Curriculum Vitae (Last revised February 28, 2017)

KATHRYN E. MUESSIG, PhD

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EDUCATION

2011 PhD **Johns Hopkins Bloomberg School of Public Health**, Baltimore, MD
Department of Health, Behavior and Society
Dissertation: *Men who sell sex to men in China: identity, work, and HIV*

2002 BA **Princeton University**, Princeton, NJ
Departments of Anthropology (major) and East Asian Studies (minor)
magna cum laude

PROFESSIONAL EXPERIENCE

2013-present **Assistant Professor**, Department of Health Behavior, Gillings School of Global Public Health, University of North Carolina at Chapel Hill.

2011-2013 **Postdoctoral Research Fellow,** Institute for Global Health and Infectious Diseases, University of North Carolina at Chapel Hill.

2011-2012 **Research Consultant**, International Association of Physicians for AIDS Care, Washington, D.C. Completed systematic literature reviews on HIV antiretroviral therapy adherence measurement and intervention for the Office of AIDS Research to inform the development of treatment recommendations and guidelines published in *Thompson MA, et al.* Antiretroviral treatment of adult HIV infection: 2012 recommendations of the International Antiviral Society-USA panel. *JAMA* 2012; 308: 387‑402.

2010-2011 **Research Consultant**, World Health Organization. Completed systematic literature reviews on HIV serosorting sexual partner selection behaviors for the Department of HIV/AIDS to inform WHO published guidelines (see resultant publication #9 below).

2007-2008 **Research Assistant**, Johns Hopkins Bloomberg School of Public Health, Department of Population, Family and Reproductive Health, Baltimore, Maryland. Conducted study design, qualitative data collection, and data analysis for an evaluation of three community-based mental health service organizations.

2007-2008 **Data Analyst**, Tulane University School of Public Health and Tropical Medicine, New Orleans, Louisiana. Conducted qualitative data analysis and manuscript writing to identify patterns of risk behavior, history of drug use, violence and

abuse among the Adolescent Trials Network national sample of HIV-positive adolescent females (see resultant publications #3 and #10 below).

2006-2007 **Research Consultant**, George Washington University School of Public Health and Health Services, Washington D.C. Conducted site visits, field research and report writing for two national hospital collaboratives funded by the Robert Wood Johnson Foundation: *Speaking Together: National Language Services Network* and *Expecting Success*: *Excellence in Cardiac Care* (see resultant publication #2 below).

2003-2005 **Research Assistant,** Robert Wood Johnson Foundation, Princeton, New Jersey. Completed health related research and data analysis for Program Officers and Vice President of the Research and Evaluation Department. Executed integral formative research for an 8 million dollar national initiative to reduce racial/ethnic disparities in medical care. Collected research for 7 chapters in the Foundation's Annual Anthology publication. Conducted analysis and report writing for the annual, internal performance review to evaluate the foundation's progress in meeting external programmatic and workplace goals.

HONORS

2015 Triangle Global Health Consortium Emerging Leader Award, Finalist
2013 Early career investigator mentee, Developmental Center for AIDS Research, Social and Behavioral Sciences Research Network
2012 Open Access Award from the Scholarly Communications Coordinating Committee, University of North Carolina at Chapel Hill's Libraries
2012 Postdoctoral Award for Research Excellence, University of North Carolina at Chapel Hill
2009 Ruth L. Kirschstein National Research Service Award (NRSA), National Institutes of Health
2008 Fulbright Institute for International Education, China Scholar, U.S. Department of State
2007 Fogarty International Center Research Scholar, China, National Institutes of Health
2007 Fulbright Hays Doctoral Dissertation Award, China, U.S. Department of Education (declined in order to accept NIH scholarship)
2007 David L. Boren Fellowship, China, National Security Education Program, U.S. Department of State (declined in order to accept NIH scholarship)
2006 Carl E. Taylor Award on Bioethics and International Health, Johns Hopkins Bloomberg School of Public Health
2006 Doctoral Distinguished Research Award, Johns Hopkins Bloomberg School of Public Health
2002 Senior Thesis Prize in Anthropology, Princeton University

MEMBERSHIPS

2005-2007 Global Health Council
2005-2015 American Public Health Association
2012-present Delta Omega Honorary Society in Public Health

PEER-REVIEWED PUBLICATIONS

*denotes a mentored student publication
β denotes co-first authorship
featured on the Office of HIV/AIDS Network Coordination's (HANC) Behavioral and Social Science Publications resource page.

(46) Anand T, Nitpolprasert C, Kerr SJ, **Muessig KE**, Promthong S, Chomchey N, Hightow-Weidman LB, Chaiyahong P, Phanuphak P, Ananworanich J, Phanuphak N. A qualitative study of Thai HIV-positive young men who have sex with men and transgender women demonstrates the need for eHealth interventions to optimize the HIV care continuum. *AIDS Care*, ePub ahead of print, 2017 Feb 3:1-6. PMID: 28158952.

(45) Hightow-Weidman LB, **Muessig KE**. New media challenges and opportunities. *Sexually Transmitted Infectious*, ePub ahead of print, November 25, 2016. PMID: 27888207.

(44) Davis A, Meyerson BE, Aghaulor B, Brown K, Watson A, **Muessig KE**, Yang L, Tucker JD. Barriers to health service access among female migrant Ugandan sex workers in Guangzhou, China. *International Journal for Equity in Health*, 2016; 15(1):170. PMID: 27741947.

(43) Legrand S, **Muessig KE,** McNulty T, Soni K, Knudtson K, Lemann A, Nwoko N, Hightow-Weidman LB. Epic Allies: Development of a Gaming App to Improve Antiretroviral Therapy Adherence Among Young HIV-Positive Men Who Have Sex With Men. *JMIR Serious Games,* 2016; 4(1):e6. doi: 10.2196/games.5687. PMID: 27178752. PMCID: PMC4884268.

(42) **Muessig KE**, Rosen DL, Farel CE, White BL, Filene EJ, Wohl DA. "Inside these fences is our own little world": Prison-based HIV testing and HIV-related stigma among incarcerated men and women. *AIDS Education and Prevention*, 2016; 28(2):103–16. PMID: 27459162. PMCID: PMC4965171.

(41) Su S, Chow EP, **Muessig KE**, Yuan L, Tucker JD, Zhang X, Ren J, Fairley CK, Jing J, Zhang L. Sustained high prevalence of viral hepatitis and sexually transmissible infections among female sex workers in China: a systematic review and meta-analysis. *BMC Infectious Diseases*, 2016;16(1):2. PMID: 26732281. PMCID: PMC4702370.

* (40) Mangone ER, Lebrun V, **Muessig KE.** Mobile phone apps for the prevention of unintended pregnancy: A systematic review and content analysis. *Journal of Medical Informatics Research mHealth and uHealth*, 2016;4(1):e6. PMID:26787311. PMCID: PMC4738182.

(39) Han L, Wei C, **Muessig KE**, Bien CH, Meng G, Emch ME, Tucker JD. HIV Test Uptake among MSM in China: Implications for Enhanced HIV Test Promotion Campaigns among Key Populations. *Global Public Health*, 2017;12(1):31-44 (epub ahead of print Jan 2016). PMID: 26785328. PMCID: PMC4955642.

* (38) Baltierra NB, **Muessig KE**, Pike EC, LeGrand S, Bull SS, Hightow-Weidman LB. More than just tracking time: complex measures of user engagement with an internet-based health promotion intervention. *Journal of Biomedical Informatics*, 2016 Feb;59:299-307. Epub: 2015 Dec 28. DOI: 10.1016/j.jbi.2015.12.015. PMID: 26732997. PMCID: PMC4792652.

