INTRODUCTION
Past research looking at emergency department (ED) utilization found key reasons why patients come to the ED for non-emergent conditions are:
- Lack of knowledge about or access to affordable and convenient care outside of the ED.
- Patients’ perceptions of the acuity of their conditions being inconsistent with ED providers’ perceptions,\textsuperscript{123}

PURPOSE
To investigate the reasons for usage of the Bellin ED in Green Bay, WI for non-emergent conditions.
- To provide patients with information on when they should seek care at an alternative healthcare facility and specific alternatives for care in the area. The ultimate reason for this is to decrease the number of patients presenting to the ED so that our ED healthcare providers are not overwhelmed with the great number of patients and can therefore give faster and better care to patients with actual emergent conditions.

METHODS
- The project was conducted between August 2019 and February 2020 at Bellin ED during the hours when urgent care locations were open.
- Patients were considered for the survey if they received and maintained an acuity level of 4 or 5 by the ED healthcare staff throughout their time in the ED.
- At the end of the survey, patients were asked if they would like an informational handout on criteria for seeking care at an ED, urgent care, or primary care facility as well as addresses of these facilities in the area.

RESULTS
- N = 8
- 75% of patients had a chief complaint of pain

<table>
<thead>
<tr>
<th>Chief Complaints</th>
<th>Survey Participant Demographics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized pain</td>
<td>Age</td>
</tr>
<tr>
<td>Knee and neck pain</td>
<td>Sex</td>
</tr>
<tr>
<td>Damage to elbow</td>
<td>50% 18-40 years old</td>
</tr>
<tr>
<td>Return to work evaluation</td>
<td>25% 41-65 years old</td>
</tr>
<tr>
<td>Back pain</td>
<td>25% 66-95 years old</td>
</tr>
<tr>
<td>Painful oozing boil</td>
<td></td>
</tr>
<tr>
<td>Pain in the corner of the eye</td>
<td></td>
</tr>
</tbody>
</table>

Survey Questions and Participants’ Responses

<table>
<thead>
<tr>
<th>Do you have a doctor that you normally see for care?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 87%</td>
</tr>
<tr>
<td>No 13%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If there were reliable alternatives to getting care outside of the Emergency Department would you use these?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 87%</td>
</tr>
<tr>
<td>No 13%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>If you have a doctor you normally see for care, why are you using the emergency department instead of the doctor you normally see?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem is an emergency 14%</td>
</tr>
<tr>
<td>Could not wait for regular doctor’s appointment 29%</td>
</tr>
<tr>
<td>Were worried and wanted to get checked out 57%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Would you like a guide to help you choose where to seek medical care for specific conditions/symptoms and locations of these services?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes 50%</td>
</tr>
<tr>
<td>No 50%</td>
</tr>
</tbody>
</table>

REFERENCES/ACKNOWLEDGEMENTS

Special thanks to Dr. Paul Casey, Dr. Ben Pilkey, Dr. Matt Hansaker, Dr. Katrina Rosecliff and Bellin Hospital for their guidance and support during this study.
Partnering with Community Leaders to Enhance Patient Care in the Emergency Department
A. Pavlic¹, T. Sonnenberg¹, S. Russell¹
Medical College of Wisconsin¹

Background
- Recent national crises have highlighted that racial and health care disparities persist in our country and call for medical providers to no longer treat patients and their biomedical disease process in isolation, but rather to assess and treat patients in the context of their social determinants of health in order to provide better care.

- **Problem statement:** Previously, there was no formal curriculum for teaching our Emergency Medicine residents about social determinants of health or vulnerable groups.

Methods
- Developed a longitudinal curriculum focusing on the social determinants of health, the patient populations made vulnerable by them and the resources available to help these populations with various community partners.

- Assessment using a pre-test of each resident’s personal familiarity with certain vulnerable patient groups, and a pre-test and a post-test of their awareness of the resources available in the ED.

Results
- **Amount of Interaction with Various Populations in Personal Life**

- **Pre-Curriculum Responses on Being Familiar with Healthcare & Resources for Various Populations by %**

- **Post-Curriculum Responses on Being Familiar with Healthcare & Resources for Various Populations by %**

Discussion
- Resident physicians were exclusively from middle- and upper-class backgrounds and had not interacted with most vulnerable populations outside the hospital, lacking personal experience with the unique challenges many of our patient’s face. This highlights the need for formal curricula focusing on social determinants of health and vulnerable populations.

