MEDICAL COLLEGE OF WISCONSIN

Community Engagement

Community Engagement

Poster Session

Poster Session #1
Tuesday, November 2, 2021
11:00—12:30 PM

Poster Session #2
Wednesday, November 3, 2021
4:00—5:30 PM

Virtual Meeting via ZOOM

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Welcome to the 7th Annual MCW Community Engagement Poster Session

As the acting Senior Associate Dean for Community Engagement at the Medical College of Wisconsin, it gives me great pleasure to welcome you to our 7th Annual Community Engagement Poster Session.

The last year has highlighted how we can prioritize the needs of community and work towards health equity. We continue to be honored as a trusted partner by our community leaders and organizations. We are grateful that we can continue to gather together with this poster session to highlight the important work of our students, staff, faculty, and community partners.

Community engagement, one of the four missions at the Medical College of Wisconsin (MCW), is richly embedded in our programs and throughout our centers, institutes, and departments. The Office of Community Engagement is proud of the many community-engaged efforts happening across all MCW campuses and in Wisconsin communities, as well as the expertise and commitment to the practice of community engagement by faculty, staff, students, and community partners. We are fostering future leaders in community engagement by leveraging the mentorship, experience, insights, and efforts offered by these practitioners. It is only through genuine partnerships, and mutual, longstanding commitments to the communities we serve, that MCW can impact lives and play a role in improving health in Wisconsin.

It is our hope that this event will provide insight on how we can be better partners, improve our programs, and have greater impact on health. We hope these sessions and the connections that are showcased throughout this event will nurture partnerships and catalyze new projects and partner opportunities.

We continue to encourage people to innovate in how we engage each other, for the overall health and benefit of the communities we serve. Thank you for contributing to leadership and excellence in community engagement and promoting the health of the community through education, research, and patient care!

We wish you good health during these challenging times.

Sincerely,

Staci Young, PhD
Senior Associate Dean for Community Engagement (interim)
Associate Professor, Department of Family and Community Medicine
Associate Professor, Institute for Health & Equity
Director, Center for Healthy Communities and Research

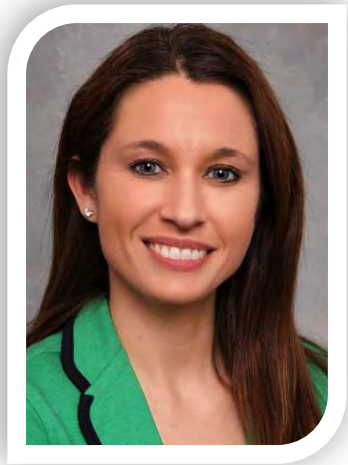
AAMC Association of American Medical Colleges

Carnegie Foundation
Elective
Community Engagement
Classification

2021 COMMUNITY ENGAGEMENT POSTER SESSION MODERATORS

Staci Young, PhD

Dr. Staci Young is the new interim Senior Associate Dean for Community Engagement at MCW and interim Director of the Office of Community Engagement. She is also an Associate Professor in the Department of Family and Community Medicine and the Director of the Center for Healthy Communities and Research. She teaches graduate courses and mentors students for MCW's PhD program in Public and Community Health and serves as a Faculty Advisor for the student-run Saturday Clinic for the Uninsured. As a medical sociologist, her work demonstrates a deep commitment to examining structural barriers and conditions that contribute to health disparities.



Leslie Ruffalo, PhD, MS

Leslie Ruffalo, PhD, MS is an Associate Professor and the Co-Director of Medical Student Education in the Department of Family and Community Medicine at the Medical College of Wisconsin. In addition to the Department of Family and Community Medicine, she holds faculty appointments in the Office of Community Engagement, the Graduate School, and the Kern Institute. Dr. Ruffalo defines herself as a community-engaged health researcher and educator. Since finishing her doctorate, she has worked extensively with neighborhoods and communities across the state of Wisconsin to address health priority needs generated by community members. Her research philosophy is to apply community engaged research principles to answer research questions that are important to the community. Dr. Ruffalo's research approach has been applied to veteran health, food security, school-based health and wellness, and rural health.

Tuesday, November 2 Live Poster Presentations

1. **Mapping Milwaukee's Blueprint for Peace: Evaluating the Geospatial Reach of the Implementation of a Community-Based, Hospital-Partnered Violence Intervention Program, 414LIFE**

   Amber Brandolino, MS, MCW-Milwaukee, Dept. of Surgery; Terri A. deRoon-Cassini, PhD, MCW-Milwaukee, Dept. of Surgery; Peter Nguyen, BS, MCW-Milwaukee; Ramneet Mann, BSc, MCW-Milwaukee; Sydney Timmer-Murillo, PhD, MS, MCW-Milwaukee, Dept. of Surgery; Marc de Moya, MD, MCW-Milwaukee, Dept. of Surgery; Basil Karam, MD, MCW-Milwaukee, Dept. of Surgery; Andrew Schramm, PhD, MCW-Milwaukee, Dept. of Surgery; Reggie Moore, CIC; Derrick Rogers, CIC; Tonia Liddell, CIC; Kathleen Williams, MD, MCW-Milwaukee, Dept. of Emergency Medicine; Alicia Pilarski, DO, MCW-Milwaukee, Dept. of Emergency Medicine; Brady McIntosh, MD, MCW-Milwaukee, Dept. of Emergency Medicine; David J. Milia, MD, MCW-Milwaukee, Dept. of Surgery

   VIDEO LINK: https://youtu.be/Htj67gkEsll

2. **Delineating Junior High Student Mental Health Needs Throughout the COVID-19 Pandemic**

   Mikaela DeCoster, MCW-Central WI; Hilary Steltenpohl, MD, MCW-Central WI; Taylor Seehafer, D.C. Everest Junior High; Elizabeth Krueger, MS, LPC, Achieve Center; Amy Prunuske, PhD, MCW-Central WI

   VIDEO LINK: https://youtu.be/Pnmkh_o0DkU

3. **Ahmong Us Mentorship Program**

   Andrew Sepiol, MCW-Central WI; Corina Norrbom, MD, MCW-Central WI; Amy Prunuske, PhD, MCW-Central WI; Sheng Khang, North Central Area Health Education Center; Mang Xiong, Wisconsin Institute for Public Policy and Service

   VIDEO LINK: https://youtu.be/-ne5bMPHeHw

4. **Environmental Health Systems Partnering to Improve Water Pathogen Surveillance and Public Health Communication**

   Lucas J. Beversdorf, BS, MS, PhD, City of Milwaukee Health Department Laboratory; Kristin Schieble, BS, City of Milwaukee Health Department Laboratory; Julie N. Plevak, BA, City of Milwaukee Health Department Laboratory; Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department Laboratory

   VIDEO LINK: https://youtu.be/SompMrt2uw8

5. **Role of Milwaukee Health Department Laboratory in Community Partnerships for the Deployment of COVID-19 Point of Care Testing Instruments at Non-Traditional Sites**

   Amy Bauer, BS, City of Milwaukee Health Department Laboratory; Kristin Schieble, BS, City of Milwaukee Health Department Laboratory; Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department Laboratory; Nandhakumar Balakrishnan, MS, PhD, City of Milwaukee Health Department Laboratory

   VIDEO LINK: https://youtu.be/aqZMtFI-z40

6. **Impact evaluation of patient-centered, community-engaged health modules for homeless pregnant women**

   Shelby Nelipovich, MCW-Milwaukee; Nayanika Kotagiri, MCW-Milwaukee; Esha Afreen, MCW-Milwaukee; Morgan A. Craft, MCW-Milwaukee; Sara E. Allen, MCW-Milwaukee; Caroline C. Davitt, MCW-Milwaukee; Leslie Ruffalo, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine; Sabina Diehr, MD, MCW-Milwaukee, Dept. of Family & Community Medicine

   VIDEO LINK: https://youtu.be/AyGBPMVZ9RE

7. **A Community-Based Participatory Approach to Conducting a Photovoice Research Study: A Guide for the Novice**

   Emily Beltran, BS, Marquette University, College of Nursing/CTSI; Dora Clayton-Jones, PhD, PNP-PC, APRN-BC, Marquette University, College of Nursing/CTSI; Lee Za Ong, PhD, LPC, CRC, Marquette University, Dept. of Counselor Education & Counseling Psychology; Abir Bekhet, PhD, RN, HSMI, Marquette University, College of Nursing; Joshua Field, MD, MS, Versiti/MCW-Milwaukee Clinical Research/Hematology; Leroy Ediage, BA, Community Member; Dominique Goodson, BA, Community Member; Chinonyelum Nwosu, BS, MPH, Community Member; Ethleen Peacock, AS, BSc, Community Member; Sydnei Richardson, BSN Student, Community Member; Terreea Shropshire, JD, Community Member; Kristin Haglund, PhD, RN, PNP, FNP, APRN-BC, Marquette University, College of Nursing

   VIDEO LINK: https://youtu.be/F2zbReIJaEw

8. **Wisconsin Family Physician Perspective on Telehealth Usage by Visit Type during COVID and Beyond**

   Patrick Vosters, MCW-Green Bay; Brandon Wimmer, WAFP; Katrina Rosculet, MD, MA, MCW-Green Bay; Eva Christensen, MD, PhD, MCW-Green Bay

   VIDEO LINK: https://youtu.be/lzcuhe3ZK_I

9. **Patient and Provider Perspectives on Geriatric Weight Management in the Community**

   Elise Kahn, BS, MCW-Milwaukee; Leslie Ruffalo, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine

   VIDEO LINK: https://youtu.be/0a46ERZAf5Y

Wednesday, November 3 Live Poster Presentations

1. **Growing Healthy Soil for Healthy Communities: An Effective Program for Improving Public Health Practice**

   Kristen Champion, BS, UW-Milwaukee, Zilber School of Public Health; Jean M. Wojnar, MS, City of Milwaukee Health Department Laboratory; Elizabeth Zembrowski, BS, City of Milwaukee Health Department Laboratory; Rebeca Pinhancos, MS, City of Milwaukee Health Department Laboratory; Julie N. Plevak, BA, City of Milwaukee Health Department Laboratory; Lucas J. Beversdorf, BS, MS, PhD, City of Milwaukee Health Department Laboratory; Sanjib Bhattacharyya, PhD, City of Milwaukee Health Department Laboratory

   VIDEO LINK: https://youtu.be/nYrQeIkm_H8

2. **Creating and Evaluating a Parent Advocacy Curriculum**

   Kristin Kappelman, MA, Milwaukee Succeeds

   VIDEO LINK: https://youtu.be/wVTN6OIldeQ

3. **Meeting People at Their Door: A Community-Based Equity-Focused Approach to Build Vaccine Confidence**

   Mara Lord, MBA, MCW-Milwaukee, Office of the President; Lorraine Lathen, Jump at the Sun; BW Weston, MD, MPH, MCW-Milwaukee, Dept. of Emergency Medicine

   VIDEO LINK: https://youtu.be/dTcGsRby-8c

4. **A community-academic partnership to deliver ongoing COVID-19 vaccine education through virtual panel discussions**

   Michael DeBisschop, PharmD, MCW School of Pharmacy; Dessie Levy, PhD, Clinical & Translational Science Institute of Southeast Wisconsin; Colleen Cornelius, MS, MCW School of Pharmacy; MaryNell Ryan, MS, Next Door Foundation; Lisa Garlie, MAED, Next Door Foundation; Cathy Schwab, Next Door Foundation

   VIDEO LINK: https://youtu.be/94wUAQLGVsE

5. **A community-based vaccine outreach team initiative to increase COVID-19 vaccination rates in Milwaukee**

   Val Moore, Next Door Foundation, COVID-19 Vaccine Outreach Team; Jeremy Walton, Next Door Foundation, COVID-19 Vaccine Outreach Team; Aretha Kubera, Next Door Foundation, COVID-19 Vaccine Outreach Team; Yiyi Than, Next Door Foundation, COVID-19 Vaccine Outreach Team; David Tate, Jr., Next Door Foundation, COVID-19 Vaccine Outreach Team; Natasha Fair, Next Door Foundation, COVID-19 Vaccine Outreach Team; Michael DeBisschop, PharMD, MCW School of Pharmacy, Clinical Sciences; Colleen Cornelius, MS, MCW School of Pharmacy, Office of Business Affairs; Tracey Sparrow, EdD, Next Door Foundation

   VIDEO LINK: https://youtu.be/z4lzKLmUO3Y

6. **Engaging Muslim Americans for Research on Community Health: Lessons Learned from a Patient-Centered Outcomes Research Capacity-Building Program**

   Aasim Padela, MD MSc, Initiative on Islam and Medicine, MCW-Milwaukee, Dept. of Emergency Medicine; Stephen Hall, MPH, Initiative on Islam and Medicine; Fatema Mirza, Worry Free Community; Adel Syed, MPPA, UMMA Clinic; Yasser Aman, DrPH, Los Angeles County Martin Luther King Outpatient Center

   VIDEO LINK: https://youtu.be/8ntZ4qdge0g

7. **Mental Health in Rural Wisconsin Youth: How to Provide Support**

   Haylee Geib, MCW-Green Bay

   VIDEO LINK: https://youtu.be/d977VpB_6mY

8. **Impact of the COVID-19 Pandemic on Global Health Partnerships**

   Jara McLarren, MPH, MCW-Milwaukee; Kara Kallies, MS, MCW-Milwaukee, Institute for Health & Equity; Amber Brandolino, MS, MCW-Milwaukee, Division of Trauma & Acute Care Surgery, Dept. of Surgery; Christopher Dodgion, MD, MCW-Milwaukee, Division of Trauma & Acute Care Surgery, Dept. of Surgery; Mary E. Schroeder, MD, MCW-Milwaukee, Division of Trauma & Acute Care Surgery, Dept. of Surgery

   VIDEO LINK: https://youtu.be/HhfXWfcvqcs

9. **"It's about being healthy"; Family Perspectives on the Impact of a Fitness and Nutrition Program within the Latinx Community**

   Bethany Korom, MCW-Milwaukee; Meghan Malloy, MCW-Milwaukee; Caroline Remmers, MCW-Milwaukee; David Nelson, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine

   VIDEO LINK: https://youtu.be/ovVAb8EklGE

Pre-recorded Poster Presentations

1. **A Retrospective Quality Improvement Study Comparing As-Needed and Tapering Protocols for Total Opioid Administration in Veteran Population**

   Vasil V. Kukushliev, MCW-Milwaukee; Christopher M. Kurylo, MCW-Milwaukee; Stephen D. Ortmann, MCW-Milwaukee; Katherine A. Sherman, Clement V. Zablocki VA Medical Center; Maxwell Hershey, MCW-Milwaukee; Robert A. Scheidt, Washington University School of Medicine; Karl B. Scheidt, MCW-Milwaukee

   VIDEO LINK: https://youtu.be/iwW6s337t7s

2. **Evaluating the Use of Cognitive Behavioral Therapy for Improving Self-Efficacy After Bariatric Surgery**

   Nicole L. Petcka, MCW-Green Bay

   VIDEO LINK: https://youtu.be/M1yQJyTdg6g

3. **Measuring Community Distress During the COVID-19 Pandemic: A community-academic partnership**

   Sara A. Kohlbeck, MPH, MCW-Milwaukee, Comprehensive Injury Center; Sarah Bassing-Sutton, Northeast Wisconsin Mental Health Connection

   VIDEO LINK: https://youtu.be/W8vZfDebrLM

4. **Waupaca County Medical Transport Location and Cost Disparities**

   Matthew D. Waldrop, MCW-Green Bay; Katrina Rosculet, MD, MCW-Green Bay; Eva Christensen, MD, PhD, MCW-Green Bay; Tracey Ratzburg, ThedaCare; Holly Keenan, Lutheran Social Services; Nick Musson, East Central Wisconsin Regional Planning Commission

   VIDEO LINK: https://youtu.be/MZ4yGt05q8Q

5. **Exploring Implicit Bias in Medicine: An Interactive Experience for Medical Students**

   Amelia Schurke, MCW-Green Bay; Kyle Welhouse, MCW-Milwaukee; Morgan Lockhart, MCW-Milwaukee; Krystal Almazan, MCW-Milwaukee; Enrique Avila, MCW-Milwaukee; Allison Carlisle, MCW-Green Bay; Lauren Sikora, MCW-Green Bay

   VIDEO LINK: https://youtu.be/SdAz-TZc-7Y

6. **Human Trafficking in Wisconsin: The Physician's Role in Ending Modern Day Slavery**

   Marissa K. Cepress, MCW-Green Bay

   VIDEO LINK: https://youtu.be/5l5PNMbkJl0

7. **Centering Hmong Voices & Stories to Better Understand Disparities and Health Needs**

   Dima Jaber, BSc, MCW-Central WI; Yer Thor, MCW-Central WI; Sheng Khang, Northern AHEC; Amy Prunuske, PhD, MCW-Central WI

   VIDEO LINK: https://youtu.be/Mf6Kmlty4VI

8. **Identifying Early Warning Signs in Alzheimer's and Related Dementias: Results from a Latino and African American Caregiver Project**

   Melinda S. Kavanaugh, PhD, UW-Milwaukee, Helen Bader School of Social Welfare; Virginia Zerpa, MPH, Alzheimer's Association; Shary Perez, MPH, United Community Center; Al Castro, MS, United Community Center

   VIDEO LINK: https://youtu.be/F2TubMFXZAg

9. **Evaluating heart health in cancer patients using advanced magnetic resonance imaging**

   El-Sayed Ibrahim, PhD, MCW-Milwaukee; John Charlson, MD, MCW-Milwaukee; Luba Frank, MD, MCW-Milwaukee; Elizabeth Gore, MCW-Milwaukee; Carmen Bergom, MCW

   VIDEO LINK: https://youtu.be/sUgY0M1bXAg

10. **Advanced imaging reveals the effect of chemotherapy on heart function in sarcoma**

    El-Sayed Ibrahim, MCW-Milwaukee; John Charlson, MCW

    VIDEO LINK: https://youtu.be/NliuC8tX7Bg

11. **Better Prescription Medication Labels = Better Health: Using a Patient-Centered Approach to Improve Medication Understanding and Adherence**

    Bhumi Khambholja, PharmD, MSHI, Wisconsin Literacy, Health Literacy; Stan Hudson, MA, Wisconsin Health Literacy, Health Literacy; Michele Erikson, Wisconsin Literacy; Ken Schellhase, MD, MPH, MCW

    VIDEO LINK: https://youtu.be/gN92wFLivt0

12. **Effects of COVID-19 on Medical Student Time Allocation, Academic Resource Use, and Mental Health in an Early Pandemic Timeframe**

    Thomas Schultz, MCW-Green Bay; Craig Hanke, PhD, MCW-Green Bay, Assistant Dean-Curriculum

    VIDEO LINK: https://youtu.be/QkPUpPMMNOE

13. **Artificial Intelligence techniques allow for automatic and fast evaluation of cardiac function. A proof-of-concept study.**

    Dayeong An, MS, MCW-Milwaukee, Biomedical Engineering; El-Sayed H. Ibrahim, PhD, MCW-Milwaukee, Radiology

    VIDEO LINK: https://youtu.be/ySFR-IUGeBY

14. **Community Engagement through Powered Mobility for Young Children with Special Needs: Go Baby Go Milwaukee**

    Molly Erickson, BS, Marquette University, Biomedical Engineering; Elizabeth Conrath, PT, DPT, PCS, Children's Wisconsin, Physical & Occupational Therapy; Allison Friel, MOT, OTR/L, C/NDT, Children's Wisconsin, Physical & Occupational Therapy; Benjamin McHenry, PhD, Marquette University, Biomedical Engineering; Lauren Tyson, PT, DPT, Children's Wisconsin, Physical & Occupational Therapy; Nicole Nelson, PT, MPT, Children's Wisconsin, Physical & Occupational Therapy; Denise Bibis, PT, Children's Wisconsin, Physical & Occupational Therapy; Chris Cayo, OT, Children's Wisconsin, Physical & Occupational Therapy; Zachary Krueger, UW-Milwaukee, Mechanical Engineering; Natalie Schmidt, Valparaiso University, Biomedical Engineering; Michael Collins, PT DPT, Children's Wisconsin, Physical & Occupational Therapy; Gerald Harris, PhD, Marquette University, Biomedical Engineering

    VIDEO LINK: https://youtu.be/RY-TEm4s6Yc

15. **Establishing Community-Based Participatory Research Partnership with Milwaukee's Hmong Population to Develop an Eye Health Survey**

    Iaong Vang, MCW-Milwaukee; Velinka Medic, MS, MCW-Milwaukee; Judy Kim, MD, MCW-Milwaukee

    VIDEO LINK: https://youtu.be/3N6oqz2av9s

16. **Opioid Addiction and PTSD in the Milwaukee PROMPT Veteran Community Program**

    Gabriel Lira, BS, MCW-Milwaukee; Zeno Franco, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine; Syed Ahmed, MD, MCW-Milwaukee, Office of Community Engagement; Sarah O'Connor, MS, MCW-Milwaukee, Office of Community Engagement; Myah Pazdera, MS, MCW-Milwaukee, Office of Community Engagement; Otis Winstead, BS, Dryhootch

    VIDEO LINK: https://youtu.be/N5NIVaiYyZs

17. **Comparing Nutrition Lessons: Virtual vs. In-Person**

    Marie Balfour, MCW-Milwaukee; Bryan Johnston, MD, MCW-Milwaukee, Dept. of Family & Community Medicine

    VIDEO LINK: https://youtu.be/QvYVql4Us0c

18. **The Importance of Community Outreach to Improve HBV Education in the Milwaukee Hmong Community**

    Maahum Mehdi, BA, MCW-Milwaukee; Kate Bednarke, BS, MCW-Milwaukee; Gloria Lin, BA, MCW-Milwaukee; Xavier Sendaydiego, BS, MCW-Milwaukee; Christine Shen, BS, MCW-Milwaukee; Maxwell Albiero, BS, MCW-Milwaukee; Keng Moua, BS, MCW-Milwaukee; Vishmayaa Saravanan, BS, MCW-Milwaukee; Kia Saeian, MS, MD, FACG, MCW-Milwaukee, Division of Gastroenterology & Hepatology

    VIDEO LINK: https://youtu.be/zQ_OKoaHQbk

19. **Toward Equitable Public Health Pandemic Response: Empowering Community Health Workers of Color during COVID-19**

    Joshua C. George, MPH, MCW-Milwaukee; Nnenna Nwaelugo, MCW-Milwaukee; Michael Stevenson, MPH, City of Milwaukee Health Department; Amanda Richardson, City of Milwaukee Health Department; Marques Hogans, MPH, County Office of African American Affairs; Que El Amin, City of Milwaukee Health Department; Katinka Hooyer, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine; Zeno Franco, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine

    VIDEO LINK: https://youtu.be/XCdRfKLk6aQ

20. **Mental Wellbeing InSciEd Out: A Case Study of Health Workshops in Partnership with the Boys and Girls Clubs of Puerto Rico**

    Ana M. Corujo Ramirez, Mayo Clinic; Marcos I. Roche Miranda, University of Puerto Rico, Rio Piedras Campus; Ricardo A. Calderon Lopez, University of Puerto Rico, Rio Piedras Campus; Maribel Campos Rivera, PhD, University of Puerto Rico, Rio Piedras Campus; Dena Mundy, Mayo Clinic; Joanna Yang Yowler, PhD, Mayo Clinic; Chris Pierret, PhD, Mayo Clinic

    VIDEO LINK: https://youtu.be/cI4eDf3gYNg

Poster Only

1. **Fight COVID MKE: Antibody Testing & Risk Assessment for Vulnerable Communities**

    Aliyah Keval, MCW-Milwaukee; Mohammad Titi, MCW; John Meurer, MD, MBA, MCW-Milwaukee, Institute for Health & Equity

Abstracts and Poster PDFs

from both Live and Pre-Recorded Sessions

Title:	**Mapping Milwaukee's Blueprint for Peace: Evaluating the Geospatial Reach of the Implementation of a Community-Based, Hospital-Partnered Violence Intervention Program, 414LIFE**
Authors:	**Amber Brandolino**, MS, MCW-Milwaukee, Dept. of Surgery; **Terri A. deRoon-Cassini**, PhD, MCW-Milwaukee, Dept. of Surgery; **Peter Nguyen**, BS, MCW-Milwaukee; **Ramneet Mann**, BSc, MCW-Milwaukee; **Sydney Timmer-Murillo**, PhD, MS, MCW-Milwaukee, Dept. of Surgery; **Marc de Moya**, MD, MCW-Milwaukee, Dept. of Surgery; **Basil Karam**, MD, MCW-Milwaukee, Dept. of Surgery; **Andrew Schramm**, PhD, MCW-Milwaukee, Dept. of Surgery; **Reggie Moore**, CIC; **Derrick Rogers**, CIC; **Tonia Liddell**, CIC; **Kathleen Williams**, MD, MCW-Milwaukee, Dept. of Emergency Medicine; **Alicia Pilarski**, DO, MCW-Milwaukee, Dept. of Emergency Medicine; **Brady McIntosh**, MD, MCW-Milwaukee, Dept. of Emergency Medicine; **David J. Milia**, MD, MCW-Milwaukee, Dept. of Surgery
Abstract:	BACKGROUND: Seminal work by Dr. Slutkin and others characterizes gun violence as an infectious disease due to its wave-like transmission through social networks and geospatial clustering. Approaching gun violence as a disease, hospital-based violence interruption programs (HVIPs) engage survivors of firearm injuries in the immediate post-injury timeframe. 414LIFE is a local implementation of such a program aimed at targeting the injury population and City neighborhoods most at risk for firearm injury. It is necessary to evaluate the extent to which the hospital component of 414LIFE is reaching the priority neighborhoods identified by the City of Milwaukee's Blueprint for Peace to be most at risk for the disease of gun violence. OBJECTIVE: To evaluate the 414LIFE community-based, hospital-partnered violence intervention program with attention to geospatial reach as an implementation metric. METHODS: 414LIFE's reach was descriptively and geospatially analyzed through its Program Evaluation dataset from May 2019 - September 2020 using a cross-sectional design. Referred patients are described and if they met program criteria: sustained a gunshot wound, aged less than 36, and a resident of, or injured in, the City of Milwaukee. A choropleth map visualized participants' location of residence, which justified a global Moran's I and then a local Moran's I calculation to identify statistically significant clustering of referrals. RESULTS: In the first 1.5 years of the hospital partnership, 398 patients were referred. Three hundred referrals (75.4%) met program criteria, and 53.8% of those were Black men. Statistically significant clusters were identified and mapped. Half of the top 10 neighborhoods with referrals were the City's identified priority neighborhoods. CONCLUSIONS: 414LIFE successfully reaches its intended population and geographic locations. Geospatial reach should be routinely considered in the program evaluations of hospital violence interruption programs to track growth and reach over time.
Submitter:	Amber Brandolino, MS
Record ID:	135
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Mapping Milwaukee's Blueprint for Peace: Evaluating the Geospatial Reach of the Implementation of a Community-Based, Hospital-Partnered Violence Intervention Program, 414LIFE

Amber Brandolino[1], Terri deRoon-Cassini[1], Peter Nguyen[2], Ramneet Mann[2], Sydney Timmer-Murillo[1], Marc de Moya[1], Basil Karam[1], Andrew Schramm[1], Reggie Moore[3], Derrick Rogers[3], Tonia Liddell[3], Kathleen Williams[4], Alicia Pilarski[4], Brady McIntosh[4], & David Milia[1]

[1]*Department of Surgery* [2]*School of Medicine* [3]*Comprehensive Injury Center* [4]*Department of Emergency Medicine*

Medical College of Wisconsin

BACKGROUND

- Location matters → violence depends on the local environment; gun violence clusters geographically, & local efforts are geospatially defined
  - Geospatial = association with a particular location
- 414LIFE = Milwaukee's response to the *Blueprint for Peace*'s "Stop the shooting, stop the violence" goal
- 414LIFE's community outreach team focuses on prevention, the hospital partnership focuses on intervention

OBJECTIVE

- To evaluate the geospatial reach of the hospital component of 414LIFE as a metric of program implementation

METHODS

Analysis

- 1) Choropleth map to identify if cluster(s) exist (Fig. 1)
- 2) Global → Local Moran's *I* statistic to identify clustering occurring *not* due to chance

Data

- Trauma Registry & 414LIFE Program Evaluation dataset
- May 2019 – September 2020 (*N* = 389)

RESULTS

Characteristic	*n*	%
Male	73	61.3
Black	334	83.9
Gunshot wound	385	96.7
Young Black men	214	53.8
	M	*SD*
Age	38.3	15.3

RESULTS

Figure 1. Density of locations of injury by Milwaukee neighborhood for 414LIFE referred patients.

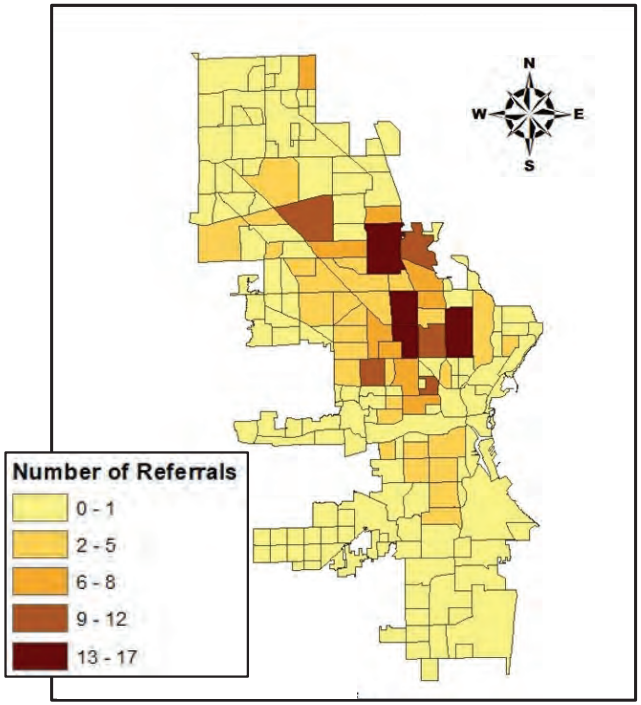
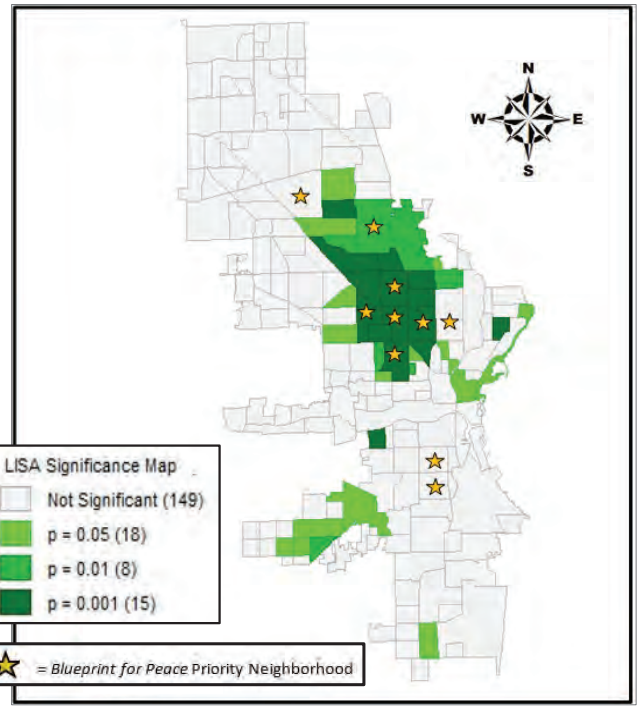


Figure 2. Statistical significance of location of injury clusters by Milwaukee neighborhood for 414LIFE referred patients.



CONCLUSION & REFERENCES

- 414LIFE is reaching its intended geographic locations
- Geospatial reach as an implementation metric for program evaluation
- Future directions: Assess geospatially overtime and as 414LIFE grows

Title:	**Delineating Junior High Student Mental Health Needs Throughout the COVID-19 Pandemic**
Authors:	**Mikaela DeCoster**, MCW-Central WI; **Hilary Steltenpohl**, MD, MCW-Central WI; **Taylor Seehafer**, D.C. Everest Junior High; **Elizabeth Krueger**, MS, LPC, Achieve Center; **Amy Prunuske**, PhD, MCW-Central WI
Abstract:	OVERVIEW: The D.C. Everest Kind Minds Student Wellness Day in Wausau, WI was initiated in 2017 with the goal of providing students additional mental health resources through both formal sessions as well as interactive activities. The COVID-19 pandemic brought unprecedented changes, making mental health resources and outreach even more crucial for students. PROBLEM STATEMENT: Determine whether students found the 2021 Wellness Day helpful, identify which sessions had the greatest impact, and characterize student wellbeing and experience during the pandemic. METHODS: An anonymous Google Forms survey was made available to all 8th & 9th grade students participating in the Wellness Day. The survey collected information on: whether students felt the Wellness Day gave them a greater understanding of mental wellbeing; which sessions out of the four (Understanding Depression and Suicide, Rise Together, Testing, Performance & Academic Anxiety, Art Therapy) were most useful; students' views regarding mental health during the pandemic and what they wished adults knew about how COVID-19 has affected them. RESULTS: There was a 56.3% survey completion rate. Of those students who completed the survey, 90.3% felt the Wellness Day improved their understanding of mental wellbeing and ways to improve it. 88% of students felt they received useful information regarding available resources; 89.6% found all four sessions helpful. While 42% of students self-reported their mental health throughout the pandemic as "healthy" or "thriving," 24% felt they were "coping," and over a third (34%) felt they were "struggling" or "unwell." CONCLUSIONS & RELEVANCE: Over the past year, students faced a near constant barrage of stressors on a personal, familial, and societal level. While they have shown remarkable resilience, over half of students (58%) felt they were not mentally healthy or thriving. It is imperative we identify the additional support and resources they need to successfully navigate unprecedented challenges.
Submitter:	Mikaela DeCoster
Record ID:	155
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Delineating Junior High Student Mental Health Needs Throughout the COVID-19 Pandemic

Mikaela DeCoster, Hilary Steltenpohl, Taylor Seehafer, Beth Krueger, Amy Prunuske

OBJECTIVES

The COVID-19 pandemic brought unprecedented changes, making mental health resources and outreach even more crucial for students.

Our objective was to determine whether students found the 2021 Wellness Day helpful, identify which sessions had the greatest impact, and characterize student wellbeing and experience during the pandemic.

BACKGROUND

The D.C. Everest Kind Minds Student Wellness Day in Wausau, WI was initiated in 2017 with the goal of providing students additional mental health resources through both formal sessions as well as interactive activities. This year's sessions were held over two days with students connecting via zoom from their homerooms. Sessions focused on:

- Understanding Suicide & Depression
- Rise Together (Core Session)
- Testing, Performance & Academic Anxiety
- Art Therapy

METHODS

An anonymous Google Forms survey was made available to all 8th & 9th grade students (n=854) participating in the Wellness Day. The survey collected information on:

1. Did the Wellness Day give students a greater understanding of mental wellbeing
2. Which sessions out of the four were most useful
3. Student views regarding mental health during the pandemic
4. What they wished adults knew about how COVID-19 has affected them

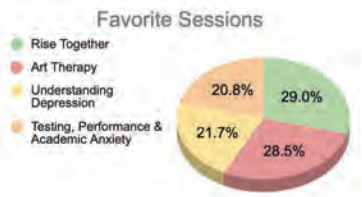
IRB PRO00034998 Wellness Day Survey

RESULTS

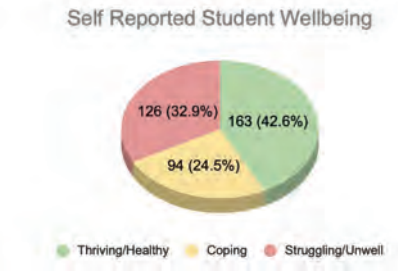
1. Of the 854 students, 481 students responded for a survey completion rate of **56.3%**

   90% felt that the wellness day gave them a better understanding of their mental health and how to improve it.

2. Overall, the session mentioned the most was the Rise Together session with Art Therapy coming in a close second.



3. Almost 33% self reported that they felt they were unwell or struggling during the 2020-21 school year. While 42.6% of students are healthy and thriving, **58.4%** are coping, struggling, or unwell.



4. 

CONCLUSIONS

Students have faced a near constant barrage of stressors over the last year. While they have shown remarkable resilience, over half of sampled students (58%) felt they were not mentally healthy or thriving.

