

2016 Community-University Engagement Award
ENGAGING LOW-INCOME URBAN PATIENTS IN THEIR OWN HEALTH MANAGEMENT

Ade Olomu, MD, MS, FACP

1.1 ABSTRACT

Disparities in cardiovascular health remain one of the most serious public health problems in the United States today. The burden of cardiovascular disease among African-Americans and persons of lower socioeconomic status is well documented; solutions to address this problem are less apparent. In an effort to close the disparity gap in cardiovascular care, we refined our previous shared decision-making (SDM) intervention to produce a simple, parsimonious patient activation/engagement program, Office-Guidelines Applied to Practice (Office-GAP), in federally qualified health centers (FQHCs).

In October 2008, Dr. Dean Sienko, former medical director of Ingham County Health Department (ICHHD), signed a letter of support for collaboration between Michigan State University and ICHHD. Dr. Sienko stated, "We have an organizational desire to engage in innovative projects that can positively impact our patients' lives and the chronic conditions they live with. We believe that your proposed project meets this standard and will enhance the ICHHD's ability to more effectively engage our low-income and minority patients in the management of their chronic diseases(s)." ICHHD operates several community health centers throughout Lansing; they are certified as FQHCs and function as health care homes for over 21,000 of the area's medically vulnerable and underserved.

With funding from Blue Cross Blue Shield of Michigan and the federal Agency for Healthcare Research and Quality, we have enrolled over 800 patients into the Office-GAP program (2010-2016); over 595 patients have attended our educational group visits and follow-ups with their providers. Our study revealed that the Office-GAP program improved evidenced-based medication use; improved blood pressure control; and increased patients' SDM, satisfaction with their provider, and confidence in decisions made. The program has provided an opportunity for students, resident-doctors, and faculty to engage in health disparity studies. We have presented our findings at international, national, regional, and local meetings, and written articles for publication.

2.1. THE ISSUE AND ITS SIGNIFICANCE

The Michigan State University partner is Ade Olomu, MD, MS, FACP. Dr. Olomu is a professor of medicine and a health services researcher at MSU.

The community partner is Ingham County Health Department (ICHHD) medical director and health officer Linda S. Vail, MPA. A letter of support and partnership is included in Appendix A.

Disparities in cardiovascular health remain one of the most serious public health problems in the United States today [1,2] (see Appendix D for reference list). The burden of cardiovascular disease (CVD) among African-Americans and persons of lower socioeconomic status is well documented, yet the solutions to address this problem are less apparent. These populations suffer a disproportionate burden of CVD morbidity and mortality, including a higher number of premature deaths [3]. These differentials in CVD

outcomes are thought to be partially attributable to disparities in prevention and treatment. Low-income and minority patients, especially those with diabetes, face barriers of literacy and poverty that obstruct access to benefits of secondary prevention.

Patient and family engagement offers a promising pathway toward better quality health care, more efficient care, and improved health outcomes [4]. Physician and patient interventions designed in tandem to support the therapeutic partnership from both perspectives have been advocated, but infrequently implemented [5]. The challenge is how to support patients and providers to develop new behaviors and knowledge about treatment options and communication skills necessary for collaboration and shared decision making (SDM). The MSU-ICHHD partnership addresses the need for more research on the use of SDM and decision aids, the translation of evidence-based decision support for interventions, and guidelines-based care into practice, especially in community outpatient settings that provide care for minority low-income populations [6,7].

The MSU team has sought funding to design such evidence-based interventions in the community health centers (CHCs); the ICHHD, which is committed to working with MSU to help facilitate patient identification and recruitment, agreed to have three of its CHCs serve as field sites for the project. The ICHHD also agreed to assist with the team's scheduling of patient workshops and to provide space for the MSU team to deliver its educational intervention during group visits and implement the intervention during routine clinical encounters with patients.

