GLOBAL HEALTH SYMPOSIUM:
Building on the Power of Partnerships

OCTOBER 10, 2014 • HENRY FORD HOSPITAL, DETROIT, MI

Hosted by
Henry Ford Health System Global Health Initiative
Oakland University School of Business Administration
Executive MBA in Healthcare Leadership
Southeast Michigan Center for Medical Education
Wayne State University School of Medicine

CME Provided by
Wayne State University School of Medicine
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Dear Attendee,

Welcome to today’s Global Health Symposium, “Building on the Power of Partnerships.” This symposium brings together those working internationally and locally on health system strengthening initiatives. While the speakers at this event will present specific case studies from around the world, the overarching issues they highlight fit into a wider context of global health and their lessons are universally valuable.

Keynote speaker Dr. Linda Kaljee will explore characteristics of resource-limited settings, discuss challenges of strengthening health systems in such settings around the globe, and provide an example of how a low-cost health intervention that has been successful in a resource-limited setting can be adapted and implemented in many localities around the world.

Three Panels will follow the Keynote: “Healthcare for the Homeless and Transient Populations”; “The Utilization and Empowerment of Community Healthcare Workers”; and “Organizing a Global Trip for Students and Residents.” The panels will highlight lessons learned, best practices and innovative techniques for providing care in resource-limited environments.

Increasing the interchange between those working in metro Detroit and internationally will contribute to health system strengthening locally and abroad. We hope the symposium dialogue, both the conversations and questions, will be rewarding – and that new connections, solutions and partnerships will be established.

Sincerely,

The Host Committee

TARGET AUDIENCE

The target audience for this symposium is faculty, clinicians, administrators, students, residents, fellows, pharmacists, nurses and other health professionals and those interested in global health.

CONTINUING MEDICAL EDUCATION CREDIT

The Wayne State University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Wayne State University School of Medicine designates this live activity for a maximum of 5.5AMA PRA Category 1 Credit(s). Physicians should only claim the credit commensurate with the extent of their participation in the activity. CME will not be provided for the poster session.
PROGRAM – PART I

8:00–8:30 am Registration, Continental Breakfast, and Poster Setup

8:30–8:35 am Welcome
Marcus Zervos, MD
Henry Ford Health System
Detroit, MI

8:35–8:45 am Framing the Issues
Linda Kaljee, PhD
Wayne State University
Detroit, MI

PANEL 1 Healthcare for the Homeless and Transient Population
Paul Kilgore, MPH, MD • Moderator
Wayne State University
Detroit, MI

8:45–9:00 am Providing Medical Care to Transient TB & HIV Patients in Haiti: A Rewarding Challenge
Megan Coffee, MD, PhD
Ti Kay, Haiti

9:00–9:15 am Street Medicine in Detroit: Healthcare for the Homeless
Jonathan Wong
Street Medicine Detroit
Detroit, MI

9:15–9:45 am Discussion & Wrap Up

PANEL 2 The Utilization and Empowerment of Community Healthcare Workers
Nesha Haniff, PhD, MPH • Moderator
University of Michigan
Ann Arbor, MI

9:45–10:00 am Community Health Planning Services (CHPS) in Ghana
Placide Tapsoba, MD, MPH
Population Council, Ghana

10:00–10:15 am Community Health in our Backyard: Equitable Approaches to Sustainable Solutions
Kimberlydawn Wisdom, MD, MS
Henry Ford Health System
Detroit, MI

10:15–10:45 am Discussion & Wrap Up

10:45–11:00 am Break
PANEL 3  Organizing a Global Trip for Medical Students and Residents
David Pieper, PhD • Moderator
SEMCME
Detroit, MI

11:00–11:15 am  Working Out the Nuts & Bolts of Overseas Medical Missions
Mark Paschall, MD
St. John Hospital
Detroit, MI

11:15–11:30 am  Short-Term Medical Missions, Long-Term Impact: How to Improve Success and Sustainability
Chih Chuang, MD
Wayne State University School of Medicine
Detroit, MI

11:30–11:45 am  Country Perspectives: Benefits & Pitfalls to Welcoming Medical Missions
Megan Coffee, MD, PhD  Placide Tapsoba, MD, MPH
Ti Kay, Haiti  Population Council, Ghana

11:45–12:00 pm  Discussion & Wrap Up

12:00–1:00 pm  Luncheon & Networking

PROGRAM – PART II

1:00–1:30 pm  Poster Session:
Audience will be able to peruse various posters on global health research and medical missions by local individuals and organizations

1:30–3:10 pm  Slide Session: Selected Presentations on Global Health and Medical Missions
Ten minute presentations with audience Q & A
Doreen Dankerlui, MPH • Moderator
Henry Ford Health System
Detroit, MI

3:10–3:30 pm  Conclusion
Mohan Tanniru, PhD  John Zervos, JD & Tyler Prentiss
Oakland University  Henry Ford Health System
Rochester, MI  Detroit, MI
SCHEDULE OF ORAL PRESENTATIONS

1:30pm  Development of an interprofessional medical relief student organization: Integration of pharmacy
Authors: Priyasha Patel¹, Alison Britt¹, Chih Chuang, M.D.², Helen Berlie PharmD, CDE¹
  ¹Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, Detroit, MI  
  ²Wayne State University School of Medicine, Detroit, MI

1:40pm  Excellence in Global Health, Myanmar Trip
Author: Jack Rock, M.D.¹
  ¹Dept. of Neurosurgery, Henry Ford Hospital, Detroit, MI

1:50pm  Telemedicine at Grace Care Center in Sri Lanka: Leveraging a novel model to overcome barriers to healthcare access for vulnerable populations in high-need, low-resource areas
Authors: Kashif Ahmed¹, Devika Bagchi¹, Rashmi Patil¹, Sean Singh¹, Naresh Gunaratnam¹,²
  ¹University of Michigan Medical School, Ann Arbor, MI  
  ²St. Joseph Mercy Health System, Ann Arbor, MI

2:00pm  Community Health Nursing—Vision Through a Global Lens
Authors: Norma Sarkar, MPH, RN¹, Amber Dallwig, MSN, RN¹, Patti Abbott, Ph.D., RN, FAAN¹
  ¹University of Michigan School of Nursing, Ann Arbor, MI

2:10pm  Short-Term Surgical Mission to the Dominican Republic: A Cost-Benefit Analysis
Authors: Jonathan P. Egle, M.D.¹, Alasdair McKendrick, M.D.¹, and Freddy Sosa, M.D.²
  ¹Dept. of Surgery, Providence Hospital and Medical Centers, Southfield, MI  
  ²Dept. of Internal Medicine, Providence Hospital and Medical Centers, Southfield, MI

¹ The principal author is listed first. With co-authors, the presenter is designated by an underline.
2:20pm  **Osteopathic Manipulative Treatment as adjunctive and sustainable medicine for musculoskeletal pain**
Authors: Lorenzo Lim⁴, Maddi Massa⁴, Shane R. Sergent, D.O.¹,², Travis Gordon³, Katelyn Wiseman⁴, Joseph Gorz, D.O.¹,⁵, Gary L. Willyerd, D.O.⁶, Sherman Gorbin, D.O.⁶
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²Conemaugh Memorial Medical Center, Department of Emergency Medicine, Johnstown, PA
³Florida Hospital, Dept. of Integrated Family Practice and Neuromusculoskeletal, Orlando, FL
⁴Michigan State University College of Osteopathic Medicine, Medical Student, East Lansing, MI
⁵McLaren Oakland Hospital, Dept. of Integrated Family Practice and Emergency Medicine, Pontiac, MI
⁶Michigan State University College of Osteopathic Medicine, Associate Dean MSUCOM/DMC, East Lansing, MI

2:30pm  **Kenya Relief Medical Mission**
Author: Elizabeth Studley, CRNA, MS¹
¹Dept. of Anesthesiology, Henry Ford Hospital, Detroit, MI

2:40pm  **“It’s a Small World”: Developing a Global Health Program in a Family Medicine Residency Program**
Author: Susan Graham, MSW¹
¹St. Mary Mercy Hospital, Livonia, Michigan
POSTER PRESENTATIONS

Poster #1  
**Associations between Respiratory Illness and Air Pollution in Rural Bangladesh**  
Author: Allysha Choudhury¹  
¹University of Michigan, Ann Arbor, MI

Poster #2  
**An Assessment of Health Care Needs and Barriers in a Rural Community of Haiti**  
Authors: Justin Gerard¹, Jeffrey Van Laere, M.D.², Nabil Othman¹, John Dawdy¹, Priyanka Singh¹, Lea Monday¹, Amy Li¹, Diane Levine, M.D.³  
¹Wayne State University School of Medicine, Detroit, MI  
²Detroit Medical Center, Dept. of Emergency Medicine, Detroit, MI  
³Detroit Medical Center, Dept. of Internal Medicine, Detroit, MI

Poster #3  
**ACGME Recognized International Surgery Rotation: A Step In The Right Direction? Or Testing Unknown Waters?**  
Authors: Jasneet Singh Bhullar, M.D., MS¹, Sandiya Bindroo, M.D.¹, Vijay K Mittal, M.D., FACS¹  
¹Department of Surgery, Providence Hospital and Medical Centers, Southfield, MI

Poster #4  
**Comparing “Vaginal Infection” as Chief Complaint to Subsequent Treatment at a Clinic in Rural Haiti**  
Authors: John Dawdy¹, Jeffrey Van Laere, M.D.², Justin Gerard¹, Priyanka Singh¹, Terrie Ahn¹, Diane Levine, M.D.³  
¹Wayne State University School of Medicine, Detroit, MI  
²Detroit Medical Center, Dept. of Emergency Medicine, Detroit, MI  
³Detroit Medical Center, Dept. of Internal Medicine, Detroit, MI

Poster #5  
**Cervical Cancer Screening in Iquitos, Peru**  
Authors: Kayla Jelinek¹, Chantal Bhan¹, Gary L. Willyerd², Shane R. Sergent D.O.³,⁴, Katelyn Wiseman¹, Lorenzo Lim¹, Kayla Castellani¹, Maddi Massa¹, Laura Kuehne¹, Anissa Mattison, D.O.⁵, Carol Levi, M.D.⁶  
¹Michigan State University College of Osteopathic Medicine, Medical Student, East Lansing, MI  
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³Michigan State University College of Osteopathic Medicine, Clinical Faculty, East Lansing, MI  
⁴Conemaugh Memorial Medical Center, Dept. of Emergency Medicine, Johnstown, PA  
⁵St. Joseph Mercy Oakland Hospital, Dept. of Obstetrics and Gynecology, Pontiac, MI  
⁶Swedish Covenant Hospital, Dept. of Obstetrics and Gynecology, Chicago, IL

Poster #6  
**Building global partnerships through primary care training**  
Authors: Michelle Pardee DNP, FNP-BC¹, April Bigelow Ph.D., AGPCNP-BC¹, Naruemol Singha-Dong Ph.D.², Antonia Villarruel Ph.D.¹, Leslie Davis Ph.D.¹, Kathleen Potempa Ph.D.²  
¹University of Michigan School of Nursing, Ann Arbor, MI  
²Suranaree University of Technology, Nakhon Ratchasima, Thailand

² The principal author is listed first. With co-authors, the presenter is designated by an underline.
Poster #7  
**Public health and health care strategies in marginalized Himalayan villages of Nepal**  
Author: Richard Keidan, M.D.¹,²  
 ¹Beaumont Hospital, Royal Oak, MI  
 ²Oakland University School of Medicine, Rochester, MI

Poster #8  
**Implementation of patient-centered medical records for short term mission trips in rural Haiti**  
Authors: Nabil Othman¹, Frank Tinney¹, Chih Chuang, M.D.¹  
 ¹Wayne State University School of Medicine, Detroit, MI

Poster #9  
**FitKids360 Detroit: Reducing Pediatric Obesity through Medical Student Mentorship**  
Authors: Mary Hauswirth¹, Jared Tucker², Maria Tocco¹, Krista Clark³, Jennifer Mendez¹  
 ¹Wayne State University School of Medicine, Detroit, MI  
 ²Helen DeVos Children's Hospital, Grand Rapids, MI  
 ³Wayne County Children's Healthcare Access Program (WCHAP), Detroit, MI

Poster #10  
**Addressing Occupational and Personal Health in Cambodia’s Female Garment Workers**  
Author: Janet Jansen¹  
 ¹School of Public Health, University of Michigan, Ann Arbor, MI

Poster #11  
**A Literature Review of Global Health**  
Authors: Jennifer S. McLeod, M.D.¹,², Jennifer Mendez, Ph.D.,² Chih J. Chuang, M.D.²  
 ¹Detroit Medical Center, General Surgery Dept., Detroit, MI  
 ²Wayne State University School of Medicine, Detroit, MI

Poster #12  
**Preventing Smoking in Nepal**  
Author: Ruth Richard, RN, BSN¹  
 ¹Saginaw Valley State University, Dept. of Nursing, University Center, MI

Poster #13  
**Grassroots On-Site Work (GROW): Partnership as a Framework for Meaningful Action**  
Authors: Ani Mannari¹, Anita Vasudevan¹, Jaipan Singh¹  
 ¹Wayne State University, Detroit, MI

Poster #14  
**Non-communicable Disease in Nepal: Use of Best Evidence in Collaboration between the Nepal Health Research Council and Nursing Students from SVSU**  
Authors: Sally Decker, M.D.¹, Marcia Shannon¹  
 ¹Saginaw Valley State University, Dept. of Nursing, University Center, MI

Poster #15  
**Sharing and enhancing medical knowledge abroad: collaboration between Wayne State University and L'Université Notre-Dame d’Haïti medical students in Haiti**  
Authors: Priyanka L. Singh¹, Jeffrey Van Laere, M.D.², Chih Chuang, M.D.³  
 ¹Wayne State University School of Medicine, Detroit, MI  
 ²Detroit Medical Center, Dept. of Emergency Medicine, Detroit, MI  
 ³John D. Dingel VA Medical Center, Dept. of Internal Medicine, Hospice and Palliative Medicine, Detroit, MI
Poster #16  **Expanding Upon Partnerships**  
Authors: Sierra Vanderkelen¹, Sergio Rodriguez²  
¹University of Michigan, Ann Arbor, MI  
²Wayne State University, Detroit, MI