NEXT STEPS

Identify the additional support & resources students need by:

- Incorporating results into the 2022 Wellness Day
- Expanding sample size to better delineate needs in the broader population

Title:	**AHmong Us Mentorship Program**
Authors:	**Andrew Sepiol**, MCW-Central WI; **Corina Norrbom**, MD, MCW-Central WI; **Amy Prunuske**, PhD, MCW-Central WI; **Sheng Khang**, North Central Area Health Education Center; **Mang Xiong**, Wisconsin Institute for Public Policy and Service
Abstract:	BACKGROUND: Health disparities exist for minority patients. Multiple factors may contribute to worse health outcomes. One way to improve health care delivery is to increase the probability that minorities see doctors and other health care professionals of their race or ethnicity. Wausau has the highest density Hmong population in Wisconsin, with 12% of residents identifying as Hmong, but Hmong health professionals are significantly underrepresented. PURPOSE: The purpose of the AHmong Us program is to increase Hmong teen awareness of and to foster Hmong teen interest in health professions and empower them to achieve their health career goals. METHOD: Through a partnership with school personnel, an informational flyer was shared with Hmong high school students interested in health careers. 10 Hmong students from 4 local high schools applied and were accepted into the program. AHmong Us teens met virtually with a medical student mentor from the Medical College of Wisconsin-Central Wisconsin 7 times during the Spring 2021 semester. Hmong Community Coordinators assisted. Education was provided about topics such as selecting a college and writing an application essay. Participants met health professionals and were given opportunities to volunteer with community health workers doing vaccine outreach. A focus group was conducted upon completion of the program. RESULTS: Of the initial 10 participants, 6 completed the program and participated in the focus group discussion. The students reported that they felt the sessions helped them feel more comfortable writing an essay and the process of applying to college, Interest in health professions, and the Advocates in Medicine Pathway program increased. They appreciated the introduction to MCW-CW. CONCLUSION: AHmong Us is a promising model to provide mentorship for and build confidence in aspiring Hmong healthcare professionals.
Submitter:	Andrew Sepiol
Record ID:	132
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

AHmong Us Mentorship Program

Andrew Sepiol, BSN [1]; Corina Norrbom, MD [1] ; Amy Prunuske, PhD [1] ; Sheng Khang [2]; Mang Xiong [3]

Medical College of Wisconsin – Central Wisconsin [1]
Wisconsin Institute for Public Policy and Service [2]
Hmong American Center [3]

Background

Health disparities exist for minority patients, and multiple factors may contribute to worse health outcomes, including access to high quality medical care. One way to improve health care delivery is to increase the probability that patients from minority populations see doctors and other health care professionals of their race or ethnicity. [2] The Hmong community comprises 12% of Wausau residents, but Hmong health professionals are underrepresented, particularly in the physician role. [1] Currently, there is no data published by the American Association of Medical Colleges (AAMC) regarding people of Hmong descent.[4]. Instead, this population is stratified as "Asian", which some medical schools recruit from at lower numbers because they are "over-represented in medicine". [5] In addition to other barriers, this categorization presents a challenge to prospective Hmong applicants seeking a career in Medicine.

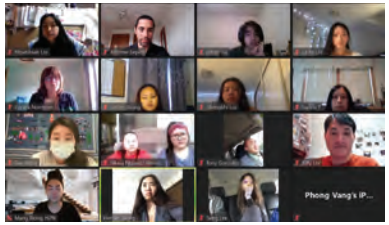
Figure 1. Reprinted from Wikimedia Commons, 2021 [3]

Purpose

The AHmong Us Mentorship Project was developed to help local Hmong high school students achieve their dreams of working in healthcare and to address the Hmong health care provider shortage in Central Wisconsin. AHmong Us also aids in furthering partnerships in the community. The Hmong and Hispanic Communication Network, Hmong American Center, Wisconsin Institute for Public Policy and Service, and Hmong staff from local high schools saw this as an opportunity to collaborate with and recruit possible future participants for MCW-Central Wisconsin's Advocates in Medicine Pathway pipeline program.

Methods

- Assessed Hmong community needs with community leader conversations
- Brainstorm sessions with local high school leaders
- Recruitment flyer & Application Process requiring students to write an essay on why they would like to pursue a career in health care
- Funding for 10 students obtained to be able to offer $100 gift card as incentive for program completion (to offset time that might have been spent on a job)
- 7 sessions via zoom planned highlighting how to write a college essay, college applications, overview of health professions tailored to student input
- Volunteer opportunities to assist with a vaccine outreach project
- Program completion ceremony & focus group evaluation



Results

- Of the 10 applicants, 9 completed the program, 6 of the 9 participated in a facilitated focus group evaluation

Focus group response word cloud

Conclusions

- All participants of the program reported personal growth, learning how to be a better college applicant, and increased knowledge of all healthcare fields.
- Students also reported a greater sense of what fields they intend to pursue in the future. In addition to Medicine, there was interest in Nursing and Physical Therapy.
- Areas for growth were related to difficulties during the pandemic:
  - More in-person sessions
  - More volunteer work
  - Tour of the MCW-CW campus
  - Networking opportunities with MCW-CW faculty

Future Directions

The second cohort of the AHmong Us program is currently in development. The goal is to increase the total number of students, increase the number of in-person sessions, and meet at local high schools in order to increase participation.

Acknowledgements & References

Special Thanks to:
Sheng Khang and her dedication to Wausau Hmong Youth.
Mang Xiong for her tireless work advocating for the Wausau Hmong community.
The Hmong community of Wausau, your spirit and passion is inspiring.

1. Garfield A. Wausau population grew and other key takeaways from 2020 census numbers. Wausau Daily Herald. https://www.wausaudailyherald.com/story/news/local/2021/08/12/census-2020-wausau-gains-nearly-1-000-population/5518521001/. Published August 12, 2021. Accessed October 19, 2021.
2. Cooper-Patrick L, Gallo JJ, Gonzales JJ, et al. Race, gender, and partnership in the patient-physician relationship. *JAMA*. 1999;282(6):583-589. doi:10.1001/jama.282.6.583
3. Bromander M, Liu A. Among Us. Innersloth; 2018. https://en.wikipedia.org/wiki/Among_Us. Accessed October 19, 2021.
4. AAMC. Table A-8: Applicants to U.S. Medical Schools by Selected Combinations of Race/Ethnicity and Sex, 2017-2018 through 2020-2021. American Association of Medical Colleges. https://www.aamc.org/system/files/2020-10/2020_FACTS_Table_A-8.pdf. Published October 26, 2020. Accessed October 19, 2021.
5. Corinna J. Yu; Asian Americans: The Overrepresented Minority?: **Dispelling the 'Model Minority' Myth**. *ASA Monitor* 2020; 84:32–33 doi: https://doi.org/10.1097/01.M99.0000688732.01865.74

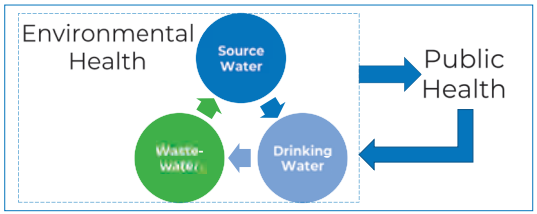
Title:	**Environmental Health Systems Partnering to Improve Water Pathogen Surveillance and Public Health Communication**
Authors:	**Lucas J. Beversdorf**, BS, MS, PhD, City of Milwaukee Health Dept. Laboratory; **Kristin Schieble**, BS, City of Milwaukee Health Dept. Laboratory; **Julie N. Plevak**, BA, City of Milwaukee Health Dept. Laboratory; **Sanjib Bhattacharyya**, PhD, City of Milwaukee Health Dept. Laboratory
Abstract:	OVERVIEW & OBJECTIVE: The Milwaukee Health Dept. Laboratory (MHDL) hosted a meeting with 50 system partners in Southeastern Wisconsin to share information and evaluate knowledge gaps regarding drinking, waste-, and recreational water pathogen surveillance with a goal to educate environmental health system (EHS) stakeholders and work to continuously improve public health essential services. METHOD: A planning committee comprised of representatives from public works, public health, academia, local businesses, community organizations and more was tasked with refining the objectives, identifying speakers, and establishing evaluation criteria for the meeting. The first objective was to learn from subject matter experts about water pathogen surveillance-including technology and innovations, regulations, and processes regarding pathogen surveillance-and how these data are shared with local stakeholders and amongst regional partners. Then, breakout groups in drinking water, recreational water, and wastewater were tasked with evaluating system performance using three of the Association of Public Health Laboratories (APHL) Laboratory System Improvement Program (L-SIP) essential public health services: Monitor Health Status, Mobilize Community Partnerships, and Assure a Competent Workforce. Participants discussed what has been working well, and identified knowledge gaps and opportunities for improvements. RESULTS: In general, observations were consistent between the drinking water, recreational water, and wastewater groups: 1) a major strength is community partnering and opportunity for collaborations; 2) improving public education and outreach, including public data sharing, would help establish trust in the community; and 3) system improvement would benefit from having a system "champion" to guide and coordinate regional efforts. CONCLUSION: A participant evaluation was performed, recommendations were made, and a final report was issued back to all regional partners for input on prioritizing the next steps for Environmental Health System improvement.
Submitter:	Lucas J. Beversdorf, BS, MS, PhD
Record ID:	158
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Environmental Health Systems Partnering to Improve Water Pathogen Surveillance and Public Health Communication

Lucas Beversdorf, Kristin Schieble, Julie Plevak, and Sanjib Bhattacharyya
City of Milwaukee Health Department Laboratory, 841 N Broadway, Milwaukee, WI USA

INTRODUCTION

- Water pathogen surveillance, an important part of Environmental Health, is comprised of drinking water, wastewater, and source water (often recreational)
- These systems are intricately connected and highly regulated, and they directly impact Public Health
- Data, communication, and education are essential to improving Public Health, which can then be used to further improve Environmental Health Systems



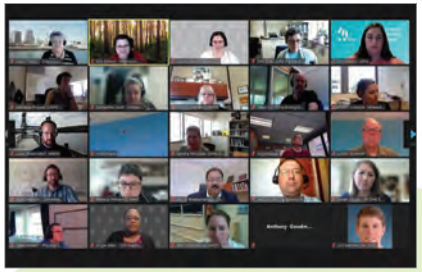
OBJECTIVE

1. Understand water quality improvement and safety
2. Learn regulatory and compliance updates
3. Strengthen EH and PHL partner relationships

METHOD

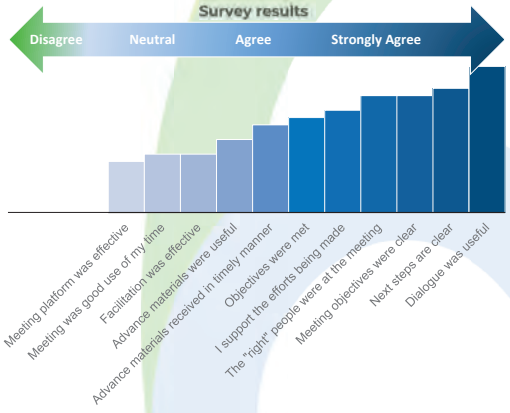
- Organize virtual conference with subject matter experts and regional stakeholders
- Hold breakout sessions to address system improvement opportunities
- Evaluate process, draw feedback, make recommendations

Milestones	TIMELINE: Early March	Late March	Early April	Late April	Early May	Late May	Early June	Late June
Form planning committee and conduct first meeting	■	■						
Create meeting agenda and determine event logistics	■	■						
Hire facilitators		■	■	■				
Recruit speakers			■	■				
Identify invitees and send meeting invitations			■	■	■			
Check-in call with APHL project officer				■	■			
Pre-meeting activities with facilitators & planning committee				■	■	■		
Conduct meeting						■		
Post-meeting debrief and follow-up activities						■	■	■
Submit final report to APHL								■



RESULTS

Essential Service	What is working well?	What are the knowledge gaps?	What can be improved?
Monitor health status to identify waterborne pathogen associated community health problems	• Enhanced monitoring • Risk assessments • Community partners • Regular meetings amongst stakeholders	• Sustained funding • Not monitoring pathogens or health directly • Monitoring private sites • Public data availability	• Need a "champion" to integrate systems • Workforce training • Public-private collaboration
Mobilize community partnerships to identify and solve water-associated health problems	• Existing core groups • High quality research • A lot of data • Sharing amongst partners	• More time with partners • Integrating data and goals • Tracking progress • Where does data go	• Create community of practice • Data modernization that is publicly available • Citizen Science practice
Assure a competent environmental and public health workforce	• UWM EH and PH programs • City of Milwaukee/MHD internships • Public-academic partnerships	• Sustained funding for training • Civil service experience • Early education curricula	• Need EH water curriculum, bioinformatics • Improved science and communication • Promote laboratory careers



Participant testimony:

"Speakers were excellent; Zoom worked very well."

"I appreciated the discussions; they were really useful."

"I think this was a tremendous start – participants were open and interested."

CONCLUSIONS

Measures to determine if objectives were met:

1. Strengthening relationships between environmental health laboratories, epidemiologists, emergency personnel and other SE Wisconsin Environmental Health partners
   - *Achieved:* water pathogen surveillance, existing partnerships, and fellowship opportunities
2. Improving water systems in SE Wisconsin by facilitating communication between academic, environmental, and public health professionals
   - *In progress:* public data accessibility and trust, further outreach and standard curricula, system work groups to discuss what is working well/not working well
3. Addressing or advancing ongoing water pathogen surveillance in SE Wisconsin to provide context for strengthening local water systems during a public health crisis.
   - *In process:* Statewide community of EH practice, and identifying system champion

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CITY OF MILWAUKEE HEALTH DEPARTMENT
Laboratory

ACKNOWLEDGEMENTS

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Title:	**Role of Milwaukee Health Dept. Laboratory in Community Partnerships for the Deployment of COVID-19 Point of Care Testing Instruments at Non-Traditional Sites**
Authors:	**Amy Bauer**, BS, City of Milwaukee Health Dept. Laboratory; **Kristin Schieble**, BS, City of Milwaukee Health Dept. Laboratory; **Sanjib Bhattacharyya**, PhD, City of Milwaukee Health Dept. Laboratory; **Nandhakumar Balakrishnan**, MS, PhD, City of Milwaukee Health Dept. Laboratory
Abstract:	BACKGROUND: Point-of-care testing (POCT) is defined as diagnostic testing at or near the site of care. Educating public health practitioners and other personnel to perform POCT helps control infectious disease outbreaks. OBJECTIVE: The primary goal of the Milwaukee Health Dept. Laboratory (MHDL) was to support and expand community testing capacity by deploying molecular point-of-care analyzers (Abbott ID NOW) for accessible COVID-19 testing, in an effort to mitigate the spread of COVID and support high-risk populations. To support this pandemic response MHDL strategized a streamlined approach which included team selection, training, and assessment tools, followed by outreach engagement with non-traditional sites, ensuring testing was conducted in compliance with CLIA and laboratory safety practices. METHOD: In April 2020 in collaboration with the Wisconsin Dept. of Health Services (DHS), Milwaukee County Unified Emergency Operations Centers (UEOC), and the Milwaukee Health Dept. (MHD) pandemic preparedness team, 15 Abbott ID NOW analyzers were deployed in non-traditional settings (i.e. homeless shelters, correctional facilities, student health centers) for COVID-19 testing. RESULTS: MHDL leadership team conducted initial site assessments and community outreach activities such as training and providing guidance materials for testing. The community sites reported a 15% (1870/12679) positivity rate for COVID-19 tests, with some specimens reflexed to MHDL for confirmatory testing. CONCLUSION: MHDL pandemic response involved partnering with non-traditional sites, which allowed early identification of COVID-19 followed by isolation to reduce community spread. MHDL ensured that sites were performing tests in accordance with regulatory requirements and following appropriate safety practices by providing training and completing the site assessment tool. In response to the COVID-19 pandemic, MHDL played a key role in deploying POCT instruments in non-traditional sites using a holistic system improvement approach including communication, collaboration, and educating stakeholders, thereby strengthening the diverse network leading to cohesive partnerships with better coordination of activities and resources.
Submitter:	Amy Bauer, BS
Record ID:	157
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

ROLE OF MILWAUKEE HEALTH DEPARTMENT LABORATORY IN COMMUNITY PARTNERSHIPS FOR THE DEPLOYMENT OF COVID-19 POINT-OF-CARE TESTING AT NON-TRADITIONAL SITES

Amy Bauer, Kristin Schieble, Nandhakumar Balakrishnan, Sanjib Bhattacharyya

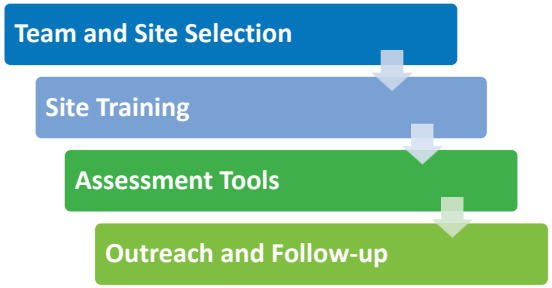
City of Milwaukee Health Department Laboratory, Milwaukee, WI

INTRODUCTION

- Rapid diagnostic point-of-care testing (POCT) for SARS-CoV-2 is vital to mitigate disease spread
- Having access to rapid molecular testing like the Abbott ID NOW allows early detection to help slow disease spread, especially within high-risk and underserved populations
- Educating public health practitioners and other personnel to perform POCT helps control infectious disease outbreaks

OBJECTIVES

- To support and expand community testing capacity for quick and easy access to COVID-19 tests for high-risk and underserved populations
- To strategize a streamlined deployment and testing approach in compliance with CLIA and laboratory safety practices



METHODS

- Identified community partners serving high-risk populations to gauge interest in receiving an ID NOW instrument for on-site COVID-19 testing
- Laboratory personnel received virtual training from Abbott prior to deploying the ID NOW instruments
- Ensured community partners sites received training, standardized documentation, and equipment to meet CLIA testing requirements
- MHDL offered confirmatory PCR testing as well as follow-up site visits to address any testing concerns

RESULTS

- 12,679 ID NOW COVID-19 tests performed in the first 12 months of the pandemic at community locations
- 1,870 of those tests had a positive result at point-of-care equaling a 14.8% positivity rate
- Through September 2021 more than 22,000 point-of-care tests have been performed since May 2020

Number & Type of Site	Population Served	Benefits
2 - Homeless Shelter / Isolation Facility	Residents and staff at shelters	Allows for housing placement
2 - Student Health Center	College students including those in dorm settings	Mitigate spread in dormitory and non-compliant population
2 - Correctional Facility	Inmates and staff	House inmates in congregate setting
1 - Fire Department / EMS	Emergency personnel	Mitigate spread and determine quarantine needs to prevent spread to other EMS personnel
5 - Clinical Service Provider	Un/Underinsured employees caring for high-risk populations	Provide access to underserved populations

TESTIMONIALS

- *"If we did not have [the ID NOW] here at the shelter, tracking the virus would have been impossible and we would not have been able to keep the shelter as COVID free as possible throughout this past year.....allowed us to continue to keep current shelter residents safe and take in more individuals that are homeless.....gave homeless residents and staff more peace of mind in knowing that we can test quickly and then act from there."*
  -The Salvation Army

- *"...kept front line fire and police personnel on the streets, where they were needed most, especially with COVID illnesses, DNC, and civil unrest."*
  - Milwaukee Fire Department

CONCLUSIONS

- Use of POCT in high-risk and/or undeserved populations had a positive impact in controlling the spread of COVID-19
- Collaborating with community sites allowed COVID-19 positive patients to be identified in real-time, and aided rapid isolation and contact tracing to reduce community spread, especially within high-risk and underserved populations
- A holistic approach strengthened community partnerships, lead to an increase in testing, and improved surveillance in some of Milwaukee's most high-risk populations
- A public-private partnership model complemented MHDL's reference testing services

ACKNOWLEDGEMENTS

The Milwaukee Health Department Laboratory staff, partner sites where an ID NOW unit was deployed, Abbott Laboratories, Wisconsin State Lab of Hygiene, and Wisconsin Department of Health Services.

REFERENCES

- ID NOW Point of Care Testing, Abbott, 2021, www.globalpointofcare.abbott/en/product-details/id-now.html.
- Schieble, K. *Best practices in supporting POC Testing for public health in Non-Traditional Testing Sites.* May 2021. APHL Annual Conference.
- Bhattacharyya, S. CDC Division of Laboratory Systems Clinical Laboratory COVID-19 Response Call, June 2021.

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Title:	**Impact evaluation of patient-centered, community-engaged health modules for homeless pregnant women**
Authors:	**Shelby Nelipovich**, MCW-Milwaukee; **Nayanika Kotagiri**, MCW-Milwaukee; **Esha Afreen**, MCW-Milwaukee; **Morgan A. Craft**, MCW-Milwaukee; **Sara E. Allen**, MCW-Milwaukee; **Caroline C. Davitt**, MCW-Milwaukee; **Leslie Ruffalo**, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine; **Sabina Diehr**, MD, MCW-Milwaukee, Dept. of Family & Community Medicine
Abstract:	BACKGROUND: Milwaukee's Infant Mortality Rate (IMR) is significantly higher than the national IMR. This disparity is even more pronounced in black women. Additionally, pregnant women who experience homelessness are at a greater risk for poor birth outcomes than the general population. OBJECTIVE: This pilot study describes results of a service-learning program informed by previously identified unmet perinatal health needs. In this mutually beneficial, patient-centered service-learning program, medical students partnered with homeless women currently residing in a shelter in Milwaukee, WI. METHODS: Medical students in the Health Advocacy in Pregnancy & Infancy (HAPI) project, under faculty supervision, developed and taught six service-learning modules: healthy cooking, mental health, perinatal nutrition, infant care/safety, breastfeeding, and contraception to shelter residents. Implemented between 2018-2021, the modules were hosted in-person and via electronic videoconferences. We gathered qualitative data on participants' perceived impact of the modules and used descriptive content analysis to examine written comments and verbal feedback. RESULTS: A total of 141 participants attended 42 learning sessions. Participants included pregnant and postpartum mothers in addition to women interested in learning about pregnancy-related health. Qualitative analysis revealed three universal themes across all sessions that related to the impact of the sessions on participants. Emergent themes represented in all session modules included 'Knowledge', 'Intention to Change', and 'Empowerment.' CONCLUSIONS: Our community-engaged health education partnership program between homeless pregnant women and medical students focused on perinatal health. This well-received, effective strategy cultivated new knowledge, empowering participants to not only change their own behaviors, but also to teach and support others. Future research is needed to determine longer-term peripartum health outcomes associated with such behavior changes, including any persistent positive association attributable to participation in our program.
Submitter:	Nayanika Kotagiri
Record ID:	137
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Impact evaluation of patient-centered, community-engaged health modules for homeless pregnant women

Shelby Nelipovich, Nayanika Kotagiri, Esha Afreen, Morgan Ashley Craft, Sara E. Allen, Caroline C. Davitt, Leslie Ruffalo, PhD, Sabina Diehr, MD
Medical College of Wisconsin
Department of Family & Community Medicine

Background

- The infant mortality rate (IMR) for Milwaukee's black population is nearly three times greater than the national IMR[1]
- Homeless women are a particularly vulnerable population[2]
- Psychosocial factors that influence birth outcomes and complications are ethnicity, SES, access to prenatal care, education level, and increased stress[4]
- HAPI's needs assessment identified five frequent needs: pregnancy education, access, baby care, advocacy, and material necessities[5]

Objectives

- Based on a prior needs assessment survey, address unmet pregnancy and childcare-related educational needs through student-led service learning modules at the Milwaukee Women's Center
- Qualitatively identify the impact of these modules on Milwaukee Women's Center residents

Methods

- **Format:** Medical students led 60-minute sessions weekly discussing healthy cooking, mental health, nutrition, infant care and safety, breastfeeding, and contraception
- **Materials:** Sessions included a PowerPoint, handouts, pre/post quizzes, small subject related incentives, anonymous comment cards, and verbal debriefing form
- **Data collection: I**ncluded data from comment cards and debriefing forms
- **Data analysis: I**nvolved preliminary coding by 4 students followed by two rounds of additional coding and editing to confirm accuracy.
- **Secondary findings:** Analyzed participant satisfaction

Results

• 42 sessions, attended by 141 adult female participants
• 3 central and intersectional themes identified as knowledge, intention to change and empowerment, representative quotes by module below

Module	Number of Sessions, Total Participants	Knowledge	Intention to Change	Empowerment
Breastfeeding	7 sessions 30 participants	"taught [me] what is not taught well in the hospital"	"try to breastfeed in the future"; "feeling more confident about breastfeeding, especially in public"; "educate other mothers about breastfeeding"	"empowers women to breastfeed"; "engaged them in conversation"
Infant Care & Safety	8 sessions 20 participants	"tips on scenarios [were] easy to relate to real life."	"read labels"; "take toys out of [the] crib"; "will babyproof more"	"knew a lot of it already, but will be more confident that [I am] doing it right."
Mental Health	11 sessions 25 participants	"helpful tips," "felt informed about symptoms," "good to have [a conversation] about mental health signs and symptoms."	"be aware next pregnancy," "voice stress," "change how I parent."	"offer to help women that might be having postpartum depression," "contacting a doctor for help with depression," "enjoyed talking to one another about what relaxes me and relating to others about struggles/stress."
Cooking	2 sessions 8 participants	"Educational"; "taught me something new"; "I really learned a lot"	"add some more different seasonings"	"I tried foods I've never heard of"; "the session was very uplifting"; "inspiring"
Healthy Eating for Mom & Baby	7 sessions 36 participants	"learned about seasonal veggies and how to prepare them for babies"; "very direct on information containing different food to feed babies"; "learned a lot of fun facts about fruit"; "learning what the baby can eat"	"taking prenatal vitamins"; "not eating soft cheeses"; "prep own fruits and vegetables for self and kids"; "purchase blender"	"learning the proteins helped me for things to make to feed my baby"
Contraception	7 sessions 22 participants	"explained a lot of things about hormones"; "I learned which ones [contraception] can be used for breastfeeding"; "I learned a little more about the different options for birth control"; "handouts were smart, to the point but with details"; "IUD education"; "new ways of birth control"	"was going to get my tubes tied, now getting Nexplanon"; "now will use birth control while breastfeeding"; "[going to] try different birth control"; "going to get on birth control after pregnancy".	"It was well taught and plan to use the resources"; "talk to...daughters and grandkids about various birth controls and encourage them to be on one"

Discussion

- Themes were universal across session topics with potential interplay
- Positive engagement may have created foundation for deeper level of learning, reflecting adult learning theory[6]
- Program sought to address social determinants of health that contribute to infant mortality
- **Limitations**: small sample size, lack of metric to measure baseline knowledge, switch to virtual format during pandemic

Future Directions

- Additional investigation into interplay of identified themes
- Quantitative assessment of knowledge and skills gained
- Impact of other HAPI initiatives, e.g. partnership program

Acknowledgments

- The Milwaukee Women's Center and our other community partners
- Dept. of Family & Community Medicine faculty and staff
- MCW's Community of Innovators Award for program funding

References

1. Ngui, E, Michalski, K, LeCounte, E, Mohr, A. 2017 City of Milwaukee Fetal Infant Mortality Review Report. Published online April 2017.
2. Bassuk EL, Weinreb L. Homeless pregnant women: two generations at risk. Am J Orthopsychiatry. 1993;63(3):348-357. doi:10.1037/h0085034
3. WISH - Infant Mortality Module. Wisconsin Department of Health Services. Published October 9, 2014. Accessed April 12, 2021. https://www.dhs.wisconsin.gov/wish/infant-mortality/index.htm
4. Cardwell MS. Stress: pregnancy considerations. Obstet Gynecol Surv. 2013;68(2):119-129.
5. Ake T, Diehr S, Ruffalo L, et al. Needs Assessment for Creating a Patient-Centered, Community- Engaged Health Program for Homeless Pregnant Women. J Patient-Centered Res Rev. 2018;5(1):36- 44.
6. Merriam SB. Adult learning theory for the twenty-first century. New Dir Adult Contin Educ. 2008;2008(119):93-98. doi:https://doi.org/10.1002/ace.309

Title:	**A Community-Based Participatory Approach to Conducting a Photovoice Research Study: A Guide for the Novice**
Authors:	**Emily Beltran**, BS, Marquette University, College of Nursing/CTSI; **Dora Clayton-Jones**, PhD, PNP-PC, APRN-BC, Marquette University, College of Nursing/CTSI; **Lee Za Ong**, PhD, LPC, CRC, Marquette University, Dept. of Counselor Education & Counseling Psychology; **Abir Bekhet**, PhD, RN, HSMI, Marquette University, College of Nursing; **Joshua Field**, MD, MS, Versiti/MCW-Milwaukee Clinical Research/Hematology; **Leroy Ediage**, BA, Community Member; **Dominique Goodson**, BA, Community Member; **Chinonyelum Nwosu**, BS, MPH, Community Member; **Ethleen Peacock**, AS, BSc, Community Member; **Sydnei Richardson**, BSN Student, Community Member; **Terreea Shropshire**, JD, Community Member; **Kristin Haglund**, PhD, RN, PNP, FNP, APRN-BC, Marquette University, College of Nursing
Abstract:	BACKGROUND: Photovoice, also known as participatory photography, is used by various advocacy groups to allow people to document their lives through photography (Bullard, 2020). Historically, participants using photovoice are generally part of a marginalized community striving for change. Participants use cameras to capture images that provoke an issue or topic that are later described in focus groups (Wheeler & Early, 2017). Researchers in the past have used photovoice-based research methods, however there are no existing studies that outline the process of conducting a photovoice project using a community-based participatory research (CBPR) approach. OBJECTIVE: The objective of this paper is to increase the usability of CBPR photovoice approach in research by providing a detailed description of the process like the study we conducted in young adults with sickle cell disease. METHODS: In carefully outlining the photovoice process for researchers, we created a timeline and provided a description of facilitators and barriers that exist when undertaking a photovoice research project. Processes for participant recruitment and gathering necessary resources such as a photographer are also outlined. Details on how to prepare and plan a final photo exhibition are explained. RESULTS: The research team met before each photovoice meeting with the participants. Pre- and post-discussion time was built into the eight weekly meetings to ensure adequate participation in the structure of the meetings and selection of a focused photo topic. Feedback from the young adults was documented and incorporated into the photovoice plan on an ongoing basis. Over two weeks participants planned a virtual photo exhibition to showcase their work. CONCLUSION: The process for conducting a qualitative photovoice research study and the experience gained can be shared with fellow researchers who choose to use photovoice as a research methodology. Providing a CBPR stepwise approach may be particularly useful for novice researchers.
Submitter:	Emily Beltran, BS
Record ID:	139
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

A Community-Based Participatory Approach to Conducting a Photovoice Research Study: A Guide for the Novice

E. Beltran, BS, D. Clayton-Jones, PhD, L.Z. Ong, PhD, A. Bekhet, PhD, J.J. Field, MD, L. Ediage, BA, D. Goodson, BA, C. Nwosu, MPH, E. Peacock, BSc S. Richardson, BSN Student, T.M.. Shropshire, JD, & K. Haglund, PhD

MARQUETTE UNIVERSITY
College of Nursing

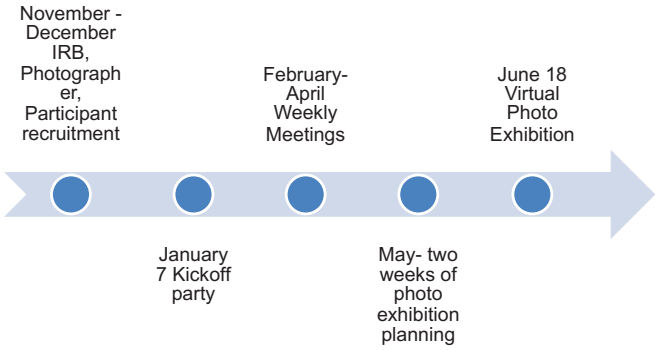
Background

- Photovoice is used by various advocacy groups to allow people to document their lives through photography (Bullard, 2020).
- Participants using photovoice are generally part of a marginalized community striving for change.
- Participants use cameras to capture images that provoke an issue or topic that are later described in focus groups (Wheeler & Early, 2017).
- No previous existing studies that outline the process of conducting a photovoice project using a community-based participatory research (CBPR) approach.

Objective

- Increase usability of the CBPR photovoice approach in research by providing a detailed description of the process .

Methods



Facilitators	Barriers
Social media as recruitment	Forum/Software for uploading photos & captions
Live photo exhibition	Preparedness for weekly meetings (no deadlines)
Having a professional photographer	Photography questions in way of reflection
SHOWED Method	Retention of Participants

Results

"I am in the middle of a pain crisis that woke me up out of my sleep. I'm debating if I should take my pain medication, or I should try and manage the pain on my own. I think many sickle cell patients have this similar struggle of what is the right way to manage your pain and their condition."

Conclusion

- The process for conducting a qualitative photovoice research study can be shared with fellow researchers who choose to use photovoice as a research methodology.
- Providing a CBPR stepwise approach may be particularly useful for novice researchers.

References

Bullard, E. (2020). Photovoice. *Salem Press Encyclopedia*.

Wheeler, K. J., & Early, J. O. (2018). Using Photovoice to Explore Quality of Life Factors of Adults With Crouzon Syndrome. *Qualitative Health Research*, *28*(3), 357–370. https://0-doi-org.libus.csd.mu.edu/10.1177/1049732317742624

Title:	**Wisconsin Family Physician Perspective on Telehealth Usage by Visit Type during COVID and Beyond**
Authors:	**Patrick Vosters**, MCW-Green Bay; **Brandon Wimmer**, WAFP; **Katrina Rosculet**, MD, MA, MCW-Green Bay; **Eva Christensen**, MD, PhD, MCW-Green Bay
Abstract:	The SARS-CoV-2 Pandemic has necessitated dramatic increases in telehealth usage. Telehealth has long been championed as a means to reduce healthcare costs and maximize access. Nevertheless, its use has increased slowly. This study investigates whether the pandemic-driven increase in telehealth usage will remain after the hypothetical end of the pandemic. Specifically, objectives include assessing pandemic-driven changes in telehealth usage by family physicians for multiple visit types, assessing family physician opinion on post-pandemic telehealth usage for the visit types, and assessing for differential response distribution by rural/urban location and age bracket. Surveys were developed that asked respondents to mark their level of agreement with statements comparing telehealth usage levels before the pandemic to during the pandemic and before the pandemic to levels that "should" be used after the pandemic. These questions were repeated for four visit types: acute illness, chronic illness, transitional care, and wellness check. The surveys were distributed to family physicians through the Wisconsin Academy of Family Physicians. With 51 responses, Chi Square Goodness of Fit Tests and Chi Square Tests of Independence were performed to assess for significance in response distribution within and between groups, respectively. For all visit types, pandemic-driven increases in telehealth usage were reported. Increased post-pandemic usage relative to pre-pandemic usage "should" occur only for acute and chronic illness visit types. Nevertheless, physicians agreed more strongly with statements describing pandemic-driven increase in usage than those describing the increased post-pandemic versus pre-pandemic usage that "should" occur for acute and chronic illness visit types. No response differences were found by rural/urban location or age. Overall, these data suggest that family physicians feel that telehealth usage for transitional care and wellness checks should return to pre-pandemic levels and that telehealth usage for acute and chronic illness visits should proceed at a level between pre-pandemic and pandemic levels.
Submitter:	Patrick Vosters
Record ID:	149
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Wisconsin Family Physician Perspective on Telehealth Usage by Visit Type during COVID and Beyond

Patrick Vosters; Brandon Wimmer; Katrina Rosculet, M.D.; Eva Christensen, M.D., Ph.D.

Medical College of Wisconsin-Green Bay, Wisconsin Academy of Family Physicians

Introduction

The SARS-CoV-2 Pandemic has necessitated dramatic increases in telehealth usage. This study investigates pandemic-driven changes in telehealth usage and advised post-pandemic telehealth usage levels by Wisconsin family physicians for the following visit types: acute illness, chronic illness, transitional care, and wellness check.

Objectives

- Assess pandemic-driven changes in telehealth usage by family physicians for the following visit types: acute illness, chronic illness, transitional care, and wellness check.
- Assess family physician opinion on post-pandemic telehealth usage for the aforementioned visit types.
- Assess for differential response distribution by rural/urban practice location and age bracket.

Methods

- Surveys were distributed to family physicians by the Wisconsin Academy of Family Physicians.

Question Design:

Responses Choices:
Strongly Agree
Agree
Neutral
Disagree
Strongly Disagree

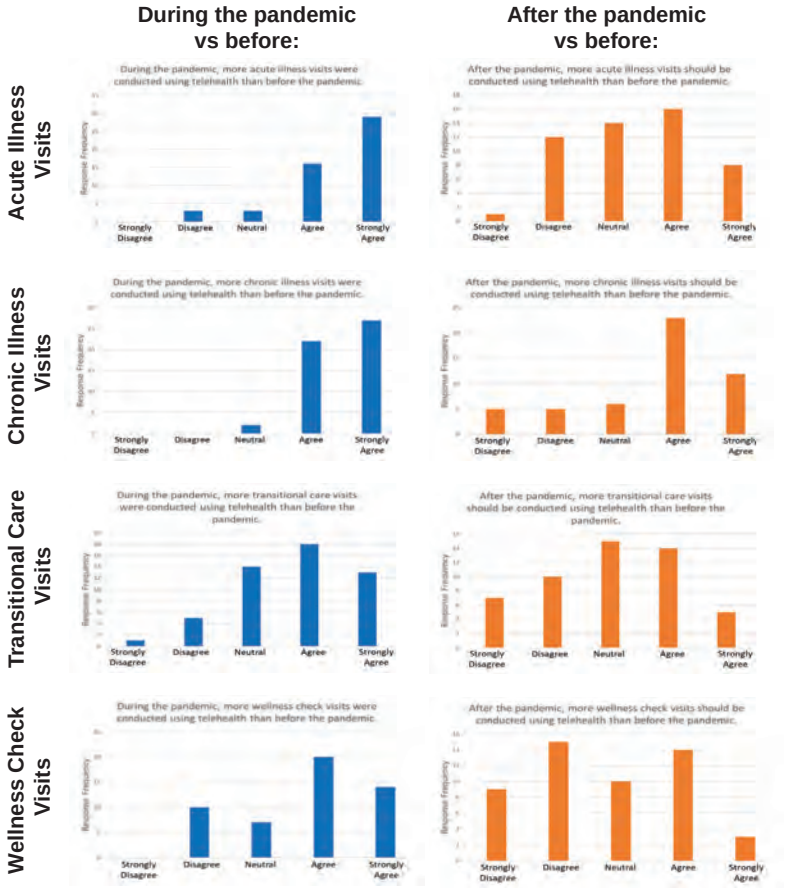
During / After ____ the pandemic, more ____ visits ____ conducted using telehealth than before the pandemic.

Acute Illness Visits
Chronic Illness Visits
Transitional Care Visits
Wellness Check Visits

were / should be

Responses indicate telehealth usage relative to pre-pandemic levels for all combinations of time period and visit type.