A part of MSU's mission is "advancing outreach, engagement, and economic development activities that are innovative, research-driven, and lead to a better quality of life for individuals and communities, at home and around the world" (MSU Board of Trustees; <http://president.msu.edu/mission/>). Our innovative Office Guidelines Applied to Practice (Office-GAP) program, which is designed to activate/engage patients and improve prevention of coronary heart disease for vulnerable populations in outpatient settings, embodies this mission. Appendix B presents a letter of support for the Office-GAP program and this application from MSU President Lou Anna K. Simon.

We were able to form a good collaboration between MSU, ICHHD, and patients who receive care from these safety-net clinics. A letter of endorsement from the ICHHD is included as Appendix A.

3.1. IMPACT ON COMMUNITY PARTNERS

Anticipated benefits for community partners include providing clinically effective strategies for improving patient medication adherence, promoting healthy lifestyle changes, and decreasing cardiovascular disease morbidity and mortality among high-risk minority and low-income populations with diabetes/heart disease. In addition, for providers, there will be more effective and consistent treatment approaches within existing clinical constraints to assist them in delivering evidence-based care for all patients at all time.

Through increasing patients' knowledge, skills, confidence in self-care, engagement, and improved shared decision-making (SDM) in clinical care, the Office-GAP program has led to improved evidence-based medication use for secondary prevention of heart disease. Our study showed increased use of

aspirin, angiotensin converting enzyme inhibitors/angiotensin receptor blockers, and statins; improved BP control; improved SDM satisfaction with providers and confidence in decisions made; and improved physician prescribing of evidence-based medications [8-12].

Patient feedback about the Office-GAP Program included such comments as:

- It made me feel like I can ask questions and not feel stupid with my doctor.”
- “A lot of people need to get involved and know how to get engaged with their disease.”
- “I know what to eat and not to eat.”
- “It helps me learn how to seek help.”
- “I quit smoking.”
- “I look forward to going to see the doctor now since I have gone to the GAP Program.”
- “I want to see more people involved.”
- “I wish everyone that is diabetic, [could] go through this GAP Program.”

When asked what they found most helpful about the group visits, patients responded:

- “Understanding my illness.”
- “Valuable life altering information.”
- “Being able to talk about my heart disease.”
- “I feel I am not alone.”
- “I now know my goals and numbers.”

When asked what they found least helpful about the group visit, patients said:

- “None.”
- “Everything was important.”

In addition to fulfilling part of the mission of the university, our research engages the community by encouraging vulnerable community populations to engage in their own healthcare. This is achieved through patient activation (by equipping patients with skills and confidence to become actively engaged in their healthcare), improved SDM between patients and their physicians, and improved use of available community resources. It has improved patients’ knowledge of diabetes and heart disease, led to better control of their BP, and improved their satisfaction with their physicians.

3.2. IMPACT ON UNIVERSITY PARTNER

This program is about designing innovative research driven interventions to improve the health of vulnerable populations within the community through engagement. As previously noted, this directly embodies part of the MSU mission.

Our Office-GAP program has provided opportunity for students, resident doctors, and young faculty to engage in health disparity research. Our community engagement interventions occur in safety-net clinics that provide medical care for vulnerable and underserved populations. Many of the patients are 200% below the federal poverty level.

We have had two MSU NIH-funded Research Education Program to Increase Diversity in Health Researchers (REPID) scholars engaged in our Office-GAP program every summer for the past four years. The goal is to inspire these students to pursue health-related research careers focused on cardiovascular disease prevention. These scholars are taught basic clinical research skills and they participate in our ongoing research projects. Each student is given a research question to answer from the data obtained from the research. They write abstracts for oral and poster presentations in the Mid-Michigan Symposium for Undergraduate Research Experiences (Mid-SURE). Their participation has led to eight presentations at MSU's annual Undergraduate Research Forum (SURF 2012-2015).