Poster #17  **Sexual Health Education in Meru, Kenya**  
Authors: Erica Heisel¹, Vikas Jayadeva¹, Shailly Prasad¹, and David Sanford¹  
¹University of Michigan Medical School, Ann Arbor, MI

Poster #18  **Implementation of Electronic Medical Records System into Short Term Medical Mission**  
Authors: Eric C. Brown¹, Sarah D. Draugelis², and Kevin D. Zurek³  
¹Wayne State University School of Medicine, Detroit, MI  
²Research Assistant, Henry Ford Hospital, Detroit, MI  
³Business Analyst, Ford Motor Company, Detroit, MI

Poster #19  **Service Learning: An Assessment of Needs of Church Coordinators Providing Meals to a Homeless Shelter**  
Authors: Samantha Scouten¹, Virginia Uhley RD, Ph.D.¹, Celeste Farr, Ph.D.¹, Victoria Lucia, Ph.D.¹, Neilia Afonso, M.D.¹, Austin Kralisz²  
¹Oakland University, William Beaumont School of Medicine, Rochester, MI  
²South Oakland Shelter, Lathrup Village, MI

Poster #20  **American Indians and Obama Care: The Affordable Care Act—Factors Influencing Decision-Making for Federally Recognized Tribe Members**  
Author: Lydia Chouinard¹  
¹Wayne State University, Detroit, MI

Poster #21  **Relationship of Citizenship and Sexuality in Chile Reveals Health Disparity**  
Author: Grace Ficker¹  
¹Wayne State University, Detroit, MI

Poster #22  **A model for short term medical missions: utilizing patient data to optimize providers’ experience and patient care**  
Authors: Leedor Lieberman¹, Chih Chuang, M.D.¹  
¹Wayne State University School of Medicine, Detroit, MI

Poster #23  **A Retrospective discussion of the benefits, challenges, and goals of implementing EMR in rural Haiti**  
Authors: Michael Oom¹, Jeffrey Van Laere, M.D.², Priyanka Singh¹, David Springstead¹, Chih Chuang, M.D.¹  
¹Wayne State School of Medicine, Detroit, MI  
²Detroit Medical Center, Dept. of Emergency Medicine, Detroit, MI

Poster #24  **Designing a model for health care delivery of the physically disabled in India**  
Authors: Penumetcha V.T. Raju, M.D.¹, Bharatendu Swain, M.S.², Brian Ference, M.D., M.Phil, M.Sc, FACC¹, Anirudh V. Penumetcha³  
¹Wayne State University School of Medicine, Detroit, MI  
²Wayne State University Physician Group, Detroit, MI  
³Michigan State University School of Medicine, East Lansing, MI
Poster #25  **Comparative analysis of disease prevalence in an urban and a rural community of Haiti**
Authors: David Springstead\(^1\), Priyanka L. Singh\(^1\), Amy Li\(^1\), Allison Pianosi\(^1\), Michael Oom\(^1\), Lea Monday\(^1\), Diane Levine, M.D.\(^2\)
\(^1\)Wayne State University School of Medicine, Detroit, MI
\(^2\)Detroit Medical Center, Dept. of Internal Medicine, Detroit, MI

Poster #26  **Strengthening Health Professions Students’ Capacity for Meaningful Engagement with Vulnerable Populations**
Authors: Nancy O’Connor, Ph.D., ANP-BC\(^1\), Janet Baiardi, Ph.D., ANP-BC\(^2\), Patricia Rouen, Ph.D., FNP-BC\(^2\), Rosanne Burson, DNP, ANCS-BC, CDE\(^2\)
\(^1\)College of Nursing and Health, Madonna University, Livonia, MI
\(^2\)McAuley School of Nursing, University of Detroit Mercy, Detroit, MI

Poster #27  **Educational Program on Hemodialysis Access Care in India**
Authors: Lalathaksha Kumbar M.D.\(^1\), Gireesh Reddy M.D.\(^2\), P Soundarajan M.D.\(^2\), Jerry Yee M.D.\(^1\)
\(^1\)Henry Ford Hospital, Detroit, MI
\(^2\)Sri Ramachandra Medical College, Chennai, India

Poster #28  **The implications of household food insecurity on child nutritional status in the context of the global nutrition transition**
Author: Andrew D. Jones, Ph.D.\(^1\)
\(^1\)School of Public Health, University of Michigan, Ann Arbor, MI

Poster #29  **Sexual Risk and Resilience among Young Gay/Bisexual Men in Western Kenya**
Authors: Ryan Wade, MSW\(^1\), Gary W. Harper, Ph.D., MPH\(^1\), Paula Abuor\(^2\), Daniel Peter Onyango Olowango\(^3\), Wilson Odero, M.D., Ph.D., MSc\(^4\)
\(^1\)University of Michigan School of Public Health, Ann Arbor, MI
\(^2\)Nyanza Reproductive Health Society, Kisumu, Kenya
\(^3\)Nyanza Rift Valley and Western Kenya LGBTI (NYARWEK), Kisumu, Kenya
\(^4\)Maseno University School of Medicine, Maseno, Kenya

Poster #30  **Characterization of physically active and inactive homeless individuals**
Authors: Kent P. Simmonds, MPH\(^1\), Maureen J. Simmonds, PT, Ph.D.\(^2\)
\(^1\)Michigan State University College of Osteopathic Medicine, East Lansing, MI
\(^2\)University of Texas Health Science Center at San Antonio, San Antonio, TX

Poster #31  **Comparative Analysis of Cesarian Section Indications, Outcomes and Costs at Consolata Hospital, Nkubu, Kenya and the University of Michigan Health System, Ann Arbor, MI**
Authors: Erica Heisel\(^1\), Vikas Jayadeva\(^1\), Shailly Prasad\(^1\), David Sanford\(^1\), Amanda Shepard\(^1\)
\(^1\)University of Michigan Medical School, Ann Arbor, MI

Poster #32  **Designing a global health curriculum focused on sustainable contributions in resource limited settings**
Authors: Colleen Lane, M.D.\(^1\), Ijeoma Nnodim Opara, M.D.\(^1\)
\(^1\)Detroit Medical Center, Detroit, MI
Poster #33  
**Enhancing medical student education, fostering cultural competency, increasing awareness of global health disparities and delivering quality patient care on a medical relief trip to Haiti**
Authors: Priyanka L. Singh¹, Michael Oom¹, Jeffrey Van Laere, M.D.², Diane Levine, M.D.³, Chih Chuang, M.D.⁴

¹Wayne State University School of Medicine, Detroit, MI  
²Detroit Medical Center, Dept. of Emergency Medicine, Detroit, MI  
³Detroit Medical Center, Dept. of Internal Medicine, Detroit, MI  
⁴John D. Dingell VA Medical Center, Dept. of Internal Medicine, Hospice, and Palliative Medicine, Detroit, MI

Poster #34  
**RadiatingHope’s Effort to Build a Radiation Treatment Facility in Moshi, Tanzania**
Authors: Mira M. Shah M.D.¹, Brandon Fisher M.D.², Larry Daugherty M.D.³  
¹Henry Ford Health System, Dept. of Radiation Oncology, Detroit, MI  
²Gamma West Radiation Oncology, Salt Lake City, UT  
³Mayo Clinic, Dept. of Radiation Oncology, Jacksonville, FL

Poster #35  
**Race-related stressors, inflammation and preterm birth in African-American women**
Authors: Carmen Giurgescu, Ph.D., RN¹, Christopher Engeland, Ph.D.², Shannon Zenk, Ph.D., RN³, Chang Park, Ph.D.⁴, Barbara Dancy, Ph.D., RN, FAAN⁵  
¹Wayne State University, College of Nursing, Detroit, MI  
²University of Illinois at Chicago, College of Nursing, Chicago, IL

Poster #36  
**Smoking Cessation in Nepal**
Author: Alison Tubbs¹  
¹Saginaw Valley State University, Dept. of Nursing, University Center, MI

Poster #37  
**Innovative Strategies in Using a Research-supplement Model to Improving Sustainable Outcomes in Resource limited Communities**
Authors: Shane R. Sergent D.O.¹,², Travis Gordon D.O.³, Katelyn Wiseman⁴, Lorenzo Lim⁴, Ruben Kenny Briceno M.D.⁹, Maddi Massa⁴, Michael Burla⁷, Joseph Gorrz D.O.¹,⁵, Gary L. Willyerd D.O.⁶, Jake Shermetaro, Sophia Johnson²  
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⁷Michigan State University College of Osteopathic Medicine, Medical Student, Detroit, MI  
⁸Michigan State University, East Lansing, MI  
⁹Universidad Cesar Vallejo, Campus Lima, Peru
**Poster #38**

**HIV Sexual Risk and Resilience among Young Gay/Bisexual Men in Israel**

Authors: Clifford Fosmore\(^1\), Gary Harper, Ph.D., MPH\(^1\), Marc Zimmerman, Ph.D.\(^1\), Yaacov Bachner, Ph.D.\(^2\)

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\(^2\)Ben-Gurion University of the Negev, Dept. of Public Health, Be’er-Sheva, Israel

**Poster #39**

**The Impact of International Service Learning Trips on Medical and Pharmacy Students: The Wayne State University (WSU) Experience**

Authors: Chih Chuang, M.D.\(^1\), Siddique H. Khatri, M.D.\(^1\), Manpal S. Gill\(^1\), Naveen Trehan, M.D.\(^1\), Silpa Masineni, M.D.\(^1\), Vineela Chikkam, M.D.\(^1\), Guillaume G. Farah\(^1\), Amber Khan, M.D.\(^1\), Diane L. Levine, M.D.\(^1\)

\(^1\)Wayne State University, Detroit, MI

**Poster #40**

**The formation of a collaborative partnership with Gleaners Food Bank to address the issues of food insecurity, obesity and nutrition in two Food Pantries located in the Detroit community**

Authors: Nilay Gandhi\(^1\), Rachelle Bonelli\(^2\), John Kastler\(^2\), Virginia Uhley, Ph.D., RD\(^3\)

\(^1\)Oakland University, William Beaumont School of Medicine, Rochester, MI
\(^2\)Gleaners Community Food Bank of Southeast Michigan, Detroit, MI
\(^3\)Oakland University, Rochester, MI

**Poster #41**

**Demographics of clinically diagnosed gonorrhea and chlamydia; the need for increased sexual education for women over the age of 25 in rural Haiti**

Author: Jennie Meier\(^1\)

\(^1\)Wayne State University School of Medicine, Detroit, MI

**Poster #42**

**Teaching according to their reality: Adapting teaching to resource limited environments**

Authors: Kathryn N. Nelson, DNP, RN\(^1\), Sheryl Snyder, RN\(^2\)

\(^1\)University of Michigan School of Nursing, Ann Arbor, MI
\(^2\)Hope Clinic International, Ann Arbor, MI

**Poster #43**

**Medical student perceptions of pharmacy integration into a medical relief student organization**

Authors: Sabrina Grandi\(^1\), Jordan Masse\(^1\), Chih Chuang, M.D.\(^2\), Helen Berlie\(^1\)

\(^1\)Eugene Applebaum College of Pharmacy and Health Sciences, Wayne State University, Detroit, MI
\(^2\)Wayne State University School of Medicine, Detroit, MI

**Poster #44**

**Social Determinants of Maternal Health Risk Factors and Perceptions in Southwestern Uganda**

Authors: Joshua Greenberg\(^1,2\), Katherine Donato\(^2,3\), Jordan Bateisibwa\(^2\)

\(^1\)University of Michigan, Ann Arbor, MI
\(^2\)Progressive Health Partnership
\(^3\)Harvard University, Cambridge, Massachusetts
HOST INSTITUTIONS

THE GLOBAL HEALTH INITIATIVE

Mission
The Global Health Initiative (GHI) is dedicated to improving healthcare for underserved and marginalized populations around the world. Our multi-organizational and transdisciplinary teams create, implement and evaluate evidence-based solutions to global health concerns.

Programs
The GHI is housed at the Department of Internal Medicine at Henry Ford Health System (HFHS). This places us at one of the nation’s leading health care providers. The Global Health Initiative partners with governments, universities, and community organizations in the US and globally. The GHI has Programs in Detroit, Haiti, India, and Peru and forthcoming locations including Guatemala, Ghana, Nepal, Suriname, and Thailand. Our current work focuses on HIV/AIDS; TB/HIV co-infection, vector-borne diseases, attitudes on healthcare and healthcare utilization, vaccine-hesitancy, infection control and antibiotic stewardship, community health, and mHealth.

History and Vision
The Global Health Initiative began with a donation from the prolific, Michigan-based inventor Stanford Ovshinsky. Ovshinsky, a Time Magazine “Hero of the Planet,” held 400 US and 800 foreign patents and understood the power of international collaboration. The GHI continues his legacy by acting as a conduit of global exchange, focusing on mutually beneficial collaborations that build capacity and strengthen healthcare systems both at home and abroad.

Southeastern Michigan has long been a hub for innovation in research and training which impacts vulnerable and marginalized populations. Our vision is to take this knowledge and export it to other cities in the US and globally. However, at the same time, we find that it is equally important to learn from those abroad (for example, from today’s speakers Drs. Tapsoba and Coffee). To this end, we import low-cost solutions and discoveries from the field of global health, which were developed in other countries and that are relevant to communities here in Detroit and Michigan.