Results



References

1. Contreras CM., Metzger GA., Beane JD., et. al. Telemedicine: Patient-Provider Clinical Engagement During the COVID-19 Pandemic and Beyond. Journal of Gastrointestinal Surgery. 2020 May 8; https://doi.org/10.1007/s11605-020-04623-5.
2. Department of Health and Human Services, Assistant Secretary for Planning and Evaluation. Medicare Beneficiary Use of Telehealth Visits: Early Data from the Start of the COVID-19 Pandemic. Issue Brief 2020 July 28: https://aspe.hhs.gov/pdf-report/medicare-beneficiary-use-telehealth.
3. Dorsey ER., Topol EJ. State of Telehealth. The New England Journal of Medicine. 2016 July 14; 375:2.
4. Kruse CS., Karem P., Shifflett K., et. al. Evaluating barriers to adopting telemedicine worldwide: A systematic review. Journal of Telemedicine and Telecare. 2018; 24(1): 4-12.
5. Orlando JF., Beard M., Kumar S. Systemic review of patients and caregivers' satisfaction with telehealth videoconferencing as a mode of service delivery in managing patients' health. PLoS ONE. 2019 August 30; 14(8): e0221848. https://doi.org/10.1371/journal.pone.0221848.
6. Shigekawa E., Fix M., Corbett G., et. al. The Current State of Telehealth Evidence: A Rapid Review. Health Affairs. 2018 December; 37:12.

Discussion

- Individual distributions were analyzed with Chi Square Goodness of Fit Tests ($p<0.05$):
  - A significant pandemic-driven increase in telehealth usage was found for all visit types.
  - A significant advised increase in post-pandemic telehealth usage relative to pre-pandemic usage was found for acute and chronic illness visit types.
- Distributions were compared with Chi Square Tests of Independence ($p<0.05$):
  - The reported pandemic-driven telehealth increase was greater than advised post-pandemic usage levels for all visit types.
  - No significant differences in distribution by rural/urban location or age were identified.

Conclusion

Overall, this data suggests that, while the pandemic necessitated increased telehealth usage for all visit types, family physicians feel that telehealth should generally return to pre-pandemic levels in a hypothetical post-pandemic world. However, for certain visit types such as acute and chronic illness visit types, telehealth can be especially useful and should be used at levels greater than those before the pandemic but lower than those during the pandemic.

Next Steps

- Use more specific visit types
- Sample specific practice types

Title:	**Patient and Provider Perspectives on Geriatric Weight Management in the Community**
Authors:	**Elise Kahn**, BS, MCW-Milwaukee; **Leslie Ruffalo**, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine
Abstract:	BACKGROUND: Obesity levels and the number of people over the age of 65 are increasing in the US. Obesity is associated with high mortality conditions such as cardiovascular disease and cancer; thus compounding rising medical costs the elderly face. While the obesity epidemic continues to effect how physicians care for their patients, it is important to understand how the interplay of patient and provider perspectives manifests in a clinical setting. OBJECTIVE: Explore how the perspectives of patients and providers influence weight management. METHODS: Subjects were recruited from referrals by faculty at the Medical College of Wisconsin. Subjects consisted of two subsets: patients over the age of 60, and providers caring for this population. Guided interviews were audio recorded, transcribed, and analyzed in Dedoose, a qualitative analysis program. The interview data was analyzed using grounded theory with open-coding being used to develop themes. Transcripts were reviewed to refine themes until thematic saturation occurred. This study was approved by the MCW Institutional Review Board. RESULTS: 14 patient interviews were conducted consisting of 7 female and 7 male subjects; average age of 69.21. Of note, 4 of these interviews were conducted during previous research with participants over 60. Participants noted increased attention given to their weight in the context of increasing health concerns, social factors, and historical eating habits. Provider interviews are ongoing; 5 interviews have been conducted with an average age of 44.5 and average years in practice of 14.6. Providers note challenges including limited appointment time, resistance to changing lifelong eating habits, and systemic issues such as food security and insurance reimbursement. CONCLUSIONS: While patients emphasize their motivation to lose weight in the context of increasing health concerns, providers face systemic and interpersonal challenges to addressing such issues. Avenues for change include advocacy, utilizing community resources, and using a multidisciplinary approach.
Submitter:	Elise Kahn, BS
Record ID:	161
Format:	LIVE: Tuesday, Nov. 2, 2021
Video:	Link available after live session.

Patient and Provider Perspectives on Geriatric Weight Management in the Community

Elise Kahn, Leslie Ruffalo, PhD
Department of Family & Community Medicine, MCW

MEDICAL COLLEGE OF WISCONSIN
knowledge changing life

Background

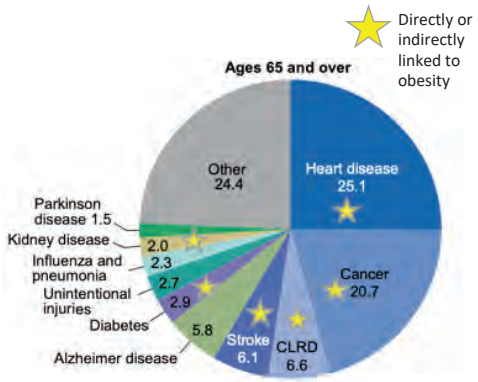
Both obesity and the number of people over the age of 65 continue to rise in the United States.

By 2060, the number of U.S adults over the age of 65 is expected to double.

By 2030, the national prevalence of adult obesity is expected to rise to 48.9% from 44.8% in 2018.

Both obesity and aging contribute to increased health services, putting an augmented financial strain on our health system.

Figure 1. Percent distribution of the 10 leading causes of death, by age group: United States, 2017



Aims

Through exploring how patient and provider perspectives influence weight management, we will identify ways to better support both patients and providers in the field of geriatric weight management.

Methods

Conduct Patient Interviews	Questions based on relevant literature review. Recruitment from provider referrals	10 interviews conducted and 4 additional transcripts from previous related research used
Conduct Provider Interviews	Questions based on patient responses and literature review. Recruitment from MCW faculty	12 Interviews conducted from various specialties caring for geriatric patients
Analyze interview data	Use a grounded theory approach to analyze data in Dedoose software	Separately analyze subject pools and synthesie analyses

Patient Demographics:
Age: 60-79, M: 69.21
Race: 11 Caucasian, 3 African American
Gender: 7 F, 7 M

Provider Demographics:
Age: 33-70, M 46
Race: 10 Caucasian, 2 Asian
Gender: 9 F, 3 M
Years in Practice: 2-40, M 15.4
Specialty: 6 family med, 2 general internal medicine, 2 geriatrics, 2 endocrinology

Results

Patient Perspective

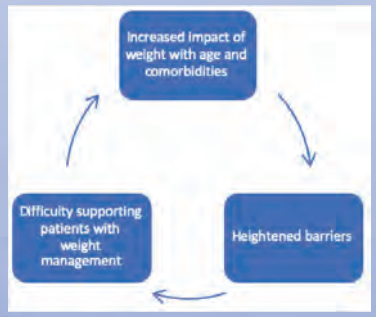
Amplified with Age
- Impact on health
- Mobility barriers
- Financial barriers

Social Context
- Social support vs pressure

Historical Context
- Lifelong habits and familial influence
- Health literacy

"My mind feels motivated but my body doesn't"

"I have a lot of back pain and I know a lot of it is due to my weight and I would feel better if I would lose some weight. I have high blood pressure and cholesterol so [losing weight would help with that too]."



Themes

Provider Perspective:

Comparison to younger patients
- Ease of conversation
- Difficulty breaking habits

Purpose of Weight Loss
- Prevention vs function
- Risk Benefit Ratio

Tools
- Behavioral
- Medical
- Surgical

"If I'm talking with someone younger they might not have been impacted as negatively, so it's a lot of nebulous talk about the future. Now the future is here for my patients so they see first-hand what their weight has done to their bodies and the amount of medicines they have to be taking"

Heightened Barriers:

Personal:
- Long term habits
- Contextual motivation

Clinical:
- Short appointment times
- Interprofessional approach

Systemic:
- Insurance (Medicare)
- Caregiver burnout
- Conflicting research

"The medications we use are very expensive and they aren't always a covered benefit"

"it can be challenging because the elderly often have pretty set habits and despite all our counseling seem less inclined to make substantial changes"

Discussion

- The connection between health and weight becomes more salient as one ages
- While it may be easier to discuss weight with older patients in the context of chronic disease, it is important to begin this conversation with patients earlier in life
- Given the time and energy required by both parties, providers endorse hesitancy to aggressively treat obesity in the elderly; citing lack of substantial evidence of long term benefits

Define the purpose of weight loss in the elderly	• Realistic goal setting • Assess for mobility and ability to change behavior (independently ± caregiver)
Overcome Systemic Barriers	• Expand Medicare coverage to include nutrition counseling and weight loss medication for all adults
Safety concerns	• Further research exploring the long term benefits of weight loss in the elderly • Clinical trials for medications

Acknowledgments

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References

Fakhouri Ph.D, MPH, T., Ogden Ph.D, MRP, C., Carroll MSPH, M., Kit MD, MPH, B., & Flegal Ph.D, K. (2019, June 10). *Products - Data Briefs - Number 106 - September 2012*. Www.Cdc.Gov. https://www.cdc.gov/nchs/products/databriefs/db106.htm#ref2

Heron, M. (2019). Deaths: Leading causes for 2017. National Vital Statistics Report; Vol. 68, No. 6; In *cdc.gov* (p. 11). National Center for Health Statistics. https://www.cdc.gov/nchs/data/nvsr/nvsr68/nvsr68_06-508.pdf

The Health Effects of Overweight and Obesity. (2019). Centers for Disease Control and Prevention. https://www.cdc.gov/healthyweight/effects/index.html

Ward, Z. J., Bleich, S. N., Cradock, A. L., Barrett, J. L., Giles, C. M., Flax, C., Long, M. W., & Gortmaker, S. L. (2019). Projected U.S. State-Level Prevalence of Adult Obesity and Severe Obesity. *New England Journal of Medicine*, *381*(25), 2440–2450. https://doi.org/10.1056/nejmsa1909301

Title:	**Growing Healthy Soil for Healthy Communities: An Effective Program for Improving Public Health Practice**
Authors:	**Kristen Champion**, BS, UW-Milwaukee, Zilber School of Public Health; **Jean M. Wojnar**, MS, City of Milwaukee Health Dept. Laboratory; **Elizabeth Zembrowski**, BS, City of Milwaukee Health Dept. Laboratory; **Rebeca Pinhancos**, MS, City of Milwaukee Health Dept. Laboratory; **Julie N. Plevak**, BA, City of Milwaukee Health Dept. Laboratory; **Lucas J. Beversdorf**, BS, MS, PhD, City of Milwaukee Health Dept. Laboratory; **Sanjib Bhattacharyya**, PhD, City of Milwaukee Health Dept. Laboratory
Abstract:	BACKGROUND: In 2014, the City of Milwaukee Health Dept. Laboratory (MHDL) partnered with the Medical College of Wisconsin (MCW), Walnut Way Conservation Corp., Sixteenth Street Community Health Center, and the University of Wisconsin-Madison to launch a program called Growing Healthy Soil for Healthy Communities (GHS). Lead in soil has been shown to be a significant contributor to blood lead levels, and because there is no safe level for blood lead, reducing exposure wherever possible continues to be a major public health concern, especially in urban environments where soil lead levels are elevated. OBJECTIVE: This HWPP grant-funded program provided soil screening for nutrients, bioavailable and total lead for the Kinnickinnic and Lindsay Heights neighborhoods, representing Milwaukee's south and north sides, and aimed to educate local gardeners on how to improve soil health and reduce soil lead levels. METHODS: To determine total and bioavailable lead, nutrient and organic carbon content, we used hot acid digestion with nitric and hydrofluoric acids per EPA Method 3052, Mehlich 3 extraction, and Loss on Ignition (LOI) methods, respectively. We used R studio to analyze data from soil samples collected from 52 different properties located in Kinnickinnic or Lindsay Heights to compare soil lead concentrations before and after utilizing MHDL's services. RESULTS: We determined that there was a significant decrease in total soil lead and bioavailable lead between the initial collection and follow-up soil samples collected from these properties upon remediation. In 2017, the MHDL evolved the GHS program into a publicly available service to provide low-cost soil screening. As of July 2021, MHDL has analyzed over 350 soil samples for Wisconsin residents. CONCLUSION: This insight exemplifies how community-engaged research partnering like Growing Healthy Soils can be a steppingstone for improving public health practices, enhancing community and environmental health system (EHS) collaborations, and influencing policy.
Submitter:	Kristen Champion, BS
Record ID:	159
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Growing Healthy Soil for Healthy Communities: An Effective Program for Improving Public Health Practice

Kristen Champion[1], Jean Wojnar[2], Elizabeth Zembrowski[2], Rebeca Pinhancos[2], Julie Plevak[2], Lucas Beversdorf[2], Sanjib Bhattacharyya[2]

[1]Zilber School of Public Health, University of Wisconsin-Milwaukee, [2]City of Milwaukee Health Department Laboratory

Introduction

- City of Milwaukee Health Department Laboratory (MHDL) participated in Growing Healthy Soil for Healthy Communities (GHS) project in 2014.
- MCW Healthier Wisconsin Partnership Program (HWPP) grant-funded program focused in Milwaukee's Kinnickinnic (KK) and Lindsay Heights (LH) neighborhoods (stars on map) and conducted soil testing for:
  - Nutrients
  - Total Lead
  - Bioavailable Lead
- GHS program aimed to educate local gardeners on how to improve soil health and reduce soil lead levels.
- In 2017, the program evolved into a low-cost service provided by the MHDL available to local residents and community members.

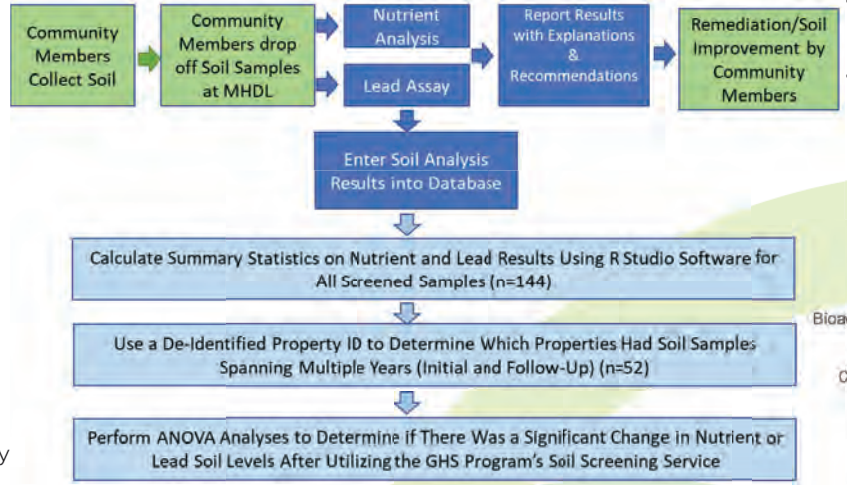
Objectives

- To estimate average soil nutrient and lead levels of the soil collected by community members
- To establish whether there was a significant decrease in soil lead after initial screening and recommendations

References

- Brinkmann, R. (1994). Lead pollution in soils in Milwaukee County, Wisconsin. *Journal of Environmental Science and Health . Part A: Environmental Science and Engineering and Toxicology, 29*(5), 909-919. doi:10.1080/10934529409376083

Methods

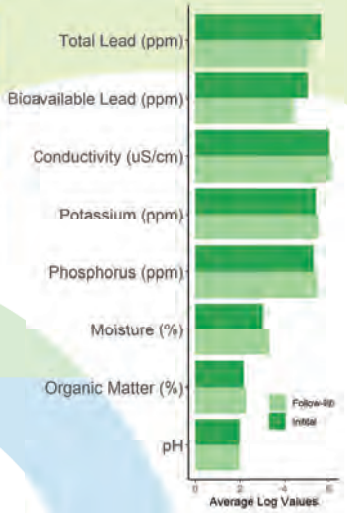


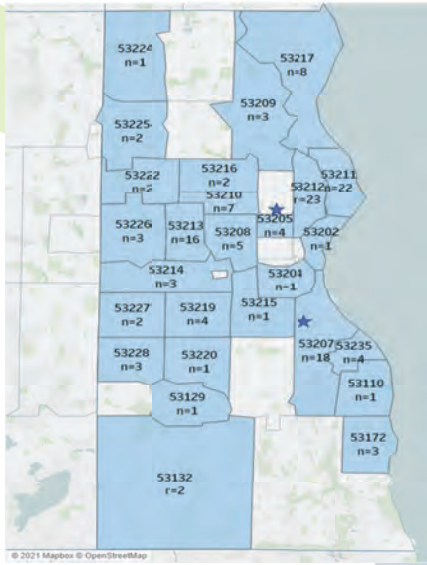
Results

- *Nutrient Analysis*
  - Average Potassium (K) and Phosphorus (P) levels were higher than recommended values
    - K_{avg}= 238ppm, recommended between 120-180ppm
    - P_{avg}= 224ppm, recommended between 30-45ppm
  - Percent Moisture was the only component of the nutrient analysis that significantly changed between the initial sample and follow up.
    - Increased from 22% to 27% moisture ($p < 0.05$).
- *Lead Analysis*
  - Bioavailable Lead (Pb)
    - Log-transformed Bioavailable Pb_{avg}= 4.7 (110ppm)
    - Significantly decreased
      - Log transformed soil lead decreased from 5.01 (150ppm) to 4.4 (89ppm) [$p<0.05$]
  - Total Lead
    - Log-Transformed Total Pb_{avg}= 5.3 (209ppm)
    - Significantly decreased between initial and follow up samples
      - Log transformed soil lead decreased from 5.61 (273ppm) to 5.07 (159ppm) [$p<0.05$]

Discussion

- EPA's recommended safe soil lead concentration s 400ppm. Milwaukee Country's average exceeds that value with the highest concentrations in the central city (Brinkmann, 1994).
- The users of the GHS program had average soil lead levels less than the EPA's guidelines
  - Importantly, GHS program participants were able to significantly reduce soil lead levels further without sacrificing soil nutrient health.





Conclusion

- Continuing the success of the grant-funded project, MHDL's GHS service has screened soil samples from over 350 properties located in 59 Zip Codes located throughout Wisconsin, many of which are situated in Milwaukee County.
- MHDL hopes to strengthen partnerships to:
  - Continue to increase overall users of the service beyond MKE
  - Improve partnering and outreach in communities, especially those areas where soil lead levels exceed recommended levels

Acknowledgements

We acknowledge supports from the City of Milwaukee Health Department Laboratory, Lead Program staff, and with collaborating community partners. GHS community-engaged research study was originally supported by MCW HWPP funding.

CITY OF MILWAUKEE
HEALTH DEPARTMENT

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Title:	**Creating and Evaluating a Parent Advocacy Curriculum**
Authors:	**Kristin Kappelman**, MA, Milwaukee Succeeds
Abstract:	Child care is expensive and often difficult for parents and caregivers to find. To address this need, five collective impact organizations in Wisconsin (Achieve Brown County, Building Our Future in Kenosha County, Every Child Thrives in Watertown, Higher Expectations for Racine County, and Milwaukee Succeeds) created the Parents Advocating for Child Care (PACC) Fellowship. The PACC Fellowship curriculum was collaboratively designed across the five communities to train parents to use their lived experiences to advocate for child care, with opportunities for the local perspective. Since this program was new, a continuous improvement evaluation process was used to not only evaluate the outcomes of the training program, but also allowed for improvements to be made along the way. Evaluation results demonstrated a 95% completion/graduation rate for Fellows, along with an increase in skills and knowledge related to child care and data. One of the main goals of the Fellowship was to advocate on behalf of the $140 million increase for child care in the state budget, and while the approved state budget did not cover everything discussed during the PACC Fellowship, including access, increased pay for staff, and quality, it was still a win in terms of making child care more affordable for some Wisconsin families. Additional discussion will include how parent voice was used to make changes to the program in real-time, along with suggestions for future iterations of the Fellowship.
Submitter:	Kristin Kappelman, MA
Record ID:	136
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Creating and Evaluating a Parent Advocacy Curriculum

Kristin Kappelman, Wisconsin Partnership/Milwaukee Succeeds

What is the Parents Advocating for Child Care (PACC) Fellowship?

The PACC Fellowship was an 8-month paid virtual advocacy training program for parents and caregivers to learn how to champion for change in early childhood care and education. The curriculum was collaboratively designed by five participating organizations: Achieve Brown County, Building Our Future (Kenosha County), Every Child Thrives (Watertown), Higher Expectations for Racine County, and Milwaukee Succeeds.

What did Fellows learn?

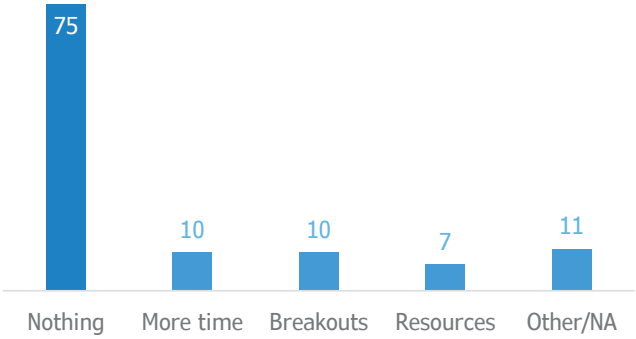
Fellows learned how to use their power as parents to advocate and make change, about policy and how to influence decision makers, how to use data to support their ideas, and how to advocate. Fellows advocated to their elected officials to fund child care in the Wisconsin state budget.

Why evaluate?

Since this program was new, a continuous improvement evaluation process was used to evaluate the outcomes of the training program as well as allow for improvements to be made along the way.

What implementation barriers did we find and address?

While most feedback from our Fellows indicated that there was nothing we could improve during the trainings, suggestions like longer breakout rooms and more resources were used to make changes.



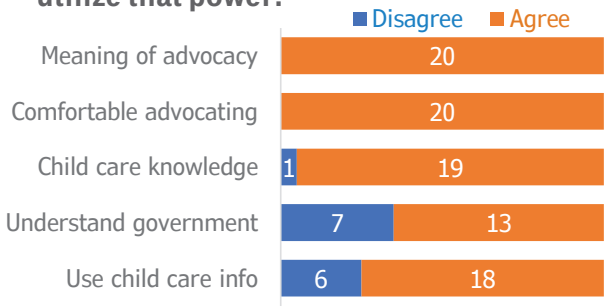
How many parents completed the training?

95% completion rate

Did Fellows increase their knowledge and skills?

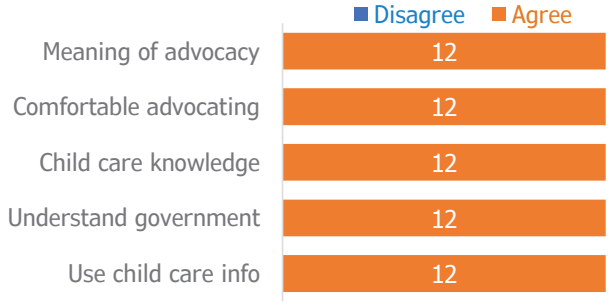
At the start...

"As the voters and the customers we have all the power, just **lacking the knowledge of how to utilize that power.**"



At the end...

"Through advocacy, [parents] can **influence** local, state, and federal employees/agencies to **promote changes** they wish to see in their communities."



Title:	**Meeting People at Their Door: A Community-Based Equity-Focused Approach to Build Vaccine Confidence**
Authors:	**Mara Lord**, MBA, MCW-Milwaukee, Office of the President; **Lorraine Lathen**, Jump at the Sun; **B.W. Weston**, MD, MPH, MCW-Milwaukee, Dept. of Emergency Medicine
Abstract:	BACKGROUND: The COVID-19 pandemic has disproportionately impacted individuals in vulnerable communities and highlighted systemic disparities in health equity based on race and ethnicity. The COVID-19 vaccine provides the best protection against becoming seriously ill from COVID-19, however, vaccination rates in Black and Hispanic communities in Milwaukee County continue to lag White communities. OBJECTIVE: We aim to share qualitative learnings and quantitative outcomes from an equity-focused, train-the-trainer, door-to door vaccination campaign. METHODS: In spring 2021, Milwaukee County, City of Milwaukee Health Dept., and Medical College of Wisconsin partnered with Jump at the Sun Consultants, a Black and Woman-owned community-based organization, to recruit, train, and mobilize community members on a door-to-door neighborhood-based vaccination strategy. This community mobilization effort leveraged the Evaluating Vulnerability and Equity Model (EVE Model) to target neighborhoods with low vaccination and high vulnerability. The EVE Model views community vaccination rates alongside the CDC Social Vulnerability Index (SVI) to inform equitable allocation of vaccine and provides dynamic data by census tract. A train-the-trainer curriculum engaged and trained community members to express respect, reflection and empathy in door-to-door conversations. RESULTS: Eighty community members visited more than 4,000 homes from July 15 to August 15, resulting in 623 in-home vaccinations. Themes noted in conversations included importance of personal choice, as well as differences in motivation and intent across demographic populations, most prominently by race and ethnicity. CONCLUSION: A community-based equity-focused vaccination campaign not only led to vaccine uptake but also provided insight into strategies for vaccine motivation.
Submitter:	Mara Lord, MBA
Record ID:	160
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Meeting People at Their Door: A Community-Based Equity-Focused Approach to Build Vaccine Confidence

M. Lord, L. Lathen, B.W. Weston

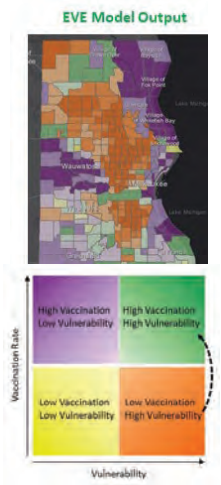
Medical College of Wisconsin, Jump at the Sun Consultants

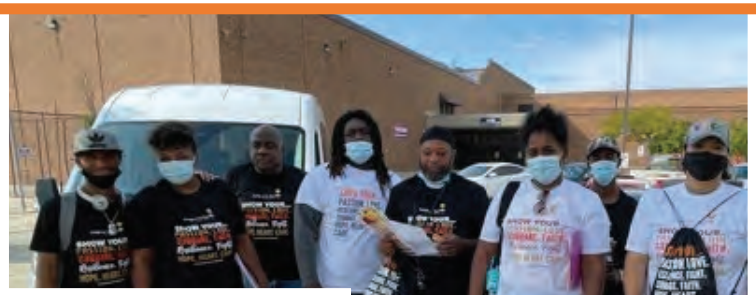
BACKGROUND

- In Spring 2021, Milwaukee County COVID-19 vaccination rates in Black and Hispanic communities lagged White communities
- A Community Mobilizer strategy was identified to reach people in their homes
- Partnership between Milwaukee County, City of Milwaukee Health Department (MHD), Medical College of Wisconsin (MCW), and Jump at the Sun Consultants (JATSC) enabled this community-based equity-focused approach

METHODS

- Locally-developed Evaluating Vaccine Equity (EVE) Model tracked vaccine rates alongside CDC social vulnerability index (SVI) informing census tracts with low vaccine, high SVI for Community Mobilizers to target
- JATSC recruited, trained, and mobilized community members to knock on doors, talk about health and vaccine; mobilizers were paid an equitable weekly stipend
- MHD vaccinators accompanied Community Mobilizers to offer vaccine to people in their homes





RESULTS
(July 15 – Oct 15)

150
Community Mobilizers Trained

62
Census Tracts Covered

13,337
Homes Visited

679
Vaccines Administered

Goodwill
in Communities and Positive Relationships among Vaccinators and Mobilizers

CHALLENGES

- Sustained funding
- Vaccine hesitant households
- Data tracking

OPPORTUNITIES

- Model for getting vaccine to vulnerable communities
- Model for influencing other health behaviors in socially vulnerable communities

Title:	**A community-academic partnership to deliver ongoing COVID-19 vaccine education through virtual panel discussions**
Authors:	**Michael DeBisschop**, PharmD, MCW School of Pharmacy; **Dessie Levy**, PhD, Clinical & Translational Science Institute of Southeast Wisconsin; **Colleen Cornelius**, MS, MCW School of Pharmacy; **MaryNell Ryan**, MS, Next Door Foundation; **Lisa Garlie**, MAED, Next Door Foundation; **Cathy Schwab**, Next Door Foundation
Abstract:	BACKGROUND: MCW School of Pharmacy (SOP) has an ongoing partnership with Next Door Foundation, an early childhood education center in the Metcalfe Park neighborhood of Milwaukee. After the COVID-19 vaccines became available, a need was recognized for accurate, updated information about the vaccines and the ongoing pandemic. Due to the continually emerging information and perceived issues surrounding the vaccines, a webinar series was developed and implemented for Next Door staff. OBJECTIVE: Create and deliver a series of webinars to provide accurate and updated information about the COVID vaccine to Next Door staff so that individuals could make decisions best suited for themselves and positively affect their communities and co-workers. METHOD: The planning team consisted of the Professional Development team at Next Door; MCW faculty and staff. Panel-style webinars were conducted via Zoom starting in January and continued throughout 2021. All webinars were recorded and available for viewing by Next Door staff after each session. RESULTS: Five hour-long webinars were conducted between January and June 2021; four additional webinars are scheduled for September through December 2021. Attendance was high for all sessions - between 57% - 79% of total staff participated in the live webinars. Panelists included a MCW School of Pharmacy faculty member; the Assistant Director of Community Initiatives at the Clinical and Translational Science Institute; and vaccine champions from the Next Door staff. Topics presented included vaccine administration and COVID data; current controversies with the vaccines; and community impact of the pandemic and vaccination effort. Panelists answered questions from attendees at all sessions. CONCLUSION: This academic-community partnership is an effective way for a community organization to deliver current information, and address questions, on the continuously evolving COVID-19 pandemic and vaccination effort.
Submitter:	Michael DeBisschop, PharmD
Record ID:	151
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

A community-academic partnership to deliver ongoing COVID-19 vaccine education through virtual panel discussions

Michael DeBisschop, PharmD[1]; Dessie Levy PhD[2]; Colleen Cornelius, MS[1]; MaryNell Ryan, MS[3]; Lisa Garlie, MAED[3]; Cathy Schwab[3]
[1] Medical College of Wisconsin (MCW) School of Pharmacy, Milwaukee, WI 53226; [2]Clinical and Translational Science Institute of Southeast Wisconsin, Milwaukee, WI, 53226; [3]Next Door Foundation, Milwaukee WI, 53210

RATIONALE

Information about COVID-19 vaccine changes quickly; misinformation is common

Next Door Foundation and MCW School of Pharmacy have an ongoing partnership for health and wellness of staff and community

Overall goal: provide a consistent source of trusted vaccination information to Next Door staff and teachers

PANEL DISCUSSIONS

- Virtual panel discussions targeted to Next Door staff
- All hour-long sessions recorded for future viewing
- Q&A encouraged at all sessions
- Planned in advance by Next Door professional development staff

SESSION FORMAT

Typical Panelists	Topics
School of Pharmacy faculty member	• State and national vaccination data • Eligibility and location • Vaccine controversies
CTSI faculty member	• Community impact of pandemic and vaccine • Vaccination data and vaccine hesitancy in communities of color
Next Door staff vaccine champions	• Reasons and motivation for receiving vaccine
Next Door CEO	• Company policies related to vaccination and testing

MCW NEIGHBORHOOD PARTNERS

MILESTONES AND RESULTS

Eight panel discussions held or planned for 2021

Attendance: 57-79% of total staff at each session

Next Door is currently 81% vaccinated

Staff email survey (n=74, 30% response rate):

- Most impactful outcomes: receiving clear and trusted information from professionals; and having an opportunity to ask questions
- 17% said they were influenced to get vaccinated by the panels. Many had already decided to receive, or had received, the vaccine. Many said the information presented affirmed their decision.

LESSONS LEARNED

Community impact discussions were essential to affecting people's perception – both "facts and feelings" were discussed..

Even if information does not affect vaccination, the discussions affirmed many people's decision and continued to provide clear information on an evolving issue

Title:	**A community-based vaccine outreach team initiative to increase COVID-19 vaccination rates in Milwaukee**
Authors:	**Val Moore**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **Jeremy Walton**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **Aretha Kubera**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **Yiyi Than**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **David Tate, Jr.**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **Natasha Fair**, Next Door Foundation, COVID-19 Vaccine Outreach Team; **Michael DeBisschop**, PharMD, MCW School of Pharmacy; **Colleen Cornelius**, MS, MCW School of Pharmacy; **Tracey Sparrow**, EdD, Next Door Foundation
Abstract:	BACKGROUND: According to Wisconsin Dept. of Health Services (DHS) statistics, the COVID-19 vaccination rate for Milwaukee County's Black residents is significantly lower than that of the general population. To address the disparity in vaccination rates, Next Door Foundation, a community organization providing early childhood education and home visitation services in Milwaukee's Metcalfe Park and Midtown neighborhoods, created a COVID-19 Vaccine Outreach Team. The Team's purpose was to reach out to low-income residents and families to develop relationships, engage them in conversation about vaccination concerns, and provide accurate information. OBJECTIVE: Employ an outreach team approach to engage the community and increase COVID-19 immunization rates for eligible individuals in the communities served. METHODS: The project was funded by a grant from Wisconsin DHS and took place between June 1 and August 31, 2021. Six Next Door staff members formed the outreach team. MCW School of Pharmacy faculty provided training about the vaccine to the outreach team in June with regular follow-up afterwards. Outreach team members canvassed many different zip codes; activities included door-to-door outreach, attendance at community events, distribution of printed information, and hosting community cafes, among others. The team organized four COVID-19 vaccine clinics at Next Door and held a community cookout and resource event during the last week of August. RESULTS: Team members connected with over 500 community members, including those of African American, Latinx, Hmong, Karen and Burmese descent. The Next Door COVID-19 vaccine clinics administered 258 shots over the four sessions. Team members also provided transportation services to numerous individuals to other vaccination locations. Team members estimate that every individual they connected to was positively influenced to receive the vaccine. CONCLUSION: A community-based outreach team model can effectively disseminate knowledge about the COVID-19 vaccine and help provide access to the vaccine in communities with pre-existing health disparities.
Submitter:	Michael DeBisschop, PharmD
Record ID:	152
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

A community-based vaccine outreach team initiative to increase COVID-19 vaccination rates in Milwaukee

Val Moore[1], Jeremy Walton[1], Aretha Kubera[1], Yiyi Than[1], David Tate[1], Natasha Fair[1], Michael DeBisschop, PharmD[2], Colleen Cornelius, MS[2], Tracey Sparrow, EdD[1]

[1] Next Door Foundation, Milwaukee WI, 53210; [2]Medical College of Wisconsin (MCW) School of Pharmacy, Milwaukee, WI 53226

RATIONALE

Milwaukee COVID-19 Vaccination rates for Black residents are significantly lower than other racial/ethnic groups

Next Door Foundation provides early childhood education and home visit services in Metcalfe Park and Midtown

Overall goal: increase vaccination rates in the communities served

TEAM DEVELOPMENT

Six team members from Next Door

MCW School of Pharmacy training and support

Development of printed materials

Vaccine clinic partnerships with Hayat Rx and Milwaukee Health Department

Target Zip codes

53206	53212
53210	53216
53205	53215

OUTREACH ACTIVITIES

- Door-to-door, street canvasing
- Community Events
- Printed Materials, Door Hangers
- Vaccine Clinics

RESULTS

01 Over **500** community members reached, including those of African American, Latinx, Hmong, Karen, and Burmese descent.

02 Vaccine clinics at Next Door administered 258 immunizations

03 Transportation provided to numerous individuals to other vaccination sites

04 Team members estimate that every individual they made a connection with was positively influenced to receive vaccine.

ACKNOWLEDGEMENT

This project is funded through a Wisconsin Department of Health Services COVID-19 Vaccination Community Outreach grant between June 1 and August 31, 2021.

REFERENCE

Wisconsin Department of Health Services. Covid-19: Vaccine Data. https://www.dhs.wisconsin.gov/covid-19/vaccine-data.htm.