(37) **Muessig KE**, Panter AT, Mouw MS, Amola K, Stein KE, Murphy JS, Maiese EM, Wohl DA. Medication-taking practices of patients on antiretroviral HIV therapy: control, power, and

intentionality. *AIDS Patient Care and STDs*, 2015;29(11):606-16. PMID: 26505969. PMCID: PMC4638213.

(36) Hightow-Weidman L, **Muessig KE**, Bauermeister J, Zhang C, LeGrand S. Youth, Technology and HIV: Recent advances and future directions. *Current HIV/AIDS Reports*, 2015;12(4):500-515. PMID: 26385582. PMCID: PMC4643403.

(35) Zhang L, Chow EP, Su S, Yiu WL, Zhang X, Lu KI, Tung K, Zhao R, Sun P, Sun X, Yuan L, **Muessig KE,** Tucker JD, Jing J. A systematic review and meta-analysis of prevalence, trend and geographical distribution of HIV among Chinese female sex workers (2000-2011): implications for preventing sexually transmitted HIV. *International Journal of Infectious Diseases*, 2015;39:76-86. PMID: 26358859. PMCID: Not applicable.

(34) Chow EP, Tung K, Tucker JD, **Muessig KE**, Su S, Zhang X, Jing J, Zhang L. Behavioral interventions improve condom use and HIV testing uptake among female sex workers in China: A systematic review and meta-analysis. *AIDS Patient Care and STDs*, 2015;29(8):454-60. PMID: 26217931. PMCID: Not applicable.

(33) **Muessig KE**, Bien CH, Wei C, Lo EJ, Yang M, Tucker JD, Yang L, Meng G, Hightow-Weidman LB. A mixed-methods study on the acceptability of using eHealth for HIV prevention and sexual health care among men who have sex with men in China. *Journal of Medical Internet Research*, 2015;17(4):e100. PMID: 25900881. PMCID: PMC4420841.

* β (32) Bien CH*β, **Muessig KE**β, Lee R, Lo EJ, Yang LG, Yang B, Peeling RW, Tucker JD. HIV and syphilis testing preferences among men who have sex with men in South China: a qualitative analysis to inform sexual health services. *PLoS One,* 2015;10(4):e0124161. PMID: 25875336. PMCID: PMC4395264.

β # (31) Chow EPβ, **Muessig KE**β, Yuan L, Wang Y, Zhang X, Zhao R, Sun P, Sun X, Tucker JD, Jing J, Zhang L. Risk behaviours among female sex workers in China: a systematic review and data synthesis. *PLoS One*, 2015;10(3):e0120595. PMID:25815481. PMCID: PMC4376708.

(30) Huang Y, **Muessig KE,** Zhang N, Maman S. Unpacking the “structural” in a structural approach for HIV prevention among female sex workers: a case study from China. *Global Public Health*, 2015;10(7):852-66. PMID: 25742611. PMCID: PMC4509851.

(29) **Muessig KE,** Nekkanti M*, Bauermeister J, Bull S, Hightow-Weidman LB. A systematic review of recent smartphone, Internet and Web 2.0 interventions to address the HIV continuum of care. *Current HIV/AIDS Reports*, 2015;12(1):173-90. PMID: 25626718. PMCID: PMC4370788.

(28) Hightow-Weidman LB, **Muessig KE**, Pike EC, LeGrand S, Baltierra NB, Rucker AJ, Wilson P. HealthMpowerment.org: Building community though a mobile-optimized, online health promotion intervention. *Health Education and Behavior,* 2015;42(4):493-9. PMID: 25588932. PMCID: PMC4501897.

(27) Bien CH, Best JM, **Muessig KE**, Wei C, Han L, Tucker JD. Gay apps for seeking sex partners in China: Implications for MSM sexual health. *AIDS and Behavior,* 2015;19(6):941-6. PMID: 25572834. PMCID: PMC4475493.

β (26) Tucker JDβ, **Muessig KE**β, Cui R, Bien CH, Lo EJ, Lee R, Wang K, Han L, Liu FY, Yang LG, Yang B, Larson H, Peeling RW. Organizational characteristics of HIV/syphilis testing services for men who have sex with men in South China: a social entrepreneurship analysis and implications for creating sustainable service models. *BMC Infectious Diseases*, 2014;14(1):601. PMID: 25422065. PMCID: PMC4247875.

(25) **Muessig KE,** Cohen MS. Advances in HIV Prevention for Serodiscordant Couples. *Current HIV/AIDS Reports.* 2014;11(4):434-46. PMID: 25145645. PMCID: PMC4267973.

(24) **Muessig KE**, Baltierra NB, Pike EC, LeGrand S, Hightow-Weidman LB. Achieving HIV risk reduction through healthmpowerment.org, a user-driven eHealth intervention for young Black men who have sex with men and transgender women who have sex with men. *Digital Culture & Education*, 2014;6(3):164-182. PMID: 25593616. PMCID: PMC4292870.

(23) Han L, Bien CH, Wei C, **Muessig KE**, Yang M, Liu F, Yang L, Meng G, Emch ME, Tucker JD. HIV Self-Testing Among Online MSM in China: Implications for Expanding HIV Testing Among Key Populations. *Journal of Acquired Immune Deficiency Syndromes,* 2014;67(2):216-21. PMID: 24991972. PMCID: PMC4162828.

(22) Wei C, **Muessig KE,** Bien C, Yang L, Han L, Yang M, Tucker JD. Strategies for promoting HIV testing uptake: willingness to receive couple-based and collective testing among a cross-sectional online sample of men who have sex with men in China. *Sexually Transmitted Infections*, 2014;90(6):469-74. PMID: 24760266. PMCID: PMC4151526.

(21) LeGrand S, **Muessig KE**, Pike EC, Hightow-Weidman LB. If you build it will they come? Addressing social isolation within a technology-based HIV intervention for young black men who have sex with men. *AIDS Care*. 2014;26(9):1194-200. PMID: 24617609. PMCID: PMC4065205.

(20) **Muessig KE**, McLaughlin MM, Nie JM, Cai W, Zheng H, Yang L, Tucker JD. Suboptimal antiretroviral therapy adherence among HIV-infected adults in Guangzhou, China. *AIDS Care*. 2014; 26(8):988-95. PMID: 24666239. PMCID: PMC4024070.

(19) Henderson G, Maman S, Huang Y, **Muessig K**, Pan S. Social contexts of heterosexual transmission of HIV/STI in Liuzhou City, China. *AIDS and Behavior*. 2014; 18(S2):S111-7. PMID: 24337698. PMCID: PMC4138215.

* (18) Zhang YC,* Brown J, **Muessig KE,** Feng XX, He WZ. Sexual health knowledge and health practices of female sex workers in Liuzhou, China, differ by size of venue. *AIDS and Behavior.* 2014;18(S2):S162-70. PMID: 23612941. PMCID: PMC3883793.

* (17) Wang W,* **Muessig KE,** Li M, Zhang YX. Networking activities and perceptions of HIV risk among male migrant market vendors in China. *AIDS and Behavior*. 2014;18(S2):S142-151. PMID: 23572155. PMCID: PMC3749260.