2799 W. Grand Blvd, Detroit, MI 48202 • Phone: (313) 916-2628 • Email: ghi@hfhs.org
The Executive MBA program at Oakland University offers the opportunity for experienced clinical and technical professionals to fulfill their aspiration for the pursuit of business knowledge. Combining theory with the very practical skills needed to improve leadership, the learning experience from the Executive MBA enables students to enhance strategic planning and optimize efficiencies in execution across all aspects of their organizations. In order to develop a deeper knowledge in specialized areas, concentrations such as Healthcare Leadership allow for intensive inquiry and analysis in a way that helps to build key business capabilities. Executive MBA students are able to immediately apply both functional and managerial skills in their careers.

Designed to be progressive, the Executive MBA is a 21-month program where classes are scheduled sequentially and delivered in a cohort structure. Each new class takes their core program together, beginning in the fall of each year. The Executive MBA structure provides a balance between personal, professional, and educational priorities. Classes meet on late Friday afternoons and Saturdays on alternate weekends during the regular academic year. This approach leverages the wealth of knowledge within each class to enhance the learning experience.

Oakland University’s School of Business Administration builds on more than 40 years of educational excellence, evolving with the continuously changing global business environment and providing students a distinctive educational experience that integrates classroom learning with real-world business experience and research.

For more information, please contact us or visit our website: www.oakland.edu/emba.
SOUTHEAST MICHIGAN CENTER FOR MEDICAL EDUCATION

The Southeast Michigan Center for Medical Education was established in 1974 for the purpose of coordinating and assisting in the education of medical students, medical residents, faculty, and other health professionals. Its primary mission is to stimulate the delivery of quality care through excellence in graduate medical education and faculty development.

SEMCME is the largest community based medical education consortium in the Midwest. There are 212 accredited residency and fellowship programs in 81 specialties and sub-specialties, 3,198 approved residency and fellowship positions and over 4,000 university and community faculty.

The participating hospitals are:
- Crittenton Hospital
- Detroit Medical Center Hospitals
- Henry Ford Hospital
- Oakwood Hospital
- Providence Hospital and Medical Center
- St. John Hospital and Medical Center
- St. Joseph Mercy Hospital Ann Arbor
- St. Joseph Mercy Oakland
- St. Mary Mercy Hospital
- William Beaumont Hospitals

SEMCME has a major affiliation with the Wayne State University School of Medicine. Oakland University also participates as an educational member of SEMCME. These universities make a vital contribution to SEMCME’s education efforts.

The Southeast Michigan Center for Medical Education has established a process of pooling ideas for innovative medical education. Cooperation among member hospitals and universities and the sharing of knowledge and experience achieves educational benefits which no single institution can obtain alone.

www.semcme.org
Founded in 1868, the Wayne State University School of Medicine is the largest single-campus medical school in the nation with more than 1,000 medical students. In addition to undergraduate medical education, the school offers master’s degree, Ph.D. and M.D.-Ph.D. programs in 14 areas of basic science to about 400 students annually. WSU has a stated mission to improve the overall health of the community and WSU faculty physicians provide an average of $150 million in uncompensated care annually. In 2012, the Office of Global Health and Education was created to coordinate all international activities for the School of Medicine. The Director oversees short term service learning trips, senior student international electives and coordinates visiting international medical students for clinical electives.
BIOGRAPHIES

Chih Chuang, MD (Speaker, Co-Chair) is a graduate of Wayne State University School of Medicine, Class of 2006. He completed a combined residency in Internal Medicine and Pediatrics and served as Chief Resident of his program. He went on to complete a fellowship in Palliative Care Medicine and Hospice. Dr. Chuang is currently an Assistant Professor in the Department of Academic and Student Programs at the School of Medicine and is Director of Global Health and Education. In addition, he is faculty advisor for World Health Student Organization, which organizes medical relief trips to Central and South America during various times throughout the year. Dr. Chuang has been involved in international relief work for over 10 years and is currently looking to improve the program processes as well as development of a global health curriculum at the School of Medicine.

Megan Coffee, MD, PhD (Speaker) is a Harvard-educated physician and Oxford-educated epidemiologist. While at UC San Francisco as an infectious disease fellow doing computer models tracking the spread of communicable diseases, the 2010 earthquake struck Haiti. Two weeks later, she arrived in Haiti with medicine, and was asked to work at the Hopital Université d'Etat d'Haiti (the General Hospital). There she, along with other nurses, established a TB inpatient and outpatient ward. Since then, Dr. Coffee has founded the medical non-profit organization, Ti Kay ("Little House" in Creole), which had been based at the General Hospital, that aims to treat, and hence prevent, tuberculosis in Port-au-Prince, while ensuring that all care is free to both inpatients and outpatients.

Doreen Dankerlui, MPH (Moderator, Host Committee) is a Program Coordinator for the Global Health Initiative at Henry Ford Health System. She received her BA in International Studies from Webster University in 2005 and her MPH in Global Health, with a focus on Leadership, Policy and Management, from the University of Washington in 2012. Ms. Dankerlui has been engaged in global health for over 10 years, primarily coordinating US-government funded HIV/AIDS and Tuberculosis projects. In her current role she is responsible for managing program activities globally and in Detroit. Her extensive experience includes coordinating conferences, training and education projects, strategic planning and providing technical assistance to Ministries of Health, universities and other partners. Originally from the Caribbean, Ms. Dankerlui has in-depth knowledge of local context and challenges of resource-limited settings.

Nesha Haniff, PhD, MPH (Moderator) is on the Faculty at the University of Michigan in the Department of Afro-American and African Studies and Women's Studies. Her work has focused on empowerment pedagogies and marginalized populations which have been centered on HIV, gender and gay identities. She has developed several innovative educational modules on HIV/AIDS, violence, and women's reproductive health. Her work has been located in the Caribbean, South Africa and the US.
BIOGRAPHIES (continued)

Linda Kaljee, PhD (Keynote Speaker) is a Medical Anthropologist and Associate Professor in the Pediatric Prevention Research Center at Wayne State University. For over 20 years she has been engaged in inter-disciplinary research in relation to infectious disease, healthcare utilization, vaccine up-take, and child-adolescent health and well-being. Her work has included research in both the United States and in low and middle-income countries including Vietnam, China, India, Thailand, Zanzibar, Zambia, The Bahamas, Trinidad and Tobago, and Haiti. She has extensive expertise in both qualitative and quantitative methodologies including the development and cultural adaptation of surveys and psychosocial scales.

Ginger Keiffer (Host Committee) is the Assistant Director at the Southeast Michigan Center for Medical Education, the largest medical education consortium in the United States. She is responsible for the overall coordination and management of SEMCME graduate medical education and faculty development programming. Ms. Keiffer has been involved in the continuum of medical education (UGME, GME, and CME) in the Detroit area for over 25 years and has been responsible for over 600 medical education offerings.

Paul Kilgore, MPH, MD (Moderator) is an Associate Professor at the Eugene Applebaum College of Pharmacy and Health Sciences at Wayne State University. He received his MPH from University of Michigan and his MD from Wayne State University. Dr. Kilgore has strong experience with multidisciplinary research on human pathogens, infectious diseases, clinical trials, and development of disease surveillance systems in the United States and a wide range of other countries, including Korea, Vietnam and India. Dr. Kilgore has secured and managed over $5 million in research funding and has served on scientific review committees for the US National Institutes of Health and the US Centers for Disease Control and Prevention.

Dana Parke (Host Committee) is a Program Coordinator at the Global Health Initiative at Henry Ford Health System, where she coordinates global health projects in Haiti. She is a 2013 graduate from Oakland University with a triple major in International Relations, African Studies, and French Language & Literature. In 2012 she studied abroad in Dakar, Senegal at the Université Cheikh Anta Diop and interned for The Association of African Women for Research and Development. Her work has included research on economic and political liberalization in Senegal; foreign aid and women’s rights; and the European Union and humanitarian intervention in Darfur.

Mark Paschall, MD (Speaker) is currently the Program Director of the St. John Hospital Family Medicine Residency Program. He graduated from the University of Michigan Medical School in 1983 and completed his Family Medicine residency in Washington, PA. After a number of years in private practice, he moved with his family to Ivory Coast, West Africa, where he served as a medical missionary for 4 years. He began working at St. John Hospital in 1999 after that experience, and has continued his interest and involvement in International Medicine, traveling to Kenya with a Family Medicine resident each Fall.
BIOGRAPHIES (continued)

David Pieper, PhD (Speaker, Co-Chair) is the Assistant Dean for Continuing Medical Education at the Wayne State University School of Medicine and Executive Director of the Southeast Michigan Center for Medical Education (SEMCME). He has been active in medical education at the medical student, graduate medical education and continuing medical education levels in the Detroit area for over 30 years. He recently completed a term as President of the Association for Hospital Medical Education and is on the Board of Directors of the Accreditation Council for Continuing Medical Education.

Tyler Prentiss (Speaker) is a Project Coordinator at the Global Health Initiative at Henry Ford Health System. He has a background in global health research in countries including Kenya and Haiti, having worked in Haiti six times since the 2010 earthquake. He graduated in 2013 from the University of Denver with a Bachelor of Arts in Psychology.

Mohan Tanniru, PhD (Speaker, Co-Chair) is the Professor of Management Information Systems (MIS) in the School of Business Administration at Oakland University (OU). From 2007-2013 he was the Dean of the School of Business Administration at OU. Dr. Tanniru received his PhD. in MIS from Northwestern University and has taught at University of Wisconsin- Madison, Syracuse University, and was the director of corporate sponsored Applied Technology in Business (ATiB) Program at OU. As ATiB program director, he coordinated over 200 projects with 45 companies such as GM, DaimlerChrysler, EDS, Lear, Comerica and Compuware. Over the last three years, he has coordinated several health care related projects with Beaumont, St Joseph Mercy-Oakland, Crittenton, St. John Health Systems/ Providence, and Henry Ford Health System Global Health Initiative. With over 60 published articles, his research interests include IT strategy, supply chain management, decision and knowledge based support and health care service delivery innovations.

Placide Tapsoba, MD, MPH (Speaker) is a native of Burkina Faso, is Senior Associate and Country Director for the Population Council in Ghana. He holds an MD from the University of Padua in Italy, an MA in African Studies with a concentration in Medical Anthropology from UCLA, and an MPH in Maternal & Child Health/International Health from UCLA. He has extensive experience in leadership and management of country specific and regional programs focusing on maternal and child health, malaria, and HIV/AIDS. He has pioneered research and policy on some of the most sensitive health issues in traditional settings on the African continent, including introducing family planning practices into Islamic culture in West Africa, and researching female genital mutilation, post-abortion care, men having sex with men, and HIV/AIDS.
BIOGRAPHIES (continued)

Kimberlydawn Wisdom, MD, MS (Speaker) is the Senior Vice President of Community Health & Equity and Chief Wellness Officer at Henry Ford Health System. She is a board-certified Emergency Medicine physician and the Chair of the Gail and Lois Warden Endowment on Multicultural Health and Michigan's and the nation's First State-level Surgeon General. In 2012 she was appointed by President Obama to serve on the Advisory Group on Prevention, Health Promotion and Integrative and Public Health. She focuses on health disparities/health care equity, infant mortality/maternal & child health, chronic disease, unintended pregnancy, physical inactivity, unhealthy eating habits, and tobacco use. Dr. Wisdom provides strong leadership in community health education/population health, and improving the health of those disproportionately affected by poor health outcomes. Dr. Wisdom founded the award-winning program - the African American Initiative for Male Health Improvement (AIM HI) and most recently, the Women Inspired Neighborhood (WIN) Network which aims to improve access to healthcare and reduce infant mortality in neighborhoods in Detroit. She is the recipient of numerous awards, has authored several peer-reviewed publications, and appeared on national television, including ABC's Nightline, and has presented to audiences across the country and internationally.

Jonathan Wong (Speaker) is a fourth year medical student at Wayne State University. In December 2011 he had a vision to serve a portion of the nearly 20,000-person homeless community of Detroit directly on the streets and in shelters. With the help of faculty and colleagues, Street Medicine Detroit was created, dedicated to providing student-based, health professional-led, and patient-centered care for individuals experiencing homelessness.

John Zervos, JD (Speaker, Host Committee) is the Initiative Coordinator for the Global Health Initiative at Henry Ford Health System. His work focuses on building sustainable research and training programs abroad and he has established partnerships with institutions in Haiti, Thailand, India, Peru, Ghana and Guatemala. His areas of research include global health policy, ethics, metrics and effective capacity building strategies in resource-limited settings. Zervos received his bachelor’s degree in history and anthropology from New York University and has lived and worked in South America for over two years. He moved back to Detroit in 2009 and graduated from Wayne State University Law School in 2012. Before joining Henry Ford, he served as the Vice-Chairperson of Detroit’s Free Legal Aid Clinic and Associate Editor and Symposium Director of the Journal of Law in Society. John stays active in the Detroit community where he volunteers his time as a Board Member of The Work of Art, as a member of the Green and Healthy Homes Initiative, and as a contributor for The Huffington Post.

Marcus J. Zervos, MD (Speaker, Co-Chair) is Division Head, Infectious Diseases, and Associate Director of Research (for Clinical Trials) at Henry Ford Health System in Detroit, Michigan. He is also Professor of Medicine in the Department of Medicine and Infectious Diseases at Wayne State University School of Medicine in Detroit, Michigan, where Dr. Zervos also received his medical degree. With over 35 years of experience, his area of research concerns epidemiology and outcomes of healthcare associated infections, and his recent work is regarding outcomes and prevention measures for multidrug antimicrobial resistant pathogens. Dr. Zervos has worked extensively in the field. He has been principle investigator of over 250 industry or federally funded studies and he has published over 240 manuscripts in peer reviewed journals. Through the ID Division at Henry Ford, Dr. Zervos leads global health projects while maintaining extensive partnerships in Haiti, India, Peru, and Suriname.
ORAL ABSTRACTS
Development of an interprofessional medical relief student organization: Integration of pharmacy

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In 2011, the Eugene Applebaum College of Pharmacy and Health Sciences (EACPHS) at Wayne State University (WSU) established a sister organization to the World Health Student Organization at the School of Medicine (SOM) at WSU. This has created the first interprofessional student organization between pharmacy (P) and medical (M) students at WSU.

