### AIMS

1. To ascertain the attitudes and knowledge of urban Latinos in Milwaukee about diabetic eye disease (DED) and telemedicine
2. To assess their response to teleophthalmology screenings at a community center facilitated by Spanish speaking staff

### METHODS

- From 2014-2015, English and Spanish pre- and post-screening focus groups (FG) were held at UCC
- Baseline DED knowledge was gathered with National Eye Institute’s Eye-Q test
- Two researchers independently analyzed FG transcriptions and common themes were coded and discussed

### RESULTS

#### DIABETIC EYE DISEASE KNOWLEDGE: EYE-Q TEST

<table>
<thead>
<tr>
<th>English FG: 57%</th>
<th>Spanish FG: 41%</th>
</tr>
</thead>
<tbody>
<tr>
<td>p = 0.20</td>
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</table>

Questions which were answered incorrectly by all participants:
- Spanish FG: People who have good control of their diabetes are not at risk for DED
- English FG: DED usually has early warning signs

#### TELEMEDICINE

- Efficiency
- Conveniences
- Not needing transportation
- Early disease detection
- Loss of physician-patient relationship
- Potential additional costs
- Initial fear of technology

#### ATTITUDES TOWARDS DED AND SEEKING CARE

- "If my relative didn’t have diabetes, she might not have had an eye exam until she was losing her sight. Because only when you feel the problem is when you do something."

#### POOR EMPHASIS ON PREVENTATIVE CARE

- "If there was something here at UCC, even though I feel like I don’t need it, I never had it, I would completely do it, it makes it so easy. Convenience."

#### HOW TO RAISE AWARENESS OF DIABETIC EYE HEALTH WITHIN LATINO COMMUNITY

- Video showcasing a multigenerational, single household affected by DED
- Education about diabetes in school so that children can bring concepts back home

### LIMITATIONS

- Initial Eye-Q test was the only quantitative assessment performed
- FG participants may not be representative of those who eventually received screening intervention
- Semi-structured interview format resulted in some discrepancies in FG questions

### CONCLUSION

- FG participants had positive experiences with teleophthalmology screenings done at UCC and listed various factors that broke down barriers to preventive eye screening
- Unlike most teleophthalmology studies in the literature, our study is unique for assessing screenings done in a community center versus at clinics
- High acceptance of this novel teleophthalmology approach may help improve compliance to annual screenings in the urban Latino communities

### REFERENCES

Background

- Lack of disease prevention and daily management education is seen in all patient populations, and especially the underserved (1).
- CHECK UP is a student-led program to identify and address gaps in medical education to improve patient outcomes.
- An understanding of the visual system, its interaction with other bodily systems, and the consequences of dysfunction are relevant for all medical practitioners, and especially primary care physicians.
- Up to 10% of all patients who present to their PCP do so with eye-related conditions (2).

Methods

- A Qualtrics survey will be sent to primary care physicians (family and internal medicine), emergency medicine physicians, and 4th year medical students.
- Likert scale questions aimed to assess level of comfort with basic eye exam techniques, triaging, diagnosing, treating ocular disorders and injuries and educating patients on prevention and management of common eye conditions.

Results

- We anticipate discomfort among general practitioners in basic eye exam techniques, triaging, diagnosing, and treating ophthalmic conditions.
- We anticipate that current physicians and students will indicate need for increased ophthalmic education in medical training.
- We expect the need for continued education on referral recommendations to ophthalmology.

Conclusions

- Ophthalmic medical student education is a cornerstone to improving eye health care in the general population.
- This project engages the physician and student community to understand if more training is needed to equip medical students to have a formative impact on patient-engaged education for ophthalmic conditions.
- A student-delivered CHECK UP workshop will be offered for junior medical students to fill the gaps in pre-clinical ophthalmology medical education.

References

Implementing Telemedicine at a Student-Run Free Clinic: Adapting Operations to Continue our Mission During a Pandemic

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²Department of Family and Community Medicine, Medical College of Wisconsin, Milwaukee, WI, USA

Background

In response to the COVID-19 pandemic, healthcare systems sought alternatives to traditional care platforms, turning to telemedicine to provide the bulk of primary medical care. Prior to the pandemic, most medical care was provided in face-to-face visits. Saturday Clinic for the Uninsured (SCU), a Medical College of Wisconsin (MCW) student-run free clinic, solely provided in-person care prior to the pandemic. In March 2020, SCU leadership began developing a telemedicine program that was launched in July (Figure 1).

