UNIVERSITY of MARYLAND

CENTER FOR GLOBAL EDUCATION INITIATIVES

Global Health Interprofessional Program
Summer 2017 Faculty Application

Title of Proposed Project: Evaluation of barriers to cervical cancer screening in Nigeria

Faculty name	Clement Adebamowo
School	Medicine
Position	Professor
Appointed department(s)	Epidemiology and Public Health
Email	cadebamowo@som.umaryland.edu
Areas of academic focus	Cancer epidemiology, Host germline, somatic, and HPV genomics, and Cervical cancer risk in African women
Number of students	2
Disciplines of students	No preference

Describe your experience supervising students in field work, if any:
I have supervised numerous students from University of Maryland and other institutions in the United States and Nigeria.

The Project

1. Please provide us with a detailed description (goals, methods, and expected outcomes) of your proposed project including how you will incorporate students from your school and at least one other school on the UMB campus (1,000 words or less)

Background:

In 1993, CDC expanded AIDS surveillance case definition to include all HIV-infected persons who have invasive cervical cancer – a disease whose necessary cause is persistent infection with high risk types of Human Papilloma Virus (hrHPV).[1, 2] Most data on hrHPV and cervical cancer are from developed countries where HIV treatment coverage is high and there is well-established and effective cervical cancer screening program in the community in contrast with the situation in most African countries.[3, 4]High risk HPV (hrHPV) and HIV positive connection. Cervical cancer in Sub-Saharan Africa incidences. In a recent North American AIDS Cohort study, HIV-infected women had 2.3 to 7.7 times increase in cervical cancer incidence [5] while in our recent IeDEA West Africa Consortium study, we found HIV infection was significantly associated with cervical cancer (aOR 5.3 [CI 2.3 – 9.5]). As more HIV positive individuals enjoy prolonged survival on account of modern combination anti-retroviral treatment (cART), this association is expected to grow. *A focused response to the growing burden of cervical cancer among HIV positive women is therefore required.*

In Nigeria, from 2010, as part of our PEPFAR funded ActionPlusUp program (CDC 1U2GGH000557-01 PI-Dakum), we started a cervical cancer "see and treat" program for women living with HIV (PLWH). This program served as clinical enrolment sites for our hrHPV among PLWH research at the African Collaborative Center for Microbiome and Genomics Research (ACCME NHGRI/NIH 1U54HG006947-01A1; PI-Adebamowo). [6, 7]

Identification of barriers to use of self-sampling and attendance at cervical cancer screening programs will contribute to development of strategic responses that better links cervical cancer prevention services to HIV Care and improve the uptake of cervical cancer screening among women living with HIV/AIDS. Uptake of cervical cancer screening in low and middle income countries remains poor due to several factors affecting ability and desire to participate in prevention programs. [8, 9] These range from society's perception of cervical cancer as a disease, cancer associated stigma, prudishness about gynecological examinations, concerns about spouse's reaction, and about violation of religious and cultural injunctions regarding chastity and modesty.[10-12] In the HIV positive population, fear of stigmatization and discrimination due to HIV status compounds these problems.[12] Health worker attitude to work and to PLWH may also prove to be critical barriers to provision of clinical care. [13, 14] Furthermore adequacy of resources including clinical facilities, availability of consumables and the ambient work environment may impact the delivery of care.[15-17] It is therefore very important for cervical cancer prevention designed for PLWH to eliminate these critical barriers and promote conditions that improve uptake of services.

Goals:

1. Complete a review of the literature on barriers to cervical cancer screening, expanding upon the ideas above, which can be focused on low and middle income countries or can be global. This can be published.
2. Travel to Nigeria and do a site visit of where women are being enrolled in cervical cancer screening programs
3. Conduct a qualitative study of the barriers to cervical cancer screening among women living with HIV/AIDS

Methods:

