

## Yusra A. Mohamoud, MSc

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### Education

PhD	University of Wisconsin-Madison	Epidemiology. <i>Exp.</i> 2019 <i>Minor:</i> Research Methods in Maternal & Child Health
MSc	Johns Hopkins Bloomberg School of Public Health	Infectious Disease Epidemiology, 2009
BS	University of Maryland- College Park	Microbiology, 2007 <i>Minor:</i> Public & Community Health

### Research Interests

Maternal and infant outcomes	Infectious diseases/Sexually transmitted infections
Health disparities	Epidemiologic methods
Geographic structural determinants of health	Public policy

### Research Experience

#### **Research Assistant, Department of Population Health Sciences, 2015-Present**

University of Wisconsin-Madison

- Using multilevel models and spatial analysis to estimate the effect of poverty, rurality and residential segregation on term infant mortality in the US. Pooling several years of population-level linked birth/infant death data and merging with contextual county-level data from the US census.
- Using econometric decomposition techniques to estimate how much of the recent decline in US infant mortality rate (IMR) is due to changes in the characteristics of women giving birth and why is the IMR among African Americans in Wisconsin among the highest in the US.

#### **Senior Research Specialist, Infectious Disease Epidemiology Group, 2011-2014**

Weill Cornell Medical College- Qatar

- Conducted a series of systematic reviews and meta-analyses synthesizing and quantifying epidemiologic evidence on hepatitis C virus in different populations in the Middle East and North Africa, and the potential for HIV transmission through the parenteral route.
- Worked with USAID demographic Health surveys (DHS) and provided epidemiologic expertise in mathematical modeling studies focused on optimizing voluntary medical male circumcision for HIV transmission prevention.

#### **Healthcare Data Analyst, Integrity Management Systems, 2010-2011**

Alexandria, Virginia

- Conducted statistical analysis and data mining on Medicare and Medicaid claims to identify billing fraud and program vulnerabilities.

## Project Assistant, Epidemiology Department, 2008-2009

Johns Hopkins Bloomberg School of Public Health

- Performed HPV testing and genotyping of samples from HIV transmission clinical trials in Malawi. Conducted statistical analysis describing the prevalence, genotypic distribution and overall epidemiology of HPV infection in HIV positive women in Malawi.

## Peer-reviewed Publications

### *Original Research*

Streletz LJ, Mushtak A, Gad H, Abbasi S, Dimassi DM, Akhtar N, **Mohamoud YA**, Dargham S, Abu-Raddad L, Khattab A, Malik RA. Epidemiology of Stroke in the MENA Region: A Systematic Review. *International Journal of Neurology and Neurological Disorders* 2017, 1(1):10-21.

Awad SF, Sgaier SK, **Mohamoud YA**, Bushimbwa C, Tambatamba BC, Kripke KE, Thomas AG, Bock N, Reed JB, Njeuhmeli E, Abu-Raddad L. Could Circumcision of HIV-Positive Males Benefit Voluntary Medical Male Circumcision Programs in Africa? Mathematical Modeling Analysis. *PLoS One* 2017, 12(1): e0170641.

**Mohamoud YA**, Riome S, Abu-Raddad L. Epidemiology of hepatitis C virus in the Arabian Gulf countries: systematic review and meta-analysis of prevalence. *International Journal of Infectious Disease*. 2016, doi:10.1016/j.ijid.2016.03.012.

Awad SF, Sgaier SK, Ncube G, Xaba S, Mugurungi O, Mhangara M, Lau FK, **Mohamoud YA**, Abu-Raddad L. A Reevaluation of the Voluntary Medical Male Circumcision Scale-UP Plan in Zimbabwe. *PLoS One* 2015, 10(11): e0140818.

Awad SF, Sgaier SK, Tambatamba BC, **Mohamoud YA**, Lau FK, Reed JB, Njeuhmeli E, Abu-Raddad L. Investigating Voluntary Medical Male Circumcision Program Efficiency Gains through subpopulation prioritization: insights from application to Zambia. *PLoS One* 2015, 10(12): e0145729.

Awad SF, Sgaier SK, Ncube G, Xaba S, Mugurungi OM, Mhangara MM, Lau F, **Mohamoud YA**, Abu-Raddad L. A reevaluation of the voluntary medical male circumcision scale-up plan in Zimbabwe. *PLoS One* 2015, 10(11): e0140818.

**Mohamoud YA**, Fadlalla F, Mumtaz GR, Abu-Raddad L. The epidemiology of hepatitis C virus in the Maghreb Region: systematic review and meta-analyses. *PLoS One* 2015, 10(3): e0121873.