- Familiarity of ED and community resources increased as a result of this curriculum.

- On average, residents reported this curriculum led to a change in their practice 52% of the time, indicating that a curriculum targeting social determinants of health can change practice and enhance patient care.

Next Steps
- Expand the number of topics and community partners.
- Formalize Community Engagement Day, where residents visit our community partners.
- Develop a Social Emergency Medicine track focusing on these topics.

Acknowledgements
Dr. Alisa Hayes, Dr. Colleen Crowe, Dr. Kathleen Williams and Dr. Stephen Hargarten for their support of the development of this curriculum.
Factors Influencing Show Rates of Emergency Department Referrals to Primary Care Clinics
Miranda Brown, Gregory Stadter MPH, M. Chris Decker MD

BACKGROUND
Utilization of EDs for non-urgent conditions has led to:
• Excessive health care spending
• Unnecessary/duplicative testing
• Missed opportunities for patients to form longitudinal relationships with primary care physicians

Milwaukee Health Care Partnership (MHCP) created the Emergency Department Care Coordination in 2007
• Allows providers from ED to refer low-income unestablished community members to primary care follow-up appointments
• 8 EDs can schedule referral appointments at over 20 safety net clinics in Milwaukee County

In 2018-2019, over 5,000 appointments were scheduled with a 43% show rate to follow-up appointments

GOALS
• Identify factors influencing show rates to follow-up appointments
• Develop program interventions to increase show rates
• Improve connections between Medicaid and uninsured ED patients with primary health care homes
• Decrease avoidable ED visits and associated hospitalizations

METHODS
Utilized the MyHealthDirect database of de-identified patient information and referral information

Included:
• All referring emergency departments
• Federally qualified health center (FQHC) safety net clinics

Performed a logistic regression analysis including the following data elements:
• Receiving clinic
• Provider specialty of referring provider
• Days to appointment
• Insurance type
• Patient age
• Patient sex
• If the patient attended scheduled appointment

RESULTS
• Older adults are more likely to attend follow-up appointments (p > 0.0001)
• Follow-up appointments closer to date of patients seen in the ED were more likely to be attended (p > 0.0001)
• Uninsured patients were more likely to attend follow-up appointments than Medicaid (p = 0.01)
• Show-rates varied amongst individual FQHC receiving safety net clinics (p > 0.0001)
• Patient gender, referring ED, and provider type did not have a statistically significant difference

DISCUSSION
• More work is needed to engage younger individuals to ensure they attend appointments as this population may be less motivated to establish primary care.

• Given that low days from ED visit to follow-up appointment was linked to higher show rates, it is important for safety net clinics to ensure they have ample appointment slots

• More work is needed to understand why there are differences in show rates by payor status and among the different FQHCs.

EDCC PROGRAM OVERVIEW

Map of Participating EDCC Clinics

EDCC Appointments and Show Rate, 2018 - 2019

Next Steps
• Develop clinic-specific analyses of the larger data set and share with FQHC leadership.

• Conduct interviews with FQHC leadership to identify best practices shown to impact show rates to follow-up appointments

• Further analysis on the data set to determine differences by different clinical diagnoses

• Work with ED leadership on best patient populations likely to benefit and follow-up with EDCC program

ACKNOWLEDGEMENTS
Thanks to the organizations participating in the EDCC program— the EDs at: Ascension (Columbia St. Mary’s, St. Francis, St. Joseph), Advocate Aurora (St. Luke’s, Sinoi, South Shore, West Allis) and Froedtert, and the FQHCs in Milwaukee (Ignace, Milwaukee Health Services, Outreach, Progressive, Sixteenth St)
Measuring Patient Length of Visit & Reducing Wait Times at Philippine Center Free Medical Clinic

Jonathan Slimovitch¹, Cameron Stewart¹, Maria Mendoza-Lemes, MD²
Medical College of Wisconsin; Medical Students¹; Family Physician²

Introduction
The Philippine Center Free Medical Clinic (PCFMC) provides valuable care to a large number of patients, many of whom are uninsured or underinsured. The clinic is open at least once a month and is situated in Greenfield, Wisconsin. Patient visits typically last approximately 80 minutes, and consist of the following steps: triage, lab appointment, physician visit, and medication dispensation.

Unfortunately, there is a high rate of failure to return to clinic, which often results in patients running out of medication. Reducing patient wait times and developing a more efficient process may encourage patient compliance and regular return to clinic.