Students engage in the following pre-trip activities: joint meetings, medication purchasing, medication sorting/packing, advertising and fundraising. Additionally, a medication review session has been added to the SOM clinical skills presentation, which all trip-goers are encouraged to attend. Joint medical relief trips thus far include: Nicaragua 2012 (4P + 1 PharmD, 19M), Haiti 2012 (4P, 17M), Haiti 2014 (1P + 2PharmD, 13M) and Ecuador 2014 (7P, 12M). While in country, pharmacy responsibilities include: pharmacy set-up/organization, therapeutic recommendations, dosing, prescription filling/dispensing and patient counseling/education. Pharmacy students are given the opportunity to spend time with medical students to participate in triage and patient interviews; thus learning about the diagnostic process. Alternatively medical students are given the opportunity to spend time in the pharmacy. This integration allows the students to learn with, from and about each other. Current program improvement efforts include the creation and evaluation of a formulary with the goal of improving pre-trip purchasing efforts and enhancing the safety and efficacy of in-country prescribing.

The expansion of a medical relief student organization to include pharmacy has provided multiple interprofessional education opportunities. The joint organization will continue to work together to plan annual interprofessional medical relief trips and programmatic improvement strategies.
Excellence in Global Health, Myanmar Trip

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**Research question:** Will a more frequent presence by teams of physicians, nurses and biomedical engineers associated with an international education society (Federation for International Education in Neurosurgery, FIENS) improve the quality and scope of the delivery of neurosurgical care and the quality of resident training in Yangon General Hospital (YGH), Yangon, Myanmar?

By working in association with a major North American medical center (Henry Ford Hospital, HFH), will the quality of the delivery of medical care improve at Yangon General Hospital?

**Hypothesis:** More frequent presence of educators and teams of educators will improve the overall quality of neurosurgical care delivery and the quality of the resident teaching program in YGH. An association with Henry Ford Hospital will provide the context for an interchange of medical and administrative ideas, on-line conferencing and possible sharing of excess equipment.

**Methodology:** Based on recent experience of the lead physician (J Rock, MD, Neurosurgery), a team of physicians, nurses and one biomedical engineer will travel to YGH in December 2014. A conference is scheduled for the day after arrival for the participants to present their subspecialty plans to the Yangon audience. This will be followed by 5-7 days of daily patient management and administrative discussions.

Specific data collections will be organized in advance in conjunction with the HFH Global Health Initiative staff (J. Zervos, JD).

**Results:** The director of the neurosurgical service has a sincere desire to establish YGH as a center for neurosurgical patient care and resident education. There are sufficient, although not up to date, support services at YGH to support these aims. An association with Henry Ford Hospital will improve the department’s standing in the local region and help to facilitate the plans Dr. Myaing has for his department and neurosurgical care in Myanmar in general.

**Conclusions:** The effectiveness of partnering for developing world programs has precedence in established relationships such as the partnership between Duke University and the New Mulago Hospital in Uganda. We hope to establish a similar program between Henry Ford Hospital and Yangon General Hospital.
Telemedicine at Grace Care Center in Sri Lanka: Leveraging a novel model to overcome barriers to healthcare access for vulnerable populations in high-need, low-resource areas

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Background: Telemedicine is an emerging strategy used to provide care to patients in rural areas of developing countries who are especially vulnerable to restricted healthcare access, due to financial constraints or inadequate local medical infrastructure. Grace Care Center (GCC), a residential care facility in Trincomalee, Sri Lanka, is home to thirty children and forty seniors who are victims of war and poverty. For two hours per month, one volunteer physician provides healthcare for all GCC residents, making them prototypical beneficiaries for a telemedicine intervention that provides high-impact, cost-effective care.

Hypothesis: The implementation of a longitudinal care program that employs weekly videoconference calls and an electronic health record (EHR) system will improve hypertension outcomes in a cohort of GCC seniors.

Methodology: A team of medical students and physicians participated in weekly Skype consultations with patients and their local caregivers (November 2013-June 2014). Students obtained medical histories across language and cultural barriers, developed differential diagnoses, and suggested treatment plans to the local physician, who finalized all care decisions. To assess the efficacy of the telemedicine clinics, GCC staff measured seniors’ daily blood pressure readings and recorded the data in an EHR for analysis by students.

Results: The cohort of GCC seniors demonstrated improved post-intervention blood pressure metrics compared to pre-intervention measurements.

Conclusions: Using this novel telemedicine model, supervised medical students can obtain clinical histories, interpret, and act upon recorded health metrics to improve hypertension management. This care model may improve the global standard of care for hypertension in resource-deficient communities.
Community Health Nursing – Vision Through a Global Lens

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Background: Community Health Nursing is a required senior-level clinical course in the undergraduate program at the University of Michigan School of Nursing in which students learn to assess and address the health of populations and communities. The course includes didactic and applied clinical experiences, with nine clinical groups of eight students each practicing in Washtenaw and surrounding counties. In 2012, we began an initiative to further internationalize our curriculum using the Riner (2011) framework. This framework is designed to develop the students’ sense of global engagement and cultural sensitivity. While an optimal learning experience would be to enable all seventy-two students to travel to an international location; logistical, financial, and safety concerns pose significant barriers. Therefore, our efforts focused on enhancing intercultural learning through a range of experiences including several small group international trips, virtual activities (videoconferencing) with international student groups and face-to-face interventions with local vulnerable populations. This combination of experiences instantiated Riner’s framework, and enabled us to go “glocal” (thinking GLObally, and acting loCALly).

Interventions: A variety of strategies were implemented to provide all students in the Community Health Nursing course at UM with an intercultural learning experience. Grants were obtained to provide several small group immersion experiences in Quito, Ecuador and New Delhi, India. Videoconferencing was initiated with partner nursing schools and students in Leogane, Haiti and New Delhi, India. Local clinical groups are exposed to a variety of vulnerable and intercultural populations. Several online mechanisms were employed to encourage discussions between partner schools and students in international locations including an electronic Community of Practice (e-CoP), blogs, and targeted online library resources. Evaluation data was collected from local and international students to assess student learning and for quality improvement.

Summary: The course focus on the health of populations and communities provides an excellent opportunity to provide students with a global health perspective. Combining physical and virtual approaches enables us to maximize resources and experiences, as our student go “glocal”.
Short-Term Surgical Mission to the Dominican Republic: A Cost-Benefit Analysis

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Objective: This study determines the cost-effectiveness of a recurring short-term surgical mission trip to the Dominican Republic.

Background: The global burden of surgical disease is significant. Recent investigations have shown surgical treatment to be cost-effective at established hospitals within low- or middle-income countries (LMIC), drawing attention to surgical diseases world-wide. Another method of providing general surgical care in LMIC is short-term mission trips, but no studies have examined their cost-effectiveness.

Methods: Consecutive trips by the Midwest Medical Missions Michigan Chapter to the Dominican Republic were studied in 2010 and 2012. All costs were recorded, and operative logs were maintained. Costs of identical procedures carried out at the authors’ host institution were estimated. Direct comparisons were made between the cost of surgeries performed in the USA and the estimated amount of money spent on the mission trips attributable to each procedure. Disability-adjusted life years (DALYs) averted were calculated for both trips.

Results: The cost for all cases in 2010 would have been $255,187 if performed at the United States hospital and $398,177 in 2012. The amount actually spent on the trips was $61,924 in 2010 and $82,368 in 2012 – a relative cost-reduction of 79%. 218 DALYs were averted. An average of 3.2 DALYs were averted per patient, and the cost per DALY averted was $662.96.

Conclusions: The procedures on a surgical mission trip to the Dominican Republic were less expensive than similar care provided in the United States. The cost per DALY averted is low, demonstrating the cost-effectiveness of the trips.
Osteopathic Manipulative Treatment as adjunctive and sustainable medicine for musculoskeletal pain

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Research question: This study sought to ascertain Peruvian knowledge and perception of Osteopathic Manipulative Treatment (OMT) in order to determine if OMT could be implemented as a treatment option for somatic dysfunction.

Hypothesis: The primary barrier to implementing OMT is a lack of knowledge among patients and shortage of trained practitioners. If this obstacle is remedied, OMT can be utilized successfully to treat musculoskeletal pain.

Methodology: Workshops for physicians and medical personnel were conducted in Lima, Peru. These workshops showcased OMT techniques used to alleviate musculoskeletal dysfunction. Participant’s knowledge and perception of OMT was determined using a cross-sectional, before-and-after survey.

OMT was used clinically to treat patients in both Mala and Iquitos, Peru. Patient’s pain and perception of OMT was measured subjectively before and after treatment.

Results: 256 participants over two years have taken part in four OMT workshops. Most participants reported no prior knowledge of OMT. 75% of participants who completed the surveys (n=135) expressed interest in implementing OMT, or in future OMM classes.

Pain was measured in 57 patients in 2012. 100% of the patients surveyed (n=51) reported a reduction in pain, with a mean reduction of 3.4/10 points. 98% of patients said they would seek OMT again.

Conclusions: OMT is a treatment option for somatic dysfunction and musculoskeletal pain that only requires time and training. This makes it an economic and sustainable treatment for medical missions. Educating local practitioners in OMT allows for a lasting impact long after medical missions end.
Kenya Relief Medical Mission

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We will just be returning from a mission trip from September 4-14 in which WDIV's Dr. Frank McGeorge and his Executive Producer, Ro Coppola, will have accompanied our team to Kenya to do an hour long documentary upon our return. Within the next year, Kenya Relief will break ground on a 300 bed medical center to be overseen by a Detroit Project Manager.

For more details about our mission, it is located in a farming community in Southwest Kenya in a town called Migori. Our medical-surgical mission team travels for ten days total and we generally take twenty-five to twenty-eight medical professionals, mostly comprised of my colleagues at Henry Ford and the University of Michigan Health Systems.

We have six to eight surgeons, two family medicine providers, one pharmacist, six anesthesia providers, four recovery room nurses and four to six operating room surgical technologists and nurses.

We generally perform sixty to eighty surgeries in three days of clinic while the medicine team treats an additional 350-600 patients. Most recently our surgical teams have been otolaryngology, general surgery and pediatric general surgery.

The most common medical conditions treated are malaria, typhoid, hypertension, diabetes, other sequelae related to AIDS, penetrating injuries and various other wounds.

The lessons we have learned are that you cannot always trust the existing healthcare at outside facilities. For example, we work out of a remote clinic and had a patient who lost a lot of blood. We were told he could get blood if we kept him intubated and drove him for thirty minutes in a makeshift ambulance. They didn't even have the capability to give blood when he arrived. We compromised his care further by transferring him in a semi-unstable condition to what we thought would be a resolution. We have also learned it is safer to turn some cases away than to risk a sentinel event when we don't have the same resources and capabilities we have at home. We have also learned to perform our highest risk surgeries on the first day so that we can have two more days to monitor their postoperative progress.
“It’s a Small World”: Developing a Global Health Program in a Family Medicine Residency Program

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As our world becomes smaller with the growth of technology, travel and globalization, the plights of others comes to the forefront. This has resulted in more family medicine residents and potential residents desiring an experience in global or international medicine. These experiences have shown to actually improve USMLE scores¹ and heighten awareness of public health, cost containment and patient education.²

With this in mind, we developed an elective Global Health Track beginning in the second year of residency with the following goals:

- To provide high-quality global health training for Family Medicine residents
- To provide knowledge of health disparities and the causes including medical, social, economic and environmental factors
- To develop competence in an alternative cross-cultural clinical experience
- To develop leadership skills

This presentation will:

- Highlight the development of a successful global health program and curriculum
- Share information and photographs of the five trips already taken
- Discuss issues and obstacles in finding a good partner in a developing country
- Successes

References:

POSTER ABSTRACTS
Associations between Respiratory Illness and Air Pollution in Rural Bangladesh

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Introduction: Respiratory illnesses are a leading cause of mortality globally. In this paper, we investigated the relationship between indoor and outdoor air pollution and respiratory illnesses and symptoms (RIS) in rural Bangladesh, noting the importance of certain household factors for at-risk populations for air pollution and their potential effects on respiratory conditions. We hypothesized that indoor air pollution in form of combustion from biomass fuel stoves and presence of a smoker in the household would pose as greater risk factors than other demographic factors.

Methods: In this cross-sectional study, household-level representative data were collected as part of a baseline survey. Several logistic regression models were created to find any associations between demographic factors or health behaviors and the self-reported negative respiratory health outcomes (asthma, chronic obstructive pulmonary disorder, breathlessness, or intense coughing).

Results: Respiratory conditions accounted for fourteen percent of total disease and acute symptom burden within the population. Several significant associations were found between demographic factors and RIS. These include increased odds of RIS for: the elderly and very young (OR=2.00, 95% CI=1.27, 3.16) compared to middle-age individuals, non-skilled or farming labor in relation to skilled labor (OR=2.05, 95% CI=1.07, 3.93), and those in lowest-income subdistrict when compared to the highest-income subdistrict (OR=3.51, 95% CI=2.18, 6.54). High income within a household acted as a protective factor, and females living in a household with a smoker have higher odds of respiratory conditions compared to females in non-smoking households (OR=1.65, 95% CI=1.16, 2.34). Contrary to expectations, neither biomass fuel stove use nor smoking status was significantly linked to negative respiratory outcomes.

Conclusion: These findings highlight potential risk factors that can impact respiratory disease outcome in Bengali men, women and children. Further research should be carried out in order to account for temporality, thus a case-control study method is recommended for the future.
An Assessment of Health Care Needs and Barriers in a Rural Community of Haiti

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During a medical mission trip to Morne L'hopital in Haiti, a needs assessment was conducted to obtain information regarding the healthcare needs of the local population. The goal was to determine obstacles to healthcare, as well as perceived healthcare needs. A qualitative survey was administered individually to clinic patients by a medical student and translator to determine the most prevalent healthcare needs in the community, obstacles to obtaining healthcare, most frequent point-of-healthcare access, perceived best and worst aspects of Haitian healthcare, and needs for improvement.