(16) **Muessig KE**, Smith MK, Maman S, Huang Y, Chen XS. Advancing the prevention agenda for HIV and other sexually transmitted infections in south China: social science research to inform effective public health interventions. *AIDS and Behavior*. 2014;18(S2):S222-231. PMID: 24443101. PMCID: PMC3982310.

* (15) Lee R*, Cui RR*, **Muessig KE,** Thirumurthy H, Tucker JD. Incentivizing HIV/STI Testing: A Systematic Review of the Literature. *AIDS and Behavior*. 2014;18(5):905-12. PMID: 24068389. PMCID: PMC3966986.

(14) Farel CE, Parker SD, **Muessig KE,** Grodensky CA, Jones C, Golin CE, Fogel CI, Wohl DA. Sexuality, sexual practices, and HIV risk among incarcerated African-American women in North Carolina. *Women's Health Issues*. 2013;23(6):e357-64. PMID: 24183410. PMCID: PMC3891845.

(13) Cohen MS, Smith MK, **Muessig KE**, Hallett TB, Powers KA, Kashuba AD. Antiretroviral Treatment of HIV-1 Prevents Transmission of HIV-1: Where Do We Go From Here? *Lancet*. 2013;382(9903):1515-24. PMID: 24152938. PMCID: PMC3880570.

* # (12) Cui RR,* Lee R,* Thirumurthy H, **Muessig KE**, Tucker JD. Microenterprise Development Interventions for Sexual Risk Reduction: A Systematic Review. *AIDS and Behavior*. 2013;17(9):2864-77. PMID: 23963497. PMCID: PMC3877769.

(11) **Muessig KE,** Pike E, Fowler B, LeGrand S, Parsons J, Wohl D, Bull S, Wilson P, Hightow-Weidman LB. Putting prevention in their pockets: developing mobile phone based HIV interventions for Black men who have sex with men. *AIDS Patient Care and STDs*. 2013;27(4):211-22. PMID: 23565925. PMCID: PMC3624691.

(10) Clum GA, Czaplicki L, Andrinopoulos K, **Muessig K**, Hamvas L, Ellen JM, and the Adolescent Medicine Trials Network for HIV/AIDS Interventions. Strategies and outcomes of HIV status disclosure in HIV-positive young women with abuse histories. *AIDS Patient Care and STDs.* 2013;27(3):191-200. PMID: 23596649. PMCID: PMC3595953.

(9) Kennedy CE, Bernard LJ, **Muessig K**, Konda K, Akl E, Gerbase A, O'Reilly KR. Serosorting and HIV/STI infection among HIV-negative MSM and transgender people: a systematic review and meta-analysis to inform WHO guidelines. *Journal of Sexually Transmitted Diseases.* 2013, Article ID 583627. PMID: 26316960. PMCID: PMC4437432.

(8) **Muessig KE**, Pike EC, LeGrand S, Hightow-Weidman LB. Mobile phone applications for the care and prevention of HIV and other sexually transmitted diseases: a review. *Journal of Medical Internet Research*. 4 Jan 2013;15(1):e1. PMID: 23291245. PMCID: PMC3636069.

(7) Smith MK, Powers KA, **Muessig KE,** Miller WC, Cohen MS. HIV treatment as prevention: the utility and limitations of ecological observation. *PLoS Medicine*. 2012;9(7):e1001260. PMID: 22802740. PMCID: PMC3393666.

(6) **Muessig KE,** Smith MK, Powers KA, Lo YR, Burns DN, Grulich AE, Phillips AN, Cohen MS. Does ART prevent HIV transmission among MSM? *AIDS*. 2012;26(18):2267-73. PMID: 22569019. PMCID: PMC3499670.

(5) Cohen MS, **Muessig KE**, Smith MK, Powers KA, Kashuba AD. Antiviral agents and HIV prevention: controversies, conflicts, and consensus. *AIDS*. 2012;26(13):1585-98. PMID 22507927. PMCID: PMC3651739.

(4) Baral S, Beyrer C, **Muessig K**, Poteat T, Wirtz AL, Decker MR, Sherman SG, Kerrigan D. Burden of HIV among female sex workers in low-income and middle-income countries: a

systematic review and meta-analysis. *Lancet Infectious Diseases*. 2012;12(7):538-49. PMID: 22424777. PMCID: Not applicable.

(3) Clum GA, Andrinopoulos K, **Muessig K**, Ellen JM, and the Adolescent Medicine Trials Network for HIV/AIDS Interventions. Child abuse in young, HIV-positive women: linkages to risk. *Qualitative Health Research*. 2009;19(12):1755-68. PMID: 19949224. PMCID: PMC2840638.

(2) Regenstein M, Mead H, **Muessig KE**, Huang J. Challenges in language services: identifying and responding to patients' needs. *Journal of Immigrant and Minority Health*. 2009;11(6):476-81. PMID: 18536990. PMCID: Not applicable.

(1) Tobin KE, **Muessig KE**, Latkin CA. HIV seropositive drug users' attitudes towards partner notification (PCRS): results from the SHIELD study in Baltimore, Maryland. *Patient Education and Counseling*. 2007;67(1-2):137-42. PMID: 17449216. PMCID: PMC2919763.

BOOK CHAPTERS

(1) **Muessig KE**, Baltierra NB, Pike EC, LeGrand S, Hightow-Weidman LB (2015). Achieving HIV risk reduction through healthmpowerment.org, a user-driven eHealth intervention for young black men who have sex with men and transgender women who have sex with men. In: CS Walsh (Ed.), *Transforming HIV Prevention & Care For Marginalised Populations* (pp. 211-230). Digital Culture & Education online Open Access Book. Available online at: http://www.digitalcultureandeducation.com/transforming-hiv-prevention-care-for-marginalised-populations/. [Note: this Chapter was first published as a peer-reviewed article in 2014]

(2) Cohen MS, Smith K, **Muessig KE**. Transmission Prevention Strategies (2012). In: *American Academy of HIV Medicine (AAHIVM) Fundamentals of HIV Medicine for the HIV Specialist 2012 edition* (pp. 48-85). Washington DC: AAHIVM.

INVITED EDITORIALS

(3) Hightow-Weidman L, **Muessig KE.** Using virtual spaces to engage HIV-positive men who have sex with men online: considerations for future research and interventions. *Sexually Transmitted Diseases*.2014;41(12):756-8. PMID: 25581814. PMCID: PMC4501851.

(2) **Muessig KE,** Cohen MS. China, HIV, and syphilis among men who have sex with men: an urgent call to action. *Clinical Infectious Diseases.* 2013;57(2):310-3. PMID: 23580735. PMCID: PMC3689347.

(1) **Muessig KE**, Tucker JD, Wang BX, Chen XS. HIV and syphilis among men who have sex with men in China: The time to act is now. *Sexually Transmitted Diseases*. 2010;37(4):214-6. PMID: 20220563. PMCID: PMC2946987.

NON-REFEREED INVITED PRESENTATIONS

(23) Invited speaker: “Design and Evaluation of Technology-Based Interventions Across the HIV Care Continuum.”, Chengdu Media Group-Sichuan Elite Physician Company. Chengdu, China, August 12, 2016.

(22) Invited speaker: “Use of the web, mobile apps and social media for HVI care and prevention among MSM in the U.S. and China.”, Sichuan Provincial People's Hospital. Chengdu, China, August 11, 2016.

(21) Invited speaker: “Stigma experiences among young Black men who have sex with men in North Carolina.” UNC LGBTQ Center Graduate Speaker Series. Chapel Hill, NC. April 13, 2016.

