

# Adam Joseph VanDeusen

1205 Beal Ave., Ann Arbor, MI 48109

(810) 334-0028

[ajvandeu@umich.edu](mailto:ajvandeu@umich.edu)

## EDUCATION

---

### **PhD, Industrial & Operations Engineering**

Expected 2021

University of Michigan, Ann Arbor, MI

### **MPH, Chronic Disease Epidemiology**

2013

Yale School of Public Health, New Haven, CT

Master's Thesis: "Cost-Effectiveness of Antiretroviral Therapy Regimens for HIV-Positive Pregnant Women in Ghana: A Case for Option B-Plus"

Thesis Advisors: Elisa Long, PhD, Elijah Paintsil, MD, and A. David Paltiel, PhD

### **BSE, Industrial & Operations Engineering**

2010

University of Michigan, Ann Arbor, MI

Graduated *cum laude*, minor in Music

## RESEARCH EXPERIENCE

---

### **Systems Engineering for Examining Access to Healthcare**

2017-present

*Graduate Student Research Assistant*, University of Michigan

- Developing framework for employing a suite of systems engineering and operations research tools to comprehensively understand healthcare access from financial, geographic, logistics, and scheduling perspectives.
- Collaborating with researchers at Emory University and the Veterans Affairs Healthcare System to apply framework by comparing screening methods for chronic visual disease among veterans in Georgia.

### **School of Dentistry Faculty Staffing Analysis**

2017-present

*Graduate Student Research Assistant*, University of Michigan Center for Healthcare Engineering & Patient Safety

- Investigating dental school faculty requirements for clinical supervision, didactic instruction, and research and administrative responsibilities.
- Comparing requirements with current staffing to identify deviance using a column generation-based linear programming model. This model serves as the basis for a user-friendly tool that school leadership can use to make future staffing decisions, including hiring, promoting, and assigning faculty to courses.

### **Evaluating Cost-Effectiveness of Options to Improve Health Outcomes Among HIV-Positive Women in Ghana**

2011-2013

*HIV Research Fellow*, Ghana Health Service & Yale University

- Reviewed over 800 medical charts of HIV-positive women at hospitals throughout Kumasi, Ghana.
- Developed a decision analytic model in TreeAge software, using data from chart review. This model incorporates clinical information into a decision tree with embedded Markov model.

**Relationship between Poverty & Visual Impairment from Cataract in Ghana** 2011-2012

*Global Research Fellow, Unite For Sight*

- Interviewed approximately 60 Ghanaians following scheduled cataract surgeries, utilizing interpretive services to assist in translation between English and local languages including Twi, Ewe, and Ga.
- Used regression techniques to analyze the relationship between visual impairment due to cataract and economic impact, including household income, ability for caregivers to work or attend school, and perceived ability to work.

**Establishing a Monitoring Process for Inpatient Room Cleaning at Discharge** 2010

*Engineering Senior Design Student, University of Michigan*

- Collaborated with the Environmental Services and Infection Control & Epidemiology departments at University of Michigan Health System to develop and evaluate a monitoring process for patient room cleaning after discharge based on cost-effectiveness and staff workflow integration.
- Tested multiple monitoring process methods, interviewed staff members and created a monitoring process in conjunction with fellow student researchers as part of our senior design project.

**PROFESSIONAL EXPERIENCE**

---

**Mayo Clinic, Rochester, MN** 2015-2017

*Health Systems Engineer, Management Engineering & Internal Consulting*

*Instructor, Health Care Systems Engineering, Mayo Clinic College of Medicine*

- Engaged with Mayo Clinic research arm on projects including reducing 30-day readmissions of pediatric patients, increasing net operating income through optimal selection of clinical trials, and expediting data sharing in pharmacogenomics studies.
- Designed research billing workflows for use across the enterprise and managed provider content for pediatric specialty departments as a member of Mayo Clinic's Epic implementation/electronic medical record convergence team.

**The Health Management Academy, Alexandria, VA** 2013-2015

*Senior Director, Clinical Forums & Physician Leadership Program*

- Curated strategy and operations content for meetings of Chief Medical Officers and oncology executives from the nation's leading systems of integrated hospitals and healthcare facilities.
- Developed and led a new program that provided experiential leadership education to high-potential physicians from health systems across the country. The program provided in-depth training for physician students on topics including health policy, health finance, and leading change.