Objectives
(1) Better determine how much time is spent at each step of the clinic visit.
(2) Identify key areas for improvement and make changes with the goal of improving wait times and reducing length of total clinic time.

Context
PCFMC typically serves an average of 25 patients per shift. However, this number can experience great variability. During the shifts selected for this research project, patient numbers ranged from 12 to 38. Patients most commonly visit the clinic to receive medications for chronic conditions, including diabetes, hypertension, and hyperlipidemia.

Methods
(A) Data Collection: De-identified timesheets were attached to each patient chart for eleven shifts between 9/28/19 and 10/10/20. The duration patients spent at each step within their encounter was recorded by the physicians, nurses, laboratory technicians, and medical students.

(B) Data Analysis: Using timesheet values, the average times spent at each step in the clinic process were calculated. These values were plotted against average total clinic time (Figure 1). Statistical tests were completed to calculate correlation (Figure 2), and Medication Dispensation was identified as the step with the highest correlation with average clinic time (Table 2).

(C) Implemented Changes: Two specific changes were implemented to improve time spent during the medication dispensation stage:
(1) Reorganizing pharmacy room by having fewer people in the pharmacy and dividing the workflow.
(2) Pre-registering patients and pre-packaging medications.

Results
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Results
Approximately 50% of total time in clinic was spent on medication dispensation, which is typically performed by volunteer medical students. This stage demonstrated the highest correlation (.95) with the total time of patient’s visit in clinic. This result was statistically significant, with a p value of < .05. Time spent between arrival and triage also demonstrated statistically significant correlation, however comparatively less time was spent at this stage.

Reorganization of the Pharmacy Room did not lead to a noticeable change in medication dispensation times. However, pre-registering patients and having pre-packaged medications succeeded in reducing medication dispensation time by half. It is important to note, however, that these changes were implemented in the context of COVID-19. Due to the pandemic, the clinic transitioned to drive up medications refill only, patients did not see a provider, and medications were largely unchanged from previous visits. In addition, during this time, no new patients were accepted.

Limitations to this study included a large variability in the number of patients at each shift, and an inability to track other variables once the clinic format changed to accommodate the COVID pandemic. Furthermore, certain categories did not have timesheet data for all patients on each given clinic shift.

Further research is needed to determine if these changes: (a) will result in improved compliance/return rates, and (b) are sustainable once COVID precautions are lifted.

Acknowledgements
This project could not have been completed without the help and support of all members of the PCFMC, including physicians, nurses, pharmacists, lab technicians, and medical students. Special thanks to Mareta Prill (Liaison Officer), Linda Ramos (Clinic Administrator), and Violeta Singson, MD (Medical Director). Additional thanks to the Biostatistics Consulting Service at MCW for help with data analysis.

Table 1: Number of patients seen at each clinic shift.

Table 2: Statistical analysis of timing. Two stages demonstrated statistically significant correlation with the total time spent during clinic.

Figure 1: Average total time spent in clinic graphed against average time spent at the following stages: A) btw. arrival & triage; time spent in triage; B) btw. triage & lab; time spent in lab; C) btw. triage/lab and physician; time spent with physician.

Figure 2: Average time spent during medication dispensation graphed against average total time in clinic. Two changes were implemented, which are illustrated on the graph.
Empowering Family Nutrition Choices
Marie Balfour, M2; Bryan Johnston, MD
Department of Family & Community Medicine, Medical College of Wisconsin

Introduction
Recent studies suggest improving dietary choices involves a social component, with the largest influence on children’s nutrition coming from their parents’ nutritional habits. Previous initiatives in the Wisconsin community through the Food Doctors nutrition education project have shown increases in baseline nutritional knowledge for third-grade students after targeted lessons and a desire among the students to share their newfound nutritional knowledge with family members. A future goal of the Food Doctors project has been to bring the curriculum into family networks to improve baseline nutritional knowledge and empower families toward nutrition behavior change.

Hypothesis
Distributing family-based online nutrition education sessions and conducting interviews with family networks will help determine the factors that contribute to nutritional choices within family circles.

Methods
Interactive virtual family nutritional education sessions modeled after previously successful Food Doctors lesson plans were provided to families at the All Saints Family Medicine Clinic, St. Marcus Lutheran School, and Milwaukee Academy of Science. Semi-structured, post-session phone interviews were conducted with participating families to assess nutritional behaviors. Interviews (n=15) were performed over the phone with participants from the All Saints Family Medicine Clinic, St. Marcus Lutheran School, and Milwaukee Academy of Science. 11 participants identified as adults and/or parents, and 4 participants were children interviewed with their parents. Participant age ranged from 8 to 66 years old.