Resident doctors have also participated in our program. Dr. Abijeet Dhoble's study, "Under-use of Beta-Blockers in Patients with Heart Disease in Federally Qualified Health Centers in Michigan," won the highly competitive John Hopkins General Internal Medicine House staff Research Award, the L. Rondol Baker Award, which recognizes research achievement in medical education. Dr. Dhoble was inducted into the Alpha Omega Alpha Medical Honor Society and has successfully completed his fellowship in cardiology.

Our Office-GAP program has led to improved scholarship and research funding. We have presented our findings at 25 international, national, regional, and local meetings, and published abstracts of our preliminary results. We have published one article, with three additional manuscripts under review. The program has provided an opportunity for students, resident-doctors, and faculty to engage in health disparity studies. Appendix C presents a list of publications and presentations related to the Office-GAP program.

The Office-GAP program was also featured in *The Engaged Scholar Magazine*, "Engaging Urban Patients in Their Own Health Management," Volume 5, 2010, published by MSU's Office of University Outreach and Engagement. The magazine is widely circulated. See <http://engagedscholar.msu.edu/magazine/volume5/olomu.aspx>.

4.1. LESSONS LEARNED AND BEST PRACTICES

The MSU-ICHHD partnership has had a high degree of cooperation. Major challenges were in patient recruitment from the practices and retention of patients in the study. These challenges were addressed by several meetings with the administrators and staff of each practice. After each meeting, we came out with plans to help recruit patients into the study with minimal interruption to the workflow of the practice by the research team. We worked with ICHD Health Information Technology to design a program for identifying patients who meet the inclusion criteria for Office-GAP participation. This program searches the database every three minutes for patients who meet our enrollment criteria, and whenever such a patient comes to the clinic it alerts the staff. The Electronic Health Record (EHR) alert system indicates the stage where the patient is in the study and if the patient has completed the study or not. The EHR alert system for the study greatly assisted with our recruitment and follow-up of patients. With the joint solution to our recruitment problems, the research was able to move on smoothly.

Another challenge occurred when the IHCD changed from paper charts to EHRs. The two partners held several meetings to help with transfer of our research data from the patient charts and to ensure that they were transferred securely. One of the community partner clinics perceived the presence of the research assistants as slowing down the clinic workflow. We held a meeting to discuss this issue and we decided that the research assistant would reduce the amount of time in the clinic. The clinic appointed a clinic champion for the research team, who helps to enroll patients and collect necessary data for the research team in their absence. This successfully resolved the issues and our recruitment and follow-up visits improved significantly.

Our vulnerable population has problems with transportation and keeping their appointments. We compensated enrolled patients with \$30 and reminded patients over the phone regarding their group visit schedule and follow-up with their providers.

We have highlighted how research teams can collaborate with health centers that provide care for vulnerable populations to recruit and retain these populations into research studies publicly. The problems and their solutions were well discussed at various meetings with practices and during our academic presentations. We also presented and documented how a research team can effectively conduct research and implement interventions in FQHCs that serve minority and low income populations with minimal disruption to the clinic work flow. We discussed our innovative EHR alert system's solutions for patient identification and recruitment into studies at all meetings.

We learned that patient recruitment and retention can be a huge challenge for studies that plan to implement new and innovative interventions in health centers that provide care for low income and minority patients, but collaboratively we came up with strategies to overcome this barrier.

5. FUTURE

Current funding includes:

1. Blue Cross Blue Shield of Michigan Foundation, 2009-2010 (1426.RFP.me7), \$50,000
2. Agency for Healthcare Research and Quality, 2010-2015 (1 KO8HSO18104), \$629,727
3. MSU (bridge funding), 2015-2016 \$50,000

With proven feasibility and efficacy, and feedback from our patients, we are applying for NIH funding for a randomized controlled trial of Office-GAP in FQHCs. If successful, we plan to roll out and disseminate our findings in all the FQHCs in the state and nationally. In November 2015 we submitted a grant to NIH for an ROI funding for \$ 3.5 million for five years, which is currently under review. We plan to submit another application to AHRQ for funding in October 2016 for \$2.5million for five years.