Title:	**Engaging Muslim Americans for Research on Community Health: Lessons Learned from a Patient-Centered Outcomes Research Capacity-Building Program**
Authors:	**Aasim Padela**, MD MSc, Initiative on Islam and Medicine, MCW-Milwaukee, Dept. of Emergency Medicine; **Stephen Hall**, MPH, Initiative on Islam and Medicine; **Fatema Mirza**, Worry Free Community; **Adel Syed**, MPPA, UMMA Clinic; **Yasser Aman**, DrPH, Los Angeles County Martin Luther King Outpatient Center
Abstract:	BACKGROUND: Although racially, ethnically, and socioeconomically diverse, American Muslim communities share a religious worldview that contributes to similar health and healthcare behaviors. Yet, this "Muslim" dimension largely overlooked in health disparity research and intervention programs. As such, Muslim community leaders have few opportunities to participate in, and shape, research that addresses religion-related factors impacting Muslim community health outcomes. OBJECTIVES: We initiated a community-engaged, capacity-building program to develop a cohort of Muslim community leaders equipped with the knowledge and intention to participate in Muslim community-relevant, patient-centered outcomes research (PCOR). METHODS: By means of a Learning Institute (LI) and webinars, we implemented tailored education focused on research methods, strategies for studying the religious dimensions of health behavior, PCOR tools, and skills for mosque engagement to a cohort of diverse Muslim community leaders. This cohort further participated in a consensus-building activity to identify Muslim community health priorities, and developed project proposals to tackle community health issues. Finally, we convened a national, multi-stakeholder conference to connect Muslim health researchers and discuss PCOR approaches to combating Muslim health disparities. CONCLUSIONS: A multiple modality capacity-building program can cultivate grassroots motivation and skills for addressing the religious dimensions of health challenges through mosque communities. Yet, for such efforts to translate into specific initiatives strategic partnerships between research funders, health care systems, and mosque community leaders is needed. Our experience suggests that holistic approaches to Muslim health concerns are desired by community members, and that, therefore, discussions and consensus-building projects should incorporate a variety of stakeholders.
Submitter:	Aasim Padela, MD, MSc
Record ID:	154
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Engaging Muslim Americans for Research on Community Health: Lessons Learned from a Patient-Centered Outcomes Research Capacity-Building Program

Aasim I. Padela MD MSc, Stephen Hall MPH, Fatema Mirza PMP, Adel Syed MPA

Medical College of Wisconsin
Emergency Medicine

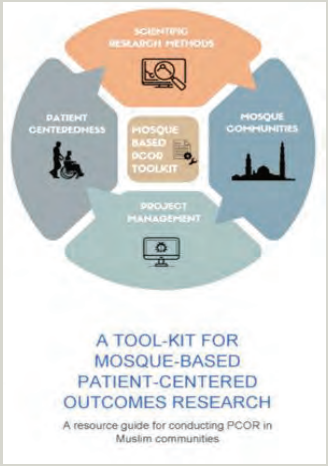
Background

- Muslim Americans ~3-5 million persons → ~10 million by 2050
- Predominantly comprised of African, Arab, and S. Asian communities
- Share religious beliefs, values & identity → Similar health behaviors and challenges
- Religious identity overlooked in health & healthcare disparity tracking & research
- Muslim community leaders have few opportunities to participate in, and shape, community health research

Objectives

- Design a capacity-building program that equips Muslim community leaders with the knowledge, tools, and networks for mosque-based health disparity research
- Increase Knowledge + Tools → CBPR+ PCOR + SDH + Muslim dimensions of health behaviors
- Increase Behavioral Intent for research

Name	State	Stakeholder Group	Health Leadership Project Title
Heba Abolaban	Mass	Clinician	Increasing Breast Cancer Screening Rates Among Foreign-Born American Muslim Women in South Bay Area, California
Sameera Ahmed	Michigan	Social Services	Positive Youth Development: A Pilot Intervention with American Muslims
Yasser Aman	California	Community Health	Lessons Learned and Moving Forward with Mosque-Based PCOR
Mohammad Aref	Indiana	Clinician	Studying Religion Associated Disparities in the Mental Health of American Muslims
Alia Azmat	Indiana	PhD Student/Social Services	The Burden of Sexual Violence and Sexual Dysfunction in Muslim Communities
Mona Elgohail	Pennsylvania	PhD Student/Clinician	An Innovative, Internet-Based Treatment to Reduce Depressive Symptoms in Muslim Women Experiencing Infertility: Preliminary Results and Next Steps
Amal Killawi	New Jersey	PhD Student/Social Services	Exploring the Experiences of Muslim American Women with Sexual Health Issues
Angelica Lindsey-Ali	Arizona	Social Services	Developing an Islamically-Centered Sexual Health Curriculum for Black Muslim Women
Nasir Malim	New York	Clinician	Islamic Bioethical Perspectives on Gender Identities for Intersex Patients
Fatema Mirza	Illinois	Community Health	Mosque-Based PCOR: Identifying gaps and discovering best practices to conducting patient-centered research on mosque communities
Sharif Mohamed	Minnesota	Imam	The Impact of a Pre-CPE Training Program for Muslim Faith Leaders Upon Minnesota Healthcare Systems
Samaiya Mushtaq	Texas	Clinician	An Analysis of a Community Psycho-Education Intervention for Nashville Muslims
Nancy Romanchek	Illinois	Community Health/Clinician	Islamophobia on Facebook and Identity Formation Among US Muslim Youth



Activities & Methods

Recruited community leaders from academic and community networks. They needed to have a leadership role in a sponsoring mosque/CBO and community health experience.

Activities:

- Two day in-person Learning Institute (LI)
- Three 90-min webinars tailored to cohort needs
- Asynchronous facilitated group discussions (FGDs)
- Multidisciplinary conference with shark tank sessions on leadership projects

Assessments:

-Individual surveys & group feedback sessions

Measure	Pre-LI	Post-LI	Post-Conference
	Mean ± Standard Deviation		
Self-Rated Knowledge about…			
General Health Research Knowledge	29.3 ± 8.5	32.8 ± 7.4	34.8 ± 5.9
Patient-Centered Outcomes Research (PCOR)	1.9 ± 0.9	3.0 ± 0.7	3.5 ± 0.5
Community-Based Participatory Research (CBPR)	2.4 ± 1.2	3.2 ± 0.7	3.4 ± 0.7
Social Determinants of Health (SDH)	2.9 ± 0.7	3.5 ± 0.7	3.5 ± 0.5
Comparative Effectiveness Research (CER)	1.6 ± 1.0	2.8 ± 0.9	3.1 ± 0.9
Self-Rated Agreement with X statement related to Muslim-focused health research project			
I have the necessary skills to carry out a…	3.1 ± 0.6	3.3 ± 0.7	3.7 ± 0.5
I intend/likely to carry out a… in the next 12 months	3.8 ± 0.4	3.7 ± 0.5	3.6 ± 0.7

Lessons Learned

-Online modalities were less effective than in-person engagement and instruction
-Delphi-based discussions were ineffective as perceived as argument-based
-Participants desired greater mentorship that was more long-term as well as more funder interest
-This program was effective in increasing knowledge and skills, but behavioral change requires ecosystem of support

This project was funded through a Patient-Centered Outcomes Research Institute® (PCORI®) Eugene Washington PCORI Engagement Award (EAIN-5990)

Title:	**Mental Health in Rural Wisconsin Youth: How To Provide Support**
Authors:	**Haylee Geib**, MCW-Green Bay
Abstract:	OBJECTIVE: Identify methods to provide mental health support to rural youth who do not have access to formal mental health care. METHOD: 6-12th grade students at Pembine School took an anonymous online survey before and after a presentation about identifying mental health conditions, methods for supporting someone during a crisis, and virtual mental health resources. Results of the surveys were analyzed. The presentation included education on recognizing signs of mental health crisis, specific ways to have a conversation about mental health concerns (including vocabulary to use/avoid, how to utilize active listening, risk assessment, safety planning, and when to reach out for emergency support), and virtual mental health resources. RESULTS: Students are more comfortable speaking to friends about mental health, rather than parents or teachers. However, over half of students reported no experience successfully supporting someone in a mental health crisis. After the presentation, average student comfort supporting friends in a mental health crisis was 8.31/10 vs 7.8/10 before. 94% of students rated the program as being beneficial and 67% said they would feel more comfortable talking to parents about mental health if parents attended a similar presentation. CONCLUSION: Educating students about virtual resources and how to support friends during a mental health crisis is an effective way to improve mental health in rural youth who do not have access to formal care. Many middle and high school age students are comfortable and willing to support their struggling friends, but most do not have the training to do this. Virtual resources, training programs, and peer education are an effective way to provide this much-needed support to rural youth.
Submitter:	Haylee Geib
Record ID:	131
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Mental Health in Rural Wisconsin Youth: How to Provide Support

Haylee Geib, MS3
Medical College of Wisconsin- Green Bay

Introduction

- The prevalence of mental health disorders in children is rising. As of April 2021, an estimated 15.3% of Wisconsin youth ages 12-17 had suffered a major depressive episode in the last year, and 47.2% of those children did not receive adequate care.[1]
- Diagnosis of depression is more than twice as common in children from families with income <200% FPL.[2]
- Untreated problems can lead to poor school performance, disturbed development, and self-harm. Rural youth face additional barriers to receiving mental health care including poverty, lack of anonymity, and inaccessibility.

Methodology

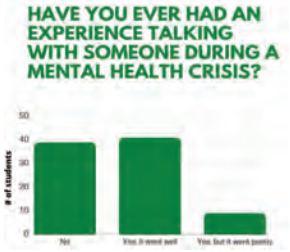
All 6th – 12th grade students (n = 89) at Pembine School were anonymously surveyed before & after attending a presentation on mental health.

The presentation included the topics listed below and was created by myself (Haylee Geib) as a compilation of skills I've learned through my certification classes and work as a youth mentor for children with behavioral disturbances, a virtual crisis counselor for the national crisis text line, and a certified mental health first aid responder.

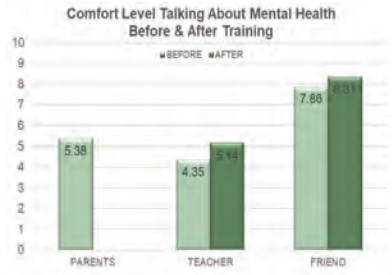
- Recognizing signs of mental health crisis in peers
- How to have a conversation with peers about mental health concerns
  - Specific vocabulary to use/avoid
  - How to utilize active listening
  - How to do a risk-assessment
  - How to create a safety plan
  - When to seek professional help
  - How to reflect and decompress after a difficult mental health conversation
- Free virtual mental health resources

Results

- Although "before" ratings reflect that students were relatively confident talking with friends about mental health, 54% of students reporting that they had no prior experience speaking with a friend about mental health.



- 94% of students & 100% of teachers rated the program as beneficial
- 67% said they would feel more comfortable talking to parents about mental health if parents attended a similar presentation
- 88% of participating students reported that they would be willing to use at least one of the virtual resources from the presentation if they were experiencing a mental health crisis.



Conclusion

- Adolescents feel most comfortable talking about their mental health with peers, so teaching middle & high school age kids how to successfully navigate these conversations is an effective way to target mental health in areas where access to formal mental health care is lacking.
  - Apps, websites, & other virtual resources are a practical option
- Most adolescents know that talking about mental health is important, but don't know how to do it. Teaching them a step-by-step process with proper language and "Do's and Don'ts" seems to be helpful.
- Teachers and parents often lack formal training about how to speak with kids about mental health. Adolescents would be more likely to discuss mental health with these adults if they knew the adults were trained to have these conversations.

Acknowledgements

1. Youth Data 2021. Mental Health America. https://www.mhanational.org/issues/2021/mental-health-america-youth-data. Published 2021. Accessed April 22, 2021.
2. "Mental Health Surveillance Among Children - United States, 2005–2011." *Centers for Disease Control and Prevention*, Centers for Disease Control and Prevention, 2013, www.cdc.gov/mmwr/preview/mmwrhtml/su6202a1.htm?s_cid=su6202a1_w#Ta7.
3. Crisis Text Line Textbook. resources.crisistextline.org. https://resources.crisistextline.org/TrainingMaterialsTextbook. Accessed April 22, 2021.
4. *Mental Health First Aid USA: For Adults Assisting Young People*. Washington DC: National Council for Behavioral Health; 2016.

A special thank you to Pembine High School for their cooperation and participation in this project.

Title:	**Impact of the COVID-19 Pandemic on Global Health Partnerships**
Authors:	**Jara McLarren**, MPH, MCW-Milwaukee; **Kara Kallies**, MS, MCW-Milwaukee, Institute for Health & Equity; **Amber Brandolino**, MS, MCW-Milwaukee, Dept. of Surgery, Div. of Trauma & Acute Care Surgery; **Christopher Dodgion**, MD, MCW-Milwaukee, Dept. of Surgery, Div. of Trauma & Acute Care Surgery; **Mary E. Schroeder**, MD, MCW-Milwaukee, Dept. of Surgery, Div. of Trauma & Acute Care Surgery
Abstract:	BACKGROUND: Global health partnerships (GHPs) are critical to sharing knowledge and expertise, strengthening health systems, and improving health outcomes. The COVID-19 pandemic has presented numerous challenges, including potential disruptions to the continuity and productivity of GHPs. OBJECTIVE: To evaluate the impact of COVID-19 on travel, communication, and research or educational activities within established GHPs. METHODS: An electronic survey was distributed to faculty and staff involved in GHPs at a private, U.S. academic medical institution between May-July 2021. FINDINGS: There were 24 respondents, 4 excluded (incomplete responses). Of the 20 included, 5% were involved with their GHP for <1 year, 20% 1-3 years, 45% 4-10 years, and 30% >10 years. Goals of GHPs included education/skills training (80%) and research/research capacity-building (60%) as well as short (30%) or long-term clinical care (20%). Half noted adjusted activities to accommodate the pandemic, while 40% postponed activities, and 10% halted all activities. Seventeen (85%) respondents cancelled travel plans with GHPs. All respondents maintained communication with GHPs (55% less frequently, 40% regularly, 5% more frequently). Respondents with ongoing research (n=11, 55%) with GHPs reported significant (45%), minimal (27%), partial (9%) or complete disruptions (18%) due to the pandemic. Partnerships with educational/skills training (n=17, 85%) reported complete (53%), or some disruption (47%). Reasons for disruptions included lack of resources, increased professional responsibilities, staffing limitations, financial barriers, COVID-19 illness among those involved, or family obligations. Those who reported implementing new techniques during the pandemic cited increased utilization of virtual platforms. CONCLUSIONS: Although the pandemic disrupted continuity and productivity of GHPs, new opportunities have emerged to strengthen communication, establish more equitable exchanges, and collaborate innovatively with international partners. Uncertainties and challenges will continue to be encountered in the future. Thus, we hypothesize these results not only have implications for GHPs, but also for local health partnerships and community engagement.
Submitter:	Jara McLarren, MPH
Record ID:	164
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

Impact of the COVID-19 Pandemic on Global Health Partnerships

Jara McLarren, MPH[1], Kara Kallies, MS[2], Amber Brandolino, MS[3], Christopher Dodgion, MD[3], Mary E. Schroeder, MD[3]

[1]Medical College of Wisconsin, [2]Institute for Health and Equity, Medical College of Wisconsin, [3]Division of Trauma and Critical Care, Dept. of Surgery, Medical College of Wisconsin

INTRODUCTION

- Global health partnerships (GHPs) are critical to sharing knowledge and expertise, strengthening health systems, and improving global health outcomes[1, 2]
- The COVID-19 pandemic has presented numerous challenges, including potential disruptions to the continuity and productivity of GHPs

OBJECTIVE

- Evaluate the impact of COVID-19 on travel, communication, and research or education activities within established GHPs

METHODS

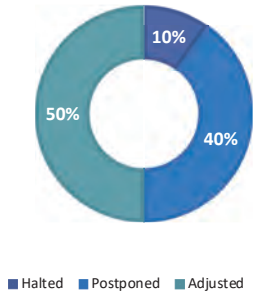
- IRB approval was obtained
- Electronic survey developed using Qualtrics XM (Provo, UT, USA) survey software and distributed anonymously to faculty and staff involved in GHPs at a private, U.S. academic medical institution between May-July 2021

RESULTS

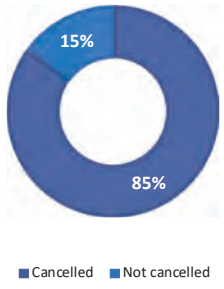
Demographics:

- 24 respondents, 20 included (4 excluded due to incomplete responses)
- Duration of GHP → < 1 year (5%), 1-3 years (20%), 4-10 years (45%), >10 years (30%)
- Goals of GHP → education/skills training (80%), research/research capacity-building (60%), short-term clinical care (30%), long-term clinical care (20%)

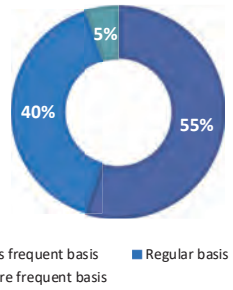
GENERAL ACTIVITIES (N=20)



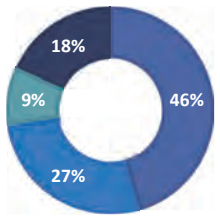
TRAVEL (N=20)



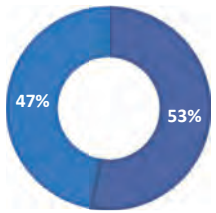
COMMUNICATION (N=20)



RESEARCH (N=11)



EDUCATION & SKILLS TRAINING (N=17)



REASONS FOR DISRUPTION

Lack of resources

Increased professional responsibilities

Staffing limitations

Financial barriers

COVID-19 illness among those involved or family obligations

- New strategies implemented → yes (30%), no (70%)
- Increased Academic/professional productivity → virtual platform use

CONCLUSION

- Our results indicate that new opportunities have emerged to:
  1. Strengthen communication
  2. Establish more equitable exchanges
  3. Collaborate innovatively with international partners
- We hypothesize these results not only have implications for GHPs, but also for local health partnerships and the practice of community engagement

REFERENCES

1. Addo-Atuah J, Senhaji-Tomza B, Ray D, Basu P, Loh FE, Owusu-Daaku F. Global health research partnerships in the context of the Sustainable Development Goals (SDGs). Res Social Adm Pharm. 2020 Nov;16(11):1614-1618.
2. Debas H, Alatise OI, Balch CM, Brennan M, Cusack J, Donkor P, Jaffe BM, Mazariegos GV, Mock C, Mutiibwa D, Numann P, Nyagatuba JKM, O'Neill JA Jr, Tarpley JL, Tesfaye S, Tefera G, Tuttle TM. Academic Partnerships in Global Surgery: An Overview American Surgical Association Working Group on Academic Global Surgery. Ann Surg. 2020 Mar;271(3):460-469.

Title:	**"It's about being healthy"; Family Perspectives on the Impact of a Fitness and Nutrition Program within the Latinx Community**
Authors:	**Bethany Korom**, MCW-Milwaukee; **Meghan Malloy**, MCW-Milwaukee; **Caroline Remmers**, MCW-Milwaukee; **David Nelson**, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine
Abstract:	BACKGROUND: The Latinx community is at risk for chronic illnesses including obesity and type 2 diabetes, and may struggle with English as a second language. Culturally appropriate community facing physical activity and nutrition programs may provide the basis for families to improve their health status. However, no studies to date have investigated the interplay of synergistic factors that could make these types of programs successful. METHODS: A two-year physical activity and nutrition program (FIT Families) took place with Milwaukee Latinx families from 2018-2020 through a community academic partnership with the United Community Center, Marquette University, and the Medical College of Wisconsin. Sixth through eighth grade students attended after-school programs, parents engaged in capacity building sessions, and entire families participated in team-building activities. At the program's conclusion, families were interviewed to discuss the overall impact. Interview transcripts were coded using a grounded theory qualitative approach to identify overarching themes. RESULTS: 24 interviews with families were conducted over the course of three months. A number of themes emerged from the interviews which indicated that children had stronger belief in their individual abilities and peer support. Parents said their children improved their daily self-directed healthy behaviors and saw how this program could have a positive impact on their children later in life. All families grew in their individual understanding of health and wellness. CONCLUSION: The interviews revealed three main components of FIT Families that made it successful: new opportunities for engagement, long-lasting supportive relationships, and the interplay of common themes including family and social support, confidence, safety, change in routine, trying new and healthy things and independence. Effective programs using evidence-based nutrition and physical activity education could include these three components to make their outcomes more impactful within the family. Additional research is needed to evaluate the long-term effects across the social-ecological spectrum.
Submitter:	Bethany Korom
Record ID:	138
Format:	LIVE: Wednesday, Nov. 3, 2021
Video:	Link available after live session.

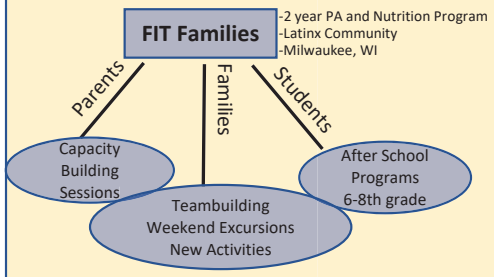
“It’s about being healthy”; Family Perspectives on the Impact of a Fitness and Nutrition Program within the Latinx Community

Bethany Korom, Meghan Malloy, Caroline Remmers, David Nelson, PhD, MS

Introduction

- Multiple factors contribute to the decrease in physical activity (PA) and rise of childhood obesity at the individual, community, relational, and policy levels[1]
- Many health-promoting interventions are devoid of meaningful intersections based upon the social ecological framework
- Latinx community: high risk for obesity, type 2 diabetes, and other chronic illnesses, creating a need for culturally-appropriate PA and nutrition programs that address barriers and promote healthy behaviors[2,3,4]

Methods



- At conclusion of program: Interviews with families to discuss overall impact
- Interview transcripts coded using a qualitative, grounded theory approach
- Develop a model of themes to describe "ingredients" that made this program a success

Results

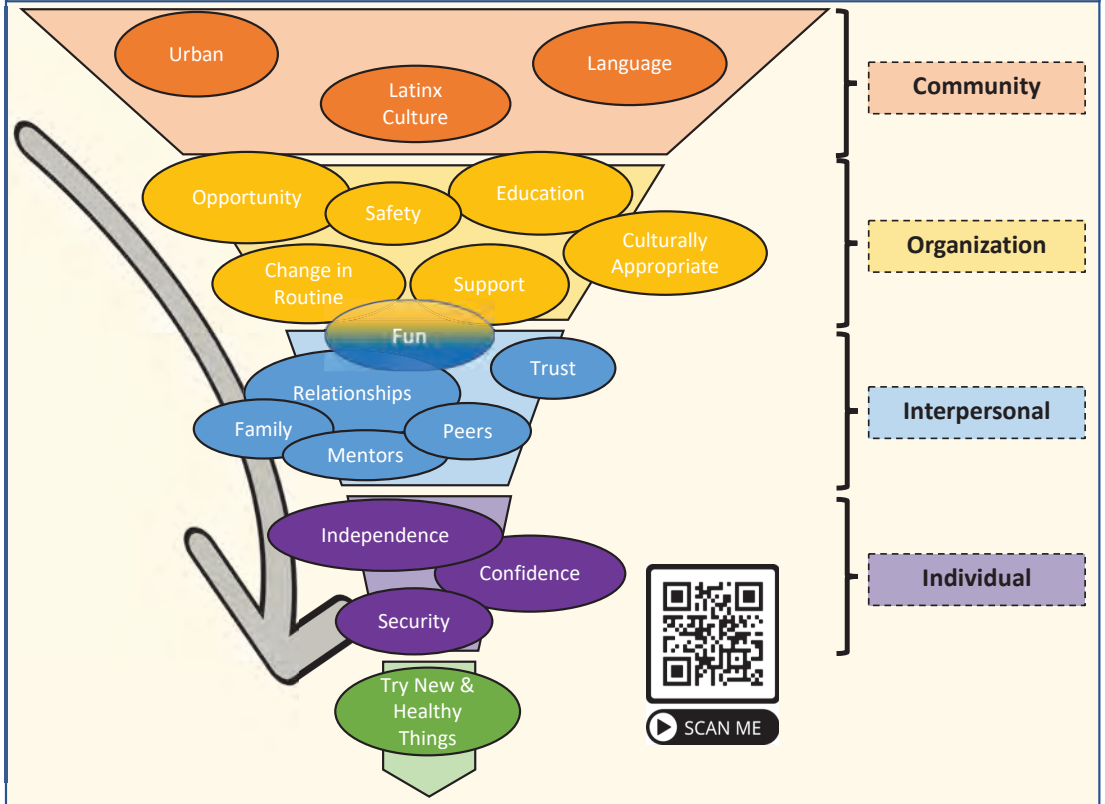


Figure 1 (above): Our codebook contains 7 main themes: family and social support, confidence, safety, change in routine, trying new and healthy things and independence. Each of these and additional recurring topics taken from interview transcripts demonstrate how each level of the SEM build on each other helping students in the program feel empowered to try new and healthy things. Scan the QR code for quotes from student and parent interviews that illustrate themes from each level.

Conclusions

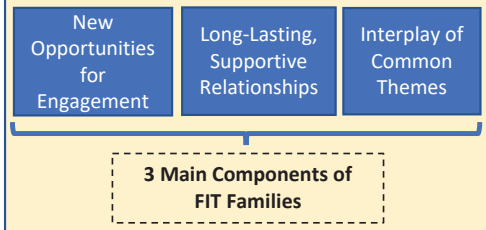


Figure 2 (above): From our 7 codebook themes, three main components emerged contributing to the success of the FIT Families program.

- While developing new models for culturally relevant PA and nutrition programs, it is necessary to identify the "ingredients" that make the program impactful for individuals and families involved
- The social ecological model (SEM) provides a dynamic framework to demonstrate the interplay of the "ingredients" that emerged from this interview process
- Each of these factors are linked in such a way that they create synergy and movement together
- Future work: More research is needed to examine long-term effects across the SEM

Acknowledgments

We would like to acknowledge and thank our partners at the United Community Center and Marquette University for their contributions to the FIT Families program.

Title:	**A Retrospective Quality Improvement Study Comparing As-Needed and Tapering Protocols for Total Opioid Administration in Veteran Population**
Authors:	**Vasil V. Kukushliev**, MCW-Milwaukee; **Christopher M. Kurylo**, MCW-Milwaukee; **Stephen D. Ortmann**, MCW-Milwaukee; **Katherine A. Sherman**, Clement V. Zablocki VA Medical Center; **Maxwell Hershey**, MCW-Milwaukee; **Robert A. Scheidt**, Washington University School of Medicine; **Karl B. Scheidt**, MCW-Milwaukee
Abstract:	BACKGROUND: Over-prescription of opioids has strongly contributed to the opioid epidemic and overdose-related deaths in the United States. The Veteran population seeking care at VA medical centers is especially affected. OBJECTIVE: Our study aims to report the effectiveness of a generalized tapering protocol (Quality Improvement Project) on opioid administration with the goal of reducing opioid use and addiction in recovering Veterans. METHODS: The study considered 394 Veteran patients from the surrounding Milwaukee area that our team helped with hip and knee pain via surgical treatment. Based on the means of opioid medication administration, the patients were split up into two groups. Group 1 consisted of 300 patients who were instructed to take outpatient prescription opioids on an as needed basis. Group 2 consisted of 94 patients who were instructed to take outpatient prescription opioids via a patient-specific tapering protocol. Inpatient opioid administration and outpatient opioid administration were both considered. Univariate analyses were conducted using one-way ANOVA and Fisher's Exact Test, as appropriate; type 1 error was controlled via Bonferroni correction. Baseline comorbidities showing differences between the two groups discussed above were included for stepwise selection (entry criterion 0.05, retaining criterion of 0.05 / number of covariables) in general linear models. All analyses were conducted using SAS 9.4 14.3 (SAS Institute). RESULTS: Group 2 showed a 49.6% reduction in opioid administration and a 23.7% reduction in refills when compared Group 1 (P values of <0.0001 and 0.001, respectively). When considering opioid naïve individuals only, Group 2 showed a 49.7% reduction in opioid administration and a 20.8% reduction in refills (P values of <0.0001 and 0.0048, respectively). CONCLUSION: Tapering protocol administration of opioids leads to less opioid administration and refills after discharge. With these results in mind, we are optimistic in our goal to reduce opioid administration and addiction.
Submitter:	Vasil V. Kukushliev
Record ID:	126
Format:	RECORDING
Video:	https://youtu.be/iwW6s337t7s

A Retrospective Quality Improvement Study Comparing As-Needed and Tapering Protocols for Total Opioid Administration in Veteran Population

Vasil V. Kukushliev[1,2], Christopher M. Kurylo[1,2], Stephen D. Ortmann[1,2], Katherine A. Sherman[1], Maxwell Hershey[1,2], Robert A. Scheidt[1,3], Karl B. Scheidt[1,2]

1 Clement V. Zablocki VA Medical Center, Milwaukee, WI

2 Medical College of Wisconsin, Milwaukee, WI

Introduction

Over-prescription of opioids has strongly contributed to the current opioid epidemic and is responsible for overdose-related deaths in the United States, with the number growing five-fold from 1999 to 2016 [1]. Veterans are amongst the hardest hit groups and various initiatives have aimed to reduce addiction prevalence [2, 3]. Various methods have been utilized to decrease opioid use related to surgical treatment, including institution-specific tapering protocols focused on specific procedures. Procedure-specific protocol validity is limited to common procedures and effectiveness does not account for varying opioid needs on an individual basis [4]. Nonetheless, studies suggest that tapering protocols are an effective means of prescribing opioids. Our study aims to report the effectiveness of a generalized tapering protocol (Quality Improvement Project) and the influence of various patient comorbidities on opioid administration.

Methods

A total of 394 veteran patients were identified and separated into two groups via retrospective chart review. Group 1 consisted of 300 patients who were instructed to take outpatient prescription opioids on an as needed basis with typical dosage and quantity opioid prescriptions. Group 2 consisted of 94 patients who were instructed to take outpatient prescription opioids via a patient-specific tapering protocol (shown in Figure 1 below) [5]. Data for inpatient opioid administration, outpatient opioid administration, total refills after discharge, time to cessation of surgery-related opioid administration, and comorbidities were collected. Patients discharged to inpatient rehabilitation and patient floors for extended stays were not included in our study. Opioid naïve and chronic opioid users were both considered for this study. Univariate analyses were conducted using one-way ANOVA and Fisher's Exact Test, as appropriate; type 1 error was controlled via Bonferroni correction. Baseline comorbidities showing differences between the two groups discussed above were included for stepwise selection (entry criterion 0.05, retaining criterion of 0.05 / number of covariables) in general linear models. All analyses were conducted using SAS 9.4 14.3 (SAS Institute).

	Tapering Instructions (Prescribed As-Needed)						
Prior 24-hour Oxycodone (mg)	Days 1-2	Days 3-4	Days 5-6	Days 7-8	Days 9-10	Days 11-12	Total Oxycodone 5 mg Tablets Prescribed (n)
10 mg	5 mg twice daily						4
20 mg	5 mg four times daily	5 mg twice daily					12
30 mg	5 mg six times daily	5 mg four times daily	5 mg twice daily				24
40 mg	10 mg four times daily	10 mg three times daily	5 mg four times daily	5 mg twice daily			40
50 mg	10 mg five times daily	10 mg four times daily	10 mg three times daily	5 mg four times daily	5 mg twice daily		60
60 mg	10 mg six times daily	10 mg five times daily	10 mg four times daily	10 mg three times daily	5 mg four times daily	5 mg twice daily	84

Figure 1. Group 2 Tapering Protocol [5].

Results

The tapering protocol for opioid administration (Group 2) showed an average opioid administration of 279 morphine equivalents (95% CI = (213, 346)) while as-needed opioid administration (Group 1) showed an average opioid administration of 554 morphine equivalents (95% CI = (511, 598)) with P value of <0.0001 – a 49.6% reduction (Figure 2). Group 2 yielded an average number of outpatient prescription opioid refills of 1.19 (95% CI = (1.00, 1.38)) while Group 1 yielded an average number of outpatient prescription opioid refills of 1.56 (95% CI = (1.45, 1.67)) with a P value of 0.001 – a 23.7% reduction (Figure 3). Results were similar for those who were opioid naïve. Group 2 opioid naïve patients showed an average opioid administration of 269 (95% CI = (200, 339)) while Group 1 opioid naïve patients showed an average opioid administration of 535 (95% CI = (494, 576)) with a P value of <0.0001 – a 49.7% reduction. Group 2 opioid naïve patients yielded an average number of outpatient prescription opioid refills of 1.18 (95% CI = (0.98, 1.39)) while Group 1 opioid naïve patients showed an average number of outpatient prescription opioid refills of 1.49 (95% CI = 1.40, 1.59) with a P value of 0.0048 – a 20.8% reduction. Cardiovascular disease and general gastrointestinal diagnoses were less common in the tapered opioid administration group. Cancer was more common in the tapered opioid administration group. Because results were similar across adjusted and unadjusted models, unadjusted results (ANOVA) are reported here.

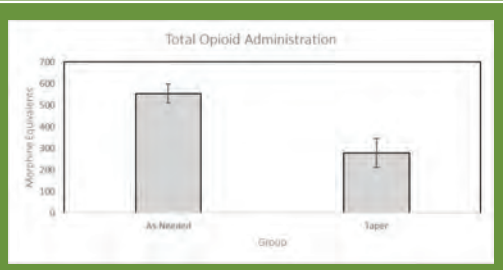


Figure 2. Total opioid administration for both groups.

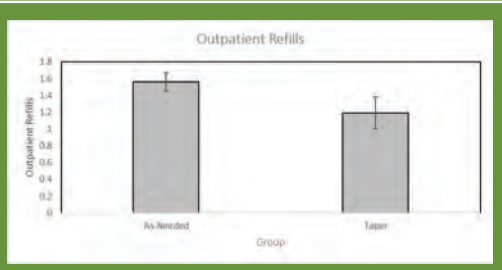


Figure 3. Outpatient refills for both groups.

Conclusion

The results show that tapering protocol administration of opioids leads to less opioid administration and refills after discharge. The tapering protocol reduced total opioid administration by 49.6% and number of outpatient prescription opioid refills by 23.7%. Results were similar amongst opioid naïve patients and chronic opioid use patients – the tapering protocol reduced total opioid administration by 49.7% and number of outpatient prescription opioid refills by 20.8%. This study was limited by its retrospective nature, non-blinded measurement of opioid administration, and small sample size. This retrospective cohort study highlights the effectiveness of a tapering protocol when administering opioids. Results should be considered by surgeons and patients when developing a surgical treatment plan with the aim of reducing opioid use and potential addiction in veterans.

References

[1] Tamboli, M., Mariano, E. R., Gustafson, K. E., Briones, B. L., Hunter, O. O., Wang, R. R., ... & Giori, N. J. (2020). A multidisciplinary patient-specific opioid prescribing and tapering protocol is associated with a decrease in total opioid dose prescribed for six weeks after total hip arthroplasty. Pain Medicine, 21(7), 1474-1481.

[2] Vaughn, I. A., Beyth, R., Ayers, M. L., Thornton, J. E., Tandon, R., Gingrich, T., & Mudra, S. A. (2019). Multispecialty opioid risk reduction program targeting chronic pain and addiction management in veterans. Federal Practitioner, 36(9), 406.

[3] Wilder, C. M., Miller, S. C., Tiffany, E., Winhusen, T., Winstanley, E. L., & Stein, M. D. (2016). Risk factors for opioid overdose and awareness of overdose risk among veterans prescribed chronic opioids for addiction or pain. Journal of addictive diseases, 35(1), 42-51.

[4] Chen, E. Y., Betancourt, L., Li, L., Trucks, E., Marcantonio, A., & Tornetta III, P. (2020). Standardized, patient-specific, postoperative opioid prescribing after inpatient orthopaedic surgery. JAAOS-Journal of the American Academy of Orthopaedic Surgeons, 28(7), e304-e318.

[5] Tamboli, M., Mariano, E. R., Gustafson, K. E., Briones, B. L., Hunter, O. O., Wang, R. R., ... & Giori, N. J. (2020). A multidisciplinary patient-specific opioid prescribing and tapering protocol is associated with a decrease in total opioid dose prescribed for six weeks after total hip arthroplasty. Pain Medicine, 21(7), 1474-1481.

Title:	**Evaluating the Use of Cognitive Behavioral Therapy for Improving Self-Efficacy After Bariatric Surgery**
Authors:	**Nicole L. Petcka**, MCW-Green Bay
Abstract:	BACKGROUND: Successful, long-term weight loss solutions are needed to address the obesity crisis in the United States. Bariatric surgery is an option to help patients lose weight and maintain a healthier lifestyle. Cognitive behavioral therapy (CBT) has been used to improve outcomes after bariatric surgery. OBJECTIVE: The purpose of this study is to determine the effects of a CBT course for improving self-efficacy levels after bariatric surgery and to identify timeframes during treatment where interventions are needed. METHODS: This is a two-part prospective cohort study of CBT course participants and bariatric surgery patients between 2019 and 2021. The CBT participants were evaluated with a pre-course and post-course test with overall test score being the primary outcome. Bariatric surgery patients completed a self-reported confidence level survey, and the total confidence level score was used as the primary outcome. RESULTS: There were 145 pre-course tests and 88 post-course tests collected. Patients scored an average of 7.18% higher after completing the CBT course (0.7179 vs. 0.7897, $p<0.05$). There were 310 self-reported confidence level surveys collected. The overall self-reported confidence level survey score ranged from 10-40 points with 40 points corresponding with the highest confidence rating. The average overall confidence level score increased by 1.71 points when comparing patients before and after surgery (32.88 vs. 34.57, $p<0.05$). In addition, patients who underwent the CBT course reported a 4.38% higher overall confidence level compared to those without CBT (34.39 vs. 32.64, $p<0.05$). CONCLUSION: There is a trend of increasing confidence levels as patients approach their surgery date and a further increase in confidence in the post-operative period. Patients who underwent a CBT course had a higher self-reported confidence level compared to patients who did not have CBT. This suggests that CBT courses in the pre-operative period may improve bariatric surgery outcomes given the enhanced self-efficacy.
Submitter:	Nicole L. Petcka
Record ID:	127
Format:	RECORDING
Video:	https://youtu.be/M1yQJyTdg6g

Evaluating The Use Of Cognitive Behavioral Therapy For Improving Self-Efficacy After Bariatric Surgery

Nicole Petcka MS4

ThedaCare MCW Green Bay

INTRODUCTION

- Successful, long-term weight loss solutions are needed to address the obesity crisis in the United States
- ThedaCare Bariatrics has demonstrated that patients typically lose 50-70% of their excess weight within 12 months of bariatric surgery
- Unfortunately, 20% of patients are not successful after bariatric surgery and fall back into their old eating habits
- Cognitive behavior therapy (CBT) courses have been shown to increase motivation and improve emotional regulation which may allow patients to be more successful long term

PURPOSE

The purpose of this study is to measure the effects of the Bariatric Life Skills CBT course for improving bariatric surgery outcomes and to identify timeframes during treatment where interventions are needed.

METHODS

Part one – During the Bariatric Life Skills course, a pre- and post-course evaluations were given to course participants to determine if they are meeting the learning objectives.

Part two – Patients received a one-page survey asking them to agree or disagree with 10 statements about their self-reported confidence level with different scenarios.