Results

Figure 2. Total number of in person and telemedicine appointments for 18-week period between July-October

![Figure 3. Distribution of interest in telemedicine & in person volunteerism among 94 M2 student applicants. Data displayed in absolute values.](image)

Figure 3. Distribution of interest in telemedicine & in person volunteerism among 94 M2 student applicants. Data displayed in absolute values.

Discussion & Conclusion

• SCU’s telemedicine program has the potential to increase the clinic’s capacity to provide care.
• Students are interested in developing their telemedicine skills and the program has been successful in meeting volunteer goals among individuals.
• Preliminary data suggests that students find this program a beneficial supplement to their clinical education.
• Preliminary data suggests that telemedicine volunteers complete an increased number of appointments compared to their counterparts volunteering in-person at the clinic.

Future Directions

• Further investigation is needed to determine how many individual patients were served via telemedicine rather than appointments.
• Develop a system for obtaining patient feedback.
• Improve volunteer training and program experience.
• Continue surveying volunteers for additional input and planning.

M2 Student Volunteer Evaluation of the Program

An anonymous survey to obtain feedback on telemedicine experiences was sent to all 42 M2 Telehealth volunteers. Response rate 31%.

Preliminary Qualitative Data

• Students believe the SCU Telemedicine experience has enhanced their medical training

Successes

• “I feel like the Telemedicine visits have been much more efficient than the in-person visits I conducted last year.”
• “Telemedicine is a really great way [for patients] to get their meds without needing to come into clinic for an appointment.”

Challenges

• Many patients still “end up being scheduled for an in-person visit” for a physical assessment.

Methods

Statistical analysis of volunteer involvement using application records and surveys. Patient visit data was obtained from clinic visit schedules.

Student T-test was used to determine statistical significance.

Figure 4. Self-rating of degree of confidence completing a patient interview before beginning program and after volunteering & training

Average rating by survey respondents (n=12) on a Likert scale 1-5, with 1 being not at all confident and 5 being extremely confident. ** p<0.01

References

Medical student engagement in the community can be an important part of their professional development. To gain a better understanding of what students might gain from participating in these experiences, we interviewed 29 community stakeholders. Coding this feedback, we identified themes and four relevant character traits: perspective, trustworthiness, perseverance, and social intelligence. We piloted several feedback mechanisms for both students and community mentors, including the development of a Community Engagement Feedback Tool that was used to track students’ progress over the two year experience. Focus groups were conducted with the medical students to help them reflect on their experiences and to inform future efforts. Community member feedback can help drive student learning experiences and can support the formation of the mutually beneficial relationships needed to drive positive community outcomes.

Results

Identified Characteristics

**Perspective**
“I believe that it is so important that doctors understand the community, understand the culture of the community… you have to have your finger on the pulse.”

**Trustworthiness**
Trustworthy people exhibit motivation and commitment to do what they have been tasked to do and possess the knowledge and competence to do it (Hardin 28-31).

**Perseverance**
The capacity to work and exert effort in spite of obstacles and challenges, demonstrating resilience to proceed and be continually engaged

**Social Intelligence**
“Your best doctors are doctors that understand their patients and are able to relate and engage.”

Conclusions and Future Directions

• Community engagement during medical school helps medical students to develop skills desired by community members
• Identified traits in future physicians can be quantified through reflection and monitoring to assess progress
• Collect feedback and connect with Hmong and other groups under-represented in this set of interviews.
• Assess the effectiveness of the Physician in the Community course in students’ progression using the Community Engagement Feedback Tool

Acknowledgements

LM received funding from WI Area Heath & Education Center through Community Health Internship Program. CN and AP received support from the Kern Institute. We would like to extend our thanks to all of our community partners and Nick Giordano for his assistance with the data analysis.

References


A Survey of Wisconsin Physician Gender Bias
Brittany Schultz, MS3 & Kristin Tischer, MS3

INTRODUCTION
Over 70% of female physicians have reported experiencing gender bias in their career1
Female physicians earn on average $20,000 less than their male counterparts2
Female physicians make up one-third of working doctors, 46% of residents, and over 50% of medical students, and yet they are a very small portion of leadership positions in medicine and are less likely to be promoted3
Physician mothers report 90% gender discrimination they have experienced was related to pregnancy, maternity leave, and 50% reported disrespectful comments about breastfeeding on the job4

A 2018 study that surveyed 7,409 US general surgery residents found that gender discrimination was reported by 31.9% of residents, 65.1% of those residents were female and 10% were men5.