We are currently working together to apply for NIH funding for a randomized controlled trial (RCT) of the Office-GAP program in 12 clinics all over the state. Moving with time, the new research will not only include the Office-GAP program but will test in an RCT how we can use technology (text messages) to engage the vulnerable populations in their care.

If funded, we hope to continue to work together for at least the next five years. Subsequent to rollout, we will disseminate our findings regionally and nationally. Our partnership will continue but after dissemination, we will formally hand over the program, including all our tools, to the FQHCs for continued implementation of the Office-GAP program. The responsibility for these tools will lie with an appointed physician champion in each clinic. We will be available to help to sustain this innovative program within the community and the State of Michigan and beyond.

We will use the CESA award to incubate new engagement projects and disseminate our research findings at meetings and in publications. Mobile phones are a promising platform for engaging patients in behavior change and facilitating self-care between visits. Mobile health (mhealth) may have the greatest impact on improving care delivery and health outcomes due to the ability to capture patient data in real time in the patient's daily environment.

Notably, the rapid proliferation of mobile devices has spread to socioeconomically disadvantaged groups. Over 84% of low income individuals in the U.S. own a cell phone. Racial minorities are actually more likely than low income Whites to own mobile devices and to use features such as SMS/text messaging or smartphone applications. There are promising results regarding the use of mhealth to improve patient care but questions remain regarding the efficacy of mhealth in engaging diverse patient populations, including how the technology will be integrated into clinical care and the cost-effectiveness of this approach. This award will be used partly to fund our new proposed innovative engagement program, which will be pilot tested in low-income and vulnerable populations.



April 14, 2016

Selection Committee

**W.K. Kellogg Foundation Community Engagement Scholarship Awards
and C. Peter Magrath Community Engagement Scholarship Award
Association of Public and Land-grant Universities
1307 New York Avenue NW, Suite 400
Washington, DC 20005**

Dear Selection Committee:

The Ingham County Health Department (ICHD) is the local health department serving Ingham County in Lansing, MI. For more than 75 years, the department has worked collaboratively with many community partners to protect the public's health and provide essential and safety net services in the community for the underserved and vulnerable populations. In addition to traditional public health functions, the department has uniquely provided primary care services in a public health environment for many years. In 2009, the network of primary care clinics operated by the ICHD received Federally Qualified Health Center (FQHC) status, becoming the first public entity FQHC in the state of Michigan.

The ICHD Community Health Centers have a long standing, successful history of providing primary care services to vulnerable populations by serving as a healthcare home to more than 19,000 patients. Services include primary care, dental, chronic disease management, on-site lab, infectious disease, HIV/STI, immunizations, family planning, prenatal, behavioral health, refugee health assessments, nutrition counseling, health education, and risk reduction. The success of the clinics has come about due to many significant partnerships in the community, including a number of collaborations with Michigan State University (MSU) through their College of Human Medicine, as well as their College of Osteopathic Medicine which houses the Master of Public Health program.

In keeping with the spirit and tradition of the C. Peter Magrath Community Engagement Scholarship award, and the W.K. Kellogg Foundation Community Engagement Scholarship Awards, the project led by Dr. Adesuwa B. Olumu in the College of Human Medicine is an exemplary model of university-community collaboration that has mutually benefitted ICHD as well as MSU. It is an honor to submit this letter in support of Dr. Olumu's submission, Office Guidelines Applied to Practice (Office-GAP) for your 2016 awards process.

As the clinical safety net for vulnerable patients in our community, it is vital that our providers are equipped with the tools required to address the challenges that exist in treating the unique healthcare needs of this population. One such challenge is working with patients to help reduce the disparate rates of cardiovascular disease (CVD) among African-American and low-income patients. The collaboration between MSU and ICHD to improve shared decision making (SDM) and the use of decision aids (DA) in patient care accomplishes this by designing support interventions for the population served by ICHD's community health centers. By facilitating patient identification and recruitment, scheduling patient workshops, providing meeting space for educational interventions, and implementing the intervention in routine clinical encounters with patients, ICHD was able to successfully partner with MSU faculty and staff to create better outcomes for our patients.