The project will include constructing a review of the literature on barriers to cervical cancer screening, which may be focused on only low and middle income countries or can be global. This can be published. Students will travel to the Institute of Human Virology Nigeria (IHVN) in Abuja, Nigeria and do a site visit of sites where women are being enrolled in cervical cancer screening programs. We conduct site visits to clinics where cervical cancer screening services are being provided and analyze the flow of clients through the clinic. We use the Essential of Magnetism (EOM) tool to measure eight characteristics of a productive and satisfying work environment that are essential to delivering quality patient care.[18] The EOM items are based on grounded theory and are used to measure attributes of the work environment as functional processes. They will conduct a qualitative study of the barriers to cervical cancer screening. *Using in-depth interviews and site inspections, we determine the critical health professionals, institutional and client related barriers to uptake of self-sampling and health professionals' sampling for cervical cancer screening in HIV positive Nigerian women.*

Students will have the opportunity to meet the OBGYN and nurses providing cervical cancer care. Students will be housed in the IHVN Guest House during their stay. Two students will be selected for the project: one from the School of Medicine and one from the School of Pharmacy, Nursing or the School of Social Work.

Expected Outcomes:

It is expected that education will be provided for the patients seen, barriers to cervical cancer screening will be identified, and symptomatic patients will be treated.

2. For how long will you be in country?

The students will be in Abuja for 5-7 weeks. Drs. Clement Adebamowo and Eileen Dareng will act as an on-site mentors to oversee their project.

IHVN was an affiliate of the IHV University of Maryland until 2 years ago when it became an autonomous institution but with collaborative agreement. Since its earliest days, there has been tremendous investment in ensuring safety of visiting students and faculty from the University of Maryland and other international agencies and organizations.

Visitors to Nigeria have included Dr. Robert Gallo, Dr. William Blattner, Dr. John Sorkin, Dr. Ms. Alashle Abimiku etc. They can provide first-hand experience of the ability of IHVN to provide safe and secure travel and stay in Nigeria. These same resources will be available for

the visiting students during the duration of their stay in Nigeria.

I will be in Nigeria for much of the duration of the students' stay in Nigeria under the same logistics, accommodation and travel arrangements.

3 . What project / individual / group preparation do you plan to engage in before being in- country (please give approximately timeframe for these activities)? Note: The Center will have team building and cross-cultural orientation materials available for participating faculty and students.

March: I will meet with the students, provide travel preparation guidance, information on obtaining a Visa, and additional details about the project, literature review, and what is expected of them.

April-May: Students will conduct the review on the literature of barriers to cervical cancer screening in low and middle income countries. I will meet with the students before they travel to Nigeria to discuss cultural issues, safety, and other pertinent information with respect to Nigeria and the patients with whom they will interact.

I will remain in contact with the students through email and I will make myself available to meet with them at additional times as needed to address any questions or concerns they have before they arrive in Nigeria and while they are in-country.

4. What contact will you have with participating students following the project to ensure they complete their post-project academic requirements?

When the students return to campus in July, we will meet so that I can answer any questions about the post-project academic requirements. I will review their paper on the outcomes of the project prior to its submission and I will be available to help them prepare for their on-campus presentation.

5. What is the inter-professional component of this experience?

The responsibility for addressing barriers to cervical cancer screening and promoting the uptake of services in middle to low income countries extends across professions. It is suggested that the ambient work environment, involving physicians, nurses, and other health professionals, may impact the delivery of care. These issues should be addressed inter-professionally since certain aspects of the barriers to cervical cancer screening are directly related to the different medical professions. Through this inter-professional research experience, the students will gain a better overview of the complexity of the problem and provide their past knowledge and experiences to form a dynamic team environment, which will be more adept at identifying the barriers to cervical cancer screening than if only one of the professional schools was involved.

7. Are you receiving any other grants for this experience? If so, please describe them.

No.

8. Please note: You will be expected to complete a short evaluation of your experience to both be able to make any needed changes for the following year and be able to appropriately highlight the project and the larger inter-professional UMB program both on-campus and within wider communities.

Part Three - Budget

Please attach budget that includes transportation, room and board, preparation (can include cost of graduate student assistance) and other costs relating to the project. The total budget should not exceed $10,000 per project.