Chaabna K, **Mohamoud YA**, Chemaitally H, Mumtaz GR, Abu-Raddad L. Protocol for a systematic review and meta-analysis of hepatitis C virus (HCV) prevalence and incidence in the Horn of Africa sub-region of the Middle East and North Africa. *Systematic Reviews* 2014, 3(1):146.

**Mohamoud YA**, Miller D, Abu-Raddad L. Potential for human immunodeficiency virus parenteral transmission in the Middle East and North Africa: an analysis using HCV as a proxy biomarker. *World J Gastroenterol* 2014, 20: 36.

Benova L, **Mohamoud YA**, Calvert C, Abu-Raddad L. Vertical transmission of hepatitis C virus: A systematic review and meta-analysis. *Clinical Infectious Diseases* 2014, doi: 10.1093/cid/ciu447.

**Mohamoud YA**, Cuadros DF, Abu-Raddad LJ: Characterizing the Copts in Egypt: Demographic, socioeconomic and health indicators. *QScience Connect* 2013(2013):22.

**Mohamoud YA**, Mumtaz GR, Riome S, Miller D, Abu-Raddad LJ: The epidemiology of hepatitis C virus in Egypt: a systematic review and data synthesis. *BMC infectious diseases* 2013, 13:288.

#### *Letters to the Editor*

Mallinson DC, Kramer RD, **Mohamoud YA**. Challenges in Studying Medicaid Expansion's Association with Infant Mortality. *American Journal of Public Health* 2018 Jul; 108(7):e24.

## **Manuscripts in Review**

**Mohamoud YA**, Kirby R, Ehrental D. Poverty, Urban-Rural classification and Term Infant Mortality: A population-based multilevel analysis. *BMC Pregnancy and Child Birth*.

## **Manuscripts in Progress**

**Mohamoud YA**, Kirby R, Ehrental D. County Poverty, Urban-Rural classification and the leading causes of Term Death: United States 2012-2015.

**Mohamoud YA**, Kirby R, Gangon R, Ehrental D. Spatial social polarization and term infant mortality.

**Mohamoud YA**, Kirby R, Gangon R, Ehrental D. Geographic variation in the effect of county level indicators on term infant mortality.

**Mohamoud YA**, Kirby R, Hirai A, Nobles J, Ehrental D. The role of the changing characteristics of women giving birth on the recent declines in infant mortality rate in the US: 2007-2013.

## **Conference Presentations**

**Y. A. Mohamoud**, D Ehrental. "Area poverty, urban-rural classification and the leading causes of term infant death: United States 2012-2015" Maternal and Child Health Epidemiology Conference, September 2018. (Poster)

D Ehrental, A Godecker, D Kuo, **Y. A. Mohamoud**. "Why are Wisconsin's African American Infant Mortality Rates the Worst among US States?" Maternal and Child Health Epidemiology Conference, September 2018. (Oral)

D Ehrental, D Kuo, **Y. A. Mohamoud**. "Linked Birth-Infant Death Files: Period? Cohort? What's all the fuss?" Maternal and Child Health Epidemiology Conference, September 2018. (Oral)

**Y. A. Mohamoud**, J Nobles, D Ehrental. "Urban-Rural Differences in the Effect of Poverty on Infant Survival" Society of Epidemiologic Research (SER), June 2017. (Poster)

**Y. A. Mohamoud**, D Ehrental, J Nobles. "Poverty and Infant Mortality among Term Newborns in the United States" American Public Health Association (APHA) Annual Conference, November 2016. (Poster)

**Y. A. Mohamoud**, J Nobles, A Godecker, D Ehrental. “Understanding the Declining Infant Mortality Rate in the United States 2005-2010: an Application of Multivariable Decomposition Methods” Quantitative Skills Workshop, Maternal and Child Health Epidemiology Conference, September 2016. (Oral Presentation)

D Ehrental, **Y. A. Mohamoud**, J Nobles, A Godecker. “Understanding Decline and Disparity in U.S. Infant Survival: Fertility Selection and Socioeconomic Context” Population Association of America, Annual Meeting, March 2016. (Poster)

**Y. A. Mohamoud**, D Ehrental, J Nobles, A Godecker. “Dramatic Shifts in the Composition of Mothers in Wisconsin: implications for interpreting changes in infant survival” Science and Medicine Graduate Research Scholars Poster Symposium, October 2015. (Poster)

S.F. Awad, S.K. Sgaier, F.K. Lau, **Y. A. Mohamoud**, B.C. Tambatamba, K.E. Kripke, A.G. Thomas, N Bock, J.B. Reed, E Njeuhmeli, L.J. Abu-Raddad. “Circumcision of HIV positive males will not undermine the benefits of voluntary medical male circumcision programs in Africa” Sexually Transmitted Infections, 2015 Supplement, doi:10.1136/sextrans-2015-052270.62. (Poster)