RESULTS

95.3% Found the CBT course helpful & **94.1%** Learned new skills from the course

Part one – Bariatric Life Skills Evaluation

Learning Objective	Pre-course	Post-course	P - value
Total tests (n)	145	88	
Understand the basics of cognitive behavioral therapy	(102/143) 72.3%	(80/86) 93.0%	
Understand the basics of cognitive behavioral therapy	(139/143) 97.2%	(88/88) 100.0%	
Understand the nature of distorted thinking	(130/143) 90.9%	(80/87) 92.0%	
Develop familiarity with evidence-based thinking and how to apply it	(141/144) 97.9%	(64/86) 74.4%	
Learn the nature of and benefit for mindful eating	(70/143) 49.0%	(70/84) 83.3%	
Learn skills to identify unhealthy habits and change them	(122/139) 87.8%	(84/88) 95.5%	
Learn how to develop effective goals to increase activity and improve eating habits	(60/137) 43.8%	(59/85) 69.4%	
Learn to identify and address situations at high risk for relapse	(89/138) 64.5%	(42/83) 50.6%	
Learn to identify and address situations at high risk for relapse	(100/141) 70.9%	(70/87) 80.5%	
Learn how to develop effective goals to increase activity and improve eating habits	(56/136) 41.2%	(41/82) 50.0%	
Average Score	71.8%	79.0%	**0.0020**

Part two – Self-reported Confidence Levels

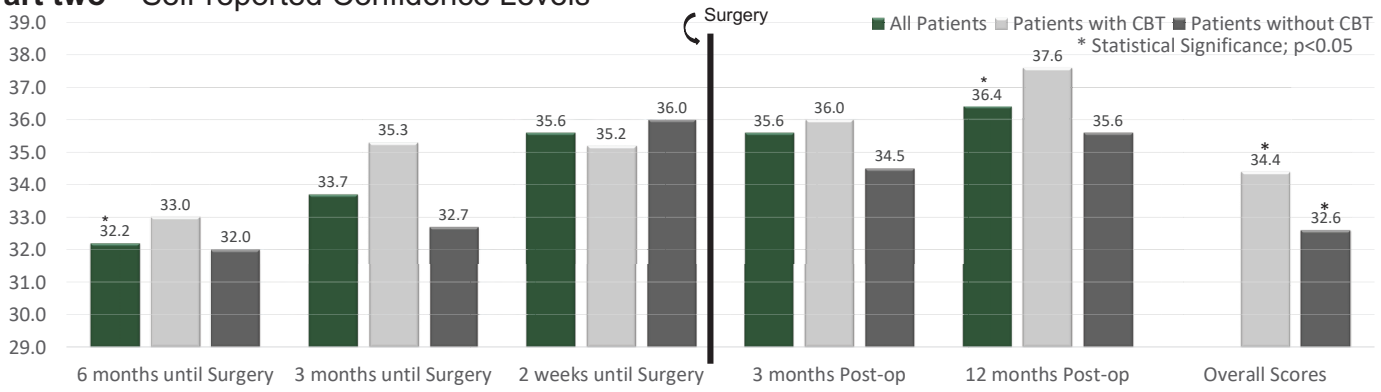


Figure 1. Average Self-reported Confidence Levels

CONCLUSIONS

- The Bariatric Life Skills CBT course is successfully meeting the learning objectives with a 7.2% increase in post-course test scores
- Patients who undergo CBT have a 4.5% higher confidence level which may lead to improved outcomes
- Confidence levels increase as patients approach their surgery date and continue to increase in the post-operative period
- The lowest confidence levels occur in the pre-operative period and patients may benefit from interventions during this time

ACKNOWLEDGMENTS

I would like to thank Dr. Raymond Georgen, Andrea Wolff, and Michael Griffith for their guidance and assistance with data collection.
I would also like to thank Dr. Katrina Rosculet for her guidance with this project.

Title:	**Measuring Community Distress During the COVID-19 Pandemic: A community-academic partnership**
Authors:	**Sara A. Kohlbeck**, MPH, MCW-Milwaukee, Comprehensive Injury Center; **Sarah Bassing-Sutton**, Northeast Wisconsin Mental Health Connection
Abstract:	BACKGROUND: In the Fox Valley region of Wisconsin, suicide rates have increased 66% over the last decade. Suicide rates are highest among middle-aged men, individuals in certain professions, veterans, and the LGBT community. Local health and behavioral health care systems lack the tools and capacity to properly manage patients who are at risk for suicide. OBJECTIVE: Partners aim to reduce the rate of suicide in the tri-county region by implementing a Zero Suicide framework to improve the ability of the health care systems, as well as and non-clinical systems, such as workplaces, to support individuals in crisis and prevent suicide. However, the challenges of the COVID-19 pandemic required partners to refocus efforts to best meet the needs of the community. One major priority was to understand the level of distress in the community due to COVID-19 stress and related stress. METHOD: Project Zero partnered with the county sheriff's Dept. to collect information on all mental health-related calls to 911 from March 13, 2020, through November 30, 2020. Demographic information was collected, as was information on call type. Information on primary and secondary stressors was collected in cases for which it was available, as well as data on the date and time of each call. RESULTS: 775 calls were made to 911 for mental health-related issues between March 13th, 2020, and November 30, 2020. The average daily call volume was 2.8 with call volume ranging from 0-9 calls per day. Results indicate a monotonic increase in call volume over time. CONCLUSION: The COVID-19 pandemic has led to significant changes for everyone, and particularly for community members with pre-existing mental health issues and/or suicidality. Increasingly, individuals who are in distress, particularly those individuals already experiencing mental health issues, have been driven to a point of crisis during this challenging time.
Submitter:	Sara A. Kohlbeck, MPH
Record ID:	128
Format:	RECORDING
Video:	https://youtu.be/W8vZfDebrLM

Measuring Community Distress during the COVID-19 Pandemic: A Community-Academic Partnership

Sara Kohlbeck, MPH – Director, Division of Suicide Prevention, Comprehensive Injury Center, Medical College of Wisconsin
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Background

In the Fox Valley region of Wisconsin, suicide rates have increased over 66% in the last decade. Suicide rates are highest among middle-aged men, veterans, individuals in certain professions, and the LGBTQ+ community.

Objective

The objective of Project Zero: Every One Matters is to reduce the rate of suicide in the Fox Valley through health care system improvements, data and surveillance improvements, and raising community awareness. ***However, the challenges of COVID-19 required partners to refocus efforts to meet community needs.***

Methods

Project Zero partnered with a local sheriff's department to collect information on all calls to 911 for a mental health or suicide crisis from March 13, 2020, through November 30, 2020.

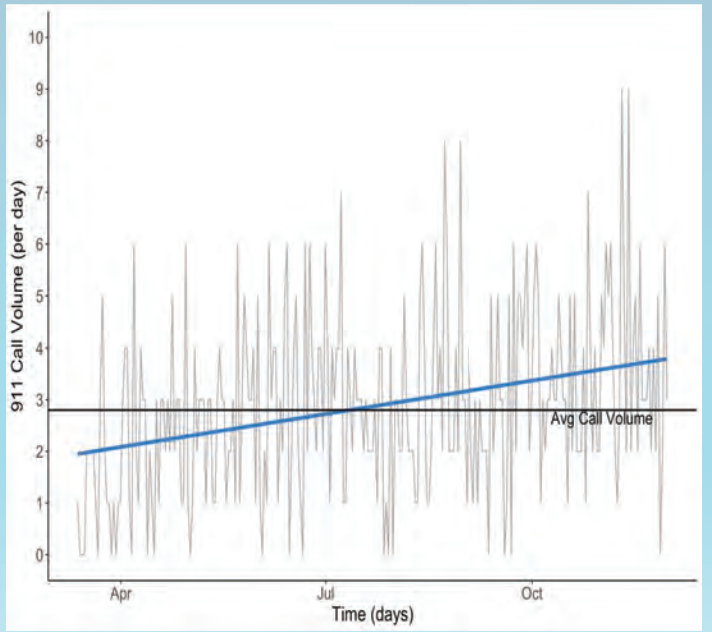
Demographic information was collected as was information on call type and data on primary and secondary stressors that prompted a call to 911.

Conclusion

The COVID-19 pandemic has led to significant changes for everyone, and particularly for community members with pre-existing mental health issues and/or suicidality. Increasing community support for individuals at-risk of suicide is critical during this stressful time.

Results

773 calls were made to law enforcement for a mental health or suicide crisis during the study period. There were an average of 2.8 calls per day, and the Mann-Kendall analysis shows a significant increase ($p<0.001$) in calls over time.



This work is funded through a grant from the Advancing a Healthier Wisconsin Endowment

Title:	**Waupaca County Medical Transport Location and Cost Disparities**
Authors:	**Matthew D. Waldrop**, MCW-Green Bay; **Katrina Rosculet**, MD, MCW-Green Bay; **Eva Christensen**, MD, PhD, MCW-Green Bay; **Tracey Ratzburg**, ThedaCare; **Holly Keenan**, Lutheran Social Services; **Nick Musson**, East Central Wisconsin Regional Planning Commission
Abstract:	INTRODUCTION: Non-Emergency Medical Transportation (NEMT) is transportation service for patients with barriers getting to medical appointments. Many rural areas lack transportation options. 6% of federal transit resources supports rural public transportation, representing 19% of the U.S. population. 46% of Waupaca County residents reported being late or missing appointments because of a lack of reliable transportation. 87% needed alternative transportation options 1+ times per month. 42% cited medical appointments as top reason they used alternative transportation options. In 2019, 41,097 NEMT trips were taken in Waupaca County. METHODS: Surveys were administered to transportation organizations in Waupaca County via phone call. Survey questions included: contact information, clientele, service hours, vehicle number and type, service area, payment methods, limitations, and required certification. RESULTS: Maps show the layout of NEMT and healthcare systems in Waupaca County. Cost is increased further distances from NEMT organizations and healthcare systems. Examples based on most likely transportation service utilized for a 1-hour appointment at the city of Waupaca's main clinic: Within the city of Waupaca - $22.50, Ogdensburg to Waupaca - $42.50, Big Falls to Waupaca - $96.00. CONCLUSIONS: In Waupaca County, NEMT organizations are located near the 3 towns with the largest population densities. Healthcare systems are more widespread than NEMT organizations in Waupaca County. Many rural Waupaca County residents are greater than 15 miles from the nearest NEMT organization. No areas in Waupaca County completely lack options for NEMT, however cost is increased further from NEMT organizations and healthcare systems. COMMUNITY IMPACT: Waupaca County plans to use the data collected in this study to create a website for their residents that lists the county transportation organizations with information such as cost, hours of service, and more. They also plan to hire someone to keep this site updated and possibly make a smartphone application for it too.
Submitter:	Matthew D. Waldrop
Record ID:	129
Format:	RECORDING
Video:	https://youtu.be/MZ4yGt05q8Q

Waupaca County Medical Transport Location and Cost Disparities

Matthew Waldrop[A]; Tracey Ratzburg[B]; Holly Keenan[C]; Nick Musson[D]; Eva Christensen, MD, PhD[A]; Katrina Rosculet, MD[A]

A = Medical College of Wisconsin-Green Bay, B = ThedaCare, C = Lutheran Social Services, D = East Central Wisconsin Regional Planning Commission

1. Background

Around 5% of federal transit resources supports public rural transportation. This represents almost 20% of the U.S. population.[1]

Non-Emergency Medical Transportation (NEMT) is transportation service for patients with barriers getting to medical appointments.

50% of Waupaca County residents reported being late or missing medical appointments from lack of transportation.[2]

The Wisconsin Department of Health Services stated in 2019 alone, 41,097 NEMT trips were taken in Waupaca County.[3]

Waupaca County is found in central Wisconsin with an estimated population in 2019 of roughly 51,000 people.[4]

2. Project Description

This study investigates NEMT resources in Waupaca County, a rural county in Wisconsin.

3. Purpose

Identify NEMT options and costs for Waupaca County.

Compare populations densities of towns near NEMT organizations and healthcare clinics in Waupaca County.

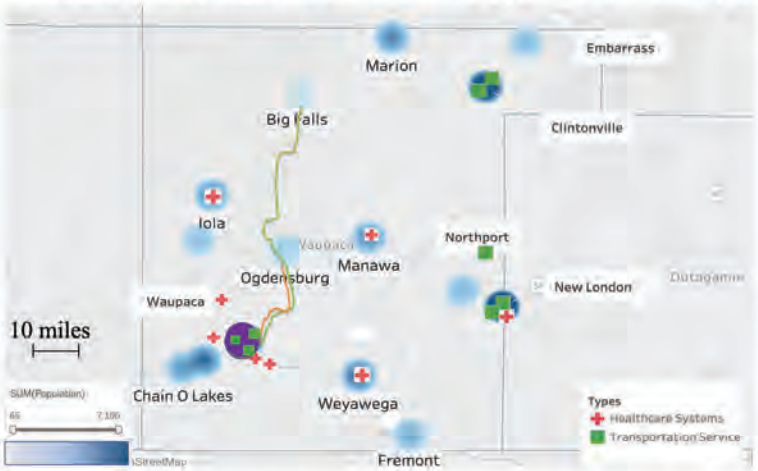
Determine regions of Waupaca County that lack local NEMT options.

4. Methodology

IRB approval was obtained from MCW. Population density from the 2019 U.S. Census, medical centers, and transportation organizations in Waupaca County were mapped using Tableau software. Transportation organizations in Waupaca County were surveyed to identify service areas, cost, and potential limitations to access.

5. Results

Waupaca County NEMT and Healthcare Systems with Examples



The image above shows a density map overlayed with the locations of all healthcare systems and transportation service companies found within Waupaca County. The darker the blue density circle means there is a higher population in that specific city.

The green squares represent a single transportation service company location. The white square with a red plus sign symbolizes the healthcare system clinic or hospital locations in Waupaca County.

The purple circle and colored lines show examples based on most likely transportation service utilized for a 1-hour appointment at the main Waupaca clinic. Waupaca has the highest population and most inclusive clinic in Waupaca County

- Within Waupaca (purple) - $22.50
- Ogdensburg to Waupaca (orange) - $42.50
- Big Falls to Waupaca (green) - $96.00

6. Discussion

NEMT organizations are located near the 3 towns with largest population densities.

Healthcare systems are more widespread than NEMT organizations.

Much of rural Waupaca County is greater than 15 miles from the nearest NEMT organization.

No areas in Waupaca County completely lack options for NEMT; cost is substantially increased for residents in regions further from NEMT organizations and healthcare clinics.

7. Future Plans

This data will be used create a website for residents of Waupaca County to view transportation options and further information such as cost, handicap accessibility, specific service areas, etc.

This data can help identify where to introduce new NEMT service lines, or where to target economic programs for equitable access to health care. It could also be used to see if missed healthcare appointments correlate with NEMT access

8. References

1) Gonzales L, Stombaugh D, Seekins T, Kasnitz D. Accessible rural transportation: An evaluation of the traveler's cheque voucher program. Community Dev. 2006;37(3):106-115. doi:10.1080/15575330.2006.1038311

2) Musson N., Erickson, K. 2016. "Coordinated Mobility Management Feasibility Study for Waupaca and Surrounding". East Central Wisconsin Regional Planning Commission. Accessed November 6, 2020. https://www.ecwrpc.org/wp-content/uploads/2013/06/2016-Coordinated-Mobility-Management-Feasibility-Study-for-Waupaca-and-Surrounding-Counties.pdf

3) Wisconsin Department of Health Services. mtm2019.pdf. Accessed November 6, 2020. https://www.dhs.wisconsin.gov/nemt/mtm2019.pdf

4) U.S. Census Bureau QuickFacts: Waupaca County, Wisconsin. (2021). Retrieved 29 April 2021, from https://www.census.gov/quickfacts/waupacacountywisconsin

Title:	**Exploring Implicit Bias in Medicine: An Interactive Experience for Medical Students**
Authors:	**Amelia Schurke**, MCW-Green Bay; **Kyle Welhouse**, MCW-Milwaukee; **Morgan Lockhart**, MCW-Milwaukee; **Krystal Almazan**, MCW-Milwaukee; **Enrique Avila**, MCW-Milwaukee; **Allison Carlisle**, MCW-Green Bay; **Lauren Sikora**, MCW-Green Bay
Abstract:	The purpose of Project Challenging Implicit Bias is to introduce first year medical students to the concept of implicit bias and engage them in dialogue that addresses how individual bias shapes interactions with others, specifically in the context of patient-provider relationships. As a team of 8 medical students, we developed a series of lectures centered on different clinical scenarios where bias has been known to commonly arise. These specific scenarios were providing care for Black patients in pain, care of non-English speakers, and care of transgender patients. We researched the literature on bias in medicine and consulted publications about similar efforts in order to develop a PowerPoint for each lecture. Additionally, we recruited community members from the representative patient populations to help provide insight and facilitate the small group discussions. We recruited first year medical students at the Medical College of Wisconsin to participate and asked them to complete surveys before and after the small group sessions in order to both quantitatively and qualitatively assess their experience of the small group sessions. The feedback we received from participants was overwhelmingly positive. Many students reported feeling challenged and inspired by the small group discussions. They supported our efforts to integrate more formal training centered on bias in medicine into the medical school curriculum; commenting the current curriculum lacks a longitudinal thread and instead offers sporadic "touch points" where controversial topics such as racism and bias are superficially addressed. We plan to continue our project next year and are excited to recruit more medical students to participate in our small group sessions. We are in ongoing conversations with our administration about different avenues (i.e. part of a leadership elective for first year students) to implement our project into the formal curriculum.
Submitter:	Kyle Welhouse
Record ID:	130
Format:	RECORDING
Video:	https://youtu.be/SdAz-TZc-7Y

Exploring Implicit Bias in Medicine: An Interactive Experience for Medical Students

Kyle Wellhouse MS3, Krystal Almazan MS2, Morgan Lockhart MS2, Sasha Nuhn MS2, Amelia Schurke, MS2, Enrique Alvila MS1, Allison Carlisle MS1, Lauren Sikora MS1,
PI: Dr. Gisela Chelimsky

INTRODUCTION

- Current literature reveals extensive healthcare disparities across racial groups. For example, it has been shown that physicians are 2-3 times less likely to prescribe bone mineral density tests or osteoporosis prescription treatment for Black women compared to White women. Many theories postulate implicit bias, defined as hidden preferences that are unintentional or subtle, to be a contributing factor.
- Implicit bias can affect patient-provider encounters and impact healthcare outcomes. Although there is a lack of research on specific strategies, it has been shown that automatic associations that stem from implicit bias can be changed with dedication and concerted effort.
- This is hard work that requires self-awareness and a commitment to justice and equality. More formal training in the medical school curriculum about the role of bias in patient-physician interactions is necessary in order to train future physicians to overcome the harmful impact that physician bias can have on patient outcomes.
- A 2020 survey from the MCW Student Assembly Diversity Committee found that "41% of respondents felt that the MCW curriculum DOES NOT adequately teach about the impacts of racism and bias in patient care". Our study has the potential to inform future endeavors to incorporate more formal education and training about bias in medicine into the medical curriculum.

PURPOSE

- The purpose of our study was to introduce first year medical students to the concept of implicit bias and challenge them to think about how individual bias shapes interactions with others, specifically in the context of patient-provider relationships.
- The role-playing exercise and small group discussions were presented as educational tools for the purpose of self-discovery. Introducing medical students to the concept of implicit bias through the lens of role playing and small group discussion has the potential to expand their perspective and inspire them to mobilize their position of privilege to actively confront individual bias and make positive change towards reducing healthcare disparities.
- The purpose is not to "expose racism" or incriminate medical students, but rather to inspire medical students to consider how one's worldview is shaped by forces beyond our control and informs the way we both consciously and subconsciously operate in the world.

METHODS

- 41 first year medical students on the MCW Milwaukee and Central Wisconsin campuses were recruited via email to participate in a series of 3 virtual interactive small group sessions of 5-6 participants each.
- Each small group session was centered on a different clinical scenario where bias has been known to commonly arise - the care of Black patients and pain, transgender patients and non-English speakers and immigrants. Each session consisted of a role playing exercise with a clinical vignette, a small group discussion facilitated by a local community member of the representative patient demographic and then a brief lecture focused on what the data reveals about the specific topic of the session along with possible tools and resources to consider when caring for that specific patient population.
- Participants were surveyed on a voluntary basis both before and after the session and asked to complete a series of Likert scale and free text questions.

RESULTS

Participant Demographics

I identify my ethnicity as?	
Caucasian/White (e.g., German, Irish, English, Polish, French, Italian)	25
Hispanic, Latino origin	2
Black or African-American (e.g., Jamaican, Nigerian, Ethiopian)	3
American Indian or Alaskan Native (e.g., Navajo Nation, Blackfeet Tribe)	0
Asian (e.g., Chinese, Filipino, Korean, Japanese)	6
Native Hawaiian or other Pacific Islander	0
South Asian (e.g., Indian, Pakistani)	3
Middle Eastern or North African (e.g., Lebanese, Iranian, Egyptian, Syrian, Moroccan, Algerian)	0
Other	0
Prefer Not to Say	2

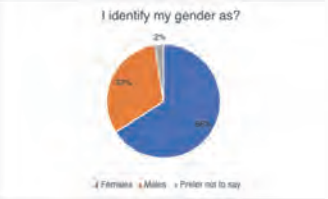


Chart #1

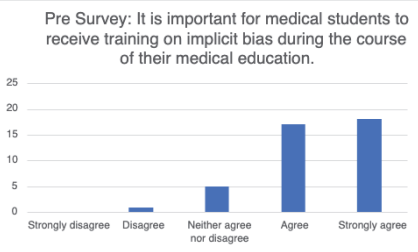


Chart #2

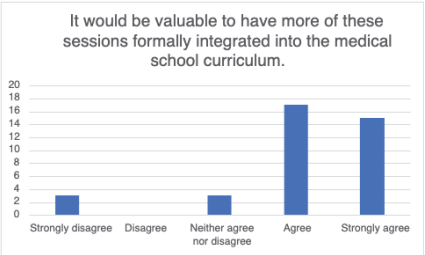
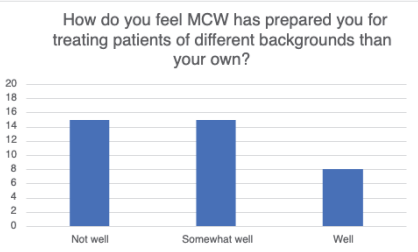


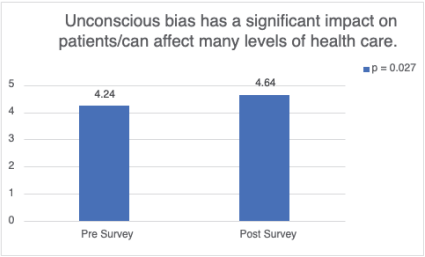
Chart #3



Specific components of the curriculum referenced by participants that address implicit bias:

- AMWA
- Clinical Rotations
- SCU
- Common Read
- Pathways
- REACH
- Kern Institute
- Lunch Talks
- Dr. Kerschner's Monday Morning Coffee Emails
- Orientation Week

Chart #4



PARTICIPANT FEEDBACK

"Two helpful tools I learned from this session were asking how a patient's pain directly affects their life instead of asking them to rate it on a scale of 0-10 and asking the patient what their goals are for the visit." – Study Participant

"I do not believe there is enough formal education in the curriculum about implicit bias, especially with the events that are taking place in our country today. It has been addressed a few times, but I do not think one time for this discussion is enough." – Study Participant

CONCLUSIONS

- The majority of participants identified as middle-class white females. Participants were recruited and completed the surveys on a voluntary basis, therefore we assume our results are the product of students who are personally motivated to be engaged in this type of learning. We expect the results would vary if these sessions were integrated into the formal curriculum and all students, regardless of their personal interest, were required to participate.
- Chart #1: While this could certainly be the result of selection bias, it could also represent potential growth areas in the medical school curriculum.
- Chart #2: Given that this was a student-led initiative limited by time, money, professional expertise and our own personal biases, we expect that a more comprehensive and thorough approach to designing the small group curriculum for the lecture series would result in an even more positive response from students.
- Chart #3: While students referenced several already established opportunities to learn about bias in medicine, a more thoroughly integrated curriculum centered on bias in medicine is necessary in order to best equip future physicians with the self-awareness and insight that is necessary in order to provide the most effective care possible for patients of all backgrounds.
- Chart #4: This significant finding could certainly be the result of the impact of the small group session on participant awareness, which is in line with the goal of our project.

REFERENCES & ACKNOWLEDGEMENTS

DallaPiazza, Michelle, et al. "Exploring Racism and Health: An Intensive Interactive Session for Medical Students." *MedEdPORTAL : the Journal of Teaching and Learning Resources*, Association of American Medical Colleges, 14 Dec. 2018, www.ncbi.nlm.nih.gov/pmc/articles/PMC6354798/.

Holm, Amanda L, et al. "Recognizing Privilege and Bias: An Interactive Exercise to Expand Health Care Providers' Personal Awareness." *Academic Medicine : Journal of the Association of American Medical Colleges*, U.S. National Library of Medicine, Mar. 2017, www.ncbi.nlm.nih.gov/pubmed/27355785.

Special thanks to Dr. Giesla Chelimsky, Dr. Tavinder Ark, Dr. Katrina Rosculet, study participants, volunteer community members, and The MCW Kern Institute for their insight, participation and guidance throughout the evolution of this project!

Title:	**Human Trafficking in Wisconsin: The Physician's Role in Ending Modern Day Slavery**
Authors:	**Marissa K. Cepress**, MCW-Green Bay
Abstract:	Human trafficking is the second most lucrative criminal industry in the world, profiting $44 billion/year. Over 28 million people are trafficked worldwide, in which most victims enter "the life" at 12-14 years old and only live for approximately 7 more years. A physician encounters at least 1 victim during their career, thus physicians play a pivotal role in identifying and helping victims. Every county in Wisconsin has had reports of human trafficking, however, since Wisconsin does not mandate training in human trafficking, many physicians lack the confidence and knowledge to help victims. OBGYN, Family Medicine, and Emergency/Urgent Care physicians in the Wisconsin Medical Society completed questions regarding their demographics. Then, they completed a pre-self-assessment regarding their knowledge and confidence in human trafficking protocols. They completed a quiz about basic knowledge regarding human trafficking. Finally, they read a short educational article and afterwards completed the same self-assessment and quiz. Most physicians have not received training specific to human trafficking but are familiar with their local resources. Their understanding of human trafficking and confidence to treat/help a victim improved after reading the article. Most physicians were unwilling to complete an online training course in human trafficking, even with CME credit as a reward. Overall, most physicians lack the knowledge and confidence to help victims of human trafficking, but this can be improved with education. Wisconsin should mandate training specific to human trafficking for all healthcare workers.
Submitter:	Marissa K. Cepress
Record ID:	133
Format:	RECORDING
Video:	https://youtu.be/5l5PNMbkJl0

HUMAN TRAFFICKING IN WISCONSIN: THE PHYSICIAN'S ROLE IN ENDING MODERN DAY SLAVERY

Marissa Cepress, B.S., MS3

Background/Purpose

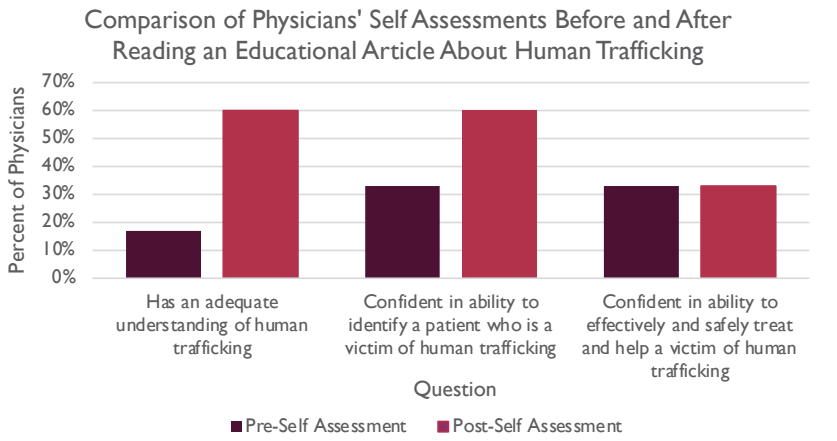
- Second most lucrative criminal industry in the world ($44 billion/year)
- Reported in every county in Wisconsin
  - Since 2007, more than 500 reported cases and over 2,000 suspected cases
- More than 80% of victims seek medical care while in captivity
- A physician encounters at least 1 victim during their practice
  - Do not identify themselves as victims
- Training in human trafficking is NOT a mandatory part of physician training in Wisconsin

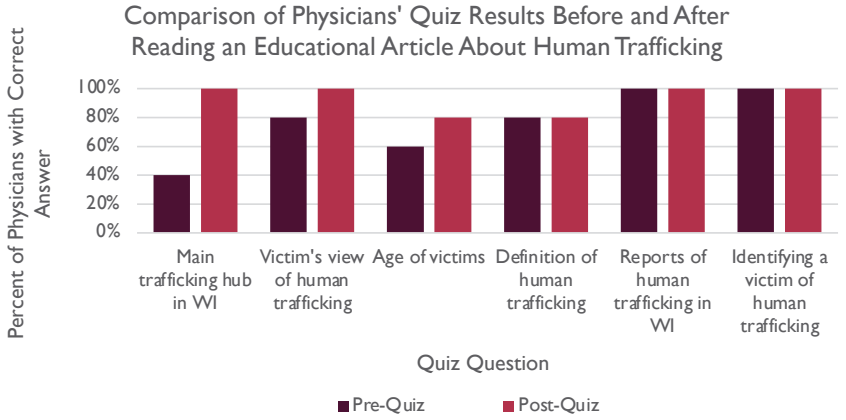
Methods

- Physicians in WMS invited via weekly newsletter
- Pre- and post- self assessments
- Pre- and post- quizzes
- Educational article regarding human trafficking in Wisconsin
- Opportunity to complete CME training in human trafficking via SOAR online

Results

- Analyzed via Qualtrics. Study is IRB approved.
- Participants from Outagamie, Milwaukee, Sheboygan, Dane, and Wood counties
  - 50% Emergency Medicine, 33% OBGYN, 17% Family Medicine
- 83% of physicians have NOT received training specific to human trafficking
- 33% of physicians are NOT familiar with their local human trafficking resources
- 75% of Wisconsin physicians elected not to complete an online training course in human trafficking





Conclusions

- Most Wisconsin physicians have NOT received training in human trafficking
- Physicians' understanding of human trafficking and their confidence to treat/help victims improved after reading a short 1-page educational article
- Most Wisconsin physicians are unwilling to voluntarily complete an online training course in human trafficking, even when rewarded with CME credit
- Wisconsin should mandate training in human trafficking for all healthcare workers to improve the safety and identification of human trafficking victims in Wisconsin
- As of 1/2017, Michigan mandates healthcare workers to complete training in human trafficking

References

- Beck, M. E., Lineer, M. M., Melzer-Lange, M., Simpson, P., Nugent, M., & Rabbitt, A. (2015). Medical Providers' Understanding of Sex Trafficking and Their Experience With At-Risk Patients. Pediatrics, 135(4), e895–e902. https://doi.org/10.1542/peds.2014-2814
- Doctors: Learn How To Recognize Victims of Child Sex Trafficking. (n.d.). Retrieved January 30, 2020, from https://www.doc-path.org/
- Dohms, E. (2019, June 27). Human Trafficking Still A Hidden Problem In Wisconsin. Wisconsin Public Radio. https://www.wpr.org/human-trafficking-still-hidden-problem-wisconsin
- Engaging Survivors of Human Trafficking: Complex Health Care Needs and Scarce Resources | Annals of Internal Medicine. (n.d.). Retrieved May 13, 2020, from https://www.acpjournals.org/doi/10.7326/M17-2605
- Human Trafficking: The Slavery of the 21st Century. (n.d.). Christian Medical & Dental Associations. Retrieved January 30, 2020, from https://cmda.org/article/human-trafficking-the-slavery-of-the-21st-century/
- Lederer, L. J., & Wetzel, C. A. (2014). The Health Consequences of Sex Trafficking and Their Implications for Identifying Victims in Healthcare Facilities. Annals of Health Law, 23, 31.
- News, R. H., FOX 11. (2017, November 19). FOX 11 Investigates: Sex trafficking in Northeast Wisconsin. WLUK. https://fox11online.com/news/fox-11-investigates/fox-11-investigates-sex-trafficking-in-northeast-wisconsin
- Polaris | We Fight to End Human Trafficking. (n.d.). Retrieved January 30, 2020, from https://polarisproject.org/
- SOAR Online. (n.d.). Office on Trafficking in Persons | ACF. Retrieved January 30, 2020, from https://www.acf.hhs.gov/otip/training/soar-to-health-and-wellness-training/soar-online
- Spectators or Saints—Which Will We Be? (n.d.). Christian Medical & Dental Associations. Retrieved January 30, 2020, from https://cmda.org/article/spectators-or-saints-which-will-we-be/
- Spicuzza, M. (n.d.). Nearly 100 recent child and youth sex trafficking cases confirmed in Wisconsin. Milwaukee Journal Sentinel. Retrieved January 30, 2020, from https://www.jsonline.com/story/news/crime/2019/01/30/child-sex-trafficking-wisconsin-involves-99-recent-incidents/2714792002/
- Trafficking Victims: No Health Professional Helped Me. (2015, December 3). Christian Medical & Dental Associations. https://cmda.org/trafficking-victims-no-health-professional-helped-me/

Title:	**Centering Hmong Voices & Stories to Better Understand Disparities and Health Needs**
Authors:	**Dima Jaber**, BSc, MCW-Central WI; **Yer Thor**, MCW-Central WI; **Sheng Khang**, Northern AHEC; **Amy Prunuske**, PhD, MCW-Central WI
Abstract:	Marathon County is home to the highest population of Hmong, particularly in Wausau, where they make up 12% of the population. Given the high population in Marathon County, it is especially important to identify their concerns and priorities. This research is focused on identifying the concerns of the Hmong in Marathon County through storytelling and interviews, with the goal of allocating resources to projects that will bring long-lasting change. Additionally information regarding interpreter services in Wausau was gathered to determine availability and effectiveness of current services. Participants were recruited through the Hmong American Center in Wausau. Participants were asked a series of standardized questions. Interviews were then translated and transcribed, and major themes were identified. The results revealed many areas of concerns within the Hmong community, particularly regarding medical mistrust and lack of mental health resources. The need for more available interpreter services was also identified. We hope to use the information gathered to connect with major healthcare systems in the area to address medical mistrust within the Hmong community and difficulties with current interpreter services.
Submitter:	Dima Jaber, BSc
Record ID:	134
Format:	RECORDING
Video:	https://youtu.be/Mf6Kmlty4VI

Centering Hmong Voices & Stories to Better Understand Disparities and Health Needs

Dima Jaber, Yer Thor, Sheng Khang, and Amy Prunuske

MCW Central Wisconsin

Background

The Hmong have been in the United States for over 40 years now. Marathon County is home to the highest population of Hmong, particularly in Wausau, where they make up 12% of the population.

Given the high population in Marathon County, it is especially important to identify their concerns and priorities. This research is focused on identifying the concerns of the Hmong in Marathon County through storytelling and interviews, with the goal of allocating resources to projects that will bring long-lasting change.

Objectives

- **Identify the Hmong community's concerns through interviews.**
- **Identify major needs within the community and elicit help of organizations that can help create long lasting solutions.**

Community Assessment Questions
Cov lus nug kom nkag siab txog lub zej zog

1. What issues do you believe the Hmong community members are facing?
(Koj ntseeg tau hais tias pob Hmoob nyob hau Marathon County tam sim no muaj teeb meem dab tsi los, os muaj kev nyuab siab dab tsi?)
If interviewee cannot come up with problems/concerns/stressors themselves, share Dr. Thao's problem list.

2. How much of concern are these issues to the Hmong community? (High, medium, low)
(Cov teeb meem no los ua cov kev nyuab siab no yog loj npaum li cas? Nws yog ib qho teeb meem me me xwb los yog ib qho uas loj heev?)
Explain high, medium, low rankings as much as needed for interviewee to understand.

3. Could you rank the issues from most concerning to least concerning? Why did you rank them in that order?
(Cov teeb meem thiab kev nyuab siab uas koj hais rau kuv hnub no, koj muab qhia hais tias qhov teeb meem uas yuav tsim muab kho ua ntej thiab qhov teeb meem kho tom qab los tsi ua li cas?)

Methods

- Participants were recruited through the Hmong American Center
- Interview questions were standardized
- Those recruited were interviewed by Yer Thor, former medical student
- Interviews were translated and transcribed
- Major themes were identified

Methods

Medical Mistrust - "Elders level of trust in healthcare is dependent on their exposure to medicine in Laos. They have always lived in the mountainside and used herbal medicine...The confidence level in their doctor also depends on when they seek help. For example, if the person seeking help sought it early or late in the stage of their illness. If it is early, then the doctor can help them; if it is late then the doctor will not be able to help which fuels their feelings of distrust in the doctor."

Age & Medical Treatment - "When we lived in the mountains of Laos, our parents didn't track our birthdate. They go according to the growing season and it's inaccurate. This pose as an issue when we take medications for illnesses. The medications are specific for age group and it can conflict with our health."

Mental Health - "Another scenario is when a person has bipolar disorder, schizophrenia, and mental health...in the Hmong perspective, hallucinations and hearing voices, it's a sign that a person has having spiritual guides. It's time to raise their shaman alter and provide the services to the community…Hmong doesn't label these people as a person with mental instability. They blame the person for their deterioration in health on their lack of acceptance of their spiritual guides"

Family Disconnect: "Disconnect is another issue in that families are not on the same page on their lifestyle and goals…To the children they feel like we are never there. To us we're trying our best to be there for them and we are working hard for them… They think we do not care about them."

Domestic Problems - Domestic issue in that sometimes couples and family conflicts start with the parent's inability to understand their child's school materials. The issue can escalate where parents does not have the skills to communicate with the children to get to the core of the issue and end up separating which might lead to the intervention of the 18 Clan Council.

Elders - We (elders) need to have the youth help us navigate the systems. Achieve higher education so they can access and bring change. These are the motivating factors why I escaped Laos and Thailand and immigrated to America. It was the hope that even though I am not educated, my children and the next generation can achieve this education and greatness level.

Qualitative Data

Do you use interpreter services?
Majority answered that they have used interpreter services for either themselves or their family members.