1. *From the Centers for Disease Control and Prevention. 1993 revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults.* JAMA, 1993. **269**(6): p. 729-30.
2. Anonymous, *1993 revised classification system for HIV infection and expanded surveillance case definition for AIDS among adolescents and adults.* MMWR Recomm Rep, 1992. **41**(RR-17): p. 1-19.
3. Ahdieh, L., et al., *Prevalence, incidence, and type-specific persistence of human papillomavirus in human immunodeficiency virus (HIV)-positive and HIV-negative women.* J Infect Dis, 2001. **184**(6): p. 682-90.
4. Massad, L.S., et al., *Evolution of cervical abnormalities among women with HIV-1: evidence from surveillance cytology in the women's interagency HIV study.* J Acquir Immune Defic Syndr, 2001. **27**(5): p. 432-42.
5. Abraham, A.G., et al., *Invasive cervical cancer risk among HIV-infected women: a North American multicohort collaboration prospective study.* J Acquir Immune Defic Syndr, 2013. **62**(4): p. 405-13.
6. Adebamowo, A.C., et al., *Digital cervicography and cold coagulation for cervical cancer screening in Nigeria.* Infect Agent Cancer, 2012. **7**(Suppl 1): p. 14.
7. Ononogbu, U., et al., *Cervical cancer risk factors among HIV-infected Nigerian women.* BMC Public Health, 2013. **13**(1): p. 582.
8. Bingham, A., et al., *Factors affecting utilization of cervical cancer prevention services in low-resource settings.* Salud Publica Mex, 2003. **45 Suppl 3**: p. S408-16.
9. Lyimo, F.S. and T.N. Beran, *Demographic, knowledge, attitudinal, and accessibility factors associated with uptake of cervical cancer screening among women in a rural district of Tanzania: three public policy implications.* BMC Public Health, 2012. **12**: p. 22.
10. Azaiza, F. and M. Cohen, *Between traditional and modern perceptions of breast and cervical cancer screenings: a qualitative study of Arab women in Israel.* Psychooncology, 2008. **17**(1): p. 34-41.
11. Jedy-Agba, E. and C. Adebamowo, *Knowledge, attitudes and practices of AIDS associated malignancies among people living with HIV in Nigeria.* Infect Agent Cancer, 2012. **7**(1): p. 28.
12. Duffy, L., *Suffering, shame, and silence: the stigma of HIV/AIDS.* J Assoc Nurses AIDS Care, 2005. **16**(1): p. 13-20.
13. Adebamowo, A.C. *The realities of providing cancer care in Nigeria*. in *American Society of Clinical Oncology Annual Meeting*. 2013. Chicago: American Society of Clinical Oncology.

14. Adebamowo, C.A., et al., *Survey of the knowledge, attitude and practice of Nigerian surgery trainees to HIV-infected persons and AIDS patients.* BMC Surg, 2002. **2**: p. 7.
15. Hayes, B., C. Douglas, and A. Bonner, *Work environment, job satisfaction, stress and burnout among haemodialysis nurses.* J Nurs Manag, 2013.
16. Faye, A., et al., *Developing a tool to measure satisfaction among health professionals in sub-Saharan Africa.* Hum Resour Health, 2013. **11**(1): p. 30.
17. Lindqvist, R., et al., *Structural characteristics of hospitals and nurse-reported care quality, work environment, burnout and leaving intentions.* J Nurs Manag, 2013.
18. Schmalenberg, C. and M. Kramer, *Essentials of a productive nurse work environment.* Nurs Res, 2008. **57**(1): p. 2-13.

Part Three - Budget

Please attach budget that includes transportation, room and board, preparation (can include cost of graduate student assistance) and other costs relating to the project. The total budget should not exceed $5,000 per project.

Budget for two students:

	Budget Item	**Amount**	**Subtotal**
Transportation	Visa fee	$0	
	In-country travel	$200	
	Total transportation		**$200**
Room and Board	$100/day	6 weeks	**$4,200**
Incidental Expenses	$20/day	6 weeks	**$600**
Total Budget			**$5000**

Visa fee information: http://www.nigeriaembassyusa.org/index.php?page=visas