The cardiac care partnership with MSU provides reciprocal benefits to both parties. The work by MSU on the use of SDM and DAs benefits from access to ICHD's established patient population and the existing relationships between providers and patients. In turn, ICHD gains the ability to implement evidence-based decision support interventions into its care practices for some of the county's most vulnerable residents. These efforts allow ICHD to put into practice its core values of health equity and social justice by addressing the disproportionate burden of cardiovascular disease among African-Americans and low-income populations.

The impact on cardiac care of minority and low-income populations has been significant. Often faced with limited resources, the health department is challenged to implement new and innovative programs and initiatives independently. We have been fortunate to have steadfast partners such as MSU where their commitment to community-engaged scholarship not only advances disciplinary knowledge but also contributes significantly to innovation and transformation of practice in the community. The fact that MSU's commitment to advancing disciplinary knowledge is anchored in a desire to contribute to practical solutions across social, cultural and economic boundaries further aligns with the values and work of the ICHD.

Sincerely,



Linda S. Vail, MPA
Health Officer

MICHIGAN STATE UNIVERSITY

March 28, 2016

Selection Committee

W.K. Kellogg Foundation Community Engagement Scholarship Awards
and C. Peter Magrath Community Engagement Scholarship Award
Association of Public and Land-grant Universities
1307 New York Avenue NW, Suite 400
Washington, DC 20005

Dear Selection Committee:

Michigan State University is a proud land-grant institution with more than 160 years of academic excellence that blends pioneering imagination, innovation, risk, persistence, and hard work. We are deeply engaged with society, helping individuals and communities achieve their potential in Michigan and around the world.

Community-engaged scholarship is at the heart of our land-grant tradition, and it remains firmly embedded in the culture of the University. Our faculty, staff, students, and alumni foster an open, collaborative culture that empowers opportunity and creates extraordinary impact for a better world.



Office of the President

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Recognizing the spirit and tradition of the C. Peter Magrath Community Engagement Scholarship Award, and the W.K. Kellogg Foundation Community Engagement Scholarship Awards, it is an honor to endorse the project led by Dr. Adesuwa B. Olomu, professor of medicine in the College of Human Medicine, to represent Michigan State University in the 2016 awards process.

The partnership is an exemplary model of university-community collaboration designed to translate research into practice in cardiovascular care for vulnerable populations. The goal is to decrease the burden of cardiovascular disease and death among people who frequently have difficulty accessing resources to assist in their serious health challenges, and to bridge the disparity gap in cardiovascular care for minority and low-income populations.

Dr. Olomu and Linda Vail, the health officer representing the Ingham County Health Department, and their team, collaboratively designed a shared decision-making intervention known as the Office-Guidelines Applied to Practice (Office-GAP) program in Federally Qualified Health Centers. According to the former medical director of the Ingham County Health Department, it evolved because of “an organizational desire to engage in innovative projects that can positively impact patients’ lives and the chronic conditions they live with.”

Selection Committee

W.K. Kellogg Foundation Community Engagement Scholarship Awards
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Office-GAP scholarship led to improved evidence-based medication use, improved blood pressure control, and increased patient-provider shared decision making with hundreds of patients. The findings of this work have been published in the *Journal of the American College of Cardiology*. It has also been the subject of more than 20 international, national, regional, and local presentations, and three manuscripts are currently under review for publication. In addition to faculty and resident doctors, students are actively engaged in the health disparity studies, and have produced 12 presentations at undergraduate research forums based on this project.

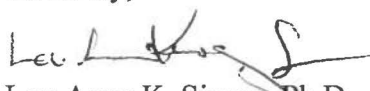
Dr. Olomu's work illustrates an innovative way to address physician and patient interventions in tandem, so that new behaviors and knowledge about treatment options and communication skills are developed to improve collaboration and critical shared decision-making. Dr. Olomu addresses the need for, and advocates tirelessly for, more research on shared decision-making. As she has said many times, "We have to do a better job of connecting with these patients. These folks don't ask questions. They don't want to make waves."

