pages
- Lance Leonhard - Marathon County Government
- Michael Loy – North Central Health Care
- Ann Micholic – Kolbe Windows and Doors
- Katie Rosenberg – City of Wausau
- 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:**

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## *Thank you for your support!*

Corina Norrbom, MD  
Course Director

Amy Prunuske, PhD  
Course Director

Lisa Grill Dodson, MD  
Sentry Dean & Founding Dean

Kelly Mulder  
Education Program Manager

