

Karl T. Johnson

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EDUCATION

Johns Hopkins University, Baltimore, MD – 2018

Bachelors of Arts: Economics

Honors in Humanistic Studies

The University of North Carolina, Chapel Hill, NC – *Expected Graduation: 2024*

The Gillings School of Global Public Health

PhD Candidate in the Department of Health Policy and Management

RESEARCH EXPERIENCE

Harvard Medical School

Health Equity Research Lab

Research Assistant, *Summer 2019*

- Designed qualitative interviews to identify how the identification predictors of opioid-related mortality can help to develop patient-centered treatment plans and prevention interventions.
- Assessed the long-term effectiveness of Behavioral Health Homes for individuals with serious mental illnesses using interrupted time-series and propensity-score weighting (via STATA software).

Johns Hopkins Bloomberg School of Public Health

Department of Infectious Disease Epidemiology

Research Assistant in the [TB Modeling and Translational Epi Group](#), *Summer 2016 – Spring 2018*

Faculty mentor: [Dr. David Dowdy](#) (Associate Professor, Department of Infectious Disease Epidemiology)

- Performed literature searches for model parameter values and developed and analyzed a decision tree/cost-effectiveness model to measure the diagnostic opportunities to identify Tuberculosis in Cambodia and Vietnam using TreeAge software.
- Performed literature searches for model parameter values and developed and analyzed a decision tree/cost-effectiveness model to measure the introduction of a novel preventative treatment for Tuberculosis in South Africa using TreeAge software.
- Designed and analyzed a cost-effectiveness model of early diagnosis and treatment of HIV-exposed infants using R software.
- Conducted interview surveys and time-and-motion analyses to collect data on the cost of providing preventive treatment for Tuberculosis across rural clinics in Johannesburg, South Africa.

Johns Hopkins Hospital Children's Center

The Harriet Lane Clinic

Research Supervisor, *Summer 2015 – Summer 2017*

Faculty mentor: [Dr. Barry Solomon](#) (Medical Director, Harriet Lane Clinic)

- Developed a needs-assessment survey to study financial literacy and socioeconomic levels of patients and caregivers attending the clinic.
- Designed an in-depth qualitative guide used to interview patients and caregivers at the clinic about their experience with managing finances and accessing employment.
- Facilitated numerous focus groups and interviews using the qualitative guide.
- Analyzed interview and survey data using STATA and Dedoose.
- Drafted manuscript based on study findings.

Johns Hopkins School of Medicine

Department of Comparative and Molecular Pathobiology

Research Assistant in the [Retrovirus Lab](#), *Winter 2014/15 - Summer 2017*

Faculty mentor: [Dr. Kelly Pate](#) (Assistant Professor, Department of Comparative and Molecular Pathobiology)

- Developed a novel Fluorescence-Activated Cell Sorting protocol to study the relationship between T cells and Platelets during peripheral regulatory T cell growth in HIV positive mice.
- Designed, optimized, and implemented a novel quantitative PCR to measure the levels of latent viral load during *Cytomegalovirus* infection in mice.

AWARDED RESEARCH GRANTS*

**Total funding awarded and managed: \$37,500*

“The Dean’s Undergraduate Research Award” (\$3,000), *Spring 2017*

- Supervisor: Dr. David Dowdy
- Funded travel and living expenses while I conducted field research in South Africa.

“The Johns Hopkins Urban Health Institute Small Grants Program” (\$10,000), *Winter 2016/17*

- Supervisor: Dr. Barry Solomon
- Funded a partnership between “Financial Futures for Families” and Humanim, a community-based workforce development agency located near the clinic.

“Small Grant Program to Support Projects that Advance Primary Care” (\$20,000), *Spring 2016*

- Supervisor: Dr. Barry Solomon
- Funded the primary capital investments for “Financial Futures for Families.”

“Bander Family Fund Award Recipient” (\$2,000), *Spring 2016*

- Supervisor: Dr. Barry Solomon
- Funded summer living expenses while at the clinic developing “Financial Futures for Families.”