213 patients were enrolled in the study. We found 56.8% stated that the cost of obtaining healthcare was the largest obstacle to obtaining healthcare. 41.7% of patients also expressed problems with access to healthcare (not enough doctors and lack of transportation). It was also found that a majority of patients accessed the healthcare system at the large general hospitals; the reasons for this are unclear although we hypothesize that there is limited access to care other than general hospitals. These findings support the importance of maintaining a free clinic in the area to aid in circumventing these obstacles. Our clinic provides an opportunity for patients to access the healthcare system for primary care conditions that likely would have gone untreated otherwise. While our clinic is able to address many of the concerns brought up by this assessment while in-country, more must be done to provide sustainable solutions to the problems expressed in this needs assessment.
ACGME Recognized International Surgery Rotation: A Step In The Right Direction? Or Testing Unknown Waters?

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**Background:** There has been increasing interest in U.S. surgery residents for gaining international experiences. In view of the recent trend, the Residency Review Committee approved international surgery rotations for credit toward graduation and only 7 residency programs were given this permission. We aimed to evaluate the advantages and limitations of an ACGME recognized international surgery rotation from our experience.

**Methods:** The experience of 3 mid level surgical residents sent to an ACGME approved fully paid international surgery rotation at a top referral center in India was critically analyzed by a post rotation debriefing. Factors analyzed were operative exposure, cost, diversity of surgical pathology encountered, conferences attended, licensing requirements, clinic exposure, overall experience with host residents and faculty.

**Results:** The three residents spent 1 month each and had active involvement in rounds, teaching, didactics, clinic and surgeries. The average number of surgical cases were 28±5, and reported exposure to diverse surgical pathology not previously encountered by them in US. Average time for licensing and other arrangements was 45±8 days, while average cost per resident was $3500±700. 2 residents reported initial cultural difficulties at work, but all 3 recognized personal and professional benefits with an overall friendly experience with the host residents and faculty.

**Conclusions:** International rotations broaden a surgical resident's exposure to different pathologies and encouraging professional interactions internationally. Paid stipend and travel support for four weeks of call-free elective time helped to support the rotation. With feasible and appropriate administrative steps, all residents should be given an option of experiencing global health training. More co-ordination with the host institution can decrease the cost, while ensuring a rewarding and a safe international rotation.
Sexually transmitted infections are among the most common infectious diseases, and make significant contributions toward morbidity and mortality in developing nations. Patient education initiatives have shown benefit in decreasing this health burden. We looked at the prevalence of “vaginal infection” as a chief complaint at a clinic in rural Haiti and compared it to the number of patients that were subsequently treated for this complaint. It is suspected that many patients lack adequate knowledge of normal vaginal discharge and the variation of discharge during the menstrual cycle, leading to an overestimation of its prevalence within the patient population.

An interdisciplinary health care team from the Wayne State University School of Medicine traveled to Morne L’Hopital, Haiti to operate a weeklong medical clinic. Patient intake forms from the clinic were reviewed for chief complaints related to vaginal infection along with subsequent diagnoses and treatment plan. Of 304 female patients that attended the clinic, a total of 92 patients presented with a chief complaint of vaginal infection. From these 92 patients, 51 were treated for such infections. Based on these results, it appears that patients often misinterpret the clinical signs and symptoms of a vaginal discharge. This knowledge deficit suggests that educational initiatives that not only address common causes of vaginitis and STI prevention but also include education regarding the normal discharge experienced by women could be beneficial for this and other similar communities.
Cervical Cancer Screening In Iquitos, Peru

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Research Question: While the incidence of cervical cancer in developed countries has been significantly reduced with the introduction of the Pap smear, cervical cancer remains the most prevalent cancer among Peruvian women (WHO, 2010). This study aimed to answer two questions regarding cervical cancer among women in Iquitos: (1) What is the incidence of pre-cancerous cervical lesions, and (2) Does access to primary care influence the prevalence of pre-cancerous cervical lesions.

Hypothesis: The women of Iquitos will have a high prevalence of pre-cancerous cervical lesions, similar to the 17.6% found in San Martin, Peru (Luciani, 2006), which may be influenced by low access to primary care.

Methodology: Researchers used visual inspection with acetic acid (VIA) to screen for pre-cancerous cervical lesions in women aged 25 to 50. Additionally, women were surveyed on their access to primary care.

Results: 14 out of 40 women screened positive for lesions (35%); higher than predicted (17.6%). 10 of these 14 reported having no primary care physician. 73% of all women screened reported no access to primary care.

Conclusions: The high positive screening result in combination with the apparent low access to primary care indicates the need for cervical cancer prevention outside of a primary care setting in Iquitos. One solution includes the use of VIA, which we demonstrated to be a viable screening method for this low resource setting. An HPV vaccination campaign would likely decrease the incidence of precancerous cervical lesions among Peruvian women.
Building global partnerships through primary care training

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The growing global emphasis on non-communicable disease prevention along with the opportunity to learn primary health care methods from diverse areas of the world, initiated the development of a global clinical immersion experience in the primary care nurse practitioner (NP) programs at the University of Michigan School of Nursing (UMSN). UMSN created a partnership with Suranaree University of Technology (SUT) in Nakhon Ratchasima, Thailand.

Students and faculty spent two full weeks working in two local rural clinics. UMSN students were paired with SUT students to create care dyads. Oversight, direction, and clinical preceptorship was provided by a local nurse practitioner, a SUT faculty member, and a UM faculty member at each site. At the clinical site the student dyad worked together to provide acute and primary care to local villagers in the morning. In the afternoon, the groups completed community assessments, home visits, educational programs, formal community rounds, clinical case review, and review of community-specific epidemiology.

Upon completion, the students completed retrospective pre- and post-surveys to evaluate their perception of the influence of sociocultural factors on health care. Students and faculty from SUT and UMSN found the experience valuable and unique. UMSN students not only appreciated the sociocultural influence on health care administration and delivery, they underscored several influencing factors that cross cultures and countries: poverty, mental illness, and health literacy. The purpose of this presentation is to discuss the implementation of a global clinical experience, student perceptions/data, and strategies for sustainability.
Public health and health care strategies in marginalized Himalayan villages of Nepal

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D2N:Detroit2Nepal Foundation is a grass-roots non-profit 501 C3 working in remote Himalayan villages in Nepal for the past 4 years. Nepal is one of the poorest countries in the world still recovering from a 12 year civil war. Our work focuses on 3 villages in the district of Khotang covering approximately 10,000 lives. These villages are cut off from roads, power, and communication. There is no waste management/toilets in a country where 2/3 of infections are secondary to contaminated drinking water. All water taps tested in these villages are contaminated with fecal coliforms. The delivery of health care is severely limited due to the remote location of these villages, days walk from the only doctors located at the district hospital. Furthermore, there are cultural barriers, and all villagers preferentially seek out the faith healers for all illnesses, deliver their babies at home unattended by health care providers, and seek no prenatal care. The life expectancy is 50 years in this region, compared to over 70 in the capital Kathmandu, which in and by itself illustrates the limited public health and health care available to these peripheral villages.

The lessons learned will be discussed, as well as strategies to address the problems of both public health and health care. This includes empowering the locals and helping them advocate for their needs, and helping organize social infrastructure which will allow them to design strategies. We rely on the locals to identify the problems they want to address, and to design their own proposals, budgets, and contracts. The locals are solely responsible for appropriate education of their communities prior to initiating a project, and for the construction and maintenance of all projects. The communities must be significantly vested in all projects. Not only are the communities vested, but the government of Nepal is engaged in all projects to help work within the infrastructure of the government and lead to sustainability.

The projects include the construction of toilets and sub-health posts (rural medical clinics). One village has already been declared “open defecation free” (one sustainable toilet with septic in all homes and 2 in all schools) by the government of Nepal, and is only the 4th village to receive this designation out of 76 village areas in the district of Khotang. The other 2 villages will receive this designation within 12 months. The first health post with a functioning birthing center and dedicated nurse midwife will be complete this year, with a second sub-health post planned for January 2015.

Educational strategies will be discussed, as well as lessons learned and plans for the future.
Implementation of patient-centered medical records for short term mission trips in rural Haiti

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In rural regions of Haiti, few citizens have access to healthcare services. Much of the healthcare is carried out by mission trips, which may or may not communicate with one another. Providers from one group may be unaware of the medications prescribed by previous groups, a problem exacerbated by lack of medical records. The purpose of this study is to describe a medical records system that was implemented across two short-term medical mission trips to rural Haiti which facilitated follow up care across a wide spectrum of medical disorders.

Two Wayne State School of Medicine groups, three weeks apart, traveled to Morne L'Hopital, a mountainous clinic site in rural Haiti. The first group distributed healthcare record books provided by their host organization. The books maintained records of vital signs, diagnoses and medications. Of 778 patients, 107 were designated as follow up patients and encouraged to return to the same clinic site in 3 weeks with their medical record books.

Of the 107 designated patients, 13 followed up, 9 of which concerned high blood pressure. Of those 9, 8 presented with a follow up with lower blood pressure. The average blood pressure drop was 25.4 (12.1) mmHg. The second group carried out a survey concerning the record book: 95% of the 40 patients surveyed supported the new record system. This system may serve as a tool for short term medical mission trips regarding how to manage patient records in an efficient manner to promote sustainable care to underserved patients.
FitKids360 Detroit: Reducing Pediatric Obesity through Medical Student Mentorship

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Childhood obesity is a major global and public health concern, and it is particularly prevalent in Detroit. FitKids360 is a comprehensive obesity treatment program that aims to give families the tools and information needed to make positive lifestyle changes. The program consists of seven weekly classes lasting for two hours lead by a multidisciplinary team of professionals including a registered dietitian, behavioral health specialist and exercise physiologist. Classes address topics relative to healthy eating, exercise, and the psychosocial aspects of obesity such as bullying, low self-esteem, and stress. Each child is matched with a mentor from WSUSOM or the community and together they set specific goals for each week and participate in group exercise.

WCHAP has hosted six sessions in Detroit and outcome data is currently available for four cohorts and a total of 47 participants (10-15 students per class). Biometric data is collected and a Family Nutrition and Physical Activity survey is conducted at the beginning and end of the 7 weeks. The FNPA survey scores have increased for each cohort for an average of 13.6 points with improvements seen in daily fruit and vegetable intake as well as increased exercise time and decreased screen time.

The majority of the FitKids families are low income and Medicaid eligible. The community response to the program has been astounding; there are over 100 children on the waitlist for the next class. FitKids360 can be easily adapted to other cities and countries with little to no resources other than manpower.
Addressing Occupational and Personal Health in Cambodia’s Female Garment Workers

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As a University of Michigan President’s Advisory Committee on Labor Standards and Human Rights summer 2014 grant recipient, I spent three months in Phnom Penh, Cambodia completing a female garment workers’ health issue analysis and proposing interventions that improve the occupational safety and health and personal health of individuals in the garment sector.

In Cambodia, over 400,000 people are employed by manufacturers to make clothing and shoes for major Western brands. Ninety percent of the workers are women, and the majority are under 25 years of age. In recent years, mass psychogenic faintings in the factories have led NGOs to investigate the working and living conditions of the female garment workers in Cambodia. Research has shown that 19% of garment workers are undernourished and anemic, and many more experience occupational stress, food - and water- borne diseases, elevated risk of unsafe abortions and sexually transmitted infections, exposure to hazardous materials and conditions, forms of harassment, forced overtime, and low wages. Completing a literature review on the limited data available, reviewing current practices, and conducting key informant interviews, I proposed interventions (e.g., electrolyte replenishment at a mid -shift break and nutritional counseling) to promote integrated health for workers inside the factories and at home that will be included in a memorandum of understanding to be presented to the brands to ensure workers’ safety and health. From the research findings, the most promising interventions rely on multi-sectorial collaboration and focus on individual personal health and behavior change education targeting the late adolescent worker.
With increased travel and rapid expansion of technology, our world is becoming more interconnected. Health disparities, the spread of disease, and the need for improved global health is more apparent than ever. Medical students and residents who participate in providing international health care have been shown to benefit by increased knowledge, enhanced clinical skills, and improved cultural understanding and personal values.

Several studies have emphasized the importance of implementing international health experiences for medical students and residents during their training. This current study is a literature review of global health, the importance of international health experiences for training students and residents, and examples of how individuals have been impacted by being involved with international medicine.

The review also demonstrates the importance of establishing a curriculum in programs that incorporates research, international health experience, teaching seminars, and opportunities to address health disparities locally and abroad. The review shows that having such a curriculum in medical schools and residency programs could greatly enhance their educational experience and training.
Preventing Smoking in Nepal

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Research Question: Based upon a study conducted by the Nepal Health Research Council, tobacco use was identified as a behavioral risk factor contributing to non-communicable diseases. This study asked: what is the best practice to prevent people from starting to smoke cigarettes in Nepal?

Methods: Literature related to smoking prevention from the United States, European countries, and low and middle income countries was reviewed to determine the best practice to prevent smoking along with cultural implications to interventions. In addition, observations were made related to use of media and smoking habits within Nepal during a 3 week study abroad experience.

Results: Evidence indicated that a multicomponent approach was most effective for preventing smoking which included use of school-based behavior intervention programs, media campaigns, education from primary care providers and state/community interventions.

Findings: Evidence supported smoking prevention strategies targeting youth and young adults aged 12-18 with a multi-component approach found to be the most effective method to prevent tobacco use. Observations made while in Nepal indicated that the use of outdoor media and advertisements in magazines and newspapers have been banned by the Nepalese government. However, smoking in public areas continues to be prevalent which has health implications for both the smoker and the general public through exposure to second hand smoke.
Grassroots On-Site Work (GROW): Partnership as a Framework for Meaningful Action

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Introduction: This research aims to present a paradigm shift in the approach to global health through community based nutrition improvement in Kabale, Uganda. This work discusses the work of an internship team from Wayne State University which conducted this research in partnership with Kigezi Healthcare Foundation on-site in Uganda.