**TEACHING EXPERIENCE**

---

**Orientation to Healthcare, Course Developer & Instructor** 2015-2017

Department of Management Engineering & Internal Consulting, Mayo Clinic

**Introduction to Statistical Thinking I & II (BIS 505a & 505b), Teaching Fellow** 2012-2013

Yale School of Public Health

**Stochastic Modeling in Decision Making (OPRS 237), Teaching Fellow** 2011

Yale College/Yale Graduate School of Arts & Sciences

## PRESENTATIONS

---

Buechler, T., Gross, T., Meyer, T., Milburn, A., McGarry, K., Harris, P., Sogla, C., Mielke, C., Swenson, L., Hegard, T., Freet, J., Clark, S., Moore, M., Ingram, T., **VanDeusen, A.**, Botz, C., Berninger, D. "Reducing Hospital Length of Stay through Development of Standardized and Translatable Discharge Processes." Poster Presentation, Mayo Clinic Quality Conference, Rochester, MN, 2017

**VanDeusen, A.**, Paintsil, E., Agyarko-Poku, T., Long, E.F. "A Case for Adopting Option B Plus for Prevention of Mother-to-Child Transmission of HIV in Resource-Limited Countries: Evidence from Kumasi, Ghana." Oral Presentation, Pediatric Academic Societies Annual Meeting, Washington, DC, 2013

**VanDeusen, A.**, Paintsil, E., Agyarko-Poku, T., Long, E.F. "Cost-effectiveness of Expanded HIV Treatment among Pregnant Women in Ghana." Oral Presentation, INFORMS Annual Meeting, Phoenix, AZ, 2012

**VanDeusen, A.**, Tamarelli, C., Misra A., Weist, M. "Assessing Technological Needs of Nicaraguan Maternal Health Clinics." Poster Presentation, University of Michigan Student Global Health Day, Ann Arbor, MI, 2010

## PUBLICATIONS

---

**VanDeusen, A.**, Paintsil, E., Agyarko-Poku, T., Long, E.F. Cost effectiveness of option B plus for prevention of mother-to-child transmission of HIV in resource-limited countries: evidence from Kumasi, Ghana. BMC Infect Dis. 2015; 15:130.

## HONORS AND AWARDS

---

Student Research Award, American Pediatric Association	2013
Volunteer of the Year, Unite For Sight	2013
Wilbur G. Downs International Health Research Fellowship, Yale University	2012
Second Place Poster, University of Michigan Student Global Health Day	2010
Carl J. Grapentine Scholarship, Michigan Marching Band	2009
University of Michigan Regents Merit Scholarship	2006

## PROFESSIONAL MEMBERSHIPS

---

Institute for Operations Research & Management Science (INFORMS)	2017-present
Mensa	2009-present
American Statistical Association (ASA), Twin Cities Chapter	2015-2017

## COMMUNITY & CAMPUS INVOLVEMENT

---

### INFORMS at the University of Michigan

Vice President & Treasurer	2018-present
----------------------------	--------------

### Service Learning and Transdisciplinary Education

Mentor	2017-present
--------	--------------

<b>University of Michigan Faculty Senate Assembly</b>	
Graduate Student Representative, Research Policies Committee	2017-present

<b>Department of Management Engineering &amp; Internal Consulting, Mayo Clinic</b>	
Mentor, New Hire Mentorship Program	2016-2017
Member, Applied Analytics Expert Group	2016-2017

<b>Hometown Alumni Involvement Link, Univ. of Michigan College of Engineering</b>	2015-present
---	--------------

<b>The Health Management Academy</b>	
Mentor, New Employee Peer Mentorship Program	2014-2015

<b>Unite For Sight</b>	
Session Coordinator, Global Health & Innovation Conference	2012-2013
Global Impact Corps Volunteer (Accra, Ghana)	2012
Chair, University of Michigan Chapter	2009-2010
Director of Elementary Education, University of Michigan Chapter	2008-2009

<b>Yale Healthcare Conference</b>	
Chair, Logistics	2012-2013

<b>HAVEN Free Clinic</b>	
Director, IT & Communications	2012

## CERTIFICATIONS

---

Certified User (Research – Billing), Epic	4/2016-present
Global Health Research Certificate, Unite For Sight	2011