(20) Invited symposium speaker: Invisible citizens in the new urban China: “If not for the money”: Straight men who sell sex to men. Symposium Title: Who Decides in China’s Rapid Urbanization? An Interdisciplinary Inquiry into the New Chinese City. Sponsored by the Carolina Asia Center, UNC-Chapel Hill Program on Chinese Cities and a grant from the Chiang Ching-Kuo Foundation. Chapel Hill, NC. September 25, 2015.

(19) Invited speaker: “Use of the web, mobile apps and social media for HIV care and prevention among MSM in the U.S. and China.” University of California San Francisco, Center for AIDS Prevention Studies eHealth Workgroup. Delivered via video conferenced webinar. October 13, 2015.

(18) Invited workshop panel speaker: “Use of the web, mobile apps and social media for care and prevention in the US and China” (#TUWS0503). International AIDS Society Conference (IAS), Vancouver, Canada. July 19-23, 2015.

(17) Invited speaker and workshop facilitator: Qualitative Data Analysis Training Workshop. UNC Office of Undergraduate Education. Chapel Hill, NC. April 9, 2015.

(16) Invited panel chair and speaker: Use of a social media based intervention to address stigma related to sexual orientation, race, and HIV among MSM. 18th IUSTI Asia-Pacific Conference, Bangkok, Thailand. November 11-14, 2014.

(15) Invited speaker: Research ethics in HIV/STD research. Third Annual UNC-South China STI Research Training Course. Guangzhou, China. July 13-19, 2014.

(14) Invited speaker: Qualitative methods for HIV/STD research. Third Annual UNC-South China STI Research Training Course. Guangzhou, China. July 13-19, 2014.

(13) Invited discussant: 2014 Triangle East Asia Colloquium on Sex Work and Trafficking in East Asia. Hosted by North Carolina State University, Raleigh, NC, USA, February 8, 2014.

(12) Invited speaker: Four Frees, One Care, and the HIV Cascade in China. Carolina Asia Center, The China Initiative. Chapel Hill, NC. February 3, 2014.

(11) Invited speaker: Social Entrepreneurship for Sexual Health, Formative Research in Barriers to HIV testing and acceptability of eHealth approaches. Social Entrepreneurship for Sexual Health (SESH) Technical Meeting. Hong Kong, China. July 4, 2013.

(10) Invited speaker and workshop facilitator: Qualitative Data Collection Training Workshop for HIV/STD Research. Sun Yat-sen University and UNC School of Medicine. Guangzhou, China. June 22, 2013.

(9) Invited speaker: From PhD to postdoc to professional: building a research portfolio and mentorship team for a career in public health research. Gillings School of Public Health, Department of Health Behavior, Doctoral Student Group. Chapel Hill, NC. October 29, 2013.

(8) Invited speaker: Conducting field research among male commercial sex workers in China. Gillings School of Public Health, Department of Health Behavior, Global Health Roundtable. Chapel Hill, NC. October 10, 2013.

(7) Invited speaker: Mixed methods research to inform an HIV testing and linkage to care intervention among men who have sex with men in China. UNC Division of Infectious Diseases, Friday Infectious Disease Conference, Chapel Hill, NC. May 10, 2013.

(6) Invited speaker: New diagnostic, financial, and technology-based approaches to increase HIV testing and linkage to care among men who have sex with men in China. UNC Center for AIDS Research (CFAR) World AIDS Day Symposium. Chapel Hill, NC. November 30, 2012.

(5) Invited speaker: The use of e-technology to promote sexual health among MSM. Social Entrepreneurship for Sexual Health (SESH) Technical Meeting. Hong Kong, China. October 31, 2012.

(4) Invited speaker: Conducting qualitative research for HIV/STDs: An overview of methods. First Annual UNC-South China STI Research Training Course. Guangzhou, China. May 27-29, 2012.

(3) Invited speaker: What is the current evidence for Treatment as Prevention among men who have sex with men (MSM)? WHO-NIH Informal Consultation, Antiretroviral Treatment as HIV Prevention: Implementation Research in Selected Countries in Asia. Seam Reap, Cambodia. March 26-28, 2012.

(2) Guest lecture: Conducting qualitative data analysis: male commercial sex work in China. Johns Hopkins Bloomberg School of Public Health, Department of Health, Behavior and Society, Course: Ethnographic Fieldwork (410.690.01). Baltimore, MD. March 2, 2011.

(1) Guest lecture: Conducting qualitative data analysis: male commercial sex work in China. Johns Hopkins Bloomberg School of Public Health, Department of Health, Behavior and Society, Course: Ethnographic Fieldwork (410.690.01). Baltimore, MD. March 8, 2010.

REFEREED ORAL PRESENTATIONS AND ABSTRACTS

* denotes a mentored student presentation

(32) Anand T, Nitpolprasert C, Phanuphak P, Jantarapakde J, Keeratikongsakul, Promthong S, Kerr SJ, **Muessig KE**, Hightow-Weidman LB, Ananworanich J, Phanuphak N. Creating an online HIV prevention and treatment cascase using the Adam's Love electronic health record system. Abstract #THPEE506, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(31) Mathews A, Anderson A, Farley S, Hightow-Weidman L, **Muessig K,** Rennie S, Tucker J. An innovation contest as community engagement for HIV Cure research in North Carolina: A missed methods evaluation. Abstract #THPDD0106LB, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(30) LeGrand S, **Muessig K**, Choi SK, Soni K, Kirschke-Schwartz H, Hightow-Weidman LB. Associations between multiple types of stigma and discrimination and sexual risk behavior among young black men who have sex with men and transgender women in the United States. Abstract #THPED390, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(29) Choi SK, LeGrand S, **Muessig K**, Soni K, Kirschke-Schwartz H. How do safer sex intentions impact HIV sexual risk behavior in young black men who have sex with men? A mediation analysis. Abstract #TUPEE567, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(28) Hightow-Weidman L, LeGrand S, Soni K, Kirschke-Schwartz H, Choi SK, **Muessig K.** Technology-related predictors of social isolation among young black MSM. Abstract #TUPED329, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(27) Anand T, Nitpolprasert C, Ananworanich J, Jantarapakde J, Kerr SJ, Sohn AH, **Muessig KE,** Hightow-Weidman LB, Phanuphak P, Phanuphak N. Characteristics of HIV risks among Thai young men who have sex with men and transgender youth using an ecounseling platform. Abstract #TUPEC229, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(26) **Muessig KE**, Zalla L, Emmanuel E, Bula A, Cloete A, Chilundo S, Sapalalo P, Herce M, Miller W, Lancaster K, Weir S. Minimizing Unintended Risks of HIV-Related Programmatic Mapping Among Key Populations: Introducing the Mapping Readiness Assessment. Abstract # WEPED325, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(25) Knudtson KA, Soni K, **Muessig KE,** Dong W, Conserve D, Hightow-Weidman L. ""Tough Talks": developing a virtual reality application to support HIV Status disclosure among young MSM. Abstract # THPEE504, 21th International AIDS Conference (AIDS 2016), July 18-22, Durban, South Africa.

(24) **Muessig KE**, Whipple W, Grewe MB, Gilbertson AL, Tucker JD, Thomas A, Kelly E, Wang N, Hightow-Weidman LB. HIV CURE GOES VIRAL: An Analysis of HIV Cure #Hashtags. Abstract #3692, International AIDS Society, 2015 Towards an HIV Cure Symposium, July 18-19, Vancouver, Canada.