Research Question: The primary question for this study is, “How can communities sustainably improve their health?” In particular, we focus on the Kabale communities in southwestern Uganda which have been identified as facing significant health system challenges.

Hypothesis: The guiding hypothesis is that university students in the United States who partner with grassroots health organizations in developing nations can leverage locally pre-existing resources to build capacity in the partner’s community more effectively than short-term programs that involve passive medical supply delivery and culturally misplaced medical advice. This partnership, if based in solidarity, leads to tangible health impacts.

Methodology: We compared a mutual partnership with the Kigezi Healthcare Foundation (KIHEFO) in Uganda with traditional medical missions which provide supplies and short-term clinics. The team worked with the goal of completing needs assessments, facilitating nutrition workshops, and documenting health challenges faced by 40 families in 5 communities of Kabale, Uganda. We compared the activities of community-based solutions with mission trips through first-person interviews with patients, community leaders, and physicians. This method produced both quantitative and qualitative data and provided insight into the efficacy of medical missions compared to partnerships based in solidarity.

Results/Discussion: This study determined that gender roles and health psychology play a significant role to shape the health of this region. These issues are typically never addressed by members of mission organizations and supply delivery trips, as determined by the interviews the team conducted. Since the core global health concern is rooted in the community, the partnership framework ensures follow-through on outreach projects, ensuring sustainability and community ownership. Our study concluded that locally-initiated solutions allow for greater improvement in the health of a community than brigade-style trips.
Areas of concern related to non-communicable disease were identified by the Health Research Council in Nepal. The concerns related to tobacco use, alcohol use and hypertension treatment. They were identified following a survey study conducted in Nepal last year. Nursing students from Saginaw Valley State University explored these topics using a PICO question format. Students reviewed and rated literature on the areas of concern and identified Best Practice interventions that have been identified in other populations.

The findings were presented to members of the Health Research Council and local nursing leaders. Both the process used and the findings helped in the process of Evidence-informed Policy Making currently being undertaken as Nepal identifies health care priorities. Following observations of the health care system and evaluation of the directness of the evidence for the population, recommendations were re-evaluated by the students in light of the environmental, cultural, economic and health care system consideration of the country.
Sharing and enhancing medical knowledge abroad: collaboration between Wayne State University and L'Université Notre-Dame d'Haiti medical students in Haiti

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Medical students from L'Université Notre-Dame d'Haiti (UNDH) have teamed with Wayne State University medical students and physicians for three consecutive years to provide free health services and treatment to impoverished communities in Haiti. As both translators and health care providers, UNDH medical students are uniquely positioned to facilitate greater understanding of the patient populations we serve. UNDH and WSU medical students were invited to give responses to a series of questions about their experience working together in Haiti. Their responses indicate that it is has promoted cross cultural learning, improved understanding and interpretation of patient complaints, provided the knowledge to circumvent cultural indiscretions, and exposed students to alternative systems of healthcare and otherwise rare diagnoses.

Ultimately, these outcomes have enhanced the quality of patient care Wayne State University teams can provide to patients in Haiti. The collaborative effort has also expanded student knowledge of various medical specialties/subspecialties, of medical practice in both the United States and Haiti, and of the increasing role of preventative care and patient education in medicine. Moreover, UNDH medical students completed an elective rotation at the Detroit Medical Center, gaining clinical experience and training abroad which has also influenced their medical practice in Haiti. These findings support the value of continued collaboration between Wayne State University School of Medicine and UNDH in the future. Among the benefits, sharing and enhancing medical knowledge and the delivery of culturally competent patient care are most significant.
Expanding Upon Partnerships

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The purpose of this presentation is to provide a model for a successful global health project that utilizes partnerships between students, local NGO's, and governmental organizations. As leaders of Timmy Global Health university chapters, we have experienced firsthand both of Timmy's missions: to expand access to healthcare and to empower the next generation of global health leaders. We will define charity and philanthropy since we need both; charity alone is not enough to provide continuous aid, however philanthropy does not carry the same immediate impact as charity. We will discuss specific examples and respecting results, such as when NFL t-shirts are sent to Haiti.

The importance of partnerships with local NGO's and governmental organizations with the same objective is that Timmy Global Health develops cultural awareness before a project has begun. Also by joining into a structured system we are more efficient working towards a common goal. Timmy Global Health has an innovative system of providing continuity of patient care, patient referral systems, health records, and ensuring quality of care.

We'd encourage long-term commitments of medical teams and volunteers. Clinics use a secure, cloud-based electronic medical record system called TimmyCare, which was created specifically for Timmy clinics and is made to operate in remote environments. Typical medical brigades have five days of clinics and help over one hundred patients a day. Whether planning a medical relief trip or looking to reinvent the efforts of a previous one, we hope the Timmy Global Health standards will serve as a model for others.
Sexual Health Education in Meru, Kenya

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In Kenya, sex education remains a taboo topic, so much so that educators and school administrators sometimes avoid sexual education altogether. Pre-pubescent youth and adolescents have limited access to trusted adults who can answer questions on topics such as human anatomy, puberty, sexual relations, contraception, and sexually transmitted infections. This cultural context creates an opportunity for medical students to meaningfully engage with the community by presenting a dynamic and medically-based sexual health curriculum and by addressing student generated questions in an anonymous forum.

The sexual education curriculum, designed and taught by University of Michigan medical students in conjunction with OB/Gyn Dr. Amy Tremper during June and July 2014, provided grant-funded course materials free of charge to each youth participant. These students were allowed to keep the instructional materials, allowing them the opportunity to further engage with course content outside of the school setting and to and potentially share this knowledge with family members, friends, and their community at large. Participant comprehension was measured by pre- and post-testing and used to inform further course revisions. The structure of the program allowed for continual improvement of instruction during this year’s program as well as for future efforts of subsequent medical student teams at the same community school. Educating adolescents on sexual health in Kenya is an important opportunity for creating social change and has the potential to impact the overall wellness of a community.
Implementation of Electronic Medical Records System into Short Term Medical Mission

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Introduction: Many medical missions in developing regions fail to maintain patient records. Cumbersome paper records are frequently discarded or left in-country. Thus, the opportunity to create continuity and study long-term effectiveness is neglected. While electronic medical records (EMR) systems created for developing regions exist, none are well-suited for the transient, high-volume nature of most volunteer teams. Furthermore, clinician stigma against EMR implementation is common. Literature suggests most EMR's require over 24 hours of training for successful implementation.\textsuperscript{1} We have developed a novel EMR, called 'fEMR' ('fast electronic medical records'), designed specifically with an efficient user interface to accommodate such teams.

Research Question: Can a medical team implement fEMR with under three hours of training?

Hypothesis: A transient medical team working in Haiti will utilize fEMR to record all patient records with minimal training and negligible clinic delays.

Methodology: Prior to departure, the medical team held two Skype meetings with fEMR's lead developer, hosted one mock clinic prior to departure, and supplied all necessary hardware. The team went to several rural locations in Haiti, setting up multi-room clinics. Successful implementation was measured qualitatively by the team's perception of clinic delays caused by fEMR and quantitatively by the number of records stored.

Results: The team reported normal clinic operation with fEMR integrated. 450 medical records were recorded over 10 days.

Conclusion: Successful deployment of fEMR was achieved. Clinic functionality was not impaired by the system and records are now easily accessible for future teams.

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Service Learning: An Assessment of Needs of Church Coordinators Providing Meals to a Homeless Shelter

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**Background:** The OUWB School of Medicine has established a partnership with South Oakland Shelter of Oakland County with a goal to provide service-learning opportunities for students and strengthen the health system serving homeless clients. Few shelters, although crucial to sustaining the homeless, utilize dietitians or consider nutrition to meet particular health needs.\textsuperscript{1} A needs assessment was conducted among church coordinators responsible for providing meals to homeless clients.

**Methods:** A survey and focus group of church coordinators assessed processes involved in planning, preparing, and providing meals to homeless clients, which provided further insight concerning nutritional aspects and other factors influencing meal planning.

**Results:** The assessment yielded critical data information on meal planning and preparation. Majority of churches tried to include fruits and vegetables and meet food group requirements. A predominant theme from the focus group was the desire to satisfy clients, resulting in an abundance of comfort foods, which typically do not provide appropriate nutrition and prevent clients from making good choices. Another theme considered the struggle to incorporate vegetables into meals that clients will eat.

**Conclusion:** This project demonstrates challenges of altering the nutritional status of the homeless. Despite a basic knowledge of nutrition, the ability to provide healthy options is constrained by issues of collaboration between many volunteers, a desire to provide comfort foods, and difficulties dealing with diets for specific health problems. The information gathered will assist in developing interventions to help the church coordinators plan healthier meals and accommodate specific dietary needs within a resource limited setting.

**References:**
American Indians and Obama Care: The Affordable Care Act — Factors Influencing Decision-Making for Federally Recognized Tribe Members

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The Affordable Care Act (ACA) allows federally recognized American Indians/Alaskan Natives (AI/AN) an exemption from the “shared responsibility payment” because they are guaranteed health care services through the Indian Health Service (IHS) agency. What advantages does the ACA offer AI/ANs? What factors impact their decision to enroll or take the exemption? I hypothesized that historical relationships between AI/ANs and the U.S. government predisposes AI/ANs to opt out; insurance through the ACA is complicated; and the ACA is not clearly understood.

To explore these ideas, I obtained information through literature review, participant observation, and interviews with key informants at a clinic that serves AI/ANs. Results indicate that IHS care has limitations yet treaties with the federal government “guarantee” AI/ANs free health care through IHS. Although responses vary, the majority of AI/ANs are actually enrolling in insurance through the ACA Marketplace because it is seen as a benefit. Based on the results I found that AI/ANs are more likely to enroll in ACA insurance when outreach and education is provided by employees of IHS facilities. One limitation of the study was that many AI/ANs have been waiting to enroll because they will not be penalized. As the IHS facility expands outreach, my data pool should increase.
Relationship of Citizenship and Sexuality in Chile Reveals Health Disparity

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Introduction: Socioeconomic disparities increased significantly in Chilean society (South America) since *El Golpe* (coup d’état) of 1973. The gap between socioeconomic classes grew until General Pinochet was legally removed from office and democracy was reestablished in 1990.

Objective: To better understand how self-identified lesbian and bisexual women involved in political activism view their sexualities, gender, and national identity in a conservative country where homosexual behavior is illegal.

Method: Participant observation of daily events lead to a snowball sample of qualitative semi-structured interviews of 27 women in four major urban areas of Chile over a 7-month period in 2007.

Results: The majority of participants were affiliated with one or several political activist groups (74%) or universities (93%). All participants discussed how their sexuality made them outcasts, the serious consequences of having lesbian desires from childhood to adulthood, and the everyday difficulty in living a “double life” or hiding their sexuality. All but three participants used a separate name while protesting or socializing in the lesbian community.

Conclusions: None of the participants had access to contraception on a regular basis, especially for those engaging in heterosexual sex acts. All 27 subjects repeatedly asked me to help them advocate for reproductive and economic justice while in the country and when I return to the United States.
A model for short term medical missions: utilizing patient data to optimize providers’ experience and patient care

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From February 22 - March 2, 2014, a team of nineteen first-year medical students, two fourth-year medical students and two physicians set up medical clinics in Arreti and Zimba, two indigenous communities in Panama’s Darién Province, located east of Panama City and bordering Colombia. We partnered with Global Brigades to organize a clinic including physician consultation, dentistry, and an on-site pharmacy. We helped treat over 250 patients, ailing from acute symptoms such as fungal infections and upper respiratory infections to chronic diseases such as diabetes, hypertension and musculoskeletal pain.

With the support of the two fourth-year students and two physicians, we were able to practice taking full patient histories, learn physical diagnosis techniques, and expand our comfort working with patients. Using non-invasive technology, such as ultrasound, we were able to diagnose and evaluate more difficult cases. Additionally, working alongside two Panamanian physicians, we broadened our perspective on the Panamanian healthcare system and gained exposure to a different approach to patient care. As we learned different medications and protocols to treat various patient presentations, we also worked to develop sustainable healthcare and educate the community on proper hygiene practices. For example, we distributed anti-parasitic drugs and vitamins to each patient, and set up water filtration systems and solar-powered lanterns.

The patients’ smiles and sincere hospitality proved their appreciation for our efforts and hard work. We are grateful for the wonderful people of Panama who have helped us grow as student-doctors, eager to advance and learn about healthcare in a different setting.
In the global health community, where continuity of care is an important goal, an EMR system can be a significant tool to help achieve this. In March 2014, Wayne State University medical students and physicians travelled to Morne l’Hopital, Haiti to provide free medical care to local residents. One objective of the trip was to test an EMR system in our clinic. We tested fEMR, a system designed by Erik Brown and other students at Wayne State University. fEMR should help users track patients for future follow-up care and organize patient data for research interests.

In Haiti, we identified several challenges with this system, including limited network range and power supply, and significant time needed for troubleshooting. We noted a qualitative slowdown in clinic flow, but this could be attributed to students adjusting to a new system. In originally considering an EMR system, we discovered that systems adapted for medical mission trips and literature on implementing them effectively were lacking. We hope that this discussion can help bridge this knowledge gap.

Testing and implementing a new EMR system in the field was determined not to be the best use of our time as we were did not experience any of the immediate benefits. This should not, however, rule out the use of EMR systems on medical mission trips as we see ample opportunity for such an implementation to help deliver better healthcare over the long term, especially with respect to storage and retrieval of patient data for research.
Value Framework in Health Care: Value in Health care defined, as Outcomes/Costs is a framework that is redefining Health Care Delivery in the United States and many other countries. Outcomes are multidimensional and, include Clinical, Functional and Patient Care Experience. Costs refer to the total costs of delivery for the care cycle in a health condition.