“Provost Undergraduate Research Award” (\$2,500), *Fall 2015*

- Supervisor: Dr. Kelly Pate
- Funded biomaterials to study the interaction between regulatory T cells and platelets.

RESEARCH PRESENTATIONS

“Acceptability of clinic-based financial services and association with stress and self-efficacy at an urban pediatric primary care clinic in East Baltimore”, presented at the following:

- Johns Hopkins Public Health Student Forum, *Spring 2016*
- Johns Hopkins Undergraduate Research Day, *Spring 2016*
- Baltimore Research Colloquium at the Johns Hopkins Urban Health Institute, *Spring 2017*
- Pediatric Academy Societies Meeting, *Spring 2017*

“A Possible Role for Platelets in the Induction of a Regulatory T Cell Phenotype from Naive CD4 T Cells Precursors”, presented at the following:

- A Day of Undergraduate Research in Engineering, the Arts and Humanities, Medicine, and Sciences, *Spring 2017*

RESEARCH PUBLICATIONS

Johnson, K. T., Churchyard, G. J., Sohn, H., & Dowdy, D. W. (2018). Cost-effectiveness of preventive therapy for tuberculosis with isoniazid and rifampentine versus isoniazid alone in high-burden settings. *Clinical Infectious Diseases*, 30.

Quinn, C., **Johnson, K.**, Raney, C., Baker, R. J., Topel, K., Tschudy, M. M., ... & Solomon, B. S. (2018). “In the clinic they know us”: Preferences for clinic-based financial and employment services in urban pediatric primary care. *Academic pediatrics*.

Jaganath, D., **Johnson, K.**, Tschudy, M. M., Topel, K., Stackhouse, B., & Solomon, B. S. (2018). Desirability of Clinic-Based Financial Services in Urban Pediatric Primary Care. *The Journal of pediatrics*.

Salvatore, P., **Johnson, K.**, Vojnov, L., Doherty, M., & Dowdy, D. (2019). Clinical consequences of using an indeterminate range for early infant diagnosis of HIV: a decision model. *JAIDS Journal of Acquired Immune Deficiency Syndromes*, 82(3), 287-296.

Bell, O. N., Hole, M. K., **Johnson, K.**, Marcil, L. E., Solomon, B. S., & Schickedanz, A. (2019). Medical-Financial Partnerships: Cross-Sector Collaborations Between Medical and Financial Services to Improve Health. *Academic Pediatrics*.

Braxton, A. M., Chalmin, A. L., Najarro, K. M., Brockhurst, J. **K., Johnson, K. T.**, Lyons, C. E., ... & Guerrero-Martin, S. M. (2019). Platelet-endothelial associations may promote cytomegalovirus replication in the salivary gland in mice. *Platelets*, 1-9.

VOLUNTEER EXPERIENCE

Global Public Service Academies

Medical Fellow, *June 2018 - May 2019*

- Lived and volunteered in a small, rural pueblo in Guatemala: San Juan Olinstepeque.
- Provided free English classes to local Guatemalan children.
- Designed and implemented a survey to measure the amount of individuals at-risk for diabetes and hypertension in Olinstepeque.
- Coordinated a river clean-up project staffed by children from Olinstepeque.
- Conducted door-to-door health education outreach in the community to raise awareness about the importance of childhood vaccine regimens.
- Served as program coordinator for 1-2 week service-learning trips for high school students in both Guatemala and West Virginia.

Financial Future of Families

Founder and Co-Director, *Summer 2015 – Fall 2017*

- Worked with clinic staff, including physicians and social workers, to integrate financial and employment programming—"Financial Futures for Families"—into routine clinical flow at a pediatric medical home.
- Led 20 volunteer research assistants to disseminate needs-assessment surveys and conduct interviews and focus groups.
- Managed 15 student volunteer case managers as they assisted patients and caregivers of the clinic to access employment and financial security.
- Formed relationships with workforce development community organizations near the clinic.
- Assisted the formation of a national learning community of physicians and financial experts to develop other "Medical Financial Partnerships"—networks of medical and financial institutions collaborating to alleviate the financial stress of patients and caregivers from underserved populations.