The outcomes have led to collaborative efforts to apply for NIH funding to scale the program to multiple clinics across Michigan, with plans to eventually sustain this innovative program within those communities, the state, and beyond.

At MSU we are working to instill deep disciplinary knowledge along with a keen ability to communicate across social, cultural and economic boundaries. We aim for partnerships that build on trust and understanding forged through the years, and that contribute to our ability to be part of the solution. We are proud of Dr. Olomu's exceptional partnership, because it exemplifies how we foster university-community relationships that are collaborative, participatory, systemic, transformative, and anchored in scholarship.

I invite you to consider the scope and the impact of Dr. Olomu's engaged scholarship. Thank you for considering our Michigan State University nomination for the 2016 W.K. Kellogg Foundation Community Engagement Scholarship Awards and the C. Peter Magrath Community Engagement Scholarship Award.

Sincerely,

A handwritten signature in black ink, appearing to read "Lou Anna K. Simon".

Lou Anna K. Simon, Ph.D.
President

**OFFICE GUIDELINES APPLIED TO PRACTICE PROGRAM (OFFICE-GAP)
PUBLICATIONS AND PRESENTATIONS**

PUBLICATIONS

Olomu AB, Gourineni V, Huang JL, Pandya N, Efeovbokhan N, Samaraweera J, Parashar K, Holmes-Rovner M. Rate and Predictors of Blood Pressure Control in a Federal Qualified Health Center in Michigan: A Huge Concern? J Clin Hypertens (Greenwich). 2013; 15: 254-263

MANUSCRIPTS UNDER REVIEW

Olomu AB, Hart-Davidson W, Luo Z, Kelly-Blake K, Holmes-Rovner M. Implementing Shared Decision Making in Federally Qualified Health Centers, A Quasi-Experimental Design Study: The Office-Guidelines Applied to Practice (Office-GAP) Program. BMC-Health Services Research, 2016

Olomu A, Khan N, Todem D, Huang Q, Bottu S, Kumar E, Holmes-Rovner M. The Office Guidelines Applied to Practice Program Improves Secondary Prevention of Heart Disease in Federally Qualified Healthcare Centers. Preventive Medicine Report, submitted 2016

Olomu A, Khan N, Todem D, Huang Q, Bottu S, Qadri S, Holmes-Rovner M. Blood Pressure Control in Diabetic and Non-diabetic Hypertensive patients in Federally Qualified Health Centers: Impact of Office-Based Guidelines Applied to Practice (Office-GAP Program). Medical Decision Making Policy and Practice Journal 2016

PEER-REVIEWED ABSTRACTS

Olomu A, Khan N, Todem D, Bottu S, Quadri S, Holmes-Rovner M. Patient engagement program led to improved evidence-based medication use in diabetic and heart disease patients in Federally Qualified Health Centers: The Office Guidelines Applied to Practice Program. Oral presentation, Society of General Internal Medicine, May 11-13, 2016. Hollywood, FL.

Olomu A, Khan N, Kelly-Blake K, Kavuturu S, Luo Z. Are there gender-based differences in prescribing statins in Federally Qualified Health Care Centers? Evidence from Office-Guidelines Applied to Practice (Office-GAP). Poster presentation SGIM Women's Health Poster Tour, May 11-13, 2016. Hollywood, FL.

Olomu A, Khan NN, Todem D, Huang Q, Bottu S, Quadri S, Holmes-Rovner M. Patient Engagement Program Led to Improved Evidence-Based Medication Use in Diabetic and Heart Disease Patients in Federally Qualified Health Center: The Office Guidelines Applied to Practice Program. Presented at the Society for General Internal Medicine Regional Meeting in Cleveland, OH, August 27-28, 2015.