Health, Functioning and Disability: The Biopsychosocial model (ICF) emphasizes the Impact of a Health Condition and Contextual factors (Personal and Environmental) on Bodily Structure and Function that result in Functional Impairments, Activity Limitations and Participation Restrictions.

Disability in India: India has a total of 50-80 million people with disabilities (WHO). Approximately 50% of these are physical disabilities. Poor infrastructure for medical interventions and rehabilitation, lack of trained manpower, Policy and financing choices, lack of access to appropriate devices & services are significant barriers to disability care in India.

Center for enablement of the physically disabled in Hyderabad, India: Aakar Asha is a Start Up, Not for Profit Hospital System for Surgical Reconstruction, Rehabilitation, and Rehabilitation, Education & Research, Device Development and Community Outreach programs. It is developing a delivery model of high value care for the disabled that delivers Business and Social value as Outcomes. It focuses on outcomes as driver of value and, strategic cost management.

This presentation describes the challenges, innovations, achievements in designing a health care system in Disability in developing this model in a resource constrained environment, with patient care examples.
Comparative analysis of disease prevalence in an urban and a rural community of Haiti

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Many studies have shown that rural-urban differences in access to health care exist, and that these differences impact overall health outcomes of patients. It is reasonable to speculate that the health care needs of a rural population may differ from those of an urban population. Patient care can be improved with better understanding of disease prevalence in different types of communities.

We compared the prevalence of disease in an urban tent city and a rural mountain community in Haiti. In 2012, a medical team from Wayne State University operated a free clinic in an impoverished tent city located in the Port-au-Prince metropolitan area of Haiti. In 2013, another team returned to Haiti to provide free health care in the rural mountain community of Morne L’Hopital. Our data analysis revealed comparable prevalence of gastroesophageal reflux disease, parasitosis, hypertension, anemia and headache in both communities, possibly attributed to similar levels of malnutrition, dehydration, and lack of clean water access in both locations. However, musculoskeletal pain and osteoarthritis were shown to be more prevalent in the rural population (16%) as compared to the urban population (3%). A higher incidence of genitourinary conditions in the urban community (28.9%) as compared to the rural community (18.7%) was also noted. Differences in disease prevalence of each population can be used to guide the specific healthcare needs and programs in each community.
Strengthening Health Professions Students' Capacity for Meaningful Engagement with Vulnerable Populations

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Two southeast Michigan Doctor of Nursing Practice (DNP) graduate programs collaborated to develop a consortium to share expertise in educational program delivery. Consortium features include interprofessional exposure for students in local community settings; partnership models for working with health systems to address quality care of the vulnerable; and elective courses focused on challenging issues in delivering healthcare to vulnerable populations. One consortium aim was to increase capacity to deliver high quality healthcare to vulnerable populations in southeast Michigan. A consortium elective course titled "Addressing Vulnerable Populations within a Social Justice Context" addressed the development of competencies for health professionals to enhance the health of local vulnerable populations by direct community engagement.

In the first three offerings of this course, students have 1) worked through their own past and/or present vulnerabilities, 2) increased their understanding of the social determinants of health, and 3) applied principles of community engagement to numerous vulnerable populations, including homeless veterans, African American adolescents with early sexual history, and astrocytoma brain cancer patients with poor social support. By directly engaging with vulnerable communities, using strategies recommended by the IHI, students have developed descriptions of communities using social determinants of health categories, and also relayed the strengths and resources within the community to key stakeholders. Other graduate health professional students who attend the conference may become interested in enrolling in this course through the educational collaborative known as the MIGS Program- Michigan Intercollegiate Graduate Studies Program.
**Educational Program on Hemodialysis Access Care in India**

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**Introduction:** The life expectancy of an end–stage renal disease (ESRD) patient on dialysis in India has been progressively improving due to increased affordability and governmental support. Education and training opportunities for nephrologists in India in identifying and treating long term vascular access (VA) dysfunctions like venous stenosis and thrombosis are limited. Existence of this knowledge gap led Dr. Kumbar to be invited by Sri Ramachandra Medical College, Chennai, India as an educational ambassador of International Society of Nephrology to provide insight into vascular access care.

**Visit Details:** Over a period of 2 weeks in March 2014, 41 participants including faculty, fellows and dialysis providers attended this educational program. The program include daily didactic lectures, bedside physical examination of VA in outpatient dialysis center, use of renal ultrasonography (US) in various clinical settings and hands on training using real time US guidance for VA procedures and kidney biopsy. The visit culminated with a one day national seminar with active participation of local interventional nephrologists on evolving dialysis access care. Noteworthy practice patterns were preferential use of non-tunneled dialysis catheters and arteriovenous fistula with minimal use of tunneled cuffed catheter and arteriovenous grafts. Most dysfunctional accesses were abandoned due to paucity of trained personnel to perform salvage procedures.

**Outcome:** The significant impact of this program has been the evolution of a multidisciplinary vascular access care team at the host institution. This has led to increased utilization of diagnostic studies in management of VA dysfunction and early success in salvage of VAs, which otherwise might have been abandoned.
Household food security is a central underlying determinant of child malnutrition. As the nutrition transition advances across rural and urban regions of low-income countries, particularly in Sub-Saharan Africa, the nutritional risk associated with transforming livelihoods and food environments has become increasingly uncertain. The objectives of this research are to determine 1) the extent to which livelihood typologies (i.e. modes of food access—subsistence food production, non-farm income, remittances, and combinations thereof) are associated with household food security, and 2) to determine the relation between household food security and the risk of linear growth faltering and overweight among preschool-aged children.

We examine these relations disaggregated by urban and rural regions using nationally representative data from the World Bank Living Standards Measurement Study – Integrated Surveys on Agriculture (LSMS-ISA), collected between 2009-2011, from Tanzania, Uganda and Malawi. We use two metrics of household food security: an experience-based measure, and the nutritional adequacy of household diets based on food expenditure data.

Results are presented from multiple regression analyses, adjusting standard errors for the complex survey design of the LSMS-ISA surveys and controlling for the effects of potentially confounding variables. Preliminary results suggest that food insecurity is positively associated with child stunting and overweight in rural and urban regions, respectively, and that maintenance of subsistence food production is associated with improved child nutrition outcomes. Understanding the nutritional consequences of household food insecurity across rural and urban environments in regions experiencing the nutrition transition could inform multisectoral policies to strengthen the nutrition-sensitivity of these food systems.
Sexual Risk and Resilience among Young Gay/Bisexual Men in Western Kenya

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Young gay, bisexual and other men who have sex with men (Y-GBMSM) in many sub-Saharan African countries are experiencing increased rates of HIV infection. Social inequalities, oppressive socio-cultural norms, and other discriminatory structural factors play a role in marginalizing these men. This presentation will describe a collaborative community-based study in Western Kenya focused on exploring the influences of socio-ecological factors (intrapersonal, interpersonal, institutional/community, sociocultural/policy) on sexual risk and resilience among Y-GBMSM between the ages of 18-29.

The study is a collaboration between University of Michigan School of Public Health, Maseno University in School of Medicine in Western Kenya, and two non-governmental organizations in Western Kenya—Nyanza Reproductive Health Society and Nyanza Rift Valley & Western Kenya LGBTI Coalition. Quantitative survey data are being collected on 600 Y-GBMSM in several communities in the Western region of Kenya. Y-GBMSM are being recruited through community outreach methods and data are being collected via audio computer-assisted self interviews with our community partners. Participants are able to complete the survey in English or Duhluo (most commonly spoken language in Western Kenya).

In subsequent phases of the study we will work with our collaborative Research Team to analyze the data. We will then create information sheets for health/social-service providers and other stakeholders that provide guidance for promoting the sexual health and resilience of Y-GBMSM. In the final phase, we will work with our Kenya-based partners to disseminate study findings and information sheets through community forums, and will offer de-identified data to health providers for grant applications.
Characterization of physically active and inactive homeless individuals

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Introduction: People who are homeless are one society’s most vulnerable populations. Public health management of the problem has been poor, in part because interventions fail to address the heterogeneity of demographics, experiences, and general health status of homeless persons. Physical activity is associated with improvements across all levels of the bio-psycho-social model of health. The purpose of this project was to identify health and demographic differences between homeless individuals who engage in physical activity and those who don’t to better inform interventions.

Methods: A 51 item questionnaire was administered to 33 homeless individuals residing in a homeless shelter in San Antonio, Texas as part of a larger study. The 33 participants were categorized into four different groups depending on how long they had been in a biweekly running/walking program: recently joined (<2 weeks), consistently attending (>2 weeks), no affiliation (none), and ex-participants (participated >12 weeks, but no longer participating). Questions pertained to demographics, past experiences, health perceptions, and usual physical activity.

Results: Ethnicity, age and education was similar across all groups, but physical activity participants were primarily male (83%), more likely to use drugs, and the reported number of poor physical and mental health days were around three times lower compared to nonphysical activity group. Chronic homelessness (62.5%) and prior drug use (100%) was highest for the recently joined group.

Conclusion: Demographic and health differences were apparent among all groups. Future research should identify what specific physical activity program changes are needed to promote physical activity in different homeless groups.
Comparative Analysis of Cesarian Section Indications, Outcomes and Costs at Consolata Hospital, Nkubu, Kenya and the University of Michigan Health System, Ann Arbor, MI

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The United States healthcare spending per capita is far above any other nation,¹ yet the World Health Organization ranks the United States 37th in overall health system performance among all nations.² While the US is home to some of the best doctors, newest advances in medical technology, and a wealth of scientific knowledge, the nation still struggles with delivering healthcare, in no small part due to cost. Analysis of resource-constrained health system practices, such as those found in developing nations, may provide an opportunity for resource-rich systems such as those found in the United States, to improve their cost efficiency while keeping obstetric care standards high.

The present study compared indications, outcomes, and costs of all caesarian sections performed at Consolata Hospital in Nkubu, Kenya to those at the University of Michigan Hospital in Ann Arbor, Michigan for the period of May 1st, 2013 to April 30th, 2014. Part of the gap in cost of a cesarean section can be attributed to the provider of the procedure. In sub-Saharan nations, as many as 40% of cesarean sections are not handled by physicians.³ Therefore, observational data including preoperative, surgical, post-operative procedures and level of training of healthcare providers performing cesarian sections supplemented data obtained from medical records. Statistical analysis of categorical and quantitative data will be performed upon completion of data collection. The US could benefit from analyzing the spending of less advantaged nations and employing protocols that keep costs and adverse outcomes low.

References:
Designing a global health curriculum focused on sustainable contributions in resource limited settings

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The Detroit Medical Center’s combined Internal Medicine and Pediatrics Residency is spearheading an initiative to launch a global health curriculum for interested residents. I served as the pilot resident traveling to Mwanza, Tanzania in order to determine potential needs and how visiting residents may contribute. I spent 10 weeks working in multiple levels of health care in Tanzania. This included district, regional, and tertiary care hospitals as well as one internationally funded NGO clinic. Furthermore, I worked with local attending physicians, medical residents, medical students, assistant medical officers and clinical officers. During the course of my experience, I rounded on over 700 total patients as a team member of general medicine and pediatrics, malnutrition, infectious disease, and adult and pediatric ICU.

This global health experience allowed me to work in multiple levels of care, with medical providers with various levels of training. My time in Tanzania gave me first hand insight into the opportunities for our residents to make lasting contributions in resource limited health care settings.

While international rotations provide visiting residents the chance to see rare conditions, diagnose and treat tropical diseases, and hone their physical exam skills; it is also an opportunity to make a lasting impact. Through case examples, I will illustrate how the DMC Internal Medicine and Pediatrics Global Health Curriculum can provide a lasting and sustainable impact in resource-limited settings through education. Specifically, describing how visiting DMC residents will give lectures and provide practical training to our in-country healthcare trainee colleagues.
Enhancing medical student education, fostering cultural competency, increasing awareness of global health disparities and delivering quality patient care on a medical relief trip to Haiti

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In March 2014, an interdisciplinary team from Wayne State University travelled to Morne l’Hopital, Haiti, offering free health care to 440 local residents of this impoverished and rural community. Medical students were accompanied by pharmacists and physicians trained in pediatric, emergency, and internal medicine, providing care that adequately covered the range of complaints and diagnoses patients presented with. The trip aimed to advance the clinical skills of students by engaging them in physical examination of patients and point-of-care testing, as well as the development of differential diagnoses and treatment plans. A second aim was to conduct an assessment of the health care needs of the community to better understand patient concerns regarding their health and access to health care.

A new initiative on the trip was to provide more substantial patient health education with the goal of limiting the spread of preventable and communicable diseases. While primary care was provided at our clinic, patients presenting with advanced disease were taken to hospitals and medical centers outside of Morne l’Hopital to receive secondary and tertiary level care. In this way, our team was able to facilitate treatment for acute and life-threatening presentations. This medical mission provided exposures to otherwise rare diagnoses, to alternate healthcare systems and the difficulties inherent in navigating them, and the knowledge to better treat and meet the health care needs of rural populations. Furthermore, our team learned that patients are responsive to learning more about preventative health measures, especially when local community members are involved in teaching.
RadiatingHope’s Effort to Build a Radiation Treatment Facility in Moshi, Tanzania

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Radiation Treatment Availability in Tanzania:

Half of all cancer patients will need radiation therapy for disease management. In the US, for every 100,000 individuals, one radiation treatment machine is available for treatment. Tanzania has one functioning radiotherapy machine for 45 million people, leaving 95% of cancer patients without proper care.

Eighty-five percent of cancers diagnosed in Tanzania are advanced; such patients would benefit from radiation therapy for local control and symptom palliation. Appropriate treatment for cervical cancer is scarcely available making cervical cancer the number one cause of cancer death in females in Tanzania.