Have you had to interpret for family members?
Almost all English speakers have said yes.

Do you prefer family or professional interpreters?
Many of those doing the interpreting preferred professional interpreters. They are worried about explaining diagnoses incorrectly and/or not knowing the correct terminology used. They also worry about passing judgement or swaying the opinion of their family members inadvertently. However, they acknowledge that their family members would prefer them over a professional due to comfort level and mistrust in the system.

In your experience, how receptive is your healthcare provider when you use a family member to interpret compared to a professional interpreter?
Many mentioned that healthcare provers have been receptive but believe they still prefer professionals to avoid explaining findings incorrectly.

Discussion

This series of interviews allowed us to identify major areas of need within the Hmong. These areas include the present medical mistrust among elders, mental health resources, and helping the older and younger generations of Hmong connect.

Our goal moving forward is to enlist the help of organizations that can help with these initiatives and to begin allocating resources for solutions.

The Hmong community in Marathon County has been of interest to the health department and health systems in this region. Many of those interviewed also believed that the Hmong American Center will play an integral role in finding solutions to some of these problems.

Future Directions

- Involving the health department and major health systems in the area to tackle medical mistrust and gaps in healthcare information.
- Finding accurate mental health resources that will help tackle the misinformation currently present.
- Large need for more Hmong councilors.
- Involving Hmong American Center to help bridge disconnect between older and younger generations.
- High demand for better interpreter services.

Acknowledgements

Community Mentor: Dr. Colette Solatka
Greta Berger

Title:	**Identifying Early Warning Signs in Alzheimers and Related Dementias: Results from a Latino and African American Caregiver Project**
Authors:	**Melinda S. Kavanaugh**, PhD, UW-Milwaukee, Helen Bader School of Social Welfare; **Virginia Zerpa**, MPH, Alzheimer's Association; **Shary Perez**, MPH, United Community Center; **Al Castro**, MS, United Community Center
Abstract:	BACKGROUND: Incidence of Alzheimer's disease and related dementias (ADRD) in Latino and African American populations is significantly greater than for non-Hispanic Whites, with care typically provided by family members, including youth. Informal care often delays formal diagnosis and treatment, and may result in a crisis event. Crisis events are typically preceded subtle or noticeable warning signs that may not be uniformly identified across groups. Moreover, health care providers (e.g., doctors, nurses, health workers) may not assess for early warning signs due to inadequate training in dementia and/or inadequate communication among patients, family caregivers and health providers. OBJECTIVE: Identify perceptions of Early Warning Signs (EWS) in African American and Latino caregivers of persons with ADRD and explore differences in how families and health care professionals perceive EWS. METHOD: Interviews were conducted with Latino and African American adults (n=36) and youth (n=31) informal caregivers and health care providers (n=26). Interviews were conducted in English and Spanish, lasted between 25 - 45 minutes, and were audiotaped for clarity. Data were analyzed using thematic narrative analysis. RESULTS: Latino and African American caregivers identified similar EWS themes, including, physical, emotional, cooking, and personality changes. Across groups, youth identified details and found humor in the EWS, while the adults described broad changes and frustration. Health care professionals identified EWS but believed families would not be able to identify EWS. DISCUSSION: Most African and Latino families can identify EWS. The youth perspective highlights the need to understand perceptions and care across family members. The lack of difference between the groups underscores the potential universality of caregiving in ADRD and the need to develop interventions that cut across cultural groups. The potential misperceptions in health providers of family caregivers' abilities to recognize EWS needs further attention to reduce communication barriers around the care planning for this population.
Submitter:	Melinda S. Kavanaugh, PhD
Record ID:	140
Format:	RECORDING
Video:	https://youtu.be/F2TubMFXZAg

Identifying Early Warning Signs in Alzheimer's and Related Dementias: Results from a Latino and African American Caregiver Project

Melinda S. Kavanaugh, PhD, LCSW[1], Al Castro, MS[2], Virginia Zerpa, MPH[2], Andrea Garr, BS[4]

UNIVERSITY of WISCONSIN UWMILWAUKEE

Background

- Incidence of Alzheimer's disease and related dementias (ADRD) in Latino and African American populations is significantly greater than for non-Hispanic Whites
- Care typically provided by family members, including youth under the age of 19
- Hispanic and African American caregivers accessing formal care systems less frequently and at later stages compared to non-Hispanic White families - leading to potential crisis event
- Crisis events are typically preceded subtle or noticeable warning signs that may not be uniformly identified across groups
- Moreover, health care providers (e.g., doctors, nurses, health workers) may not assess for early warning signs due to inadequate training in dementia and/or inadequate communication among patients, family caregivers and health providers
- The ability to recognize and act on early warning signs is critical, particularly for Hispanic and African Americans living with ADRD, who often exist in closed systems and have fewer accessible resources and support systems than their white counterparts

Community organizations serving persons with Alzheimer's in Milwaukee county long recognize the lag in informal care systems transitioning primary care management to formal paid care

Community/academic partners

- Result from long standing relationship focusing on aging in the Latino community
- **Academic partners**
  - University of Wisconsin –Milwaukee
- **Community partners**
  - Alzheimer's Association
  - United Community Center

I remember when I knew something was kind of different was when I would talk to her and she'd be like, "Who are you?" I would think she was joking like, "Oh, she knows who I am." Then she would say, "What's your name?" I was like, "You know who I am. I'm your granddaughter." - 14 year old female

OBJECTIVES

1. Identify perceptions of Early Warning Signs (EWS) and Crisis in African American and Latino caregivers of persons with ADRD

2. Explore differences in how families and health care professionals perceive EWS.

Data Collection

• Interviews with Latino and African American adult and youth ages 10 – 19 who provide care for persons with ADRD

•Interviews with health care providers (physician, social work, nursing, home health. CNA)

Interview measures
•Caregiving relationship and activities

•Qualitative exploration
- Perceived early warning signs
- Crisis events
- Transition to formal care

- Quantitative Measures included:
  - •Alzheimer's disease knowledge scale (ADKS)
  - •Revised Acculturation Rating Scale for Mexican Americans (ARSMA-II)

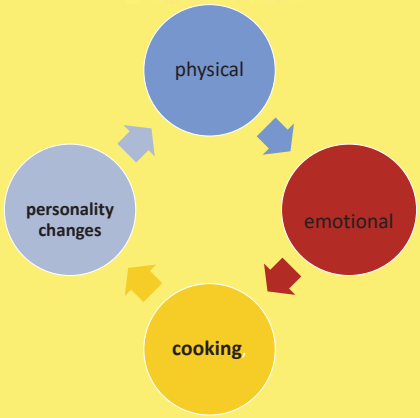
Data analysis
- Qualitative thematic analysis

Study Sample

	Adult (N= 36)		Youth (n=31)	
		N		N
Caregiver age	19- 30	3	10-12	9
	31- 50	21	13-15	10
	51-70	7	16-18	12
	70+	5		
Gender	Male	4	Male	9
	Female	32	Female	22
Race/ethnicity	African American	18	African American	14
	Latino/Hispanic	18	Latino/Hispanic	17
Education (highest level)	Elementary school	3		3
	Middle school	2		8
	High school	19		20
	College	11		0
Relationship to person with ADRD				
	Father		grandmother	10
	mother		Grandfather	12
	Grandmother			
Health care providers		26		

"He was lost for two or three hours and well, this was something we never expected that he starts telling us: "I got lost, I didn't know where I was anymore. I walked and walked" That's where it was already something that got us out of our minds…. that was our first alert" – Adult caregiver

RESULTS



Across groups, youth identified details and found humor in the EWS, while the adults described broad changes and frustration.

Health care professionals identified EWS but believed families would not be able to identify EWS.

DISCUSSION

- The youth perspective highlights the need to understand perceptions and care across family members
- The lack of difference between the groups underscores the potential universality of caregiving in ADRD and the need to develop interventions that cut across cultural groups
- The potential misperceptions in health providers of family caregivers' abilities to recognize EWS needs further attention to reduce communication barriers around the care planning for this population

1. Associate Professor, Social work, Helen Bader school of social welfare 2. United Community Center, Health research department. 3. Alzheimer's Association. 4. Department in Aging
Funding for this is project provide by the National Institutes for Health (NIH) R21 R21 AG061307-01

Title:	**Evaluating heart health in cancer patients using advanced magnetic resonance imaging**
Authors:	**El-Sayed Ibrahim**, PhD, MCW-Milwaukee; **John Charlson**, MD, MCW-Milwaukee; **Luba Frank**, MD, MCW-Milwaukee; **Elizabeth Gore**, MCW-Milwaukee; **Carmen Bergom**, MCW-Milwaukee
Abstract:	BACKGROUND: We developed an optimized magnetic resonance imaging (MRI) protocol for comprehensive evaluation of the cardiovascular system in cancer patients. Specifically, the protocol includes advanced MRI techniques that replace conventional ones in order to make the exam faster and more tolerable by patients, especially those with breath-holding difficulties or those with poor kidney function. METHODS: Two healthy subjects were scanned on 3T MRI scanner. The optimized MRI protocol is very fast. In 20 minutes, the protocol scans the whole heart for global heart function (ejection fraction), heart tissue contractility performance, blood flow in whole heart and large arteries, and heart tissue composition (for example the presence of tissue fibrosis or edema). Furthermore, four patients newly diagnosed with lung cancer or sarcoma were imaged using the advanced techniques proposed in this protocol to evaluate their heart function. RESULTS: Total scan time using the optimized exam was approximately 20 minutes, which is significantly shorter than conventional cardiac MRI exams that last over an hour. Cardiovascular measurements were within the normal ranges in the volunteers. The results show deteriorated cardiac function and altered tissue structure in the patients compared to the volunteers. However, comprehensive statistical analysis was not feasible due to small sample size. CONCLUSION: Study findings indicate opportunities for translation to physicians and community settings. The proposed MRI protocol provides comprehensive information about the cardiovascular system. Our next step is to identify how this can be translated in community settings, through review of the protocol and collecting feedback on participants' experiences.
Submitter:	El-Sayed Ibrahim, PhD
Record ID:	141
Format:	RECORDING
Video:	https://youtu.be/sUgY0M1bXAg

Evaluating heart health in cancer patients using advanced magnetic resonance imaging

El-Sayed Ibrahim, Elizabeth Gore, John Charlson, Luba Frank, Carmen Bergom

Medical College of Wisconsin, Milwaukee, USA

BACKGROUND

- We developed an optimized magnetic resonance imaging (MRI) protocol for comprehensive evaluation of the cardiovascular system in cancer patients.
- Specifically, the protocol includes advanced MRI techniques that replace conventional ones in order to make the exam faster and more tolerable by patients, especially those with breath-holding difficulties or those with poor kidney function.

METHODS

- Two healthy subjects were scanned on 3T MRI scanner.
- The optimized MRI protocol is very fast. In 20 minutes, the protocol scans the whole heart for global heart function (ejection fraction), heart tissue contractility performance, blood flow in whole heart and large arteries, and heart tissue composition (for example the presence of tissue fibrosis or edema) (**Figures 1-4**).
- Furthermore, four patients newly diagnosed with lung cancer or sarcoma were imaged using the advanced techniques proposed in this protocol to evaluate their heart function.

RESULTS

- Total scan time using the optimized exam was approximately 20 minutes, which is significantly shorter than conventional cardiac MRI exams that last over an hour.
- Cardiovascular measurements were within the normal ranges in the volunteers.

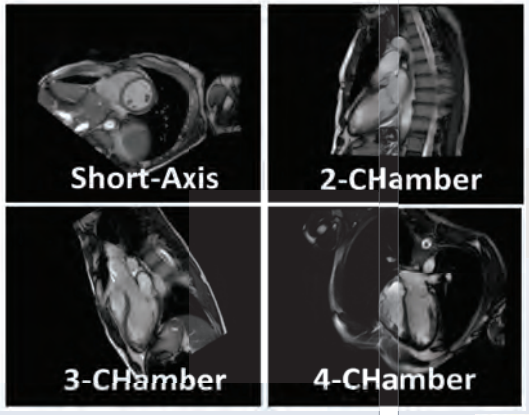


Figure 1. Anatomical images showing different cuts of the heart, which are used to evaluate heart morphology and function.

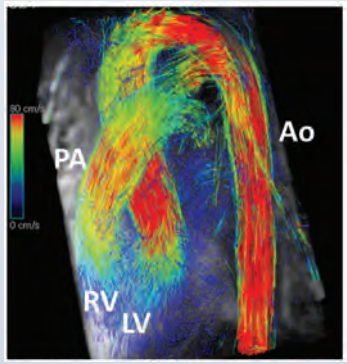


Figure 2. Flow image during systole showing the blood ejecting from the left ventricle (LV) into the aorta (Ao) and from the right ventricle (RV) into the pulmonary artery (PA).

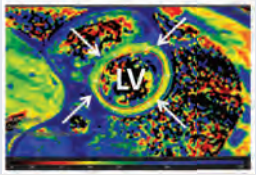


Figure 3. 'T2 map' of a cross-section of the heart, showing green left ventricle (LV) circle (arrows). This quantitative map allows for detecting tissues with edema in the heart.

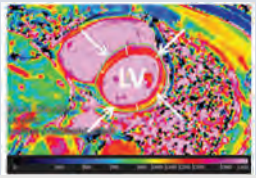


Figure 4. 'T1 map' of a cross-section of the heart, showing red left ventricle (LV) circle (arrows). This quantitative map allows for detecting tissues with fibrosis in the heart.

- The results showed deteriorated cardiac function and altered tissue structure in the patients compared to the volunteers. However, comprehensive statistical analysis was not feasible due to small sample size.

CONCLUSION

- Study findings indicate opportunities for translation to physicians and community settings.
- The proposed MRI protocol provides comprehensive information about the cardiovascular system.
- Our next step is to identify how this can be translated in community settings, through review of the protocol and collecting feedback on participants' experiences.

Title:	**Advanced imaging reveals the effect of chemotherapy on heart function in sarcoma**
Authors:	**El-Sayed Ibrahim**, MCW-Milwaukee; **John Charlson**, MCW-Milwaukee
Abstract:	BACKGROUND: Chemotherapy (CT) is a front-line, curative treatment of different types of cancer. Compared to the more studied CT cardiotoxic effects in breast cancer, less is known regarding cardiotoxicity development in sarcoma after chemotherapy, and how this can be effectively translated into community settings. METHODS: A 42-year-old male diagnosed with osteosarcoma was scheduled for CT. Magnetic resonance imaging (MRI) was administered before and after treatment and at 6-month follow-up to evaluate the effect of CT on heart function. The MRI exam included techniques for evaluating heart functioning and heart tissue composition. RESULTS: The patient had slight decrease in global cardiac function after chemotherapy, although ejection fraction remained >50% up to 6-month. Heart contractility showed slight increases post-CT, which returned to baseline values at 6-month. There were slight changes in heart tissue composition, which could be due to development of tissue fibrosis or edema. The patient did not have any coronary artery diseases. However, diastolic heart function (heart relaxation after blood ejection) showed slight deterioration 6 months after treatment. DISCUSSION: Study findings indicate opportunities for translation to physicians and community settings. The implemented techniques were sensitive enough to reveal slight changes in different cardiac parameters after chemotherapy. This would provide valuable information to the treating physician to modify treatment planning to avoid development of heart failure. Our next step is to identify how this can be translated in community settings, through review of the protocol and collecting feedback on participants' experiences.
Submitter:	El-Sayed Ibrahim, PhD
Record ID:	142
Format:	RECORDING
Video:	https://youtu.be/NliuC8tX7Bg

Advanced imaging reveals the effect of chemotherapy on heart function in sarcoma

El-Sayed H. Ibrahim, John Charlson

Medical College of Wisconsin, Milwaukee, USA

BACKGROUND

- Chemotherapy (CT) is a front-line, curative treatment of different types of cancer.
- Compared to the more studied CT cardiotoxic effects in breast cancer, less is known regarding cardiotoxicity development in sarcoma after chemotherapy, and how this can be effectively translated into community settings.

METHODS

- A 42 y.o. male diagnosed with osteosarcoma was scheduled for CT.
- Magnetic resonance imaging (MRI) was administered before and after treatment and at 6-month follow-up to evaluate the effect of CT on heart function.
- The MRI exam included techniques for evaluating heart functioning and heart tissue composition.

RESULTS

- The patient had slight decrease in global cardiac function after chemotherapy, although ejection fraction remained >50% up to 6-month.
- Heart contractility showed slight increases post-CT, which returned back to baseline values at 6-month.
- There were slight changes in heart tissue composition, which could be due to development of tissue fibrosis or edema.
- The patient did not have any coronary artery diseases.
- However, diastolic heart function (heart relaxation after blood ejection) showed slight deterioration 6 months after treatment (**Figure 1-3**).

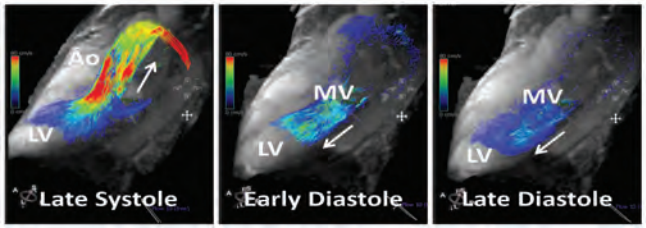


Figure 1. Three images showing blood flow in the left ventricle (LV) during late-systole (blood is being ejected from the LV into the aorta (Ao), early-diastole (major filling of the LV through the mitral valve (MV)), and late-diastole (remaining filling of the LV). Quantitative measurements of blood flow allows for detecting cardiac dysfunction, as shown in Figure 3.

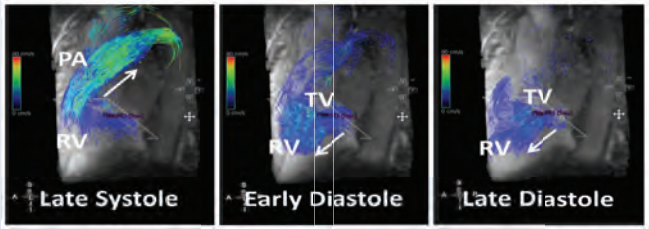


Figure 2. Three images showing blood flow in the right ventricle (RV) during late-systole (blood is being ejected from the RV into pulmonary artery (PA), early-diastole (major filling of the RV through the tricuspid valve (TV)), and late-diastole (remaining filling of the RV). Quantitative measurements of blood flow allows for detecting cardiac dysfunction.

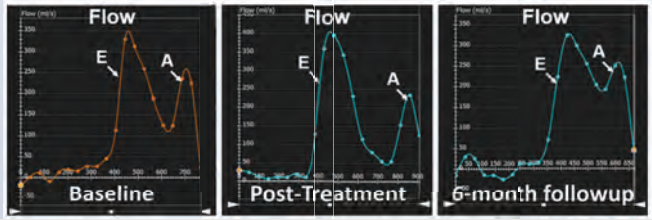


Figure 3. Blood flow curves showing two phases during early (E) and atrial (A) filling of the left ventricle (LV) during diastole (ventricular blood filling) at baseline (before treatment), post-treatment, and 6-month follow-up. Note changes in the curves shape at 6-month follow-up demonstrating diastolic dysfunction.

DISCUSSION

- Study findings indicate opportunities for translation to physicians and community settings.
- The implemented techniques were sensitive enough to reveal slight changes in different cardiac parameters after chemotherapy.
- This would provide valuable information to the treating physician to modify treatment planning to avoid development of heart failure.
- Our next step is to identify how this can be translated in community settings, through review of the protocol and collecting feedback on participants' experiences.

References

1. Ibrahim, Heart Mechanics MRI. CRC Press, 2017

Acknowledgment

Study supported by funding from MCW Cancer Center (Ibrahim)

Title:	**Better Prescription Medication Labels = Better Health: Using a Patient-Centered Approach to Improve Medication Understanding and Adherence**
Authors:	**Bhumi Khambholja**, PharmD, MSHI, Wisconsin Literacy, Health Literacy; **Stan Hudson**, MA, Wisconsin Health Literacy, Health Literacy; **Michele Erikson**, Wisconsin Literacy; **Ken Schellhase**, MD, MPH, MCW-Milwaukee
Abstract:	BACKGROUND: Most patients use prescription medication labels to learn about their medication. However, labels are often difficult to understand. Misinterpretation of medication directions results in poor control of chronic conditions or medication overuse. OBJECTIVE: The goals of this initiative are to improve labels so that patients can easily find and use important information, to improve adoption of United States Pharmacopeia (USP) label standards, and to establish a process that can be replicated across the country. METHOD: This initiative involves multiple phases and the development of a large public/private partnership between community, healthcare, and academic leaders. In Phase 1, semi-structured interviews were conducted with key stakeholders to assess feasibility. Phase 2 was a pilot study implementing USP standards in five pharmacy organizations. Phase 3 captured the patient voice through surveys, focus groups, and a Patient Advisory Group and expanded implementation of USP standards across Wisconsin. Currently, Phase 4 focuses on improving adoption of standardized directions called the Universal Medication Schedule (UMS). These standards have been found to improve understanding and reduce patient medication errors. RESULTS: 84% of pharmacy staff favored adoption of label standards (403 respondents). 93% of consumers found labels confusing to read or understand at least some of the time and 88% preferred a label that followed USP standards (798 respondents). Analysis of Medicaid claims data from one pharmacy organization showed improved adherence in three classes of medications after the label change. A total of 245 pharmacies (21% of Wisconsin pharmacies) implemented label standards. As a result of their partnership with this project, Epic Systems created a UMS feature that automatically translates standard directions into UMS directions. CONCLUSION: Demonstrating patient needs and strong community-academic-healthcare partnerships are key to improving labels and patient understanding of their medication. Adoption of standardized UMS directions statewide is in process.
Submitter:	Ken Schellhase, MD, MPH
Record ID:	145
Format:	RECORDING
Video:	https://youtu.be/gN92wFLivt0

Better Prescription Medication Labels = Better Health: Using a Patient-Centered Approach to Improve Medication Understanding and Adherence

Bhumi Khambholja, PharmD, MSHI[1], Stan Hudson, MA[1], Michele Erikson[1], Kenneth G. Schellhase, MD, MPH[2]

[1]Wisconsin Health Literacy, a division of Wisconsin Literacy, [2]Medical College of Wisconsin

Background

- Prescription medication labels are the most accessible source of information patients have about prescription medications and how to take them.
- However, these labels are often cluttered with unclear directions ('sigs') and medical jargon, which makes it difficult for patients to find and use information on them.
- This results in poor control of chronic conditions or medication overuse.

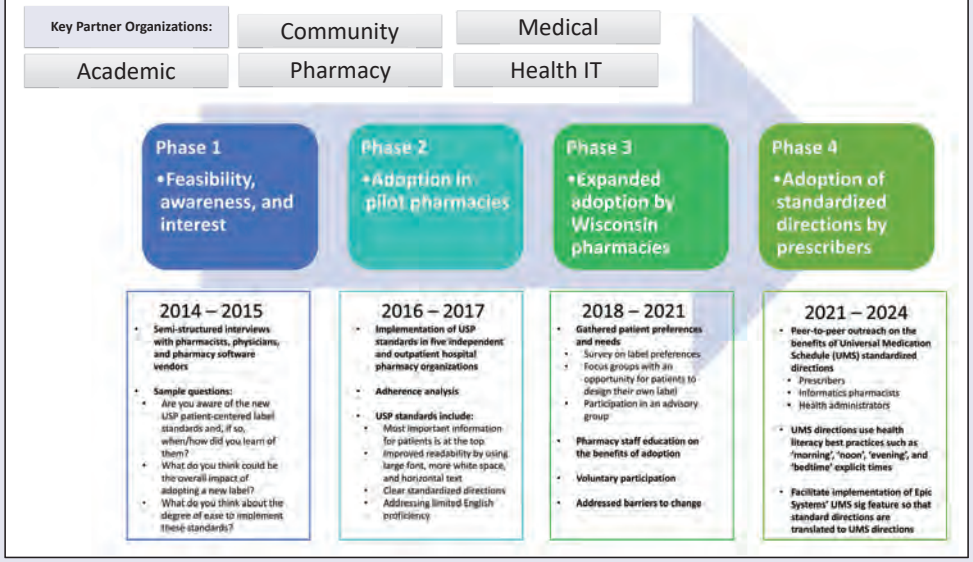
Objectives

- Improve medication labels so that patients can easily find and use important information.
- Increase adoption of United States Pharmacopeia (USP) label standards.
- Establish a process for implementing patient-centered labels that can be replicated in other states.

Figure 1. Sample label before changes

Figure 2. Sample label after changes

Methods



Results

- **Pharmacies**
  - 84% of pharmacy staff favored adoption of label standards (n = 403).
  - 245 pharmacies (21% of Wisconsin pharmacies) adopted label standards.
- **Patients**
  - 93% of patients found labels confusing to read/understand at least some of the time and 88% preferred a label that followed USP standards (n = 798).
  - Analysis of Medicaid data showed improved adherence after label change.

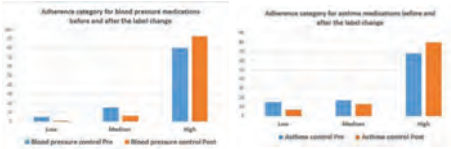


Figure 3. Graphs of adherence categories for two classes of medication showing adherence moving from the low to medium categories to the high category after the label change

Conclusion and Current Work

- Patients prefer labels that follow USP standards and adherence analysis suggests patients are better able to use information on these labels.
- Demonstrating needs of patients can facilitate changes to labels.
- Strong academic/community/ pharmacy/ medical/health IT partnerships are required to drive change.
- Phase 4 is in progress to improve adoption of explicit, standardized directions for use by prescribers.

References

Sparks, S.W., Mott, D.A., Young, H.N., Mansukhani, S.G., Erikson, M.B. (2015). *Adopting an easy-to-read medication label in Wisconsin*. Available from https://wisconsinliteracy.org/health-literacy/programs/health-literacy-programs/medication-label-project-pharmacy-implementation-resources.html

United States Pharmacopeia (n.d.). Prescription container labeling. *Pharmacopeia Forum* 46(2).

Acknowledgments

Funding is provided by the Advancing a Healthier Wisconsin Endowment of the Medical College of Wisconsin.

Further information

Please visit **wisconsinhealthliteracy.org** for additional information on this initiative or contact Bhumi Khambholja (Bhumi@wisconsinliteracy.org) for additional information and questions.

Title:	**Effects of COVID-19 on Medical Student Time Allocation, Academic Resource Use, and Mental Health in an Early Pandemic Timeframe**
Authors:	**Thomas Schultz**, MCW-Green Bay; **Craig Hanke**, PhD, MCW-Green Bay
Abstract:	BACKGROUND: COVID-19 has had many effects on those working and training in the medical field. Little is known about how medical students have adapted to learning in this COVID-19 environment. METHODS: In May 2020, surveys were distributed via email to all students studying at the Medical College of Wisconsin-Milwaukee and Central Wisconsin campuses. Students were surveyed about use of academic resources and health parameters pre and post COVID-19 time frames. Results were grouped by the academic class of the student. A non-parametric Mann-Whitney U tests was utilized for evaluation of statistical significance. RESULTS: Eighty-three medical students (26 first year, 28 second year, 22 third year, and 7 fourth year) were surveyed. MCW-Milwaukee implemented fully remote learning for all lecture courses during the final weeks of the Spring 2020 semester. First and third year students showed a decrease in their clinic time. First and second year students decreased their time with clubs and organizations. First, third, and fourth year students increased their leisure time. First through third year students increased their time studying at home. Second year students increased their reliance on the First Aid resource and question banks. First through third year students experienced a decrease in connectedness with faculty and peers. CONCLUSION: COVID-19 has differentially impacted how medical students utilized time for academics and leisure. First and third year students may suffer from decreased clinical exposure and skill development. Second year students may have remained relatively unaffected by COVID-19 due to their timely studies for the STEP 1 examination. Most students are likely negatively impacted by their decreased connectedness with faculty and peers. These results may explain or future trends in medical education and should be replicated in other institutions of higher learning. Moreover, these results may be applicable to all students who were affected by education entering the virtual format during COVID including undergraduate and professional schools with clinical requirements such nursing, physical therapy, occupational therapy. Similar research may be carried out in any of these settings to expand upon this project.
Submitter:	Thomas Schultz
Record ID:	146
Format:	RECORDING
Video:	https://youtu.be/QkPUpPMMNOE

Effects of COVID-19 on Medical Student Time Allocation, Academic Resource Use, and Mental Health in an Early Pandemic Timeframe

Thomas Schultz, M3, Medical College of Wisconsin-Green Bay

Craig Hanke, PhD, Medical College of Wisconsin-Green Bay

Introduction

COVID-19 has had many effects on those working and training in the medical field. Little is known about how medical students have adapted to learning in this COVID-19 environment. Our goal is to better understand how Medical College of Wisconsin (MCW) medical student studies, time allocation, and physical and mental health have been affected by the pandemic.

Materials and methods

Online surveys were distributed to MCW students on the Milwaukee and Central Wisconsin campuses in May of 2020. De-identified student data was collected and stratified based on medical student class. This data was analyzed using a non-parametric Mann-Whitney U test.

Acknowledgments

Dr. Katrina Rosculet, MD

Results

Eighty-three medical students (26 M1, 28 M2, 22 M3, and 7 M4) were surveyed. First and third year students showed a decrease in their clinic time. First through third year students increased their time studying at home with second year students displaying the most per week time studying. First through third year students experienced a decrease in connectedness with faculty and peers.

Figure 1: Effect of COVID on Medical Student Time Allocation

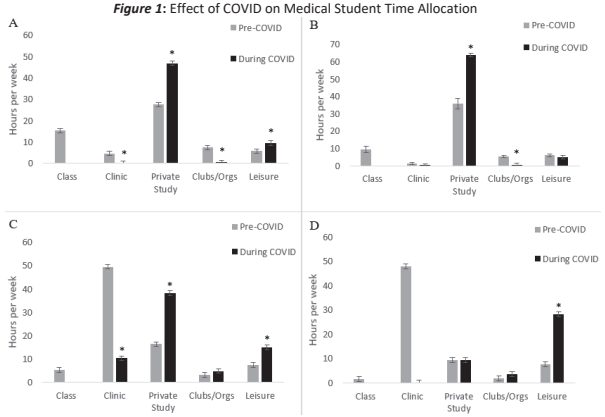


Figure 1 legend: Panel A first year students n = 26. Panel B second year students n = 28. Panel C third year students n = 22. Panel D fourth year students n = 7. A non-parametric Mann-Whitney U Test was utilized for statistical analysis. Bar graphs denote the mean ± SEM. Significance of $p < .05$ denoted by (*).

Figure 2: Effect of COVID on Connectedness of Medical Students with Mentors and Peers

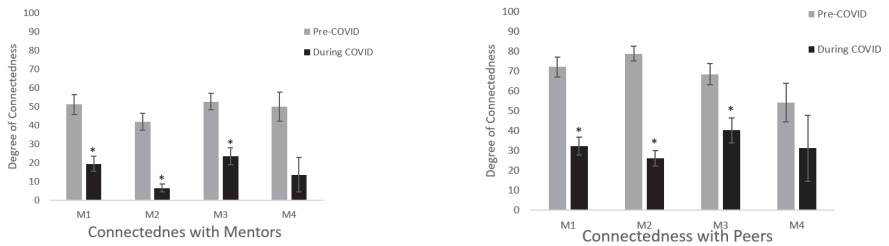


Figure 2 Legend: n = 26 first year, 28 second year, 22 third year, 7 fourth year students. A non-parametric Mann-Whitney U Test was utilized for statistical analysis. Data denotes the mean ± SEM. . Significance of $p < .05$ denoted by (*).

Conclusions

Decreased in-person class and clinic time was seen in several subgroups. A trend of increased leisure and private study was observed in many students. M2 students were notably in their dedicated period for the Step 1 examination during this survey's timeframe. Overall, students felt less connected to their peers as well as faculty during this time.

How these changes will affect the continued and future utilization of online medical education as well as student clinical skills and overall health is unknown. Further research is needed studying other medical schools as well as undergraduate and professional schools with clinical requirements.

Literature cited

1) Harrier AJ, Lee C, Jones L, Rodriguez RM, Davis JA, Boysen-Osborn M, et al. Effects of the COVID pandemic on medical students: a multicenter quantitative study. BMC Med Educ. 2021 January 6; 21,14.
2) Loh LC, Ali AM, Ang TH, Chelliah A. Impact of a spreading epidemic on medical students. Malaysa J Med Sci. 2006 July; 13(2): 30-36.
3) Sharma D, Bhaskar S. Addressing the COVID burden on medical education and training: the role of telemedicine and tele-education during and beyond the pandemic. Front Public Health. 2020 November 27; 8:589669.
4) Dragun R, Veček NN, Marendić M, Pribisalić A, Đivić G, Cena H, et al. Have lifestyle habits and psychological well-being changed among adolescents and medical students due to COVID lockdown in Croatia? Nutrients. 2021 January; 13(1):97.
5) Wynter L, Burgess A, Kalman E, Heron JE, Bleasel J. Medical students: what educational resources are they using? BMC Med Educ. 2019;19(36).
6) American Association of Medical Colleges. Important guidance for medical students on clinical rotations during the coronavirus (COVID) outbreak. Available from: https://www.aamc.org/news-insights/press-releases/important-guidance-medical-students-clinical-rotations-during-coronavirus-COVID-outbreak. Last updated 2020 Mar 17; cited Jan 15, 2021.
7) Hueston W J, Petty E. The Impact of the COVID pandemic on medical student education in Wisconsin. WMJ. 2020;114(5).
8) Rose S. Medical student education in the time of COVID. JAMA. 2020;323(21);2131-2132.
9) Theoret C, Ming X. Our education, our concerns: the impact on medical student education of COVID. Med Educ. 2020; 54(7).
10) Hilburg R, Patel N, Ambruso S, Biewald MA, Farouk SS. Medical education during the coronavirus disease-2021 pandemic: learning from a distance. Adv Chronic Kidney Dis. 2020; 27(5): 412-417.

Title:	**Artificial Intelligence techniques allow for automatic and fast evaluation of cardiac function. A proof-of-concept study.**
Authors:	**Dayeong An**, MS, MCW-Milwaukee, Biomedical Engineering; **El-Sayed H. Ibrahim**, PhD, MCW-Milwaukee, Radiology
Abstract:	BACKGROUND: Advanced magnetic resonance imaging (MRI) can allow for evaluating heart tissue contractility by acquiring certain type of images, called 'tagged' images. Nonetheless, evaluating global heart function and calculating heart ejection fraction (EF) requires acquiring an additional set of images, called 'cine' images. Obtaining both global and regional functions from the tagged images would allow for significant reduction in MRI exam time, which would be more comfortable for the patients and cost-effective. In this study, we developed an artificial intelligence (AI)-based approach that can measure EF directly from the tagged images. The results of this study would allow for faster MRI scan and less expensive exam cost. Hence patients and communities may have better experiences of MRI exam. METHODS: We used a dataset of >1000 MRI images of rat hearts to train the AI algorithm. The process of training the algorithm ended up with >99% accuracy. The images resulting from the developed algorithm were compared to gold-standard manually processed images to measure the degree of agreement between both approaches and if there is bias in the measurements. RESULTS: The results from the developed methods showed good agreement with gold standard measurements. There was no bias between the two sets of measurements. More importantly, the developed method was >1000 times faster than the manual approach. CONCLUSIONS: The developed algorithm allows for ultrafast and accurate measurement of global heart function (EF) without the need for acquiring additional MRI images. This allows for significant reduction in scan time and potential adoption in clinical practice. Based on the promising results demonstrated in this abstract, our next step is to evaluate the translational potential of the developed technique, where we will expand our study to include more members of the community, evaluate the performance of the developed technique, and seek feedback about their experience with the fast cardiac MRI exam.
Submitter:	Dayeong An, MS
Record ID:	148
Format:	RECORDING
Video:	https://youtu.be/c2qJsdkcRfk

Artificial Intelligence techniques allow for automatic and fast evaluation of cardiac function. A proof-of-concept study.

Dayeong An, El-Sayed Ibrahim

Department of Biomedical Engineering, Medical College of Wisconsin

Introduction

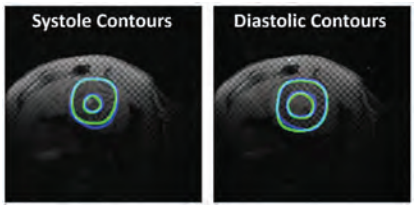
- Advanced MRI can allow for evaluating heart tissue contractility.
- Obtaining both global and regional functions from the tagged images would allow for significant reduction in MRI exam time and cost.
- We developed an artificial intelligence (AI)-based approach that can measure EF directly from the tagged images.

Materials and methods

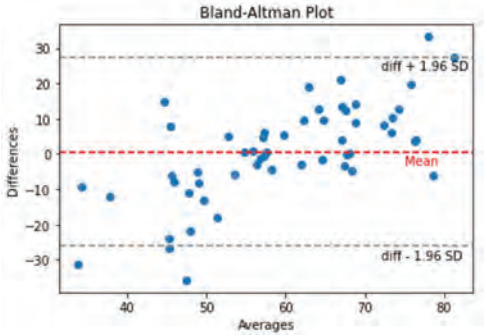
- Rat heart MRI images
- >1000 images were used
- Compared to manually processed images
- AI algorithm results in >99% accuracy

Results

❖The results from the developed methods showed good agreement with gold standard measurements. Tagged images using the DL method (blue) and manual segmentation (lime). Cyan color shows overlapping contours.



$$EF = \frac{ED_{vol} - ES_{vol}}{ED_{vol}} \times 100$$



❖Bland-Altman plot showing good agreement between EF measurements by the proposed method versus ground-truth manual segmentation.

❖The developed method was >2000 times faster than the manual approach.

Conclusions

- Ultrafast and accurate measurement of global heart function (EF).
- No need for acquiring additional MRI images.
- Significant reduction in scan time and potential adoption in clinical practice.