Interview questions included the following prompts:
• Who is the biggest influence on your nutritional choices?
• Who do you go to when you have questions about food, eating habits, or new recipes?
• Who is the biggest influence on your nutritional choices?
• If you lived alone, would you eat any differently? If so, how?
• When you eat with your family, do you eat any differently than when you are alone? If so, how?

Interviews were recorded and transcribed verbatim. A list of themes was created and developed by the interviewer (MB), and interviews were coded in Dedoose software by two student researchers (MB and WD). Coding agreement was quantified using Dedoose coding tests and Cohen’s Kappa. Interviews were evaluated utilizing grounded theory principles to identify interview themes and create a final theme list.

Results
Virtual lessons (Fig. 2, Fig. 3) were presented live, recorded, and distributed to over 4500 individuals connected through the All Saints Family Medicine Clinic, St. Marcus Lutheran School, and Milwaukee Academy of Science.

Do these look the same?

Figure 2: Example topics from nutrition lesson presentations

Cohen’s Kappa was calculated using Dedoose software as 0.53, or “moderate agreement.” Throughout the family-based interviews, five main themes emerged: perceptions of “healthy” eating among different age groups, family member influence on “healthy” diet, factors that influence healthy eating in families, roles of extended family in nutrition, and family communication around food (Fig. 4).

Discussion
Throughout the interviews, parents’ perceptions of healthy eating were often tied to online research, while children’s views on healthy eating were more granular and centered around conversations with their parents. Many adult participants noted eating as a family unit prompted different eating patterns than their individual nutrition habits outside their family. Outside of the home, parents experienced several second-degree relatives influencing their family’s eating habits through their own personal health journeys or childcare assistance. Numerous parents specifically indicated their nutritional advice from extended family members involved connection through recipe sharing. All interviewed participants expressed personalized challenges integrating their own dietary preferences and/or their family’s dietary preferences with healthy eating guidelines they received from various sources including their doctor, other family members, or their own Internet research. Limitations of this study include limited sample size and potential interviewer bias. This research highlights the need for additional specialized resources to be available for family networks needing more support.

Future Work
Future projects could delve deeper into the value of online nutrition classes and explore the effectiveness of online vs. in-person teaching mediums. Other future work could provide interviewed families with personalized community resources based on their family nutrition challenges.

Acknowledgements
Thank you to Dr. Bryan Johnston for mentorship throughout this project and the Wisconsin Medical Society Foundation for project funding. Additional support came from Dr. Leslie Ruffalo and the Department of Family and Community Medicine at MCW.

References
Qualitative Findings of Latinx Families Experiences Following a Physical Activity and Nutrition Program

David Nelson (1), Kelly Dione (2), Mari Cevilla (3), Jeffrey Condit (2), Paula Papanek (2)

(1) Medical College of Wisconsin, Milwaukee, WI, (2) Marquette University, Milwaukee, WI, (3) United Community Center, Milwaukee, WI

BACKGROUND — There is a need for culturally appropriate community facing programs that support community health. The Latinx community is at risk for obesity, type 2 diabetes and other chronic illness and may struggle with English as a second language. Community physical activity and nutrition programs may provide the basis for families to improve their health status.

RESULTS — Twenty-five interviews with parents and parents and children were conducted over the course of three months. All families were impacted by the program and both parents and children grew in their individual understanding of health and wellness. Children had stronger belief in their individual abilities and understood the importance of both receiving and providing support to their peers. Parents saw growth in positive outlook with the children and their ability to be self directed in nutrition and physical activity. All could see how this program will impact the children later in life.

METHODS — A year long physical activity and nutrition was provided to Latinx families through a community academic partnership with the United Community Center, Marquette University and the Medical College of Wisconsin. Sixth, seventh and eighth grade students participated in a program several times per week and then brought ideas home to parents. Parents also engaged in capacity building programs and families did activities like camping, skiing and parent child weekend outings. At the end of the year, families participated in an interview to discuss the impact of the program.

IMPLICATIONS — Community based participatory research requires the use of evidence-based nutrition and physical activity programming. However, the need to provide continual positive support may be the "secret ingredient" for success and should be built into future programming. Additional research is needed to understand the long-term effect of such supportive programing.

Change for Individual
“Well, he has been improving his eating habits. He has been doing a lot more movements. He was just like video game kid that wouldn’t want to go out and after, when he started the program, he has been more active and everything.”