The International Atomic Energy Agency (IAEA) estimates that Tanzania needs 27 more radiation therapy machines.

RadiatingHope’s Mission in Moshi, Tanzania – March 2014:

RadiatingHope is a non-profit organization increasing access to cancer care in the developing world. One region of focus is the Greater Horn of Africa, in need of over 200 radiation therapy machines.

RadiatingHope will help build a radiation treatment facility at the Kilimanjaro Christian Medical Center (KCMC), an established hospital/healthcare center. To raise funds for this cancer center RadiatingHope organized two major efforts: the Greater Horn Oncology Symposium (GHOS) and a Mt. Kilimanjaro climb.

The GHOS is a multidisciplinary symposium dedicated to increasing awareness of cancer care in the Greater Horn of Africa. Over 30 physicians and healthcare members from US and Tanzania presented at GHOS to discuss the current condition of cancer care and management of common malignancies in the region.
Race-related stressors, inflammation and preterm birth in African-American women

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Background: In 2012 in the United States, 11.5% of infants were born prematurely (<37 weeks) and African American women had almost twice the rates of preterm birth compared with non-Hispanic white women. Attempts to explain preterm birth disparity have focused on race-related stressors of neighborhood environment and racial discrimination. These stressors increase psychological stress and are related to preterm birth. Psychological stress and its associated inflammation [e.g., interleukin (IL)-6] are also associated with preterm birth. In contrast, personal resources ameliorate stress and have protective effects on preterm birth. We examined the relationships among neighborhood environment, racial discrimination, psychological stress, inflammation and preterm birth.

Methods: Using a longitudinal descriptive correlational design, we enrolled 114 pregnant African American women. Women completed questionnaires and had blood draw at 16-22 weeks and 26-32 weeks. Birth data were collected from medical records.

Results: Women who reported higher levels of perceived neighborhood stressors also reported higher levels of stress and lower levels of personal resources. Women who reported higher levels of racial discrimination also had lower levels of personal resources, and higher levels of stress and inflammation (IL-2, IL-6, IL-8, TNF-α). Psychological stress was related to higher levels of inflammation. Compared with women with full term birth, women with preterm birth had higher levels of stress as early as 19 weeks gestation.

Conclusion: These results suggest that (1) race-related stressors are related to psychological stress and inflammation; (2) psychological stress is related to inflammation; and (3) women with preterm birth have higher levels of psychological stress.
**Smoking Cessation in Nepal**

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**Intervention:** Nicotine replacement therapy, antidepressant therapy, nicotine receptor partial agonists, nursing interventions, physician advice, and increased cost of cigarettes

**Comparison:** Intervention groups vs. no intervention or placebo

**Outcome:** An increase in the number of people who quit smoking

The goal of my project was to determine best practice for smoking cessation. I used the Cochrane and CINHAL databases to find my articles. Search terms used included smoking, smoking cessation, quit smoking, and smoking in Nepal. Eighteen initial studies were found, and six were chosen. The chosen studies included five systematic reviews (Level IA) and one correlational study (IV). The results show that there is strength A evidence for the use of nicotine replacement therapy, antidepressant therapy, nicotine receptor partial agonists, nursing interventions, and physician advice for long term rates of smoking cessation. There is strength C evidence for raising the cost of cigarettes to reduce the number of youth who smoke. My conclusions determined that nicotine replacement therapy, antidepressant therapy, and nicotine receptor partial agonists have the greatest impact on smoking cessation. Nursing interventions, physician advice, and increasing the cost of cigarettes all help reduce the number of smokers.
Innovative Strategies in Using a Research-supplement Model to Improving Sustainable Outcomes in Resource limited Communities

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Research question: International work requires a substantial amount of resources and proves to be extremely short term in disease prevention. The purpose of this study was determine if a feasible solution exists to this dilemma using a research-supplement model during short-term missions to Peru; (1) Is it possible to construct a model where research is integrated into short-term missions; and (2) Does this research have sustainable impacts.

Hypothesis: If a model can be suggested which produces optimal objective outcomes in both sustainable impacts and educational objectives, than a curriculum component would exist for easier integration into short-term missions.

Methodology: Objective measures included a cross-sectional investigation of health perceptions of both local health providers and patients in Peru. Treatment responses to sustainable medical practices were also measured. Educational metrics included the impact on student development and periodic evaluation of projects.

Results: Health perceptions of impacts were optimal for both patients and local providers. Relationships were established using local Peace Corp volunteers, hospitals, and communities. Peruvian medical students were integrated into the elective which improved continuity and education about local disease processes. Educational outcomes included 25 student publications since 2011, positive student attitudes towards this model, and pursuit of research outside of this elective.

Conclusions: While it might not be feasible to extend the length of the trip, we demonstrated that the implementation of a research component can have sustainable and preventive impacts. In addition, there exists secondary outcomes which include education, collaboration, preserving cultural identifies, improving care access, and identifying barriers.
This presentation will describe a research project that is a collaborative partnership between faculty members/students at University of Michigan School of Public Health and Ben-Gurion University of the Negev in Israel. The partnership also includes representation and participation from two community-based organizations in Israel—the Aguda (the Israeli National LGBT Task Force) and the Israel AIDS Task Force. The primary aim of the project is to gather qualitative ethnographic data to explore intrapersonal, interpersonal, institutional/organizational, community/cultural, and public policy influences on HIV sexual risk and resilience behaviors (i.e., sexual activity and condom use) among young gay/bisexual men and other men who have sex with men (Y-GBMSM) living in Israel.

We are in the process of conducting up to 63 individual in-depth interviews in either English or Hebrew with Y-GBMSM stratified on age (i.e., 18-21; 22-25; 26-29) and ethnicity/religion (i.e., Muslim/Christian Arabs, Ashkenazi Jews, Sephardic Jews). Participants also complete a brief quantitative survey. Y-GBMSM participants are recruited by our community partners, the Aguda and Israel AIDS Task Force, and all interviews are conducted by research team members from both Universities at the agencies’ headquarters in Tel Aviv, Israel. Analysis of the qualitative ethnographic data will be done in a collaborative manner using a phenomenological framework. The qualitative data will be used to develop an Israeli-specific socio-ecological model of risk and resilience among Y-GBMSM that will inform future HIV prevention efforts for this population, and for developing a survey instrument to conduct a large population-based study.

Note: Data collection for this project has begun as of June 26, 2014.
The Impact of International Service Learning Trips on Medical and Pharmacy Students: The Wayne State University (WSU) Experience

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There is scant literature addressing specific concerns students face prior to attending global health trips. The main focus of this study is to identify these concerns. A mixed-methods survey was developed and administered to thirty-five students attending a ten-day service trip to Haiti to collect data about certain concerns they had prior to attending the trip and how the trip impacted those concerns.

A five-point Likert-type scale was used to collect quantitative data about pre-trip and post-trip apprehensions. The pre-trip survey asked students to rate their levels of concern with diseases and epidemics, natural disasters, terrorism, travel concerns, monetary concerns, cultural barriers, religious barriers, and group dynamics. The post-trip survey identified whether those concerns changed after the trip. Bivariate analyses with paired t-test were then used to compare the data from the two surveys.

The results from the pre-trip survey indicated that the primary concerns for students were diseases and epidemics while religious barriers and group dynamics were rated as least concerning. Following the trip, the majority of concerns decreased significantly and students only expressed an increased apprehension with language barriers. However, students who spoke Spanish displayed a near-significant decrease in their concerns related to language post-trip compared to those who did not speak Spanish (p = 0.053).

Addressing concerns students face prior to attending the trip may enhance their experience. Future studies will address the impact of enhanced selection and preparation for international service-learning trips to provide optimal experiences for students to learn about global health.
The formation of a collaborative partnership with Gleaners Food Bank to address the issues of food insecurity, obesity and nutrition in two Food Pantries located in the Detroit community

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Obesity and nutrition-related diseases have been shown to disproportionately affect segments of the US population that struggle with food insecurity. Public Health interventions designed to address obesity rarely address food insecurity and the challenges that low-income families, especially women and children, have in obtaining food that is affordable and healthy. In partnership with Gleaners Food Bank we developed a screening questionnaire to assess food insecurity and factors that are associated with food choice and food consumption patterns of women and families that obtain food from two local Food Pantries. We intend to use the data collected on the questionnaires to help us develop a guide for Food Pantries which will help them to provide foods that more adequately address hunger, help to reduce obesity and increase access to nutritious foods. We also intend to use this data to help develop educational programs and guides to help clients increase the nutrient density of foods they consume, and to establish healthy eating patterns that can help to reduce or prevent nutrition-related health issues.

Establishing collaborative partnerships between Food Banks, Medical Schools, healthcare providers, and community based organizations can enhance efforts to address these issues and promote wellness initiatives for communities. Supportive partnerships between Food Banks, Food Pantries and healthcare organizations, will also allow for joint efforts to better understand and identify the issues of food insecurity and obesity that may have otherwise been ignored.
Demographics of clinically diagnosed gonorrhea and chlamydia; the need for increased sexual education for women over the age of 25 in rural Haiti

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Physicians embarking on medical mission trips to third world countries spend a great deal of time and energy on sexual health education. This is particularly true in Haiti, due to the high prevalence of HIV. In addition to HIV, other sexually transmitted infections (STI) such as gonorrhea and chlamydia are particularly rampant and yet are given less focus both clinically and educationally. An interdisciplinary team from the Wayne State University School of Medicine recently travelled to Morne L’hôpital, Haiti to provide free health care to its residents.

We then examined the demographics of patients presenting to the clinic with symptomatic vaginitis caused by gonorrhea and/or chlamydia in order to improve patient education techniques and decrease STI rates. Patients under or equal to the age of 25 had a prevalence rate of 2.5% for clinical gonorrhea and/or chlamydia, while patients over the age of 25 had a prevalence rate of 6.7%. Many sexual education programs in Haiti target women 25 years old and younger; however, it seems beneficial to expand patient sexual education programs to target women over the age of 25, as this was the age group of the majority of patients treated for gonorrhea and chlamydia in our clinic.
Teaching according to their reality: Adapting teaching to resource limited environments

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In February 2013, Hope Clinic International (HCI) conducted a 4-day educational seminar at Hospital Infantil de Nicaragua “Jesus Manuel de Rivera” (also known as LaMascota Children’s Hospital) in Managua, Nicaragua. Nine nursing leaders from LaMascota’s pediatric and neonatal ICUs and surgical units attended the seminar. The seminar was facilitated by 3 nurses and 3 translators from HCI and included topics such as hospital-acquired infections, post-operative care, pain assessment, spiritual care, and basic pediatric assessment. Presentations focused on universally applicable principles. LaMascota nurse leaders then discussed how the principles could be applied at LaMascota.

Teaching methodologies included lecture, discussion, case presentation, and clinical demonstration. LaMascota nursing leaders were empowered to recognize their critical role in relieving suffering in their patients despite their perceived lack of authority or influence. The HCI team learned about the creative application of principles using locally available resources and were inspired by the compassion and commitment of the LaMascota nurses despite their low pay, a system that under-values and under-utilizes the skills of a nurse, limited resources, and a high percentage of patients with little hope of survival.

LaMascota nursing leaders and the HCI team both gained deeper cultural insight and developed great respect for one another as they came to appreciate that while our hospitals look very different from the outside we are all motivated by compassion and a desire to see our children restored to health. Follow-up seminar feedback collected during February 2014 revealed both progress and priorities for future collaboration.
Medical student perceptions of pharmacy integration into a medical relief student organization

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Hypothesis: Medical students will have positive perceptions of integrating pharmacy into medical relief trips.

Methodology: An anonymous and voluntary post-trip survey assessed medical students’ perceptions of pharmacy involvement. Surveys focused on experiences with pharmacy students, satisfaction of pharmacy services, and importance of interprofessional care.

Results: A total of 33 medical students participated in trips to Haiti and Nicaragua (2012) and were given the surveys. The survey response rate was 82%. Eighteen (67%) had been on a prior medical relief trip and four (15%) reported having some experience practicing with pharmacists prior to these trips. All agreed (19%) or strongly agreed (81%) that interprofessional care is needed to maximize patient care. Twenty-five agreed (37%) or strongly agreed (56%) that the trip enhanced their understanding a pharmacist’s role. Students reported satisfaction with overall pharmacy services (100%), pre-trip medication packing (78%), clinic medication organization (93%), therapeutic (85%) and dosing (85%) recommendations provided by the pharmacy team. All students agreed that the pharmacy team positively impacted overall clinic flow (100%) and that it was important to have a pharmacy team on their trip (100%) and on future trips (100%).

Conclusion: A survey of medical student perceptions of pharmacy integration revealed increased exposure to the practice of pharmacy, enhanced understanding of the role of a pharmacist and an overall satisfaction with pharmacy services. The success of these experiences has ensured continued pharmacy participation as an interprofessional student organization with the medical school.
This poster focuses on social determinants of health in rural Uganda. As a baseline for a field experiment evaluating a maternal and neonatal health intervention, from 2012 to 2013 we conducted an in-depth quantitative survey of nearly 1,200 pregnant women, primarily from Kashongi and Kitura Sub-Counties in the southwest of the country. We found significant relationships between many health-related behaviors and socioeconomic factors in the study population. For example, controlling for distance to the health center, women were 3.3 (p-value = 0.00) percentage points less likely to deliver at home for every additional year of schooling (compared to a mean of 36.33 percent), and 2.0 (p-value = 0.00) percentage points more likely to have received an HIV test for every additional year of schooling (compared to a mean of 74.5 percent). Additionally, each additional year of schooling was associated with a 1.4 (p-value = 0.00) percentage point increase in likelihood of knowing how malaria is transmitted. Household wealth generally had less explanatory power for adverse health outcomes or false perceptions, which may be because the entire area is relatively low income. While our findings suggest that health can be improved in the long-term through better educational opportunities, we conclude that in the short-term health improvement efforts should be targeted toward women with lower education who are from relatively low-income households.