(23) **Muessig KE,** Panter AT, Mouw MS, Amola K, Stein KE, Murphy JS, Maiese EM, Wohl DA. Medication taking practices of patients on antiretroviral HIV therapy: intentionality, power and control. Abstract #100, International Association of Providers of AIDS Care, Adherence Conference 2015, June 28-30, Miami, FL, USA.

(22) Hightow-Weidman LB, LeGrand S, **Muessig KE,** Pike EC, Caktus Group. Epic Allies: Fight Bad Guys, Remember Your Meds, Save the World. Abstract #101, International Association of Providers of AIDS Care, Adherence Conference 2015, June 28-30, Miami, FL, USA.

(21) Han L, Bien CH*, Wei CY, **Muessig KE,** Yang M, Liu FY, Yang LG, Meng R, Emch M, Tucker JD. HIV Self-Testing Among Online MSM in China: Implications for Expanding HIV

Testing Among Key Populations. 20th International AIDS Conference (AIDS 2014), 20-25th July, 2014, Melbourne, Australia.

(20) Wei CY, **Muessig KE**, Bien C, Yang LG, Han L, Yang M, Tucker JD. Strategies for Promoting HIV Testing Uptake: Couple and Group-Based HIV Testing among Men Who Have Sex with Men in China. 20th International AIDS Conference (AIDS 2014), 20-25th July, 2014, Melbourne, Australia. Abstract number: A-641-0260-00183.

(19) **Muessig KE**, Bien CH, Lo EJ, Wei CY, Yang M, Tucker JD, Yang LG, Meng R, Hightow-Weidman LB. High acceptability of eHealth to increasing HIV testing and care among young men who have sex with men in China. Poster presentation, YTH Live 2014, April 6-8, San Francisco, California, USA. http://yth.org/ythlive/about/

(18) LeGrand S, **Muessig KE**, Pike EC, Baltierra N, Bull S, Hightow-Weidman LB. Developing Medtropolis a "positively heroic" gaming and social networking app to improve medication adherence among young HIV+ black MSM. Oral presentation, YTH Live 2014, April 6-8, San Francisco, California, USA. http://yth.org/ythlive/about/

(17) Pike EC, Baltierra N, **Muessig KE**, LeGrand S, Bull S, Hightow-Weidman LB. Level Up! How gamification can be used to spark competition, collaboration, and community in online health behavior interventions. Oral presentation, YTH Live 2014, April 6-8, San Francisco, California, USA. http://yth.org/ythlive/about/

(16) Baltierra N, LeGrand S, Pike EC*, **Muessig KE**, Bull S, Hightow-Weidman LB. More than *just* tracking time: measuring engagement within an internet-based HIV/STD intervention. Poster presentation, YTH Live 2014, April 6-8, San Francisco, California, USA. http://yth.org/ythlive/about/

(15) Farel CE, Parker S, **Muessig KE,** Grodensky CA, Jones C. Whatever I got, you gonna get: HIV risk and perception of male condoms among incarcerated African American women in North Carolina. Abstract No. 290749. Roundtable presentation at the 141th American Public Health Association Annual Meeting & Exposition, November 2-6, 2013, Boston, MA, USA.

(14) Hightow-Weidman LB, Pike EC, Baltierra N, Fowler B, **Muessig KE.** Putting prevention in their pocket: Developing and testing healthMpowerment.org, an interactive, mobile phone- and web-based intervention for YBMSM. Oral presentation at YTHLive, ISIS 6th annual Conference on Youth, Tech and Health, April 6-9, 2013, San Francisco, CA, USA.

(13) **Muessig KE**, Bien CH, Min Y, Tucker JD, Lee R, Peeling RW, Yang LG, Yang B, Hightow-Weidman L. Formative research on e-health approaches to increase HIV testing and linkage to care among MSM in South China. Poster presentation at the Consortium of Universities for Global Health's 4th Annual Conference. March 14-16, 2013, Washington DC, USA.

(12) Bien CH, **Muessig KE,** Lee R,* Cui R,* Lo EJ,* Gong N,* Yang LG, Yang B, Peeling RW, Tucker JD. Point-of-care STD testing among MSM in South China: a qualitative analysis to inform implementation. Poster presentation at the Consortium of Universities for Global Health's 4th Annual Conference, March 14-16, 2013, Washington DC, USA.

(11) Tucker JD, **Muessig KE,** Cui R, Bien CH, Lee R, Yang LG, Yang B, Larson H, Peeling RW. Social entrepreneurship for sexual health: New models for increasing point-of-care test

implementation. Poster presentation at the Consortium of Universities for Global Health's 4th Annual Conference, March 14-16, 2013, Washington D.C., USA.

(10) Farel CE, Parker SD, **Muessig KE,** Grodensky CA, Jones C, Golin CE, Fogel CI, Wohl DA. Transactional sex and HIV risk among incarcerated African-American women in North Carolina (NC). Abstract No. 259319, Roundtable presentation at the 140th American Public Health Association Annual Meeting & Exposition, October 27-31, 2012, San Francisco, CA, USA.

(9) **Muessig KE.** Oral presentation: Stretching sexual boundaries: Male sex work and HIV risk in China. 72nd Annual Meeting of the Society for Applied Anthropology, March 27-31, 2012, Baltimore, MD, USA.

(8) **Muessig KE**, Pike E, LeGrand S, Hightow-Weidman LB. A systematic review of mobile phone applications for HIV care and prevention. Abstract No. 21167/LBPE36, Late breaker poster presentation at the XIX International AIDS Conference, July 22-27, 2012, Washington, DC, USA.

(7) Baral S, Beyrer C, **Muessig K**, Poteat T, Wirtz A, Decker M, Sherman S, Kerrigan D. High and disproportionate burden of HIV among female sex workers in low- and middle-income countries: a systematic review and meta-analysis. Abstract No. THAC0501, Oral presentation at the XIX International AIDS Conference, July 22-27, 2012, Washington, DC, USA.

(6) Farel CE, Parker SD, **Muessig KE**, Grodensky CA, Jones C, Golin CE, Fogel CI, Wohl DA. "I live with my girlfriend, and my girlfriend has a husband": Complex sexuality and HIV risk among incarcerated African-American women in North Carolina. Abstract No. TUPE557, Poster presentation at the XIX International AIDS Conference, July 22-27, 2012, Washington, DC, USA.

(5) Nachega J, Uthman O, Mills E, **Muessig KE,** Bernard L, McIntyre J, Mofenson L. Adherence to Antiretroviral Therapy (ART) during and after pregnancy in low-, middle and high income countries: A systematic review and meta-analysis. Paper No. 1006, 19th Conference on Retroviruses and Opportunistic Infections, March 5-8, 2012, Seattle, WA, USA.

(4) Kennedy C, Bernard L, **Muessig K**, O'Reilly K. Meta-analysis of the association between serosorting and HIV/STI infection. Abstract No. 4267, Poster presentation at the 6th IAS Conference on HIV Pathogenesis, Treatment and Prevention, July 17-20, 2011, Rome, Italy.

(3) **Muessig KE.** Oral presentation: Invisible Citizens: Straight men who sell sex to men in China. American Anthropological Association 109th Annual Meeting, November 17-21, 2010, New Orleans, LA, USA.

(2) **Muessig KE**, Li J, Chen XS. Sexual network overlaps between China's male and female commercial sex industries. Poster presentation at the NIH Fogarty International Center Research Scholars and Fellows Alumni Symposium. September 23-26, 2010, Bethesda, MD, USA

(1) **Muessig KE.** Oral presentation: Sexual networks of men who sell sex to men in China and HIV/STD risk. Chinese 5th National STD Conference, May 15-19, 2010, Haikou, Hainan, China.