Change for the Family
“With that, like got her more into being active. All of us actually because I was going to do the running with her and even though I didn’t do it, I’m still active because I just remember how much I liked it. But becoming vegan was more me. She noticed my changes and one day, like I just had to change on my own but I never told my kids you have to do it with me. And then she noticed like the benefits and the changes in my lifestyle so I think that was what helped her.”
Findings show a need for personalize verbiage for MTM and SATR to the patient. It is imperative to continually implement patient and community perspectives into daily pharmacy practice to keep up with the evolving needs of the communities served.

7 out of the 28 stores had one rating of fair, poor or needs improvement for workflow or community experience. Follow-up measures included addition of community-centered measures, including reorganization and senior-friendly furniture. For the SATR community focused calls, 5 calls received a potential for synchronization or enrollment and 1 rejection. 13 MTM calls were accepted to discuss disease state and there were no rejections.

Immunization rooms across Walgreens Area 54 (West Wisconsin) community pharmacies were evaluated for ease of process flow and patient experience. Community perspectives, through interviewing of the pharmacy staff, community members, and potential immunizing patients, were incorporated to streamline the process. Call verbiage for community calls was modified to suit each patient’s care needs to see changes in engagement for Save-a-Trip Refills (SATR) program, a medication synchronization service. Community calls were performed to gauge perspective through late-to-refill, new-to-therapy, adherence check, and community outreach services.

Figure 1. Implementation of Personal Protective Equipment prior to immunization

Figure 2. Medication Synchronization Call Verbiage Implementation

Acknowledgement: Special thanks to Rocky LaDien, RPh, for providing me with the wonderful opportunity to intern and visit his Walgreens Area 54 stores. Thank you to all the store pharmacists and district managers for creating an inviting and constructive environment for change through implementation of community perspective.
Lessons Learned in the First Year of a Pharmacist-Led Community Health Screening Program in Underserved Milwaukee Neighborhoods

Michael DeBisschop, PharmD,1 David N. Ombengi, PharmD, MBA, MPH1,2, Colleen Cornelius, MS1, George MacKinnon, PhD1,2
Medical College of Wisconsin (MCW) School of Pharmacy1; Department of Family and Community Medicine2
Medical College of Wisconsin, Milwaukee, WI 53226

RATIONAL

MCW NEIGHBORHOOD PARTNERS

Increase access to health care in Milwaukee area communities

Prepare students for innovative future practice

A pharmacist-led, community-engaged health and wellness service

Address future primary care provider shortages in Wisconsin

COMMUNITY ENGAGEMENT

Listening Sessions
Surveys
Community Events
Meet and Greets

Key Community Service Organization Partners

Next Door Foundation
Metcalfe Community Bridges
COA Goldin Center

Primary Partner
Community Development Organization
Community Center

STUDENT ROLES – IPPE AND APPE

COMMUNITY ENGAGEMENT
PROTOCOL DEVELOPMENT
CLIENT EDUCATION
POINT OF CARE TESTING
PHYSICAL ASSESSMENT
DOCUMENTATION
CLIENT RECRUITMENT
MOTIVATING CLIENTS TOWARDS LIFESTYLE CHANGES
INTERPRETATION OF RESULTS

SCREENING SERVICES

Top Needs Identified through Community Engagement

Blood Pressure
Cholesterol

Blood Glucose
Body Mass Index

Exercise & Diet Counseling
Health & Wellness Education

MILESTONES AND RESULTS

• Over 60 CE and collaboration meetings
• Office established, CLIA Waiver obtained
• Office open each Friday; 9 community events
• 157 unique clients, 214 encounters
• 8 students (4 IPPE, 4 APPE) trained
• 3 referrals made to free health care providers

LESSONS LEARNED

• Start early! Fruitful partnerships take a long time to build.
• Listen to the community voices.
• Incorporate and train students! Organizations and clients love working with students.
• Train students early in didactic education.
• Be in the community! Yes, be visible!
• A consistent presence leads to developing valuable connections with people that can help achieve the mission.
• Talk to the people served! One-on-one and small group conversations are useful.
• These conversations will reveal things previously unknown.
• Be flexible! Stay true to the mission and adopt different ways to do so.

ACKNOWLEDGEMENT
This project is made possible by a generous gift from Dr. John and Mrs. Maggie Raymond to the Community Health and Service Learning Fund.

REFERENCES