Future work

- Evaluate the translational potential of the developed technique.
- Include more members of the community
- Seek feedback about their experience with the fast cardiac MRI exam.

Literature cited

1.Makram et al. Jpn J Radioll; 34:158–165.
2.Qian et al. IEEE ISBI; 2007:364–367.
3.Ronneberger et al. arXiv:1505.04597.

Acknowledgments

This research was funded by Daniel M. Soref Charitable Trust, MCW, USA.

Further information

I'm at dan@mcw.edu if you have a question or comment.

Title:	**Community Engagement through Powered Mobility for Young Children with Special Needs: Go Baby Go Milwaukee**
Authors:	**Molly Erickson**, BS, Marquette University, Biomedical Engineering; **Elizabeth Conrath**, PT, DPT, PCS, Children's Wisconsin, Phys. & Occ. Therapy; **Allison Friel**, MOT, OTR/L, C/NDT, Children's Wisconsin, Phys. & Occ. Therapy; **Benjamin McHenry**, PhD, Marquette University, Biomedical Engineering; **Lauren Tyson**, PT, DPT, Children's Wisconsin, Phys. & Occ. Therapy; **Nicole Nelson**, PT, MPT, Children's Wisconsin, Phys. & Occ. Therapy; **Denise Bibis**, PT, Children's Wisconsin, Phys. & Occ. Therapy; **Chris Cayo**, OT, Children's Wisconsin, Phys. & Occ. Therapy; **Zachary Krueger**, UW-Milwaukee, Mechanical Engineering; **Natalie Schmidt**, Valparaiso University, Biomedical Engineering; **Michael Collins**, PT DPT, Children's Wisconsin, Phys. & Occ. Therapy; **Gerald F. Harris**, PhD, Marquette University, Biomedical Engineering
Abstract:	BACKGROUND: Go Baby Go Milwaukee (GBG MKE) was started in 2016 as a collaboration between the Orthopaedic & Rehabilitation Engineering Center at Marquette University (OREC/MU) and Children's Wisconsin (CW). The program is designed to bring independent wheeled mobility to the children of Southeastern Wisconsin. The program modifies toy ride-on cars technically and therapeutically to fit the specialized needs of each child. METHOD: Therapists at CW select children who can benefit from the program. The family, therapists, and Biomedical Engineers at OREC/MU work together to select an appropriate vehicle based on the child's rehabilitative needs and required technical modifications. Once modified, assembled, and tested, the vehicle undergoes a final "fitting" with the child before being given to the family for home use. RESULTS: The program has grown from 1 vehicle per month in 2016 to the current production of 5 per month. With ongoing input from the therapists, engineers, and families in the GBG MKE program, significant growth and expansion have resulted with an innovative cascade of therapeutic advances and technical improvements. Recent results include remotely controlled cars for children with specific cognitive impairments that require child participation to move the car while steerage and power is controlled by the parent. The addition of a microprocessor controller now supports programmable acceleration, velocity, and usage monitoring. Current designs also support the use of a joystick that provides control similar to that of an electric wheelchair. New options and vehicles/platforms are also being developed for operation in both indoor and outdoor environments.
Submitter:	Gerald F. Harris, PhD
Record ID:	150
Format:	RECORDING
Video:	https://youtu.be/RY-TEm4s6Yc

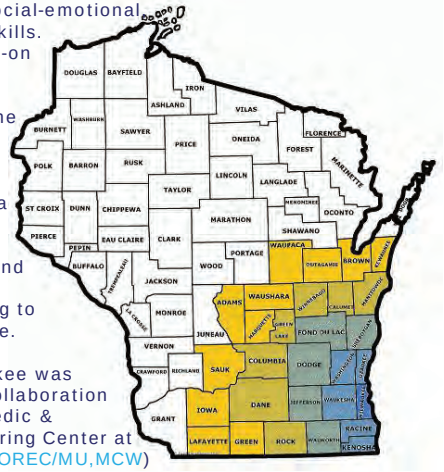
Community Engagement through Powered Mobility for Young Children with Special Needs: Go Baby Go! Milwaukee

Molly Erickson, Elizabeth Conrath, Allison Friel, Benjamin McHenry, Lauren Tyson, Nicole Nelson, Denise Bibis, Christine Cayo, Zachary Krueger, Natalie Schmidt, Michael Collins, and Gerald F Harris

Program Overview

This program provides modified ride-on cars to young children with disabilities in Southeastern Wisconsin (ages 9 months to 5 years) so that they can move about independently. The program participates in the national opensource "Go Baby Go" initiative to provide and expand these services.

Research has shown that independent mobility leads to an increase in a child's social-emotional, cognitive, and motor skills. In this project, toy ride-on cars are modified technically and therapeutically to fit the specialized needs of each child. Examples include a therapy switch in the place of a gas pedal, joystick control instead of a steering wheel, head and body support, custom harnesses, and padding to ensure a stable posture.



Go Baby Go! Milwaukee was started in 2016 as a collaboration between The Orthopaedic & Rehabilitation Engineering Center at Marquette University (OREC/MU,MCW) and Children's Wisconsin (CW), to bring independent mobility to the children of Southeastern Wisconsin. Each month therapists from CW select families to receive a custom modified ride-on the car. Children in the program then attend a "fitting" where the therapists, engineers and parents select a car. Once the therapist has identified the specific modifications necessary the engineers at OREC/MU,MCW modify the car, drive system and controls to fit the needs of the child. The car is then delivered to the family at no cost. So far, the program has provided over 150 cars which are constantly evolving to better suit the needs of the children in the program.

Method

1. Therapists at CW identify children who can benefit from the program.
2. The family, therapists, and Biomedical Engineers at OREC/MU,MCW work together to select an appropriate vehicle based on the child's rehabilitative needs and required technical modifications.
3. The Biomedical Engineer then modifies, assembles, and tests the vehicle.
4. The vehicle is given to the family for home use.
5. Parents are surveyed annually on use and satisfaction of their GBG! MKE car

Acknowledgements

The GBG! MKE team would like to extend a special thank you to Jay Blankenship from the Children's Foundation who has provided support and funds to continue growing our program and Don Wyllie, a Children's engineer who was instrumental in our first build. We also sincerely thank OREC/MU,MCW for ongoing financial and technical support of the program.

We would also like to recognize our many generous donors, because without their support we would not be able to provide this large number of cars at no cost to the families of Southeast WI.

Results

- The program has grown from 1 vehicle per month in 2016 to the current production of 5 per month.

- With ongoing input from the therapists, engineers, and families in the GBG! MKE program, significant growth and expansion have resulted with an innovative cascade of therapeutic advances and technical improvements, including remotely controlled cars, the addition of a microprocessor controller that supports programmable acceleration, and a joystick control.

Joystick Controlled Vehicle

Microprocessor Control System

Title:	**Establishing Community-Based Participatory Research Partnership with Milwaukee's Hmong Population to Develop an Eye Health Survey**
Authors:	**Iaong Vang**, MCW-Milwaukee; **Velinka Medic**, MS, MCW-Milwaukee; **Judy Kim**, MD, MCW-Milwaukee
Abstract:	BACKGROUND: Type 2 diabetes was shown to be twice as prevalent in the Hmong population than in non-Hispanic whites. In addition, the Hmong population is 3.3 times more at risk for type 2 diabetes than non-Hispanic whites. Diabetic retinopathy is a complication of diabetes and is one of the leading causes of blindness in the United States. With timely detection and treatment of diabetic retinopathy, over 90% of vision loss can be prevented. However, there is little information about the general Hmong population and their eye health. OBJECTIVES: We hope to learn the populations' knowledge, attitudes, beliefs about eye care, and barriers to eye care. To start this, partnerships with community organizations were established and a survey was developed. METHODS: We reached out to various community organizations that work closely with the Hmong population. We designed an eye health survey after extensive literature review in areas of eye health, health disparities, and discussion with community organizations. RESULTS: We established partnerships with the Milwaukee Consortium of Hmong Health (MCHH), United Hmong of Wisconsin Outreach (UHOWO) and Prevent Blindness Wisconsin (PBW). The MCHH and UHOWO strive to address and improve health disparities among the Hmong community in Milwaukee. PBW performs vision screenings for the Hmong population and the SE Asian Refugee population. With the collaboration established, we created a culturally sensitive survey in both English and Hmong. IMPLICATIONS: Discussions with the MCHH and UHOWO showed us that the Hmong community is still an overlooked one, in both medicine and research. Partnering with community organizations to validate and distribute the survey will be effective in raising awareness about eye health in the Hmong community. The partnerships between Medical College of Wisconsin and MCHH, UHOWO, PBW will positively affect the Hmong populations' knowledge, attitudes, beliefs about eye care, and barriers to eye care.
Submitter:	Iaong Vang
Record ID:	153
Format:	RECORDING
Video:	https://youtu.be/3N6oqz2av9s

Establishing Community-Based Participatory Research Partnership with Milwaukee's Hmong Population to Develop an Eye Health Survey

Iaong Vang M2, Velinka Medic MS, Judy Kim MD
Department of Ophthalmology and Visual Sciences, Medical College of Wisconsin

Background

- Wisconsin has the third largest Hmong population in the United States.[1] Among various health conditions affecting the Hmong population, type 2 diabetes was shown to be twice as prevalent in the population than in non-Hispanic whites.[3] In addition, the Hmong population is 3.3 times more at risk for type 2 diabetes than non-Hispanic whites.[3]
- Diabetic retinopathy is a complication of diabetes and is one of the leading causes of blindness in the United States.[2] With timely detection and treatment of diabetic retinopathy, over 90% of vision loss can be prevented.

Purpose

- Discussion with various Hmong individuals with diabetes highlight that vision loss related to diabetes is a concern, however, there is little information about the general Hmong population and their eye health.
- We hope to learn the populations' knowledge, attitudes, perceived beliefs about eye care, and barriers to eye care. To start this, this project aims to establish partnerships with community organizations and develop a survey.

Hypothesis

Collaborating with the Hmong community will allow us to create a culturally sensitive survey that will be used to better understand and serve their eye health needs.

Study Aims

1. Establish a community-based participatory research partnership between MCW and Hmong community organizations.
2. Design an eye health survey to assess knowledge and attitudes toward eye health, barriers to care, and the eye health needs of the Hmong population.

Methods

Hmong organizations:

- We reached out to various community organizations that work closely with the Hmong population.
  - The Milwaukee Consortium of Hmong Health (MCHH)
  - United Hmong of Wisconsin Outreach (UHOWO)
  - Prevent Blindness Wisconsin (PBW)
- MCHH and UHOWO are local organizations that strive to address and improve health disparities among the Hmong community here in Milwaukee.
- PBW's mission is to improve vision for all Wisconsin residents. They work closely with the MCHH and perform vision screenings for the Hmong population along with the SE Asian Refugee population.

MILWAUKEE CONSORTIUM FOR HMONG HEALTH

UHOWO

Prevent Blindness Wisconsin

Eye health survey:

- We designed an eye health survey after extensive literature review in areas of eye health, health disparities, and discussion with community organizations. The survey was translated into Hmong with members of the Hmong community.

Results

- We established partnerships with the Milwaukee Consortium of Hmong Health (MCHH), United Hmong of Wisconsin Outreach (UHOWO) and Prevent Blindness Wisconsin (PBW). With the collaboration established, we created a culturally sensitive survey in both English and Hmong.

Implications

- The Hmong community is an overlooked community in both medicine and research. Representation in research is crucial to understanding and providing better care to the diverse communities in Milwaukee and throughout the nation.
- Partnering with community organizations to validate and distribute the survey will be effective in raising awareness about eye health in the Hmong community.

Acknowledgements

This project was supported by the Office of the Dean, Medical College of Wisconsin Ophthalmology Department, and Medical College of Wisconsin Medical Student Summer Research Project (MSSRP).

References

1. Asian Americans in Wisconsin: History | Wisconsin Department of Health Services. Accessed April 8, 2021. https://www.dhs.wisconsin.gov/minority-health/population/asian-pophistory.htm
2. Eye Disease Statistics - American Academy of Ophthalmology. Accessed January 27, 2021. https://www.aao.org/eye-disease-statistics
3. Thao KK, Arndt B, Tandias A, Hanrahan L. The prevalence of type 2 diabetes mellitus in a wisconsin hmong patient population. *Wisconsin Medical Journal*. 2015;114(5):190-195. Accessed January 27, 2021. https://pubmed.ncbi.nlm.nih.gov/26726339/

Title:	**Opioid Addiction and PTSD in the Milwaukee PROMPT Veteran Community Program**
Authors:	**Gabriel Lira**, BS, MCW-Milwaukee; **Zeno Franco**, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine; **Syed Ahmed**, MD, MCW-Milwaukee, Office of Community Engagement; **Sarah O'Connor**, MS, MCW-Milwaukee, Office of Community Engagement; **Myah Pazdera**, MS, MCW-Milwaukee, Office of Community Engagement; **Otis Winstead, Jr.**, Dryhootch
Abstract:	INTRODUCTION: Opioid abuse has become an increasing public health dilemma in the United States since the late 1990's. A subset of the population that has been particularly affected by opioid abuse has been military Veterans. The rate at which military Veterans misuse prescription opioids is higher compared to the general U.S. population. In recent years, 2010 to 2016, there has been an increase of opioid overdoses amongst military Veterans. HYPOTHESIS: Veterans who have PTSD and experienced childhood trauma are more likely to have a drug use disorder. STUDY METHODS: The intervention was a 12 week opioid use disorder prevention program with baseline, midpoint and discharge data collection via surveys at week 0, 6, and 12. The 30 participants in the intervention were U.S. military Veterans above the age of 18 who had struggled with or misused opioids. Participants were recruited via direct partnership with the community group Dryhootch which is a Veteran led community program that assists Veterans who deal with substance abuse. This was in collaboration with MCW as part of the RWJF funded Milwaukee PROMPT program which set up a community-academic advisory board (CAAB) where community members worked closely with academic members to promote co-learning and capacity building amongst the partners in the project. The surveys consisted of demographics, housing status, and psychometric instruments. In specific, the results from the psychometric instruments Posttraumatic Stress Disorder Checklist (PCL-5), Adverse Childhood Experiences (ACE), and Drug Use Disorders Identification Test (DUDIT) at baseline were used for linear and multiple linear regression to understand their correlations. RESULTS: A significant relationship was found between PCL-5 scores and DUDIT scores (p-value of 0.02391 and r2 0.175). There was also a significant relationship between both PCL-5 and ACE in regards to DUDIT scores (p-value of 0.0065 and an r2 of 0.3209). CONCLUSION: Veterans who score higher on the PCL-5 and ACE are likely to score higher on the DUDIT. This correlation allows for identification of veterans who would be at higher risk to develop drug abuse disorders. NEXT STEPS: Repeat the study with a larger cohort size and a more accurate representation of the racial makeup of the armed forces.
Submitter:	Gabriel Lira, BS
Record ID:	156
Format:	RECORDING
Video:	https://youtu.be/N5NIVaiYyZs

Opioid Addiction and PTSD in the Milwaukee PROMPT Veteran Community Program

Gabriel Lira BS, Zeno Franco PhD, Syed Ahmed MD, Sarah O'Connor MS, Myah Pazdera MS, Otis Winstead BS

Department of Family Medicine, Medical College of Wisconsin, Milwaukee WI

MCW MEDICAL SCHOOL

Introduction

- Opioid addiction has become an increasing public health dilemma in the United States since the late 1990's.
- A subset of the population that has been particularly affected by opioid addiction has been military veterans. The rate at which military veterans misuse prescription opioids is much higher (6.9% to 20.2% past-12 months) compared to the general U.S. population (3.7% to 7.2% past-12 months)[2]
- In recent years, 2010 to 2016, there has been an increase of opioid overdoses amongst military veterans.
- In addition to this, it has been noted that high dosage prescription opioids have been associated with increased risk of heroin use amongst veterans[1]

Objectives

- To obtain a better understanding of PTSD and its correlates in the Milwaukee Veteran Community
- To understand the relationship between drug use amongst Veterans and other mental health conditions

Materials and Methods

Cohort Selection

- 30 participants in the intervention were U.S. military veterans from the Dryhootch Milwaukee program who were above the age of 18 and had struggled or misused opioids

Study

- The intervention was a 12 week opioid use disorder prevention program with baseline, midpoint and discharge data collection via surveys at weeks 0, 6, and 12.
- The surveys conducted via RedCap consisted of various sections including demographics, housing status, and multiple psychometric instruments.

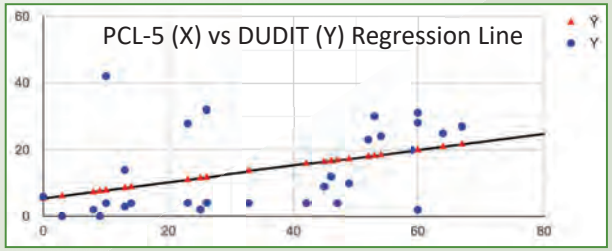
Analysis

- Results from the psychometric instruments PCL-5 (Posttraumatic Stress Disorder Checklist), ACE (Adverse Childhood Experiences), and DUDIT (Drug Use Disorders Identification Test) at baseline were used for linear and multiple linear regression to understand the correlation.

	Cohort N (%)
Age	
<40	5 (17.2%)
40-49	3 (10.3%)
50-59	8 (27.6%)
60-69	10 (34.5%)
70	3 (10.3%)
Gender	
Male	28 (96.6%)
Female	1 (3.4%)
Military Branch	
Navy	5 (17.2%)
Air Force	1 (3.4%)
Army	16 (55.2%)
Marine Corps	6 (20.7%)
Reserve	1 (3.4%)
Race	
White	8 (27.6%)
Black or African American	19 (65.5%)
Hispanic or Latino	1 (3.4%)
Two or More Races	1 (3.4%)

Results

- A significant relationship was found between PCL-5 scores and DUDIT scores (p-value of 0.02391 and r^2 0.175).
- There was also a significant relationship between both PCL-5 and ACE in regards to DUDIT scores (p-value of 0.0065 and an r^2 of 0.3209).



Conclusions

- Veterans who score high on PCL-5 and ACE are more likely to score higher on DUDIT.
- This correlation allows for identification of veterans who would be at higher risk to develop drug abuse disorders.

Next Steps

- Repeat study with a greater sample size
- Obtain a cohort for next study that is more in line with the racial makeup of the current armed forces.

References

1. Banerjee G, Edelman EJ, Barry DT, et al. High-dose prescribed opioids are associated with increased risk of heroin use among United States military veterans. Pain. 2019;160(9):2126-2135. doi:10.1097/j.pain.0000000000001606

2. Tam CC, Zeng C, Li X. Prescription opioid misuse and its correlates among veterans and military in the United States: A systematic literature review. Drug and Alcohol Dependence. 2019 November 1; 216

Acknowledgments

This project was funded through the Department of Family Medicine at MCW via a grant from the Robert J. Wood Foundation. Additional support also provided by Dryhootch Milwaukee.

Title:	**Comparing Nutrition Lessons: Virtual vs. In-Person**
Authors:	**Marie Balfour**, MCW-Milwaukee; **Bryan Johnston**, MD, MCW-Milwaukee, Dept. of Family & Community Medicine
Abstract:	BACKGROUND: 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 classroom lessons and a desire among the students to share their newfound nutritional knowledge with family members. Over the summer of 2020, the Food Doctors curriculum was adapted to an online format via Zoom to continue lessons during the COVID-19 pandemic. OBJECTIVE: The Food Doctors program is interested in expanding lessons to potential new community partners and exploring the most effective session format to best integrate with local schools. Comparing the efficacy of virtual Food Doctors lessons with previous in-person lessons will show the most compelling methods to present the lesson material. METHODS: Three virtual lessons were given for the first time with third grade students attending two different partner elementary schools in Milwaukee during the 2020-2021 school year. Afterwards, students were given a post-lesson test via Qualtrics to gauge knowledge gain, and teachers were interviewed via Zoom to assess lesson effectiveness and educator insight into preferred lesson formatting for future sessions. RESULTS: After the final lesson, quizzes were collected from one hundred eleven students and interviews were conducted with seven teachers from the two partner schools. CONCLUSIONS: Data from the two partner schools indicated a preference for the continuation of in-person lessons when permitted by school policy based on perceived student attention and interaction with in-person education models. Food Doctors will plan to continue virtual lessons until in-person lessons can resume again and will integrate additional interactive learner opportunities indicated by partner educators to further stimulate an engaging learning environment.
Submitter:	Marie Balfour
Record ID:	162
Format:	RECORDING
Video:	https://youtu.be/QvYVqI4Us0c

Comparing Nutrition Lessons: Virtual vs. In-Person

Marie Balfour, M3; Bryan Johnston, MD
Department of Family & Community Medicine, Medical College of Wisconsin

Introduction

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 classroom lessons and a desire among the students to share their newfound nutritional knowledge with family members. Over the summer of 2020, the Food Doctors curriculum was adapted to an online format via Zoom to continue lessons during the COVID-19 pandemic. The Food Doctors program is interested in expanding lessons to potential new community partners and exploring the most effective session format to best integrate with local schools.

Objective

Comparing the efficacy of virtual Food Doctors lessons with previous in-person lessons through lesson-based quizzes and teacher interviews will show the most compelling methods to present the lesson material and continue our community partnerships.

Methods

Lessons:
3 virtual lessons were conducted over Zoom.

Quizzes:
Students received online quizzes via Qualtrics.

Interviews:
Teachers were interviewed in groups over Zoom.

Post-Lesson Virtual Quizzes

Three virtual lessons were given with third grade students at partner schools during the 2020-2021 school year (Figure 1). Afterwards, students were given a multiple-choice quiz via Qualtrics to gauge knowledge gain. Due to the COVID-19 pandemic, pre-lesson quiz scores were not able to be gathered virtually.

Fig 1: Partner locations in Milwaukee

Teacher Interviews

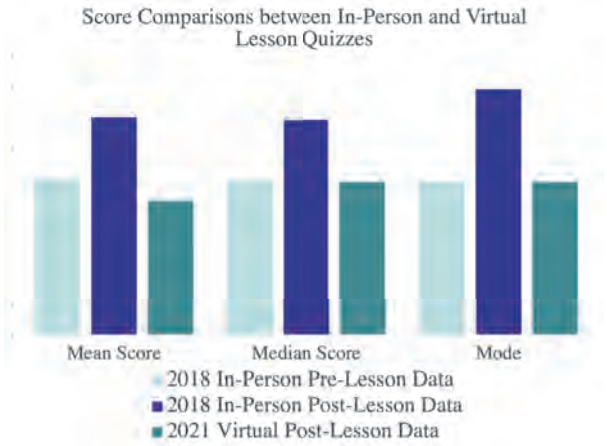
Semi-structured group interviews were conducted with teachers via Zoom to assess lesson effectiveness and educator insight into preferred lesson formatting. Interview questions included:

1. As an experienced teacher who has seen the lessons and engaged with the students, what do you think of Food Doctors?
2. What kind of impact have you noticed from Food Doctors?
3. If you could create an optimal nutrition educating program, what would it look like?

Results

Post-Lesson Virtual Quizzes

Quizzes were collected from 109 students from the two partner schools. Of the 109 submissions, 29 students did not consent to participate (N = 80). Scores ranged from 0 to 8 points out of 10 total. The mean, median, and mode of quiz scores were calculated and compared to 2018 data collected by the Food Doctors team in 2018 (N = 116) during in-person lessons with the same partner schools and same quiz questions:



Teacher Interviews

Program feedback interviews were completed with 7 teachers from both partner schools. Throughout the interviews, teachers discussed the challenges transitioning their classrooms and students to a virtual or hybrid format and their support for continuing the Food Doctors program during the pandemic. Key quotes describing teacher feedback on the 2020-2021 lessons include:

> "I didn't notice as much of that connection [having lessons] virtually, but in person we were all eating our food together and it was a natural conversation and connection for the kids to make."

> "I obviously prefer the in-person [lessons], just because when we did virtual, it was you on the board and we had kids that were not in school and we had kids that were in school and it was only one [Zoom] session… So it was just a little hairy."

> "We try our best as educators to help [students] and develop the whole child but it's really nice having an outside source come in, so it's like a little in-class field trip fun."

Discussion

Comparing virtual post-lesson scores from 2021 to in-person pre- and post-lesson scores from 2018 showed a decrease in mean and median scores with virtual lessons and post-lesson quizzes. Teachers unanimously endorsed the Food Doctors curriculum as a beneficial part of their classroom experience with preference to continue the lessons in-person to increase student engagement and participation. During the interviews, teachers made suggestions for improving the lessons in a virtual or hybrid format including:

Creating an art piece to represent lesson topics

Sending lesson resources home

Delivering additional supplies to school

Collaborating with fruit and vegetable programs

Limitations of this study included:

- No virtual pre-lesson quiz data from the 2020-2021 school year for comparison to post-lesson quiz data
- A 26.6% reduction in sample size due to students opting not to assent to complete the quiz virtually
- Potential response bias due to group teacher interviews

Although Food Doctors had a unique opportunity to explore virtual lessons due to school visitor restrictions during the pandemic, our data from this project suggest that in-person lessons garner additional knowledge gain and student interactivity. For the 2021-2022 school year, Food Doctors plans to be in-person based on these results and updates in school visitor policies.

Future Work

Continued partnership and learning sessions with our program schools will aid in lesson adaptation for the 2021-2022 school year.

Acknowledgements

Thank you to Dr. Johnston for mentorship throughout this project and the MCW Department of Family and Community Medicine.

References

Johnston, Bryan, et al. "The Food Doctors: A Pilot Study to Connect Urban Children and Medical Students Using Nutrition Education." *Health Education Journal*, vol. 78, no. 4, 2018, pp. 441–450., doi:10.1177/0017896918816735. Accessed January 16, 2020.

Title:	**The Importance of Community Outreach to Improve HBV Education in the Milwaukee Hmong Community**
Authors:	**Maahum Mehdi**, BA, MCW-Milwaukee; **Kate Bednarke**, BS, MCW-Milwaukee; **Gloria Lin**, BA, MCW-Milwaukee; **Xavier Sendaydiego**, BS, MCW-Milwaukee; **Christine Shen**, BS, MCW-Milwaukee; **Maxwell Albiero**, BS, MCW-Milwaukee; **Keng Moua**, BS, MCW-Milwaukee; **Vishmayaa Saravanan**, BS, MCW-Milwaukee; **Kia Saeian**, MS, MD, FACG, MCW-Milwaukee, Div. of Gastroenterology & Hepatology
Abstract:	BACKGROUND: Hepatitis B virus (HBV) is one of the most common liver infections in the world, with almost 300 million people living with active chronic hepatitis B (CHB) infection. Asian Pacific Islanders (API) account for approximately 60% of CHB cases in the US. Lack of cultural understanding and communication are considered barriers which prevent Hmong from utilizing western healthcare. Increasing awareness about HBV through community outreach may be a solution to improve health literacy among Hmong populations. OBJECTIVE: Our group provides hepatitis B education and screening within the Milwaukee Hmong community. METHODS: Adults 18 years of age and older who identified as Hmong were eligible study candidates. The process included registration forms collecting basic demographic information and medical history. A pre-education survey assessing baseline knowledge of HBV was given followed by a medical student-led education session about HBV. Finally, a post-education survey to assess for changes in HBV knowledge deficits. Documents were available in both English and Hmong, and Hmong translators were also present for assistance. RESULTS: Pre-education and post-education surveys (271 total) were greater for those with Hepatitis B positive family members (P <.01), below age 24 (P <.01), from the USA (P <.01), and who could speak English (P<.05). The pre-education survey scores were higher in those from Thailand (P <.011) and the post-education scores, higher in those from Laos (P<.001). Unvaccinated participants or those unsure of their vaccination status scored highest on the post-test (P<.01). Across all screening events, there was a 33.8% improvement in score (47.9% to 81.7%) from pre- to post-test. Scores on either survey were not found to differ by PCP and insurance status. CONCLUSION: The Hepatitis B Project has been able to provide education and screening to hundreds within the Milwaukee Hmong community, and continues to promote health literacy for future generations.
Submitter:	Maahum Mehdi, BA
Record ID:	163
Format:	RECORDING
Video:	https://youtu.be/zQ_OKoaHQbk

The Importance of Community Outreach to Improve HBV Education in the Milwaukee Hmong Community

Maahum Mehdi BS, Kate Bednarke BS, Gloria Lin BA, Xavier Sendaydiego BS, Christine Shen BS, Max Albiero BS, Keng Moua BS, Vishmayaa Saravanan BS, Kia Saeian MD MS FACG
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Background

- Hepatitis B is a life-threatening liver infection caused by Hepatitis B Virus (HBV). If left untreated, HBV can lead to chronic infection and increases risk of death from cirrhosis and liver cancer[1].
- Asian Pacific Islanders (API) communities have alarming rates of chronic Hepatitis B (CHB). Access to education about HBV is one the greatest barriers for API receiving treatment for hepatitis B[2].
- Increasing awareness and knowledge of HBV through targeted community outreach may be a solution to close the knowledge gap in API communities[3].

Purpose

- Provide the Milwaukee Hmong community with hepatitis B education and screening to raise awareness and knowledge about HBV.
- Serve as a model to assist coexisting outreach groups working with minority groups.

Methods

Hmong Community Partners:
- Milwaukee Consortium for Hmong Health
- Hmong American Friendship
- Local Hmong radio station

Recruitment:
- March 2013- December 2019.
- >/=18 yr. who identified as Hmong.
- Hosted (2-3) annual sessions for Hep B education and screening at Phongsaven Hmong market, Hmong New Year festival, Annual Hmong Spring Health Conference.

Results/Conclusions

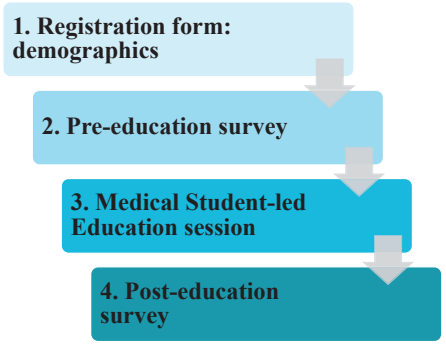

Figure 1: Step-wise protocol of hepatitis B education session.

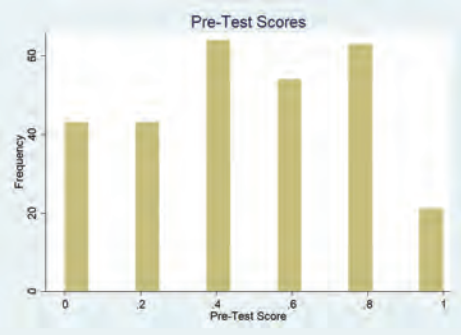

Figure 2: Frequency of percent correct of pre-education session test scores.

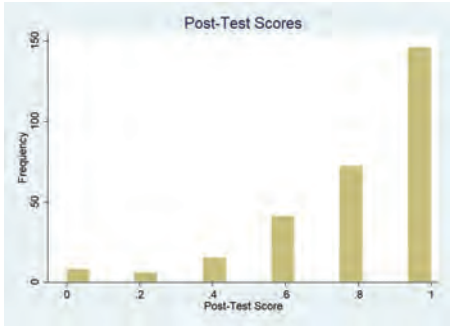

Figure 3: Frequency of percent correct of post-education session test scores.

Demographics	Pre-test score (%)	Post-test score (%)	Improvement (%)
Sex			
Male (N=125)	48.9	82.0	33.2
Female (N=202)	47.3	81.5	34.2
Age			
<24 (N=30)	55.7	92.9**	37.4
25-34 (N=48)	56.6	87.7	31.1
35-44 (N=48)	38.1	82.9	44.9**
45-54 (N=84)	46.5	80.0	33.5
55-64 (N=76)	50.8	75.2	24.4
65+ (N=65)	40.0	79.0	39.0
Country of Origin			
Laos (N=214)	45.8	78.7	32.9
Thailand (N=13)	60.0**	90.7	30.7
USA (N=30)	58.1**	92.2**	34.2
Other (N=43)	31.7	86.7	55.0
Language Spoken			
Any English (N=275)	56.7	87.9	31.8
Non-English (N=65)	45.7	80.1	34.4
HBV vaccinated			
Yes (N=163)	58.4**	82.7	24.3
No/Unsure (N=125)	46.2	86.1**	39.8**
KFM* with HBV			
Yes (N=35)	68.0**	92.6**	24.6
No (N=253)	43.7	78.3	34.6

Table 1: Stratified pre-, post-test, and improvement scores before and after patient education session of the Hepatitis B Project. *Known Family Member. ** Significant at p<0.05

Conclusions:

- Pre-education: higher scores for those with a family member with Hep B (p<0.0001), younger than 35 years (p<0.003), from Thailand (p<0.011) and USA (p<0.0106), and who could speak any English (p<0.009)
- Post-education: higher scores for those with a family member with Hep B (p =0.002), those who were younger than 24 (p <0.005), those from the USA (p =0.001) and Laos (p =0.001), those who spoke English (p =0.013)
- The overall improvement in score was 33.8% with those aged 35-44 years old showing the greatest improvement (p =0.006) and those not vaccinated or unsure of their vaccination status (p =0.004) scoring the highest.

Conclusions cont.

- The Hmong New Year's average improvement in quiz scores (40.3%) was significantly higher than the average improvement in quiz scores at the Hmong Conference (27.7%) (p =0.0002).

Ongoing Barriers:

Education:
- Improving the Health Belief Model surrounding vaccinations and promoting self-directed learning (SDL).

Language
- Limited effectiveness of translators conveying medical terms prompts better modes of communication.

Age:
- Patient education tailored to specific, age-appropriate audiences.

Environment:
- Providing more screenings at cultural or heritage celebrations to target an older patient population.
- Exploring other modes of media for population outreach in Milwaukee and surrounding areas.

Funding
- Securing greater funds to upgrade screening equipment, recruit more participants, and involve more organizations to encourage HBV screenings and education.

References

1. World Health Organization. Hepatitis B. 2021, July 27th: Retrieved from: https://www.who.int/news-room/fact-sheets/detail/hepatitis-b
2. Barrett B, Shadick K, Schilling R, et al. Hmong/medicine interactions: improving cross-cultural health care. *Fam Med*. 1998;30(3):179-184.
3. Arriaza P, Nedjat-Haiem F, Lee HY, Martin SS. Guidelines for conducting rigorous health care psychosocial cross-cultural/language qualitative research. *Soc Work Public Health*. 2015;30(1):75-87.

Acknowledgements

MCW Division of Gastroenterology and Hepatology, Department of Medicine

Title:	**Toward Equitable Public Health Pandemic Response: Empowering Community Health Workers of Color during COVID-19**
Authors:	**Joshua C. George**, MPH, MCW-Milwaukee; **Nnenna Nwaelugo**, MCW-Milwaukee; **Michael Stevenson**, MPH, City of Milwaukee Health Dept.; **Amanda Richardson**, City of Milwaukee Health Dept.; **Marques Hogans**, MPH, County Office of African American Affairs; **Que El Amin**, City of Milwaukee Health Dept.; **Katinka Hooyer**, PhD, MS, MCW-Milwaukee, Dept. of Family & Community Medicine; **Zeno Franco**, PhD, MCW-Milwaukee, Dept. of Family & Community Medicine
Abstract:	BACKGROUND & PROJECT AIM: At the height of the Covid-19 pandemic, over 64% of Covid cases in Milwaukee were reported in individuals of color, highlighting the need for targeted public-health communication strategies that account for existing cultural norms, health beliefs, and understanding of minority communities. Being members of the populations they serve, community health workers (CHWs) serve as important links in bridging the interests of individual communities with resources and health information from local and national level agencies. Leveraging these relationships, the STOP COVID-19 initiative aimed to reduce the pandemic burden on vulnerable Milwaukee communities through a multi-agency collaboration with communities at risk. METHODS: A three-tiered approach was taken to recognize community concerns while spreading tailored Covid-19 related messaging through public awareness campaigns, risk-reduction initiatives, and mental health and well-being outlets. Community health workers were specifically utilized to address psychological wellness, share health-messaging, provide basic-necessities to families in need, and identify potential resource limitations. Target populations included 4 different communities of color that were disproportionately at risk of health disparities and historically disenfranchised: African American, Hispanic, South-East Asian and Hispanic communities. RESULTS: CHWs served as an effective conduit in delivering resources such as masks, food, and diapers; and providing health information curated by Milwaukee-based organizations through multi-media avenues, such as podcasts and zoom calls. Through these direct interactions with communities, CHWs were further able to identify limitations in current Covid-related efforts such as the need for rent-assistance, food-drives, and social-services. Inter-agency and CHW responses to changing community needs were affected by the lag-time organizations had to approve new programs, the sheer volume of need for resources during the pandemic, and understaffing of agencies. CONCLUSION: CHWs can bridge the gap between the unique needs of underserved communities and the resources of health-agencies in pandemic settings.
Submitter:	Joshua C. George, MPH
Record ID:	165
Format:	RECORDING
Video:	https://youtu.be/XCdRfKLk6aQ

Toward Equitable Public Health Pandemic Response: Empowering Community Health Workers of Color during COVID-19

Joshua C. George[1], MPH; Nnenna Nwaelugo[1]; Michael Stevenson[2], MPH; Amanda Richardson[2]; Marques Hogans[3], MPH; Que El Amin[2]; Katinka Hooyer[1], PhD, MS; Zeno Franco[1], PhD

1 Medical College of Wisconsin | **2** City of Milwaukee Health Department | **3** County Office on African American Affairs

Background

Covid Mortality Rates as Compared to White Populations in America[1]

3.2x	3.1x	1.2x
Blacks and Latinos	Indigenous Groups	Asians

80% of Covid cases in Milwaukee County were concentrated in the City of Milwaukee
64% of these cases reported in people of color[2]

Community Health Workers (CHWs) have shown success in improving health outcomes of minority communities through utilizing culturally sensitive approaches to care[3,4]

STOP COVID-19 Initiative

Aimed to reduce the pandemic burden through a collaborative approach between Community Organizations and CHWs.