Holmes-Rovner M, Bottu S, Qadri S, **Olomu A**. Implementing Shared decision making in Federally Qualified Health Centers: The Office-Guideline Applied to Practice (Office-GAP) Model. Presented at the International Shared Decision Making conference, Sydney, Australia, July 19-22, 2015.

Olomu A, Khan NN, Todem D, Huang Q, Bottu S, Quadri S, Holmes-Rovner M. Shared Decision-Making Program led to Improved Rates of Blood Pressure Control in Federally Qualified Health Centers: The Office-Guidelines to Practice (Office-GAP) Program. To be presented at the Shared Medical Decision Making Meeting (SMDM) in St Louis, MO, October, 2015.

Olomu A, Gautam B, Buda B, Hsu, W, Chahal G, Uwaje W, Samaraweera J, Machavarapu H, Todem D, Holmes-Rovner M. Patient Activation Intervention Improved Evidence-based Medication Use in Diabetic and Heart

Disease patients in Federally Qualified Health Centers: The Office Guidelines Applied to Practice. Presented at the Annual Meeting of the Society for General Internal Medicine, April 24, 2014, San Diego, California.

Olomu A, Gautam B, Buda B, Hsu, W, Therman A, Kumar E, Chahal G, Todem C, Holmes-Rovner M. Blood Pressure Control in Diabetic Patients at Federally Qualified Health Centers: The Impact of Office-Guidelines Applied to Practice (Office-GAP). Presented at the Annual Meeting of the Society for General Internal Medicine, April 24, 2014, San Diego, California. 2014.

Chahal G, Buda B, Hachem H, **Olomu A**. Assessing the readiness and interest towards electronic means of communication among patients at Federally Qualified Health Centers. 2014 abstract presentation at Quality of Care and Outcomes Research (QCOR) Scientific Sessions; Baltimore, MD. (Chahal presenting)

Olomu A, Gautam B, Buda B, Joplin I, Holland K, Hsu W, Chahal G, Therman A, Todem D, Holmes-Rovner M. Do Safety-Net Patients have Access to Cardiovascular Risk Factors Control? 2014 abstract presentation at Quality of Care and Outcomes Research (QCOR) Scientific Sessions; Baltimore, MD.

Olomu A, Gautam B, Buda B, Hsu W, Chahal G, Machavarapu H, Todem D, Holmes-Rovner M. Patient Activation Intervention Improved Evidence-based Medication Use in Diabetic and Heart Disease patients in Federally Qualified Health Centers: The Office Guidelines Applied to Practice Program. Presented at the Society for General Internal Medicine Regional Meeting, September 12-13, 2013.

Olomu A, Gautam B, Buda B, Hsu W, Chahal G, Machavarapu H, Todem D, Holmes-Rovner M. Blood Pressure Control in Diabetic Patients at Federally Qualified Health Centers: The Impact of Office-Guidelines Applied to Practice (Office-GAP) Program. Presented at the Society for General Internal Medicine Regional Meeting, September 12-13, 2013.

Olomu AB, Gourineni V, Pierce SJ, Holmes-Rovner M. Implementing Shared Decision Making in a Community Health Center: Impact on Patient Satisfaction with Physician Communication, Confidence in Decision and Adherence. Presented at the Annual Meeting of the Society for Medical Decision Making, October 19-23, 2013, Baltimore, MD.

Olomu A, Gourineni V, Pierce SJ, Holmes-Rovner M. Implementing Change in Practice in a Federally Qualified Community Health Center: The Office-Guideline Applied to Practice (Office-GAP) Model. Presented at the Annual Meeting of the Society for General Internal Medicine, Denver, Colorado, April 24-27, 2013.

Olomu A, Gourineni V, Pierce SJ, Holmes-Rovner M. Shared Decision Making Education to Implement Practice Change: Impact on Patients' Satisfaction with Physician Communication and Confidence in Decision. Presented at the Annual Meeting of the Society for General Internal Medicine, Denver, Colorado, April 24-27, 2013.