PURPOSE
To study how Wisconsin physicians view gender bias in the workplace.
To help create a discussion about how Wisconsin communities can eliminate gender bias.

METHODS
An electronic survey was distributed via a link in the Wisconsin Medical Society’s online newsletter.

Demographic information such as age, gender, medical specialty, and location of practice was gathered.

Using a Likert scale, participants answered seven questions regarding their personal experience with gender bias.

Participants were given the option to share personal stories and/or their opinions on the subject.

RESULTS
"I have experienced gender bias in the workplace."

"My pay and/or benefits are not equivalent to my peers at my level."

"I was treated with disrespect by nursing or other support staff."

"As a female physician I am constantly being assumed to be the nurse. Male patients have referred to me as ‘sweetie’ and ‘honey’..." – Female, Family Medicine, Age 40-50

"...The gender bias over the course of my career was constant and pervasive. I am sure that I, too, am guilty of that bias, however much I resisted it when I could see it. I know that we all could do so much better." – Female, Internal Medicine, Age 60+

"One of my peers states that the reason there is a shortage of doctors in medicine is that there are too many women in medicine. He has done this on multiple occasions in front of me..." – Female, Age 50-60, Plastic & Hand Surgeon

"Gender bias exists primarily in the eyes of individuals looking to be offended...Women in the past have worked less than men in ortho, thereby making less money. That’s not bias. A physician cannot “have it all.” If one wishes to spend more time in non-medical activities, less money may be earned. Period." – Male, Orthopedics, Age 60+

"As a white male, if I have experienced gender bias, it would be in my favor. Most notably, my voice seems to be respected at meetings..." – Male, Family Medicine, Age 40-50

CONCLUSIONS
A total of 96 Wisconsin physicians responded to the survey; 79 females and 17 males.

Of the responses, 90.1% of female physicians reported having experienced gender bias, whereas only 29.4% of male physicians reported experiencing gender bias.

In addition 64.7% of men answered that their pay was equivalent to other colleagues in their same specialty, whereas only 33.8% of female physicians reported that their pay was equal to colleagues in the same specialty.

One limitation of the study was a low response rate from male physicians. In order to get a more representative understanding of male physicians’ viewpoints on gender bias more male participants are needed.

Overall, the results from the survey show that gender bias exists among Wisconsin physicians and may indicate a larger scale gender bias that exists in society.

Future studies are needed to determine specific strategies hospitals and academic institutions can take to eliminate gender bias in medicine.

REFERENCES
**Introduction and Goals**

- Low-income populations and the elderly are at-risk for low health literacy and poor health outcomes.
- SET Ministry (and later Lutheran Social Services), Highland Gardens (HG) public housing apartments, and the Medical College of Wisconsin (MCW) have partnered since 2010 to:
  - Improve health literacy among mostly elderly residents of public housing
  - Educate diverse populations to make informed health decisions
  - Provide community engaged scholarship opportunities for medical students
- MCW students plan and lead monthly presentations on health topics selected by the HG residents.

**Methods**

<table>
<thead>
<tr>
<th>Public Housing Residents</th>
<th>Medical Student Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compiled attendance since 2017</td>
<td>1. Compiled names of medical student leaders since program initiation in 2011</td>
</tr>
<tr>
<td>2. Collected medical student field notes &amp; reflections, since 2018</td>
<td>2. Conducted 6 interviews asking reflective questions about participation and potential impacts on self and career</td>
</tr>
<tr>
<td>3. Conducted 2 focus groups and 3 interviews of HG residents, asking questions regarding motivations/barriers, benefits, areas for improvement</td>
<td>3. Recorded and transcribed</td>
</tr>
<tr>
<td>4. Recorded and transcribed</td>
<td>4. Coded transcriptions using pre-identified codes with multiple coders to ensure reliability</td>
</tr>
<tr>
<td>5. Coded transcriptions using pre-identified codes with multiple coders to ensure reliability</td>
<td></td>
</tr>
</tbody>
</table>