Health Leads®

Lead Resource Coordinator, *Fall 2015 - Spring 2016*

- Organized all the employment assistance centers into Baltimore into a clear resource flow-chart.
- Conducted numerous site visits to social resources centers in Baltimore to build partnerships and collect important programmatic information for Health Leads clients.
- Served as the point person for 25 student advocates serving patients and caregivers at a pediatric clinic as they navigate the social resource landscape of Baltimore.

Lead Employment Specialist, *Summer 2017 - Spring 2018*

- Developed and led a new Health Leads® initiative of four specially trained advocates to assist clients with their employment and financial related needs.
- Oversaw the data collection and analysis of this initiative.

LEADERSHIP EXPERIENCE

The Dialectic (www.jhudialectic.org)

Founder and Editor-in-Chief, *Summer 2015 – Fall 2017*

- Recruited and managed over 20 students to produce a semi-annual publication dedicated to religion in the public sphere.
- Generated over \$8,000 in funding to produce the first four publications.
- Hosted discussions regarding relevant political and social issues with other student groups on campus.

8:32 Society (www.832society.com)

Founder and Executive Board Member, *Summer 2016 – Present*

- Recruited members of all Christian groups on each of the Johns Hopkins campuses to create an alumni and student network.
- Hosted discussion dinners for Christian alumni and faculty of Johns Hopkins.
- Coordinated the organization's inaugural and second-annual symposium on "Christian Faith, Reason, and Vocation", including raising nearly \$7,000 to support both events.

HONORS AND AWARDS

Civitas Dei Summer Fellowship: The Person, The Polis, and the Search for Happiness (Sponsored by the Thomistic Institute and the Institute for Human Ecology at the Catholic University of America), *July 2019*

- One of 40 students chosen internationally to discuss texts from Aquinas, Augustine, and Justice Antonin Scalia concerning law and political society.
- <https://ihe.catholic.edu/event/civitas-dei-fellowship/>

Intercollegiate Studies Institute Honors Program, *April 2017*

- One of 40 students chosen nationally to the annual program, which consists of access to numerous conferences on political and economic theory and the mentorship support of member faculty of the Intercollegiate Studies Institute throughout the year.
- home.isi.org/students/honors-program

Honors Program in the Humanities, *Fall 2016*

- One of six Johns Hopkins University students selected to pursue an independent, interdisciplinary research project with a faculty member from the Humanities Center.
- humctr.jhu.edu/undergraduate/honors

Delegate for the 2016 IMPACT Conference, *Winter 2016*

- One of four Johns Hopkins University students selected to attend a conference on student activism and social change.
- www.impactconference.org

Health Leads® Value Award recipient, *Fall 2015*

- Selected by my supervisors and peers at Health Leads® for demonstrating integrity
- Healthleadsusa.org

WORK EXPERIENCE

Center for Student Success at Johns Hopkins

Economics tutor, *Fall 2017 – Spring 2018*

- Tutored two students in econometrics and three students in introductory macroeconomics.
- Provided review sessions before exams and homework assistance.

Residential Life at Johns Hopkins University

Resident Advisor, *August 2017 - Spring 2018*

- Held responsibility for the housing and residential life of 58 sophomore students.
- Developed programming opportunities for resident students to meet each other and learn about campus resources.
- Provided counseling support to assist students in their selection of classes, academic major, research opportunities in addition to social issues.

Health Leads®

Summer Fellow, *Summer 2015*

- Case-managed over 40 patients and caregivers from the clinic seeking community resources for various social needs (access to public housing, government benefits, employment, food pantries, etc.)
- Surveyed the barriers inhibiting patients from coming to the clinic; presented findings to clinic staff.

LANGUAGE PROFICIENCY

- Spoken languages: fluency in English and Spanish
- Computer languages: STATA