S.F. Awad, S.K. Sgaier, F.K. Lau, **Y. A. Mohamoud**, B.C. Tambatamba, K.E. Kripke, A.G. Thomas, N Bock, J.B. Reed, E Njeuhmeli, L.J. Abu-Raddad. “A novel analytic framework to investigate voluntary medical male circumcision program efficiency gains through sub-population prioritization: insights from application to Zambia” Sexually Transmitted Infections, 2015 Supplement, doi:10.1136/sextrans-2015-052270.627. (Poster)

A. Smolak, **Y.A. Mohamoud**, L.J. Abu-Raddad. “The epidemiology of gonorrhoea in the Middle East and North Africa: a systematic review and meta-analysis” 18th International Union against Sexually Transmitted Infections, Asia Pacific Conference, November 2014, Bangkok, Thailand. (Oral)

**Y.A. Mohamoud**, L.J. Abu-Raddad. “Quantifying Hepatitis C virus Prevalence in the Middle East and North Africa: Interim results” the American Association for the Study of Liver Diseases (AASLD)/European Association for the Study of the Liver (EASL) 2014 Special Conference on Hepatitis C, September 2014, New York, USA. (Poster)

**Y.A. Mohamoud**, L. Benova, C. Calvert, L.J. Abu-Raddad. “Vertical transmission of hepatitis C virus: A systematic review and meta-analysis” the American Association for the Study of Liver Diseases (AASLD)/European Association for the Study of the Liver (EASL) 2014 Special Conference on Hepatitis C, September 2014, New York, USA. (Poster)

**Y.A. Mohamoud**, L.J. Abu-Raddad. “Quantifying Hepatitis C virus Prevalence in the Middle East and North Africa” National Institutes of Health: National Institutes of Allergy and Infectious Diseases Workshop on Endemic and Emerging Viral Diseases of Priority in the Middle East and North Africa Region, May 2014, Doha, Qatar. (Oral)

L. Benova, **Y.A. Mohamoud**, C. Calvert, L.J. Abu-Raddad. “Vertical transmission of hepatitis C virus: A systematic review and meta-analysis” National Institutes of Health: National Institutes of Allergy and Infectious Diseases Workshop on Endemic and Emerging Viral Diseases of Priority in the Middle East and North Africa Region, May 2014, Doha, Qatar. (Poster)

**Y. A. Mohamoud** and L.J. Abu-Raddad, “The prevalence of Hepatitis C virus in Qatar: a systematic review and meta-analysis”, Qatar Foundation Annual Research Forum, Doha Qatar, November 2013, Doha, Qatar. (Poster)

**Y. A. Mohamoud**, G. Mumtaz, S. Riome, D.F. Miller, and L.J. Abu-Raddad, “The Epidemiology of Hepatitis C virus in Egypt: A systematic review”, 15<sup>th</sup> International Congress on Infectious Diseases, June 2012, Bangkok, Thailand. (Poster)

## **Fellowships and Grants**

- 2014-2019 Science and Medicine Graduate Research Fellowship
- 2016-2018 Training, Education, And Mentoring in Science Fellowship (NIH Grant R25GM083252)
- 2016 City MatCH Leadership and Epidemiology Conference Travel Grant
- 2013-2016 “Critical assessment of the drivers of the hepatitis C virus epidemic in Egypt: A quantitative approach”. Contributed to grant development. Funded by the Junior Scientists Research Experience Program of the Qatar National Research Fund (Lead PI: Dr. Diego Cuadros).

## **Honors and Awards**

- 2014 Invited Rapporteur at the National Institutes of Allergy and Infectious Diseases (NIAID/NIH) workshop on Endemic and Emerging Viral Diseases of Priority in the Middle East and North Africa Region
- 2008-2009 Marion E. Brailey award for Outstanding Academic Achievement , Johns Hopkins School of Public Health
- 2007 Graduating Class Speaker-Finalist, University of Maryland-College Park
- 2007 Graduated Summa Cum Laude, University of Maryland-College Park
- 2004-2007 Phi Sigma Theta National Honor Society, University of Maryland-College Park

## **Teaching**

- 2016-2018 Biostatistics tutor to Graduate students and Preventative Medicine Residents, UW-Madison
- 2011-2014 Biostatistics and research methods instructor to clinical research staff, Weill Cornell Medical College-Qatar

## **Leadership and Service**

- 2017 Reviewer, Annals of Epidemiology
- 2016 Reviewer, Gastroenterology Research and Practice

2016-2017 Population Health Department Representative to the Graduate School  
2015- Matched Mentor, Muslim Student Association at UW-Madison

## **Professional Affiliations**

Society for Epidemiologic Research (SER), member  
American Public Health Association (APHA), member

## **Languages**

Arabic, Somali, and Turkish