TEACHING AND MENTORING ACTIVITIES

Courses taught, past three years:
HBEH815: Theoretical and Conceptual Foundations of Health Behavior and Health Education: Global Health Module (doctoral seminar)
Fall 2014; Fall 2015; Fall 2016
The Gillings School of Global Public Health
Enrollment: 2014, n=16; 2015, n=12; 2016, n=12

HBEH860: Research Proposal Development (doctoral seminar)
Spring 2016
The Gillings School of Global Public Health
Enrollment: 2016, n=14; 2017, n=9

COMH7267: mHealth Technologies for HIV/AIDS Implementation Research (Masters Implementation Science, elective)
Fall 2016, 2 week intensive course (40 online hours, 40 in-class hours)
University of the Witwatersrand, Johannesburg
Enrollment: 2016, n=12

Mentoring activities
HBEH746: MPH Capstone
Fall 2014 – Spring 2016
Faculty Adviser to Intrahealth Masters Capstone Team
Students 2014-15: 4; Students 2015-16: 5

UNC courses invited guest lectures, 2014-2016:
EPID 757 (Weir): Epidemiology & social aspects of HIV/AIDS in developing countries. "The HIV Care Cascade", 10/31/14.
HBEH 812 (Ennett): Professional Development
"Career Pathways in Global Health Research", 11/7/14.
HBEH 860 (Foshee): Research Proposal Development
"Early Career Awards Panel", 3/28/14 and 4/17/15.
JOMC 826 (Cates): Interdisciplinary Health Communication Colloquium
"eHealth and mHealth approaches to HIV prevention and care interventions", 10/6/15.
HBEH 893 - 007 (Fisher): Special Studies in Behavior Change: Global Mental Health
"Mental Health in China", 11/21/16.

Student advising: Ongoing

PhD
- **Kami Hayashi,** doctoral committee member, May 2015 – present
- **Laura Villa-Torres**, doctoral committee member, May 2015 – present
- **Sara Kowitt,** doctoral committee member, May 2016 - present
- **Willa Dong,** adviser, August 2015 – present

MPH
- **Shauna Ayres,** Health Behavior, adviser, August 2015 – present.
- **Morgen Palfrey,** Health Behavior, adviser, August 2015 – present.
- **Nikhil Sanon,** Health Behavior, adviser, August 2016 – present.

- **Joshua Boegner,** Health Behavior, adviser, August 2016 – present.
- **Deren Pulley,** Health Behavior, fellowship mentor, July 2016 – present.

Student advising: Completed

Masters/MD

- **Lillie Armstrong,** UNC-Chapel Hill, MPH 2016, Health Behavior, adviser.
- **Joel Mercado Blanco,** UNC-Chapel Hill, MPH 2016, Health Behavior, adviser.
- **Chen Zhang,** UNC-Chapel Hill, MPH 2016, Health Behavior, practicum preceptor.
- **Nancy Li**, MPH, Maternal and Child Health. Master's thesis, April 2014: "Improving male involvement in HIV testing in men who have sex with men in China". First reader: Trude Bennett, Second reader: Kate Muessig.
- **Joanna Davis**, MPH, Maternal and Child Health. Primary adviser for summer research practicum in Beijing, China, 2014. "Designing a relationship support-based intervention for HIV-positive women".
- **Rosa Cui**, Columbia University Medical School, MD, 2015. UNC Project China Trainee, 2012-2013. Project title: "Social entrepreneurship for sexual health: Stakeholder analysis to develop new models for increasing point-of-care test implementation."
- **Ramon Lee**, Harvard University Medical School, MD, 2015. UNC Project China Trainee, 2012-2013. Project title: "Incentivizing HIV/STI Testing: A Systematic Review of the Literature."
- **Cedric Bien**, MD 2014, Mount Sinai School of Medicine.
  UNC Doris Duke Fellow, Guangzhou, China, 2012-2013.
  Project title: "Point-of-care STD testing among men who have sex with men in South China: a qualitative analysis to inform implementation"
- **Willa Dong**, MHS 2012, Johns Hopkins Bloomberg School of Public Health, Department of International Health.
  Master's thesis: "Understanding the mental health needs of female sex workers in Shenzhen, China."

Undergraduate

- **Yang Min**, UNC Gillings School of Public Health, Department of Health Policy and Health Management, anticipated degree completion: May 2015. Project China Trainee, Guangzhou, China, May-August, 2013. Project title: "eHealth approaches to increase HIV testing and linkage to care among MSM in South China: a mixed methods study."

Visiting scholars hosted or mentored:

- **Yuan Lei**, PhD 2014, Renmin University of Beijing, UNC visiting scholar Jan-June, 2013. Dissertation title: "The reconstruction of the urban primary life cycle in China, 1980-2010".
- **Zhang Nan**, PhD 2013, Renmin University of Beijing, UNC visiting scholar Jan-June, 2012. Dissertation title: "To Explore Chinese Localization of Theory of Fields and Habitus—The Analyses for Social Interaction Practice of Multiple Sexual Partners in a Chinese City."

CONTRACTS & GRANTS

U19HD089881-01 (Contact PI : Hightow-Weidman) 09/30/16-05/31/21
NIMH/NIDA/NICHD
Title : The UNC/Emory Center for Innovative Technology (iTech) Across the Prevention and Care Continuum. This Center grant aims to improve HIV prevention and care outcomes for adolescents and young adults. UNC will oversee and support the design, implementation and evaluation of five technolology-based interventions tested in four randomized controlled trials across seven U.S. research sites (Philadelphia, Houston, Chicago, Tampa, Atlanta, Fenway, The Bronx).
Roles : Analytic Core co-Director (3.5 calendar months)
Total award amount : $18,000,000

1R43HD088319-01 (Contact PI : Hightow-Weidman) 04/01/16-03/31/17
NIMH
Title : Test Rehearsal : Maximizing the HIV testing experience for YMSM
Test Rehearsal is a Phase I Small Business Innovations Research award that aims to develop a mobile, internet- delivered virtual reality intervention that will offer character-driven scenarios that are engaging, interactive, ecologically sensitive, and user-centric in content and design, all focused on increasing mastery of important skills associated with increasing HIV testing among YMSM, aged 14-19 years.
Role : Co-Investigator (1.2 calendar months)
Total award amount : $213,162

UNC Center for AIDS Research Developmental Award (PI : Muessig) 09/01/15-08/31/16
UNC CFAR (NIH P30 AI50410)
Title : Designing a peer-support, eHealth enabled intervention to increase linkage to care and medication adherence among HIV+ men who have sex with men in China
This research aims to understand the unmet needs in HIV linkage to care and adherence of HIV+ MSM in Chengdu, China by conducting a needs assessment through qualitative interviews with HIV+ MSM and key stakeholders. We will then develop an integrated peer support/eHealth intervention and test adapted intervention components including peer-supporter training curricula and plan for web and mobile web support features.
Role : Principal Investigator
Total award amount : $29,995

1R21MH105292-01A1 (PI : Muessig) 09/01/15-07/31/17
NIMH
Title: Addressing stigma among Black MSM in a mobile phone and internet HIV intervention
This research aims to address a critical need to understand and reduce stigma for an underserved population (HIV+ and HIV- BMSM) using a web and mobile-phone based intervention. My role on this grant is to lead all aspects of the research design and implementation.
Role: Principal Investigator (2.04 calendar months)
Total award amount : $442,941