**Results**

**Public Housing Residents**

- 45 distinct residents attended since January 2017.
- Residents attended (mean) 5 sessions (range 1-20)
- On average, 10.8 residents attended per session
- 11 (24.4%) participated in a focus group (n=8) or individual interview (n=3)
- 1 student provided field notes on 8 sessions

**Qualitative Analysis** revealed four primary themes (Table 1):

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative Quotes/Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Desire to Learn</td>
<td>“We need to learn those things about our body.”</td>
</tr>
<tr>
<td>2. Dedication to Helping Others</td>
<td>“We can spread the words of what we learned from these meetings.”</td>
</tr>
<tr>
<td>3. Generation of a Community</td>
<td>“We’re a group, we trust each other.”</td>
</tr>
<tr>
<td>4. Frustrations with Healthcare</td>
<td>“The doctors don’t have the time like they used to to explain the things that you really need to know and want to know”</td>
</tr>
</tbody>
</table>

**Medical Student Leaders**

- 9 total identified graduated student leaders
- Typically 2-3 years of participation
- Two represented specialties: Internal medicine (5), pediatrics (1)

**Qualitative analysis** revealed five primary themes (Table 2):

<table>
<thead>
<tr>
<th>Theme</th>
<th>Representative Quotes/Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Communication Skills</td>
<td>“I really liked learning how to talk about things in a nonmedical way”</td>
</tr>
<tr>
<td>2. Seeing Healthcare in Community Setting</td>
<td>“You come away learning much more about how medicine works and how people feel about medicine”</td>
</tr>
<tr>
<td>3. Resident Relationships</td>
<td>“Looking forward to seeing those people and having those conversations”</td>
</tr>
<tr>
<td>4. Fostering a Love of Community Work</td>
<td>“Solidified my goal to serve whatever community I ended up in…and really to make community talks and topics part of my outreach.”</td>
</tr>
<tr>
<td>5. Making a Difference</td>
<td>“Felt like we were actually helping people who needed help”</td>
</tr>
</tbody>
</table>

**Areas for Improvement**:

- Incorporating more activities
- Further collaborating with specialists, faculty, or other health professional students (i.e., dentistry)

**Discussion**

**For Highland Gardens Residents**:

- The sessions seem to have mental, social, and emotional benefits beyond acquiring health information.
- The program provides a safe space where members from marginalized communities can interface with individuals in healthcare.

**For Medical Student Leaders**:

- The program allows students to finesse clinically-applicable skills while fostering understanding, appreciation, advocacy, and admiration for at-risk communities.

**This study was limited by**:

- Generally low number of participants in both surveyed groups
- Some voices/viewpoints may not be represented
- Risk of social desirability and selection biases
Implementing a Medical Student Community Engagement Summer Immersion Program
Bryan Johnston, Sarah O’Connor, Kelsey Heindel, Myah Pazdera, David Nelson, Leslie Ruffalo, Syed Ahmed
Medical College of Wisconsin, Milwaukee, WI

BACKGROUND
In order to provide an opportunity for medical students to learn about community engagement (CE) and community engaged research (CEnR), the MCW Office of Community Engagement (OCE), in collaboration with the Medical Student Summer Research Program (MSSRP), offered a Medical Student Community Engagement Summer Immersion Program. Due to the COVID-19 pandemic, the program was virtual.
Understanding CE and CEnR is important to address social determinants of health (SDOH) and resulting health disparities [1]. Medical professionals are more likely to meet the challenges of societal issues when they understand CE [2]. Thus, it is critical that medical education is infused with CE in order to understand SDOH and address health disparities.

RESULTS
• 75% (n=153) of all M2 students at MCW participated in MSSRP & the CE didactic session
• 30 students applied to & participated in immersion program: 13 from MCW & 17 from UNMC
• Survey response rates varied: Session 1 (67%), Session 2 (33%), Session 3 (47%)
• At least 90% of respondents strongly or somewhat agreed that each session was worthwhile
• 100% of respondents strongly or somewhat agreed they learned something they will use in their practice/profession
• 40% of immersion participants expressed interest in CE journal club

METHODS
A virtual immersion program was developed and led by the OCE.
• MCW second year medical students (M2) who participated in MSSRP attended a required didactic session: “Community Engagement: A key component of medical education.”
• MCW MSSRP students & medical students from University of Nebraska Medical Center (UNMC) were invited to submit applications for a 3-session immersion program.
• Application questions focused on CE interest and experience; prior CE experience was not required.
• Immersion program sessions focused on principles of CE & CEnR. MCW faculty & community partners co-led each session. Post-session evaluations asked participants to provide feedback about the session, their learning, the speakers, and further interest.