Gourineni V, **Olomu A**, Pierce S, Pandya N, Parashar K, Eagle K, Holmes-Rovner M. Real-Time decision support tool increased outpatient medication use for minority and low-income populations with coronary heart disease: The Office-Guideline Applied in Practice (Office-GAP) Program, Presented at the Annual Meeting of the American College of Cardiology QCOR meeting, Atlanta, May 9-11, 2012.

Olomu A, Gourineni V, Pandya N, Pierce SJ, Kaur R, Eagle K, Holmes-Rovner H. Office-Guidelines Applied in Practice (GAP) Program Increased Patients' Understanding of Coronary Heart Disease, Shared Decision Making and Use of Evidence-based Medications in Federal Qualified Community Health Center in Michigan. Presented at the Annual Meeting of the American Heart Association, 2011.

Olomu A, Efeovbokhan N, Gourineni V, Manjunath R, Xie E, Holmes-Rovner M. Hypertension Control in a Federal Qualified Health Center in Michigan: How are we doing? National Society of General Internal Medicine; 34th Annual Meeting; Phoenix, Arizona; May 4-7, 2011 Oral Presentation.

Olomu AB, Sokolnicki A, Bevilacqua M, Pandya N, Eagle K, Holmes-Rovner, M. Connecting Quality to Outpatient Practice: Implementing Office-Guideline Applied in Practice Program in Cardiac Care in a Federally Qualified Community Health Center. Presented at the Annual Meeting, Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke 2010 Scientific Sessions, Washington D.C., May 19-21, 2010, Forthcoming, Circulation: Cardiovascular Quality and Outcomes.

INTRAMURAL PRESENTATIONS

Evaluation of Cholesterol Assessment and Management in Diabetic and Heart Disease Patients in Federally Qualified Health Care Centers: The Office Guidelines Applied to Practice (Office-GAP) Program. Holley CL, Kondola SK, Kumar E, Bottu S, Qadri S, **Olomu A**. Undergraduate Research Forum (SURF)/ REPID 2015.

Is Rates of Smoking Declining among Minority and Low-Income Populations with Diabetes and Heart Disease in Federally Qualified Health Care Centers? Holley CL, Kondola SK, Kumar E, Bottu S, Qadri S, **Olomu A**. Undergraduate Research Forum (SURF)/ REPID 2015.

Lyles A, Gautam B, **Olomu A**. Improving Knowledge of Coronary Artery Disease and Implementing Shared Decision Making Skills for Patients with Diabetes and Coronary Artery Disease. Undergraduate Research Forum (SURF)/ REPID 2014.

Jamel M, Chahal G, **Olomu A**, Various Patterns in Readiness for Use of Technology in Federally Qualified Health Centers. Undergraduate Research Forum (SURF)/ REPID 2014.

Joplin I, Machavarapu H, Therman A, Buda B, Chahal G, **Olomu A**. Are Smoking Rates Declining in Federally Qualified Health Centers? Undergraduate Research Forum (SURF)/ REPID Program 2013.

Holland K, Gautam B, Buda B, **Olomu A**. Obesity and Access to Community Resources in Federally Qualified Health Centers in Michigan, Undergraduate Research Forum (SURF)/ REPID Program 2013.

Involvement in Treatment Decision-Making of Local Immigrant Populations. Trejo N, Adesokan A, Samaraweera J, Vemula P, Therman A, Buda B, Gandhi S, **Olomu A**. Summer Undergraduate Research Forum (SURF)/ REPID Program. July 24, 2012.

Self-Efficacy and Prevention of Coronary Heart Disease in Minorities and Low-Income Populations in Michigan. Therman A, Adesokan A, Vemula P, Gandhi S, Samaraweera J, Trejo N, Buda B, **Olomu A**. Summer Undergraduate Research Forum (SURF)/ REPID Program, 7/24/2012

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