African American | Latino | Native American | Hmong

Resources

1. APM Research Lab. (2020). Color of coronavirus. American Public Media. Accessed at www.apmresearchlab.org/covid/deaths -by-racereporting
2. Milwaukee County (2020) EPI Data Reports. Accessed athttps://county.milwaukee.gov/EN/COVID-19/EPI-Data-Reports
3. Bhaumik S, Moola S, Tyagi J, et al. Community health workers for pandemic response: a rapid evidence synthesis. BMJ Global Health 2020;5:e002769.
4. Pinto, D. , Carroll-Scott, A. , Christmas, T. , Heidig, M. & Turchi, R. (2020). Community health workers: improving population health through integration into healthcare systems. *Current Opinion in Pediatrics, 32* (5), 674-682.

This project was wholly supported by the Advancing a Healthier Wisconsin Endowment at the Medical College of Wisconsin

Results

Successes

- CHWs quickly identified effective mediums to spread health information to their communities: webinars, social media, meetings with small business owners, and at places of worship
- Rapid distribution of food, masks, sanitizer, and diapers through food-drives and community canvassing
- Identification of resource gaps including rent assistance and domestic violence interventions
- Fostering trust between communities and large scale organizations

Challenges

- Delay between the identification of community needs by CHWs and processing times for organizations
- Need greatly outweighing the supply of resources
- Organizations lacking the infrastructure to handle a rapid, large-scale pandemic response
- Combating stigma around Covid diagnoses, integration of traditional health beliefs with pandemic restrictions, and hesitancy to access government resources

Figure 1. Delivery of pantry staples to quarantined households. CHWs aided in identification of families with covid exposure, regardless of immigration status, mitigating fears of encountering legal troubles or loss-of income necessary to purchase necessities

Figure 2. Tailored arts-based messaging located outside a high volume Covid testing site at the Milwaukee Public Health Department

Methods

Tier 1: Health Messaging
Creating culturally specific pandemic resources

Tier 2: Micro-campaigns
Using art and influencers to spread Covid Messaging

Tier 3: Employing CHWs
Utilizing CHWs to identify specific community needs

Discussion

Organizations can leverage CHWs in pandemic settings to effectively market and spread culturally tailored health information to minority communities in a time-sensitive manner.

Title:	**Mental Wellbeing InSciEd Out: A Case Study of Health Workshops in Partnership with the Boys and Girls Clubs of Puerto Rico**
Authors:	**Ana M. Corujo Ramirez**, Mayo Clinic; **Marcos I. Roche Miranda**, University of Puerto Rico, Rio Piedras Campus; **Ricardo A. Calderon Lopez**, University of Puerto Rico, Rio Piedras Campus; **Maribel Campos Rivera**, PhD, University of Puerto Rico, Rio Piedras Campus; **Dena Mundy**, Mayo Clinic; **Joanna Yang Yowler**, PhD, Mayo Clinic; **Chris Pierret**, PhD, Mayo Clinic
Abstract:	BACKGROUND & OBJECTIVES: Children living in low-income areas are at a higher risk of suffering from the adversity of prolonged stress. This relates to neurocognitive development problems, which underlines an imperative of the community to address these experiences. The objective is to develop coping strategies for the Boys & Girls Club of P.R. participants through informal health science learning, and engaging in a study of health literacy and outcomes through student mentors from the University of Puerto Rico (UPR), Medical Sciences Campus. If students receive science mentorship then their problem solving capacity, mental health literacy, and resiliency will improve. METHODS: The InSciEd Out program provides access to research-based, experiential classroom learning. Previously, their program has been successfully culturally adapted and modified according to the community's needs in Minnesota, Illinois, Florida, Ghana and India, and therefore shows a strong likelihood for successful adaptation to other communities. The teams from the Education Program of the UPR, Rio Piedras Campus, InSciEd Out and Mayo Clinic culturally adapted existing InSciEd Out lesson plans and prepared the curriculum for the educational intervention. Students from K to 12th grade participated in a one-week curriculum that focused on emotional health, following a two-day educator and volunteer training session. Educators made daily reflections about their experiences. RESULTS: Grades 1 to 6 showed the most engagement. Educator satisfaction -seen through their comments and ratings on the activities- support that result. A select group of children created the Science Club, where they developed their own research project. Talking drawing surveys represent student language use change related to coping mechanisms. They also continue to practice the strategies for managing emotional stress. CONCLUSION: The educational goal for this work was to implement behavioral habits to recognize stress and healthy coping mechanisms through the use of a culturally adapted informal scientific curriculum. Educator and student experiences portray the pilot's qualities, which help improve curriculum components for future interventions. Promoting enthusiasm for older students, specialized training for staff members, and adapting lessons according to the health priorities of the community are relevant improvement areas for the program.
Submitter:	Ana M. Corujo Ramirez
Record ID:	166
Format:	RECORDING
Video:	https://youtu.be/cI4eDf3gYNg

Mental Wellbeing InSciEd Out: A Case Study of Health Workshops in Partnership with the Boys and Girls Clubs of Puerto Rico

Ana M. Corujo Ramirez[1], Marcos I. Roche Miranda[2], Ricardo A. Calderon Lopez[2], Maribel Campos Rivera[3], Widalys Ortiz[4], Dena Mundy[1], Joanna Yang Yowler[1], Chris Pierret[1],
[1]Mayo Clinic, [2]University of Puerto Rico, Rio Piedras Campus, [3]University of Puerto Rico, Medical Sciences Campus, [4]Boys & Girls Club of Puerto Rico

INTRODUCTION

- In Puerto Rico (PR), mental health concerns have risen to the forefront of medicine, due in part to financial instability and a series of natural disasters such as the landfall of Hurricane Maria in 2017.
- Stressors related to these crises led to a significant surge of children showing relevant symptoms of Post-Traumatic Stress Disorder
- An imperative of the community arises: to improve their coping mechanisms through education.
- A culturally relevant mental health curriculum is developed and implemented with the aim of promoting healthy coping mechanisms and behavioural habits that recognize stress.
- In this current work, we evaluate progress in the development of the educational experience.

OBJECTIVES

- Dialogue with the communities of PR to identify local goals and definitions of success.
- Adaptation and delivery of a culturally relevant mental health curriculum in Puerto Rican Spanish.
- Professional development of educators and volunteers at Boys & Girls Club of P.R. (BGCPR) for delivery of revised InSciEd Out curricula.
- Evaluation of outcomes for educators, volunteers, and student learners.
- Plan for the sustainability of successful programming in partnership with BGCPR.

The underlying theory informing these objectives is that a community engaged in a scientific understanding of mental health will demonstrate improved resilience and mental health literacy in its educators, students, and community volunteers.

MATERIAL & METHODS

- Dialogue with the club leadership and educators identified mental health as the biggest wellness need in the community served by the BGCPR.
- Implementation of a culturally adapted InSciEd Out curriculum in collaboration with the BGCPR.
- Translational research scientist provided training to undergraduate and graduate students on how to serve as facilitators of the educational experiences guided by the BGCPR educators.
- The main goal of the training process was to develop the capacity to foster an environment of co-creation between educators, student mentors, and club participants as principal investigators of the experience.
- Pilot implementation during one week following a two day training session for educators and volunteers.
- BGCPR students from 1st through 12th grade participated of a curriculum that focused on emotional health.

MATERIAL & METHODS

Age (years)	Curriculum Topic
6-8	A Healthy Brain
9-12	Stress Impacts Mental and Physical Health
>13	Food, Brain, and Mental Health

Table 1: Curriculum group divisions.

RESULTS

- Science mentorship motivated the creation of the Science Club. (Figure 1)
- Analysis of Talking Drawings reveals student anxiety (Figure 2).
- Changes in student language related to coping strategies for stress and anxiety (Figure 3).
- Teacher reflections reveal that grades 1st to 6th showed the most engagement (Table 2, Table 3).

Figure 1: Science Club students alongside their project "*The effect of introducing ambience on the behavior of zebrafish*". The project was awarded second place in AMGEN's BGCPR Science Fair 2019.

Figure 2: Each talking drawing was evaluated for presence of text and/or pictures that related to corresponding mental health Clinical Concepts of Focus.

Las Margaritas Teacher Reflections

Table 2a: Teacher reflections from grades K through 2nd (6-8 years old)

Concept	N	Example quote
What went well?		
Curriculum: Lab Experience	2	"The student[s] really liked the experiment"
Curriculum: Teaching Strategy	2	"All activities [were] very fine"
Curriculum: Coping Strategy	1	"The students used the calming strategy[ies] [at] more time[s] [of] the day"
Participants: Enthusiasm	3	"The students were very enthusiastic about the experimental area of this lesson"
Participants: Skill Retention	2	"The students express[ed] knowledge of emotion control and relaxation through the questions [I] asked"
Participants: Student Amount	0	Not mentioned
Volunteer: Engagement	1	"The connection between the volunteers and the children [was] excellent"

Concept	N	Example quote
What didn't go well?		
Curriculum: Content	2	"The stress video should be simpler for the level"
Curriculum: Time Management	1	"Read Inside Out Book [activity was too] long"
Curriculum: Organization	0	Not mentioned
Participants: Student Amount	1	"Too [many] kids at the same time"
Participants: Student Focus	0	Not mentioned
Volunteer: Engagement	1	"I need more intervention [from] the volunteers"
Volunteer: Communication	0	Not mentioned

Table 2b: Teacher reflections from grades 3rd through 6th (9-12 years old)

Concept	N	Example quote
What went well?		
Curriculum: Lab Experience	2	"The laboratory was the best thing for the kids"
Curriculum: Coping Strategy	2	"Zumba exercise, all students participated very excited"
Curriculum: Teaching Strategy	2	"Kahoot was the best part of the class"
Participants: Enthusiasm	4	"The kids were very happy to see the fishes"
Participants: Student Amount	1	"We received less student[s]; it was [easier to] manage"
Participants: Skill Retention	0	Not mentioned
Volunteer: Engagement	1	"The volunteers were more engage[d] and active"

Concept	N	Example quote
What didn't go well?		
Curriculum: Content	4	"Some questions were not correctly formulated" ("Thursday's Discussion Activity)
Curriculum: Time Management	3	"The Lab activity was hard to comply. Needs more preparation time"
Curriculum: Organization	2	"[Need] a formal training that include[s] discussion of the materials with each activity"
Participants: Student Amount	1	"The number of participants [was] too big to manage the class. This affected educational effectiveness" "Too many interruptions (people coming in and out) [...] The press and other visitors were around. The kids got distracted"
Participants: Student Focus	2	
Volunteer: Engagement	2	"The volunteers need to be more engaged or more active"
Volunteer: Communication	1	"[Need to] Improve the communication lines between scientific partners and educational leaders"

Table 2c: Teacher reflections from grades 7th through 12th (13+ years old)

Concept	N	Example quote
What went well?		
Curriculum: Lab Experience	0	Not mentioned
Curriculum: Teaching Strategy	2	"Build a Brain- Construction Time [activity] [went well]", "Team Presentation [activity] [went well]"
Curriculum: Coping Strategy	0	Not mentioned
Participants: Enthusiasm	0	Not mentioned
Participants: Skill Retention	0	Not mentioned
Participants: Student Amount	0	Not mentioned
Volunteer: Engagement	1	"The connection of the participants with the volunteers in the teamwork [went well]"

Concept	N	Example quote
What didn't go well?		
Curriculum: Content	3	"Some words and concepts were very high for the level of knowledge of the students"
Curriculum: Time Management	1	"This lesson requires more time for the students" (Mental Illness Presentations), "The part of the laboratory had to be done the next day. It was extended because our students did not understand the concepts"
Curriculum: Organization	0	Not mentioned
Participants: Student Amount	3	"The students could not do the lesson because they had school tasks"
Participants: Student Focus	2	"The first drawing could not be made due to lack of interest of the participants"
Volunteer: Engagement	0	Not mentioned
Volunteer: Communication	0	Not mentioned

Table 2: Tables show the emerging themes regarding the teachers' experience with the project. N describes the prevalence of each concept in the comments.

Curriculum	Average rating
1st to 2nd	4.59
3rd to 6th	3.25
7th to 12th	3.95

Table 3: Average activity rating given by educators for each curriculum in Las Margaritas.

CONCLUSIONS

- Improvement areas include promoting enthusiasm for older students, specialized training for staff members, and adapting lessons according to the health priorities of the community.
- Curriculum adaptability makes it a versatile tool for experiential learning in communities with chronic poverty, low academic performance and trauma like Puerto Rico and Milwaukee.

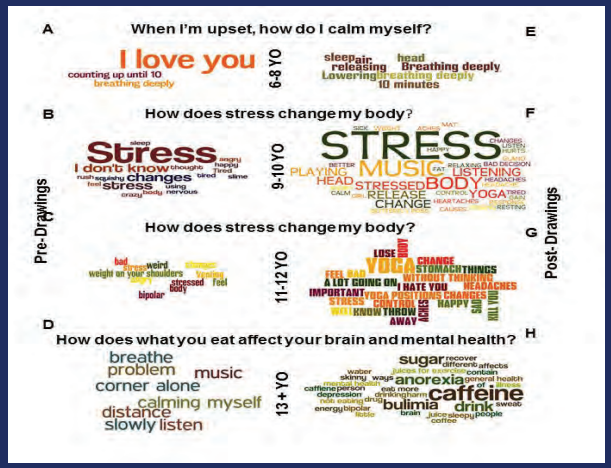

Figure 3: Pre- (A-D) and Post- (E-H) talking drawings related to coping mechanisms by students of the pilot.

RECOMMENDATIONS ABOUT FUTURE WORK

- Qualitative participatory studies are needed to further engage the community for the development of future curriculum components in response to their health priorities.
- Follow up studies will allow for documentation of long term impact of the acquisition of new skills on academic advancement and behavior.

ACKNOWLEDGEMENTS

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- The authors would like to acknowledge the active participation and contributions of the Las Margaritas Science Club.
- Approved by IRB Protocol Number ID:13-003263

REFERENCES

- Hoody, M., Yang Yowler, J., Link-Valenstein, M., Banti, A., Eilen, K., Saenz, A., Saari, H., Pierret, C. (2019). Examining the effect of language-based instructional interventions on ELL and non-ELL language production and task-oriented behavior in elementary math, science, and social studies classrooms. *Journal of Teacher Action Research*,*5*(3),18-37. Retrieved from http://www.practicalteacherresearch.com/uploads/5/6/2/4/56249715/examining_the_effect_of_language-_based_instructional_interventions_on_ell_and_non-ell_language_production_and_task-oriented_behavior_in_element.pdf
- O' Connor, M., Casey, L. (2015). The Mental Health Literacy Scale (MHLS): A new scale-based measure of mental health literacy. *Psychiatry Research*, *229*(1-2), 511-516. doi:10.1016/j.psychres.2015.05.064
- Pierret C., Sonju J., Leicester J., Hoody M., LaBounty T., Frimannsdottir K.R., Ekker S.C. (2012). Improvement in student science proficiency through InSciEd Out. *Zebrafish*, *9*(4), 155-168. doi: 10.1089/zeb.2012.0818
- Yang Yowler, J., LaBounty, T.J., Ekker, S.C., Pierret, C. (2016). Students being and becoming scientists: Measured success in a novel science education partnership. *Palgrave Communications, 2*(1). doi:10.1057/palcomms.2016.5
- Yang Yowler, J., López Cervera, R., Tye, S.J., Ekker, S.C., Pierret, C. (2018). Adolescent mental health education InSciEd Out: A case study of an alternative middle school population. *Journal of Translational Medicine*, *16*(1), 84. doi:10.1186/s12967-018-1459-x

Title:	**Fight COVID MKE: Antibody Testing & Risk Assessment for Vulnerable Communities**
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Abstract:	BACKGROUND: COVID-19 has disproportionately affected minority communities in terms of increased risk and vaccination. FightCOVIDMKE is a multifaceted project that utilizes antibody test data, surveys and health records from Milwaukee County to analyze risk from a population perspective. FCM will enable researchers to estimate true population infection, assess risk for symptom progression, and develop a web-based risk assessment tool. OBJECTIVE: More adults in Milwaukee County have been infected with COVID-19 compared to data. Vulnerable groups experience more misinformation, structural racism, social and economic barriers to COVID protections than other groups. METHOD: Recruited participants took a survey to be placed in Zoom focus groups of 8-10. Information letters were sent to 12 health centers, 12 community/faith partners and 2 health departments to oversample minority and elderly populations. Interested individuals filled out a 13-question survey and were grouped. Focus group questions pertained to experiences with COVID-19 & the vaccine through the lens of social/behavioral challenges. RESULTS: 158 adults responded with interest in the focus groups and 6 initial focus groups were conducted with 48 total participants. THEMES: -Participants engage in research because of institutional reputation, to set an example, give back to the community, and protect family/friends. -Vaccinated participants adhere to CDC guidelines and avoid crowds; unvaccinated participants struggle to get consistent information. -Prefer healthcare in person over telehealth; avoid public transportation. -Primarily white groups felt comfortable with vaccines, interested in antibody protection, and frustrated with people who refuse vaccination. Black groups noted medical mistrust for historical reasons, need for research representation, more personal/family adverse impacts of COVID-19 than white groups. CONCLUSION: COVID-19 has impacted BIPOC in disproportionate ways in terms of increased risk. FightCOVIDMKE provides a better understanding of the perspectives of risk assessment and how to effectively communicate this information. Their experiences and views can inform approaches to reduce disparities.
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Fight COVID MKE: Antibody Testing & Risk Assessment for Vulnerable Communities

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Background

- To respond to the COVID-19 pandemic and future pandemics, it is essential to have comprehensive knowledge of:
  - Infection rates
  - Population proportion that will develop antibody response
  - Population proportion that will progress to differing stages: symptomatic infection, hospitalization, ICU admission and death
- Fight COVID MKE is a multifaceted project that utilizes antibody test data, surveys, and health records from adults living in Milwaukee County to analyze COVID-19 risks from a population perspective.
- Utilizing antibody testing, surveys, and electronic health records, Fight COVID MKE will enable researchers to estimate the true population infection rate, assess risk for symptom progression, and develop a web-based risk assessment tool (see Figure 2).

Hypothesis

Vulnerable groups experience more misinformation, structural racism, social and economic barriers to COVID protections than other groups.

Figure 1. Fight COVID MKE flyers distributed to health centers, community partners, health departments.

Aims	Methods
1 - Measure how many Milwaukee County residents have been infected with COVID-19	Antibody testing
2 - Understand better the risks for serious COVID-19	Risk Assessment Tool
3 - Inform decisions about reducing personal risk	Focus Groups

Methods

- In order to engage vulnerable communities, participants were recruited to take a survey that qualified them to be placed in Zoom focus groups of 8-10 adults.
- Information letter and flyers (see Figure 1) were sent to 12 health centers, 12 community and faith partners and 2 local health departments with the intent to oversample minority, poor and elderly populations. 900+ individuals who participated in antibody study were also contacted to participate in focus groups
- Interested individuals filled out a 13-question survey and those with similarities (age, race, vaccination status, etc.) were grouped together
- Focus group questions pertained to individual experiences with COVID-19 & the vaccine through the lens of social/behavioral challenges

Risk Assessment Tool

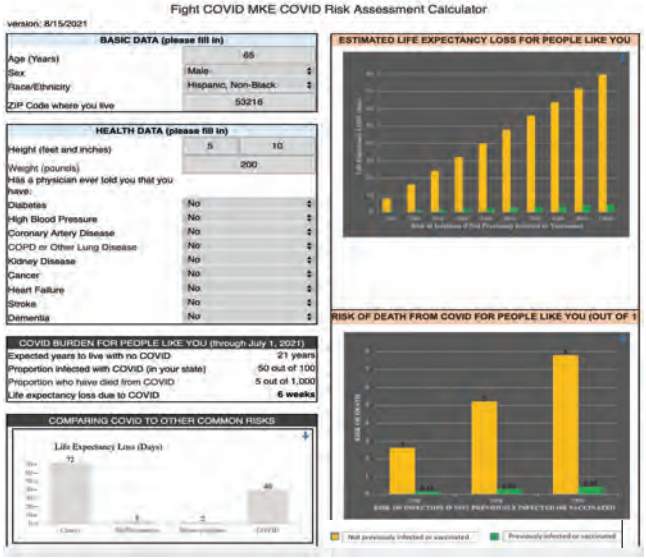

Figure 2. Fight COVID MKE individual risk assessment tool which gives an estimate of COVID-19 risk for individuals, based on the information you provide. It is based on Milwaukee and Cook Counties, Indiana, and a national 5% Medicare sample of deaths. Risk assessment tool was shown to participants during focus groups to gain feedback regarding perception of personal risk assessment

Results

In total, 158 adults responded with interest in the focus groups and 6 initial focus groups were conducted with 48 total participants. Further qualitative analysis to be done through MAXQDA.

Preliminary results from 6 community focus groups:

1. Main differences between individuals and groups pertained to lived experiences throughout pandemic – race, age, and vaccinated-based
2. Participants engage in research because of reputation and trust of the institution, to set an example, give back to the community, and protect family and friends from COVID-19
3. Vaccinated participants adhere to CDC guidelines and avoid crowds; unvaccinated participants struggle to get consistent information.
4. Prefer health care in person over telehealth; avoid public transportation
5. Children with remote learning felt isolated and less motivated
6. When shown the risk assessment tool, many recommended using charts instead of data tables for risk estimation (recommendation implemented); liked our comparison of COVID risk of death relative to cancer, car crashes, and flu/pneumonia
7. Primarily white groups felt comfortable with vaccines, interested in antibody protection, and frustrated with people who refuse vaccination; Black groups noted medical mistrust due to historical occurrences, need for representation in research, more personal and family adverse impact of COVID-19 infections than white groups

Conclusion

COVID-19 has impacted Black, Indigenous and other people of color (BIPOC) in disproportionate ways in terms of increased risk – Fight COVID MKE provides a better understanding of the perspectives of risk assessment and how to effectively communicate this information through antibody testing, the risk assessment tool, and community focus groups.

Future Work

1. Extending the focus groups to individuals who identify in various groups such as: clinicians, public health officials, media members, those who speak Spanish and Muslim communities in the Milwaukee area
2. Conduct more focus groups to better aid in our understanding and guide policy change that reflects unbiased and equitable protocols for future infection outbreaks

References

1. COVID-19: Racial and Ethnic Disparities. Wisconsin Department of Health Services. https://www.dhs.wisconsin.gov/covid-19/disparities.htm. Published 2021. Accessed September 15, 2021.
2. Dos Santos Marques IC, Theiss LM, Johnson CY, et al. Implementation of virtual focus groups for qualitative data collection in a global pandemic. *Am J Surg*. 2021;221(5):918-922. doi:10.1016/j.amjsurg.2020.10.009
3. Fight COVID MKE. fightcovidmilwaukee.org. https://fightcovidmilwaukee.org/. Published 2021.

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Appendix

WHAT'S NEW FROM THE OFFICE OF COMMUNITY ENGAGEMENT

Interim Senior Associate Dean for Community Engagement

Joseph E. Kerschner, MD, Julia A. Uihlein, MA, Dean of the School of Medicine, Provost and Executive Vice President announced the appointment of **Staci A. Young, PhD** as Interim Director for Community Engagement and Interim Senior Associate Dean for Community Engagement, effective March 1, 2021. Dr. Young holds an undergraduate degree from Marquette University, received her Master of Science and Doctor of Philosophy degrees in Urban Studies from the University of Wisconsin-Milwaukee.

Dr. Young joined the MCW faculty in 2008 and was promoted to Associate Professor of Family and Community Medicine and Associate Professor in the Institute for Health & Equity in 2014. Dr. Young has served as Director of the Center for Healthy Communities and Research since 2018 and as Co-director of the Department of Family and Community Medicine's Qualitative Research Consulting Service since 2019. Dr. Young is a medical sociologist with expertise in qualitative methods and community-based healthcare delivery.

We are proud to have Dr. Young as our new leader!

New OCE Staff Member

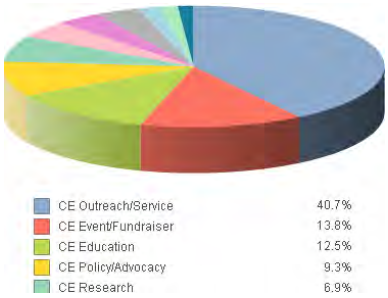
The OCE welcomed **Kristy Caldwell, DrPH, MPH** to our office in September. Hailing from Little Rock, Arkansas, she brings many talents, including deep knowledge of public health, significant experience working in an academic medical center, and a great sense of humor. Kristy is a Program Coordinator III and will be focusing on some of OCE's education and community partnership initiatives.

CE Spotlight Series

Our new *CE Spotlight Series* kicked off in September. This monthly virtual series highlights community partners and their goals, motivations, and accomplishments and the ways they have partnered with people and programs at MCW. We hope you will join us on the 2nd or 3rd Wednesday of each month to learn about the many ways people partner with MCW to improve the health and lives of community members.

CE Dashboard

Our new internal CE Dashboard was deployed last November which, along with other metrics, visualizes results of our Faculty and Staff CE Surveys. The Dashboard is available to MCW department and institutional leaders – contact communityengagement@mcw.edu for more information.



2019-2020 CE Report

The OCE is proud to present our 2019-2020 MCW Community Engagement Report which highlights our many accomplishments over the previous two years.

Download a PDF version here, or contact communityengagement@mcw.edu to request a printed copy.

Catch Up on Virtual Offerings

Visit OCE's YouTube channel to catch up on past webinars, presentations, and ceremonies. For example: the 2021 MCW President's Community Engagement Award ceremony; "From COVID-19 to Action" webinars; "Innovations in Communicating and Connecting: A Community Engagement Virtual Webinar." Search "MCW Community Engagement" on YouTube or click here for the MCW OCE channel.

Recipients of the 2021 President's Community Engagement Awards during our virtual ceremony in June.

Stay Connected

Join the OCE mailing list to receive email updates on upcoming programs. Please subscribe to our mailing list here or scan the QR code.

Acknowledgements

Special thanks to all the presenters, faculty and staff who were involved in the 7th annual Community Engagement Poster Session.
We appreciate your hard work, expertise and time investment!

Joseph E. Kerschner, MD
Provost and Executive Vice President
Julia A. Uihlein, MA, Dean of the School of Medicine
Medical College of Wisconsin

Staci Young, PhD
Senior Associate Dean for Community Engagement (interim)
Associate Professor, Dept of Family & Community Medicine
Associate Professor, Institute for Health & Equity
Director, Center for Healthy Communities and Research

Kelsey Heindel
Program Coordinator
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Erika Petterson
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Sarah O'Connor
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Kristy Caldwell, PhD
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Glossary of Terms

Anti-Racist Institution is an institution that has committed to identifying and changing its role in the systemic accumulation of disadvantages for one group(s) to the advantage of another group(s), based on persisting racist beliefs, with a sustained focus on racism that impacts Black Indigenous People of Color (BIPOC).[1]

Black Indigenous People of Color (BIPOC) is a phrase used to identify people who are Black, Latinx, Asian and Indigenous peoples (see the definition for People of Color—POC). "Two letters, for Black and Indigenous, were included in the acronym to account for the erasure of Black people with darker skin and Native American people," according to Cynthia Frisby, a professor of strategic communication at the University of Missouri School of Journalism.[2] Its use is still evolving and contested by some activists.[1]

Collaboration is a "…process by which groups come together, establishing a formal commitment to work together to achieve common goals and objectives" through joint ownership of the work, risks, results, and rewards.[3]

Community is a group of individuals organized into a unit or manifesting some unifying trait or common interest. Community need not be defined solely by geography. It can refer to a group that self-identifies by age, ethnicity, gender, sexual orientation, special interest, faith, life experience, disability, illness, or health condition; it can refer to a common interest or cause, a sense of identification or shared emotional connection, shared values or norms, mutual influence, common interest, or commitment to meeting a shared need.[4]

Community-Academic Partnership is partnership that leverages the strengths of both community and academic partners to answer community health problems.[5]

Community Based Participatory Research (CBPR) is a "collaborative approach to research that equitably involves, for example, community members, organizational representatives, and researchers in all aspects of the research process."[6] "CBPR begins with a research topic of importance to the community with the aim of combining knowledge and action for social change to improve community health and eliminate health disparities."[7]

Community Capacity Building is "an increase in community groups' abilities to define, assess, analyze, and act on health or any other concerns of importance to their members."[8]

Community-Engaged Dissemination is a way to distribute and integrate research evidence and evidence-based practice within communities and service systems.[9]

Community-Engaged Research (CEnR) is "a process of inclusive participation that supports mutual respect of values, strategies, and actions for authentic partnership of people affiliated with or self-identified by geographic proximity, special interest, or similar situations to address issues affecting the well-being of the community or focus."[10] It "is a core element of any research effort involving communities which requires academic members to become part of the community and community members to become part of the research team, thereby creating a unique working and learning environment before, during, and after the research." [10]

Community Engagement is "collaboration between institutions of higher education and their larger communities (local, regional, state, national, global) for mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity."[11]

Community Outreach is "the ways faculty, staff, and students collaborate with external groups in mutually beneficial partnerships that are grounded in scholarship and consistent with [the] role and mission" of their professional appointment.[12]

Community Service is co-curricular or extracurricular service that is done apart from or in addition to academic or professional duties.[13]

Culture is the shared attitudes, values, beliefs, practices, goals, aesthetic standards, linguistic expression, patterns of thinking, behavioral norms and styles of communication which a group of people has developed to assure its survival in a particular environment and characterize a group.[1]

Cultural Competence is the capacity to function effectively with various cultures and successfully navigate a multicultural, global society. On an organizational level, it assumes the capacity to creatively utilize a diverse workforce for meeting business goals, achieving the mission, and enhancing performance.[1]

Cultural Humility is the "ability to maintain an interpersonal stance that is other-oriented (or open to the other) in relation to aspects of cultural identity that are most important to the person." Cultural humility is different from other culturally based training ideals because it focuses on self-humility rather than achieving a state of knowledge or awareness.[1]

Equality is about ensuring that every individual has an equal opportunity to make the most of their lives and talents.[1]

Equity is the assurance of conditions for optimal access and opportunity for all people, with particular focus on promoting policies, practices, and cultural messages that eliminate differential negative outcomes for people from historically subordinated groups.[1]

Health is broadly defined as a "state of complete physical, mental, and social well-being, and not merely the absence of disease."[14] It is "a resource for everyday life, not the objective of living. Health is a positive concept emphasizing social and personal resources, as well as physical capacities."[15]

Health Disparities refer to "a particular type of health difference that is closely linked with social, economic, and/or environmental disadvantage. Health disparities adversely affect groups of people who have systematically experienced greater obstacles to health based on their racial or ethnic group; religion; socioeconomic status; gender; age; mental health; cognitive, sensory, or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion."[16]

Health Equity means that "everyone has a fair and just opportunity to be healthier. This requires removing obstacles to health such as poverty, discrimination, and their consequences, including powerlessness and lack of access to good jobs with fair pay, quality education and housing, safe environments, and health care." "For the purposes of measurement, health equity means reducing and ultimately eliminating disparities in health and its determinants that adversely affect excluded or marginalized groups."[17]

Inclusion (organizational inclusion) is the co-creation and continual nurturing of a culture in which all people experience respect, belonging, access to opportunity, and influence through the integration of many cultural backgrounds, ideas, perspectives, and approaches to the work. An inclusive culture can produce learning, innovation, excellence, and mutual benefit throughout the missions of MCW and the communities we serve.[1]

People of Color (POC) is a phrase used to identify people who are Black, Latinx, Asian, and Indigenous peoples – not to be confused with "colored" (a pejorative because of its historical context); the phase now frequently is used instead of "minority".[1,18]

Population Health is "the health outcomes of a group of individuals, including the distribution of such outcomes within the group."[19]

Public Health has the mission of "fulfilling society's interest in assuring conditions in which people can be healthy."[20] "Public health promotes and protects the health of people and the communities where they live, learn, work, and play."[21] "Public health works to track disease outbreaks, prevent injuries, and shed light on why some of us are more likely to suffer from poor health than others."[21]

Racial Equity is having full participation and access to the benefits and institutions of society free from discrimination for all people. These include health care, education, safe and affordable neighborhoods, sustainable employment, and the right to vote.[1]

Racial Inequity is when two or more racial groups are not standing on approximately equal footing.[22]

Racism is a marriage of racist policies (any measures that produce or sustain racial inequity between racial groups) and racist ideas (any ideas that suggest one racial group is inferior or superior to another racial group in any way) that produces and normalizes racial inequities.[22]

Social Determinants of Health are "the conditions in which people are born, grow, work, live, and age, and the wider set of forces and systems shaping the conditions of daily life. These forces and systems include economic policies and systems, development agendas, social norms, social policies, and political systems."[23]

Social Justice is "the view that everyone deserves equal rights and opportunities — this includes the right to good health."[21] Elimination of oppression and the "isms" to create a full and equal participation of all groups in a society where the distribution of resources is equitable and all members are physically and emotionally safe and secure.[1]

Translational Science is "the field of investigation focused on understanding the scientific and operational principles underlying each step of the translational process."[24,25]

Translational Science Spectrum is a continuum of "activities where critical insights are passed between research modalities so that biomedical discoveries can lead to tangible improvements in human health." Basic science discoveries are "translated" to generate clinical insights which then are developed to inform implications for clinical practice which then lead to implications for population health. Levels of the spectrum are often identified by "T-levels"[26] which correspond to the following:

- T0—Basic Scientific Discovery
- T1—Translation to Humans
- T2—Translation to Patients
- T3—Translation to Practice
- T4—Translation to Population Health
- T5—Improved Global Health

References

1. Medical College of Wisconsin. MCW Anti-Racism, Equity, Diversity, and Inclusion Glossary [Available from: https://www.mcw.edu/departments/office-of-diversity-and-inclusion/resources/anti-racisim-equity-diversity-and-inclusion-glossary].
2. The New York Times. Where Did BIPOC Come From? 2020 [Available from: https://www.nytimes.com/article/what-is-bipoc.html].
3. National Association of County and City Health Officials. Pulling Together: A Guide to Building Collaboration at Hazardous Waste Sites 2008 [Available from: https://www.naccho.org/programs/environmental-health/hazards/pulling-together].
4. Centers for Disease Control and Prevention. Principles of Community Engagement (1st ed.). Atlanta, GA: CDC/ATSDR Committee on Community Engagement; 1997.
5. Ahmed S, Maurana CA, Nelson D, Meister T, Neu Young S, Lucey P. Opening the Black Box: Conceptualizing community engagement from 109 community-academic partnership programs. Prog Community Health Partnersh. 2016;10(1):51-61.
6. Israel BA, Schulz AJ, Parker EA, Becker AB. Review of Community-Based Research: Assessing Partnership Approaches to Improve Public Health. Annual review of public health. 1998;19(1):173-202.
7. W. K. Kellogg Foundation. An effective approach to understanding communities 2009 [Available from: https://www.wkkf.org/news-and-media/article/2009/01/an-effective-approach-to-understanding-communities].
8. Labonte R, Laverack G. Capacity building in health promotion, Part 1: For whom? And for what purpose? Critical Public Health. 2001;11(2):111-27.
9. Holt CL, Chambers DA. Opportunities and challenges in conducting community-engaged dissemination/implementation research. Translational Behavioral Medicine. 2017;7(3):389-92.
10. Ahmed SM, Palermo AG. Community engagement in research: frameworks for education and peer review. Am J Public Health. 2010;100(8):1380-7.
11. Carnegie Classification for Community Engagement at Brown University Swearer Center for Public Service. Carnegie classification for community engagement: Community engagement (n.d.) [Available from: https://www.brown.edu/swearer/carnegie/about].
12. CU Boulder Council of Deans. Outreach and engagement campus definition 2010 [Available from: https://outreach.colorado.edu/about/definition].
13. Eastern Illinois University. Info for EIU faculty/staff [Available from: https://www.eiu.edu/volunteer/faculty_staff.php].
14. World Health Organization. Constitution of WHO Principles 1948 [Available from: https://www.who.int/about/who-we-are/constitution].
15. World Health Organization. The 1st International Conference on Health Promotion 1986 [Available from: https://www.who.int/teams/health-promotion/enhanced-wellbeing/first-global-conference].
16. U.S. Department of Health and Human Services. Disparities [Available from: https://www.healthypeople.gov/2020/about/foundation-health-measures/Disparities].
17. Braveman P AE, Orleans T, Proctor D, and Plough A. What Is Health Equity? And What Difference Does a Definition Make? Princeton, NJ; 2017.
18. NPR. The Journey From 'Colored' To 'Minorities' To 'People of Color' 2014 [Available from: https://www.npr.org/sections/codeswitch/2014/03/30/295931070/thejourney-from-colored-to-minorities-to-people-of-color].
19. Kindig D, Stoddart G. What Is Population Health? American Journal of Public Health. 2003;93(3):380-3.
20. Walker B. "The Future of Public Health": The Institute of Medicine's 1988 Report. Journal of Public Health Policy. 1989;10(1):19-31.
21. American Public Health Association. What is Public Health? [Available from: https://www.apha.org/what-is-public-health].
22. Kendi IX. How to be an Antiracist. First Edition. One World: New York, NY; 2019.
23. World Health Organization. A Conceptual Framework for Action on the Social Determinants of Health 2010 [Available from: https://www.who.int/sdhconference/resources/ConceptualframeworkforactiononSDH_eng.pdf].
24. U.S. Department of Health and Human Services. Creating Partnerships, Improving Health: The role of community based participatory research. Agency for Healthcare Research and Quality. 2003.
25. National Center for Advancing Translational Sciences. Transforming Translational Science 2019 [Available from: https://ncats.nih.gov/files/translation-factsheet.pdf].
26. Harvard Catalyst. Clinical and Translational Research Spectrum [Available from: https://catalyst.harvard.edu/pathfinder/].