1R21MH107266-01 (Contact PI : Hightow-Weidman) 08/01/15-05/31/17
NIH
Title: AllyQuest: Engaging HIV+ YMSM in Care through Social Networking and Gamification
AllyQuest is a secondary prevention intervention delivered via mobile phone to improve linkage and engagement in care among newly diagnosed HIV+ young MSM. The features of the intervention aim to target the identified barriers to care among newly diagnosed youth (low HIV health literacy, lack of social support, and internalized stigma related to their diagnosis). My role on this grant is to lead formative data collection to inform the design and pilot testing of the intervention.
Role: Investigator (1.0 calendar months)
Total award amount : $466,114

5D43TW009774-02 (PI : Pettifor) 06/01/14 – 03/31/19
NIH
Title: UNC Wits AIDS Implementation Research and Cohort Analyses Training Grant
This training program aims to create the first long term implementation science and research degree program in Sub Saharan Africa to be located at Wits University in Johannesburg. My role on this grant is to develop and co-teach a 2-week intensive graduate-level course on the use of eHealth/mHealth for HIV prevention and care.
Role: Investigator (0.6 calendar months)
Total award amount : $1,505,924

R44 MH102096-02 (PI : Hightow-Weidman ; Tobias McNulty) 09/01/14-12/31/17
NIMH
Title : Epic Allies : A smartphone app for ART uptake and adherence among YMSM
This study will evaluate the effectiveness of Epic Allies – a mobile phone application (app) that utilizes game mechanics and social networking features to improve engagement in care, antiretroviral therapy uptake and adherence among HIV+ young men who have sex with men – among 300 HIV+ YMSM recruited from 14 Adolescent Trials Network (ATN) sites in a 2-arm randomized controlled trial with measures at baseline 3, 6 and 12 months. My role on this grant is to support the final development and pre-testing of the intervention app and to lead the qualitative data collection for the intervention process evaluation and user experience.
Role : Investigator (1.2 calendar months)
Total award amount : $996,311

5R01A108366-02 (PI: Tucker; Rennie) 10/01/14-06/01/19
NIAID
Title: Unintended and intended implications of HIV Cure: a social and ethical analysis
This study aims to develop a theoretical framework about HIV cure research and early implementation, determine HIV cure stakeholder perspectives on cure research and early implementation in Cape Town, South Africa, Guangzhou, China, and Chapel Hill, USA, and develop and assess the feasibility of an online forum to promote stakeholder engagement. My role on this project is to support the use of technology and development of social media platforms to promote community engagement around HIV cure research.

Role: Investigator (1.2 calendar months)
Total award amount : $2,254,470

Completed grants

USAID – FHI360 (UNC PI : Weir) 07/03/14-02/28/17
Title : Linkages across the continuum of HIV services for key populations affected by HIV
This USAID-funded contract draws on resources at the University of North Carolina (UNC), FHI360, and IntraHealth to reduce loss-to-follow-up along the HIV testing, linkage and care cascade in Africa and Southeast Asia. My role on this grant is as a technical lead to provide technical assistance to UNC investigators and in-country partners for the design and conduct of any project components requiring qualitative research methods, and to provide expertise on the provision of HIV prevention and care services for MSM.
Role : Investigator (1.68 calendar months)
Total estimated award amount : $9,000,000 (dependent on federal funding and country-level buy-in)

1R43MH104102-01 (PI: Hightow-Weidman; McDaniel) 09/01/14-08/31/16
NIMH
Title: Tough Talks: A Disclosure Intervention for HIV+ YMSM
In this intervention we will create a novel prevention tool using virtual reality programming and natural language processing software to support skill building for sexual health communication with intimate partners regarding disclosure of HIV status. My role on this grant is to lead formative data collection to inform the design and pilot testing of the intervention.
Role: Investigator (1.2 calendar months)
Total award amount : $667,877

5R01MH093275 (PI: Lisa Hightow-Weidman) 09/20/11-06/30/16
NIMH
Title: HEALTHMPOWERMENT.ORG: An online and mobile HIV intervention for young Black MSM
This grant supports the development of a web and mobile phone based intervention for young, Black MSM and transgender women that focuses on the use of social support, empowerment and gamification features to improve HIV prevention and care. The intervention is being tested in a North Carolina statewide randomized controlled trial. My role on this grant is to support the randomized controlled trial development and evaluation through the design, collection and analysis of formative research data (in-depth interviews, focus groups, usability testing, quantitative survey instrument development).
Role: Investigator (1.2 calendar months)
Total award amount : $2,265,324

1 R43 MH102096-01 (PI: Lisa Hightow-Weidman; Tobias McNulty) 09/01/13-06/28/14
Title: Daily Dose: a mobile phone app to improve HIV adherence among young Black MSM
Role: Investigator
Total award amount : $150,000

R24 HB0566670 (PI: Gail Henderson) 07/01/07-06/30/14
NICHD
Title: Partnerships for social science research on HIV/AIDS in China

Responsibilities: support the training and research components of this grant as a China area specialist. Work with Chinese sub-grantees to complete seed-grant data analysis and write-up. Support study team in research, design and writing of 5-year grant renewal. Support writing and publication of AIDS and Behavior journal supplement. Mentor Chinese R24 trainees studying at UNC. Complete formative research for intervention design on no-cost extension funding.
Role: Postdoctoral Trainee (9/15/2011-6/14/2013); **Investigator** (6/15/2013-6/30/2014)
Total award amount: $1,912,155

F31 MH086345-01 03/05/09-03/04/11
NIMH
Title: Qualitative methods for public health research: HIV/STI prevention in China
Responsibilities: Described and compared the migration, work, HIV/STI health and education needs, and relationship histories of rural to urban migrant men who sell sex to men in three Chinese cities.
Direct funding: $42,156
Role: Principal Investigator

Fulbright Institute for International Education 03/01/08-12/31/08
Title: The changing face of depression in the People's Republic of China
Responsibilities: Designed and conducted independent research in Nanjing, China on depression and treatment seeking behaviors among rural to urban migrants.
Direct funding: $17,200
Role: Principal Investigator

SERVICE

DEPARTMENT

- Department of Health Behavior, Masters Admissions Committee – 2014 to present.
- Department of Health Behavior, Student Survey Committee, Graduate Program Review and CEPH Reaccreditation, April - September, 2015.
- Department of Health Behavior, Global Health Roundtable – Faulty advisor
- Department of Health Behavior, LGBTQ Graduate Student Working Group – Faculty advisor

SCHOOL

- Gillings Innovation Laboratory Awards. Conducted two faculty proposal reviews. October 2014.
- Gillings School of Global Public Health Faculty Representative for PUBH 420: HIV/AIDS: Principles, Practices, and Politics. Spring 2015 enrollment: 371; Spring 2016 enrollment: 390.

UNIVERSITY

- Carolina Asia Center Advisory Board – June 2014 – June 2018
- Foreign Language and Area Studies (FLAS) for Asian languages scholarship review committee. http://cgi.unc.edu/awards/flas. February 2014 and 2015.
- Carolina Southeast Asian Summer Program (SEAS), Committee chair, Steven Dale, Asia Programs Officer. The Carolina Southeast Asia Summer (SEAS) Program gives 25 first-year students the opportunity to study in Southeast Asia. February 2014.

- UNC Doris Duke and Fogarty Fulbright International Clinical Research Fellowships review committee. Conduct candidate application reviews, interviews, and assessments for China positions. 2013, 2014, 2016.
- Conference coordination support: Annual UNC-South China STI Research Training Course. Guangzhou, China, May 27-29, 2012; June 24-28, 2013; July 13-18; 2014. Assist UNC faculty with travel arrangements, solicit and coordinate conference presenters, coordinate translation services for conference presentations, provide in-country technical assistance and translation services.
- Host faculty adviser for visiting scholars hosted through UNC's Carolina Asia Center and Institute for Global Health and Infectious Diseases. Five scholars hosted and mentored, 2014-2016.

STATE, NATIONAL & INTERNATIONAL

Editorial board:

- Sexually Transmitted Diseases, invited member of the Editorial Board, September 2014 – present.

Peer reviewer:

- Grant proposal reviewer: USAID/Project SEARCH: Research to Prevention (R2P), Small Grants Program for HIV/STD prevention among men who have sex with men (May-July, 2010).
- Ad-hoc journal reviewer: *AIDS, AIDS and Behavior, AIDS Care, American Journal of Public Health, BioMed Central Public Health, Journal of Medical Internet Research, Journal of Telemedicine and Telecare, Journal of the International AIDS Society, Patient Education and Counseling, Sexual Health.*
- Abstract reviewer for the International Union against Sexually Transmitted Infections (IUSTI), Asia Pacific Conference, Bangkok, Thailand, November, 2014.
- NIH grant proposal reviewer: *Center for Scientific Review Special Emphasis Panel for Small Business: HIV/AIDS Innovative Research Applications,* June, 2016.

Invited expert consultations:

- *White House Meeting on HIV Stigma: Research for a Robust Response, March 3-4, 2016. Office of AIDS Research, Office of the National AIDS Policy and the National Institute of Mental Health.*

PRACTICE

Practice activities

The research, practice, and teaching I conduct focus on the prevention and care of HIV. I develop evidence-based combination interventions that address social, structural, and behavioral factors that impede optimal individual and public health outcomes. These combination interventions include the application and evaluation of advances in biomedical, behavioral and technology-based tools (e.g. web, mobile web, mobile phone apps) for HIV prevention and care. The ultimate goal of my research is to improve individual-level health for people living with HIV and reduce onward transmission of HIV. I focus particularly on at-risk and underserved populations in North Carolina, nationally, and internationally.

The research I conduct has numerous practical applications. In North Carolina and internationally I work directly with clinicians, public health practitioners, community-based organizations, and community members in the design and application of research to advance these goals. For the past four years I have worked with Dr. Hightow-Weidman on her NIH-funded research including the HealthMPowerment study - a web and mobile phone-based intervention to reduce sexual risk and increase testing and linkage to care among HIV-positive and HIV-negative young, Black men who have sex with men (MSM) in North Carolina; and the Epic Allies study – a mobile phone application that uses principles of behavior change, gamification, and social networking to support daily medication adherence and maintenance in care among HIV-positive youth. If successful in their respective randomized controlled trials, we will replicate these interventions in other US sites and adapt them for use in other UNC-collaborative sites in South Africa, Brazil and China.

My work supporting the USAID-funded LINKAGES project – a collaboration between USAID, FHI360, UNC-Chapel Hill, IntraHealth, and PACT—is focused on improving service delivery of HIV prevention and care services to affected key populations (sex workers, men who have sex with men, transgender persons) in over 20 countries. I designed a tool and research protocol called the Mapping Readiness Assessment which guides country partners through an information gathering and decision-making process to establish safeguards to protect the confidentiality and safety of key populations prior to conducting geographic mapping to identify areas of greatest need for HIV prevention and care services.

Evidence of dissemination

Our research team highly prioritizes research dissemination from all stages of the research process (development, implementation and evaluation) through peer-reviewed journals, conference presentations, invited lectures, stakeholder meetings and community forums (listed below). In addition, my direct work with key stakeholders (clinicians, public health practitioners, community representatives) throughout the research and intervention development process ensures continual dissemination to the field.

From January 2014 – January 2016, I authored or co-authored 28 publications disseminating research and practice findings in the peer reviewed literature. Two of these publications and a third earlier publication are featured on the Office of HIV/AIDS Network Coordination's (HANC) Behavioral and Social Science Publications resource webpage. Another of these publications was featured in the November 2015 edition of the AIDSFree Prevention Update. The AIDSFree Update is a monthly newsletter summarizing seminal articles across HIV prevention topics with a subscribership of approximately 5000 people across the world who are working in HIV prevention. I also regularly present work at national and international conferences (such as the International Association for Providers of AIDS Care 2015 and the International AIDS Society 2015 meetings) as well as university and community-level events, such as Durham's "Art of Cool, Innovate Your Cool", where I presented our HIV medication adherence app to leaders and community members in the business, technology, and music fields.

The Mapping Readiness Assessment tool described above has been successfully pilot tested in South Africa, Malawi, Haiti and Angola and will now be broadly disseminated across many of the 20+ USAID Linkages countries. This tool has also been adopted by the Global Fund as part of their programmatic mapping toolkit which will be broadly disseminated internationally.

On June 17, 2015 I presented results and suggested actions steps from the SCREEN prison study on stigma and HIV within North Carolina state prisons to Department of Health and

Human Services representatives in Raleigh, North Carolina. These results will also be published in an upcoming issue of *AIDS Education and Prevention*.

Evidence of linkage between research, practice and teaching

In my work, there is a strong link between research, practice and teaching/mentoring. In developing eHealth interventions to improve HIV/STI prevention and care, I work with multidisciplinary teams using an iterative development process where we design a version or aspect of the intervention, test it with target end users from the community, evaluate it and then adapt to improve it. For example, for the HealthMpowerment study, young Black MSM recruited within the local community are included at each phase of intervention design. These men tested, evaluated and advised on the design, content and delivery of the intervention. Building this base of engaged community members will help further ensure that study results are continually disseminated to the community and more easily put into practice if the intervention is successful. Our research team has replicated this model in developing a medication adherence app (Epic Allies), and an HIV status disclosure virtual reality program (Tough Talks), both in in partnerships with technology development companies. As NIH-funded Small Business Innovation Research projects, these two interventions will be well-positioned to enter the mainstream market of health technology products and be put into practice. All of the research projects I work on involve student trainees either through Master's practica or Research Assistantships. In 2014-2016, I worked closely with four postdoctoral fellows, five PhD students, and two MPH students in various capacities on my ongoing research projects. During this time, these mentoring relationships resulted in numerous student-led conference abstracts and peer-reviewed published papers with student co-authors, including 4 student first-authored papers.

In addition to this individual-level mentoring, I incorporate my experiences in research and practice into teaching activities in the classroom: In 2014 and 2015, I taught one required doctoral course module on Global Health, delivered numerous invited guest lectures within UNC courses (see list in CV above), and led two research methods workshops, all of which incorporated examples from my research and practice work. I am currently working with faculty in the Institute for Global Health and Infectious Diseases to develop a new online course on the use of eHealth and mHealth for HIV prevention and care interventions (funded through D43 grant listed above). Lastly, in academic year 2014-15 and 2015-16 I have served as faculty advisor to a MPH Capstone team that is working with IntraHealth to adapt a mobile phone application for a breast-feeding support intervention. This is an ideal example of how I apply expertise and best practices from my research in eHealth interventions in a teaching context to create a product (breast feeding peer-support app) that will ultimately be applied in public health practice.