SESSION 1
Equitable Power and Responsibility

SESSION 2
Strong Community-Academic Partnership & Capacity Building

SESSION 3
Effective Dissemination Plan

CONCLUSION
It is important to offer medical students an opportunity to learn about CE and to engage with other medical students, faculty, and community partners around their interest.

References
Tiered Mentoring At JMAC: Evaluation of a Medical Student-Led Health Careers Outreach Program

Morgan Ashley CraftMCW '22, Kyle WelhouseMCW '22, Suzanne LetellierMAHEC, Linda Meurer MD, MPH
Department of Family and Community Medicine, Medical College of Wisconsin

Background
- African Americans comprise approximately 13% of the US population, but comprise only 7% of recent medical school graduates and 4% of physicians.1
- Racial and ethnic concordance of physicians and patients may reduce health disparities among underrepresented groups.2
- Pipeline programs target underrepresented youth and promote their interests in healthcare fields through mentorship and creating an environment of social support.3

Purpose: Academic Year 2019 - 2020
I. To increase high school students’ knowledge of healthcare careers and postsecondary education requirements
II. To increase high school students’ participation in summer enrichment programs
III. To increase medical students’ cultural awareness and abilities in intercultural communication

Community Partners
- Milwaukee Area Health Education Center’s Youth Health Service Corps (YHSC) engages high school students interested in pursuing healthcare careers through instruction and field activities.
- James Madison Academic Campus (JMAC) is a Milwaukee public high school predominately serving African Americans.
- The Urban and Community Health Pathway at MCW began a partnership with YHSC at JMAC in 2010 and has continued through successive classes of YHSC participants and MCW student mentors.

Methods
- Participants/Recruitment for 2019-2020: 15 JMAC sophomore through senior students enrolled in YHSC; 3-5 MCW medical student leaders/volunteers.
- Intervention: Hour-long, healthcare-focused monthly sessions were explored based on students’ interests. Students were guided and supported by the MCW leaders.
- Service learning: New partnership with Milwaukee Firehouse to document Automated External Defibrillator (AED) locations
- Evaluation: Session surveys by the JMAC students on session satisfaction/learning; reflective observation evaluations by the MCW leaders. YHSC pre- and post-surveys.

Results

<table>
<thead>
<tr>
<th>Planned Topic</th>
<th>Attendance</th>
<th>Mean Satisfaction (1=low; 5=high)</th>
<th>Mean Learning (1=low; 5=high)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Planning</td>
<td>15</td>
<td>3.73</td>
<td>4.6</td>
</tr>
<tr>
<td>Firehouse/Cadet School Field Trip</td>
<td>12</td>
<td>4.5</td>
<td>4.3</td>
</tr>
<tr>
<td>Social Determinants &amp; Maternal Health</td>
<td>9</td>
<td>4.22</td>
<td>4.33</td>
</tr>
<tr>
<td>Intro to AED Project/Summer Programs</td>
<td>6</td>
<td>4.83</td>
<td>4.67</td>
</tr>
<tr>
<td>Trauma Bay Tour*</td>
<td>-</td>
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<td>-</td>
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<tr>
<td>AED Project F/U*</td>
<td>-</td>
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<tr>
<td>Celebration*</td>
<td>-</td>
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*Sessions were not completed due to the COVID 19 pandemic

Discussion
- Students reported high satisfaction and learning from the sessions.
- Sessions that allowed students to be divided into smaller groups and that were hands on were more enjoyable to the YHSC participants; there was maximum engagement on field trips to MCW and the Milwaukee Firehouse/Cadet School.
- Challenges faced:
  - Limited access to technology for research, summer applications, etc.
  - Creating an intimate environment with limited MCW volunteers
  - COVID 19 school closure prevented distribution of YHSC post-survey and completion of program
  - Loss of communication with teachers & YHSC participants during COVID 19

Future Directions
- Continue field trips to MCW and other health-related facilities.
- Earlier implementation of a service learning project.
- Implement methods to maintain participant engagement throughout the year and to build more one-on-one mentoring.
- Engage new cohort of medical students to maintain program.
- Collaborate with JMAC to implement virtual program if schools remain closed

References: