FINAL REPORT

The Future of Global AIDS Treatment and the Social Determinants of Health

Health Grand Challenges

2008-2012

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Project Title: The Future of Global AIDS Treatment and the Social Determinants of Health

Year of award: 2008

New Investigator Award X or Seed Grant

Principal Investigator and Country of Research: João Biehl (Brazil)

Susan Dod Brown Professor of Anthropology and Faculty Associate of the Woodrow Wilson School of Public and International Affairs

Key Participants and Countries of Research:

Postdoctoral Research Associates (3):

Peter Locke, Center for Health and Wellbeing (Sierra Leone)
Betsey Brada, Center for Health and Wellbeing (Botswana)
Ramah McKay, Woodrow Wilson School of Public and International Affairs (Mozambique)

Graduate students (7):

Ari Samsky (PhD Anthropology 2009) (United States and Tanzania)
Mariana Socal (WWS MPP 2010) (Brazil)
Amy Moran-Thomas (PhD Anthropology 2012) (Ghana and Belize)
Celeste Alexander (Anthropology) (Kenya and Tanzania)
Sebastian Ramirez (Anthropology) (Colombia)
Alexander Wamboldt (Anthropology) (Israel and Palestine)
Onur Gunay (Anthropology) (Turkey)

Undergraduate students (28—by class year):

- 2009 Karen Lillie (Anthropology) (Mexico)David Laslett (Operations Research and Financial Engineering)(South Africa)
- 2010 Katherine Bailey (Anthropology) (Lesotho and South Africa) Elizabeth Chen (Anthropology) (US-Mexico border) Alex Gertner (Anthropology) (Brazil)

Jessica Lander (Anthropology) (Tanzania)

Tolu Lanrewaju (Anthropology) (US-Mexico border)

Yolisa Nalule (Molecular Biology) (Uganda)

Raaj Mehta (Ecology and Evolutionary Biology) (Bolivia and Ecuador)

2011 Sonia Porter (Anthropology) (South Africa)

Alyse Wheelock (Anthropology) (Guatemala and Peru)

Joshua Franklin (Anthropology) (Brazil)

Olaf Sakkers (Anthropology) (South Africa)

John Torrey (Religion) (Tanzania)

Adam Bradlow (Anthropology) (South Africa)

Sarina Dutta (Anthropology) (South Africa)

Benjamin Oseroff (Near Eastern Studies) (Jordan)

2012 Allison Daminger (Anthropology) (Peru and Guatemala)

Angelina Caruso (Anthropology) (United States)

Kulani Jalata (Anthropology) (Sierra Leone)

Sojung Yi (Anthropology) (South Africa and Brazil)

Alan Utria (Molecular Biology) (South Africa)

Christine Blauvelt (Anthropology) (Kenya)

Caroline Pinke (Anthropology) (United States)

2013 Courtney Crumpler (Anthropology) (Brazil and Mozambique)

Raphael Frankfurter (Anthropology) (Sierra Leone)

Moses Icyishaka (Economics) (Rwanda)

Chao Long (Anthropology) (South Africa)

Project Overview

In the past few years, many public- and private-sector initiatives have been launched worldwide, seeking to address HIV/AIDS therapeutically in places where treatments had been scarcely available. These initiatives have raised a new set of national and global healthcare policy challenges regarding adequate drug delivery, sustainable treatment access, and the integration of treatment with primary care, food access and prevention. Broader questions have arisen as well: how can accountability of all sectors involved in AIDS treatment rollouts be assured? How do these treatment access trends affect local health systems and the role of governments and their human rights obligations? How are other deadly diseases of poverty that have less political backing being dealt with? What on-the-ground effects do these manifold issues have on the experience of living with HIV/AIDS and poverty?

To address these and other emergent questions, our research team conducted collective and individual studies using the Brazilian therapeutic response to AIDS and its repercussions through government, markets, health systems and civil society as an ethnographic baseline from which to gauge the aftermath of large-scale drug access programs. Our researchers charted emerging governmental, philanthropic, nongovernmental and industry networks developing around HIV/AIDS technology and delivery. As we identified new challenges, limitations, and emergent forms of social mobilization, we also theorized the role of the social sciences in evidence-making and advocacy in global health. By using qualitative methodologies in harmony with more traditional quantitative ways of studying health interventions and outcomes, the project produced a people-centered approach to global health knowledge-making. In all, our work provides a muchneeded window into the real-life outcomes of national, international, corporate, and institutional policies.

Major Research Activities

Over the past four years, our research team has chronicled the rapidly changing of reality of global AIDS treatment and prevention and how it has dovetailed with the shifting priorities of global health initiatives (e.g., focus on strengthening health systems, women's health, and on the development of novel forms of research and measurement) and human rights struggles, specifically in Latin America and Africa. Our focus on "the social determinants of health" has also led

us to examine the increasing problems of co-morbidities and entangled causalities, as HIV/AIDS coexists with other infectious and chronic conditions.

The major research activities of the project have entailed both individual and collaborative ethnographic research projects. Many have been conducted in and around a variety of local and transnational health projects such as community-based HIV prevention programs or transnational NGOs working in health-related fields. Others have focused on patient perspectives on and experiences of health, care, illness and disease. Still others have explored the legal, pharmaceutical, and medical regimes that shape how patients access care, how providers make decisions regarding care delivery, and how funders and policymakers attempt to understand and shape global health responses. HIV prevention, care and treatment programs have formed the core ethnographic object under consideration but we have also explored related diseases, such as cancer and diabetes, as well as the interrelation between HIV/AIDS and social factors including poverty, politics and policy changes, postconflict experiences, and gender and religion.

Core issues that we have explored in specific contexts in our field studies include: rising resistance to first line treatments and managing patients' access to high-cost patented drugs; how patterns of migration impact AIDS prevention and treatment; the diagnosis and treatment of opportunistic infections and home-based care programs for HIV/AIDS patients; the role of religion in AIDS treatment adherence; hunger relief and income generation projects and health outcomes; pharmaceutical influence in the developing world (now also in the fields of so-called "neglected tropical diseases" and prevention) and the means by which local priorities are accounted for in health policy formulation; education and social mobility and public health education campaigns around chronic illnesses and parasitic infections; the ways market-based solutions can shape and possibly facilitate health care delivery and AIDS treatment; and the impact that rights-based claims for access to high-cost treatments has on health systems.

Key Findings

Ethnographic evidence is too often overlooked or undervalued within the dominant conceptual paradigms of global health that privilege quantitative and ostensibly generalizable (yet often faulty) modes of analysis. Yet, the ethnographic offers a sharper resolution of how things are, what sustains their

intractability, and how they might be otherwise. With our "empirical lanterns," we can see people refusing to be stratified out of existence and trying to be singularized out of the molds of abandonment, salvation, or rescue into which they are cast. People's practices of survival and inquiry challenge the analytical forms we bring to the field, forcing us to articulate more experience-near and immediately relevant conceptual work. How to operationalize ethnographic knowledge—and whether this move compromises what can and cannot be asked in the field—is a crucial and enduring question.

This project has aimed to probe the possibilities of ethnography in interdisciplinary pedagogical and research contexts, and to contemplate ways in which ethnographic evidence can best address complex questions and urgent challenges in global health. Working within this framework, key findings include:

A greater recognition of the diversity of the HIV/AIDS epidemics (Asia has not become Africa, so to speak, and epidemic levels vary widely within and among African and Latin American countries as well as within cities);

The complex interactions between HIV/AIDS treatment and care for other medical conditions (such as TB, cancer, diabetes, and mental illness), and the impact of food security, reproductive health and palliative care on patients, as well as the need for integration across multiple health interventions;

The need for strengthening of health systems and HIV/AIDS treatment scale-up and the development of "diagonal" instead of vertical approaches to funding, as well as the need to integrate human rights approaches into efforts to transform social structures and environments to help in HIV prevention;

The breadth of possible entry points and concerning manifestations of "ethical variability" across humanitarian contexts, and other questions of bioethics and human values entangled in transnational medicine;

The value of diverse, creative forms of evidence, including artwork and multimedia presentations, to communicate the complexity of realities on the ground as they are shaped by global epidemics and interventions;

The growing importance of emerging states' leadership in global health politics, such as the forms of medical and technology exchange now being called "South-South" partnerships.

These findings demonstrate an urgent need to continue to deploy ethnographic research to analyze health conditions and human needs beyond techno-scientific and clinical frameworks, including the role of religion, social histories, and local collectives in medicine and care, and the need to implement this research in global health interventions and health policies.

In addition, we have convened several international seminars, bringing to campus leading anthropologists, historians of medicine, policy-makers, human rights activists, legal scholars and medical professionals, and putting them into dialogue with the interdisciplinary group of students. We also held a series of ethnographic research workshops, bringing graduate and undergraduate students together to discuss objects of study and methods, plan summer research, prepare documentation for Princeton's Institutional Review Panel, and to present and evaluate work-in-progress. Several Princeton alumni have also participated in these events and helped students' networking efforts. Seminars and workshops constituted alternative teaching and learning sites, providing students with close mentorship and methodological training as well as the chance to engage with practitioners and scholars at the forefront of medical anthropology, health research and policy-making.

Another major axis of this project has been helping students to create novel forums to share their research findings with the wider Princeton community and to reflect on their experiences in interdisciplinary ways. For this reason, our team created "The Arts in Global Health" exhibit in Bernstein Gallery, which opened in February 2011. With the support of curator Kate Somers, students showcased their photographs, ethnographic videos, and artwork assembled from their Health Grand Challenges summer research, helped to design the exhibit, wrote captions to explain the contexts and larger questions in global health practices that shaped their art, and engaged with professors from across the university who gave talks at the event opening. This forum allowed students to interface with a broader public in new ways and to reflect concretely and creatively about questions of evidence-making in global health. It was so successful that we created a second student-led Bernstein Gallery exhibit in 2012.

Finally, my own pilot research project on the new role of the Brazilian judiciary in facilitating access to medicines and in administering public health has been especially successful, winning a US\$ 200,000 grant from the Ford Foundation for continued research. Sustained collaboration with medical and legal institutions in

Porto Alegre and with a network of social science scholars working in Africa and Latin America has enabled several internships for Princeton undergraduate students, contributing to Princeton's ongoing efforts to involve students in collaborative research early on and to internationalize education.

Educational Impacts and Mentoring Activities

Since its beginning in spring 2008, the project has fostered interdisciplinary and experience-based learning and partnerships with local initiatives—academic, activist, medical, governmental—that are creatively articulating solutions to global health problems around the world. Student participants in the research project attended global health colloquia. They were trained in comparative and ethnographic research methods and received guidance and mentorship from faculty and postdoctoral associates in designing, carrying out, and writing up their research. Students also received support from Woodrow Wilson School lecturer Joseph J. Amon, who contributed his experience as an epidemiologist and a human rights scholar to identifying key sites of inquiry and articulating diverse modes of evidence-making that are relevant in the study of global health. Many students accompanied faculty members or postdoctoral associates to the field, which allowed them to get hands-on experience and real-time guidance as they became researchers in their own right.

A special emphasis in this regard was the Sierra Leone project. This began in the summer of 2010, when GHP postdoctoral fellow Peter Locke accompanied four undergraduates—two rising seniors, one rising junior, and one rising sophomore—to Sierra Leone to assist in initiating their research and their work for Wellbody Alliance and to investigate possibilities for further forms of collaboration. We were persuaded by this exploratory visit and by the extraordinary quality of the students' learning to work to expand the partnership and to more closely integrate students' experiences with their academic work in global health at the university. This included working closely with Sierra Leonean physician Dr. Mohamed Bailor Barrie, Wellbody Alliance's Co-Executive Director, who came to Princeton's campus in February 2012 to help select and train interns best suited for local needs of the project. This collaboration has now grown into a longitudinal project allowing for sustained student engagement.

In addition to this ongoing collaboration, the project has generated extraordinary independent student field research and student internships in Belize, Brazil, Ecuador, Kenya, Ghana, Guatemala, Mexico, Peru, Sierra Leone, South Africa, Tanzania, and Uganda. Students have also carried out internships and research at the Texas-Mexico border and with Human Rights Watch in New York. Most students received funding from the Grand Challenges Initiative. The Adel Mahmoud Global Health Scholars Program, the Program in Latin American Studies, the International Internship Program Office, and the Office of the Dean of the College provided additional support. Through our joint work, we are bringing critical scrutiny to large-scale interventions and how they affect not only patients, but also their families, health workers, health systems and politics writ large.

Ultimately, the project has grown to include undergraduate students from Anthropology, Ecology and Evolutionary Biology, Molecular Biology, Near Eastern Studies, Operations Research and Financial Engineering, Economics and Religion. Many students also pursued a certificate in Global Health and Health Policy. Six Anthropology graduate students and a Masters in Public Health student at the Woodrow Wilson School have also participated in the research enterprise. Postdoctoral fellows Peter Locke, Betsey Brada, and Ramah McKay helped to coordinate research, teaching, and mentoring. By bringing together postdocs, graduate students, and undergraduates to interact and present their work in a range of research and teaching forums, intergenerational training is a major pedagogical contribution of this project and the technique is now becoming a model for other international learning initiatives at Princeton. This project has also impacted existing classroom teaching; team members' collaborative field engagements have served as a pedagogical model for the of redesign ANT 335 Medical Anthropology and have been instrumental in the development of GHP 350/ WWS 380/ANT 380 Critical Perspectives on Global Health and Health Policy.

Conference, Workshops and Events

 Workshop: "Combatting Maternal Mortality Among the Rural Poor in Sierra Leone." Dr. Mohamed Bailor Barrie, Co-Executive Director of Wellbody Alliance, Sierra Leone. February 24, 2012. Global Health Colloquium, Fall 2011. Speakers: Harley Feldbaum, Mary Olive Smith, Kate Grant, Byron J. Good, Mary-Jo DelVecchio Good. Co-sponsored with the Program in Global Health and Health Policy.

- Conference: "Food, Medicine, and Rights: How identify, measure, and act on the social determinants of health," April 1-2, 2011.
- Art Exhibit: "The Arts in Global Health" (An exhibit of student artwork and work by Damien Schumann on TB Treatment in Cape Town, South Africa), Bernstein Gallery, Princeton University, Spring 2011. Co-sponsored with the Program in Global Health and Health Policy.
- Global Health Colloquium, Spring 2011. Speakers: Keith Wailoo, Damian Schuman, João Moreira Salles, Joseph J. Amon, Johan Pottier. Co-sponsored with the Program in Global Health and Health Policy.
- Global Health Colloquium, Fall 2010. Speakers: Michael Porter, Lynn Freedman, Jeremy Farrar, Julie Livingstone. Co-sponsored with the Program in Global Health and Health Policy.
- Conference: "The Judiciary and the Right to Health: Brazil, South Africa & India," March 25–26, 2010 (organized by João Biehl and Evan Lieberman and cosponsored by the Center for Health and Wellbeing and by the Program in Law and Public Affairs).
- Workshop: "When People Come First: Anthropology and Social Innovation in Global Health," March 11–14, 2010. Co-sponsored by the Princeton Institute of International and Regional Studies.
- Global Health Colloquium, Spring 2010. Speakers: Angus Deaton, Didier Fassin, Arachu Castro. Co-sponsored by the Program in Global Health and Health Policy.
- Workshop: "Treatment Access and Human Rights," April 15–17, 2009.
- Workshop: "Experiences Working with Partners in Health in Rwanda." Speaker: Patrick Lee, MD (Princeton class of '99). November 13, 2009.
- Workshop: "The Future of Global AIDS Treatment," April 5–6, 2008.

Publications, Manuscripts, and Awards

Publications by members of research team:

- Biehl J, Sarlet I, and Petryna A, eds. *Entre a Clínica e o Tribunal: Estudos sobre a Judicialização da Saúde no Brasil* [*Between the Clinic and the Court: Studies of the* Judicialization of Health in Brazil]. Edited volume in preparation.
- Biehl, J. "The Juridical Hospital: Claiming the Right to Pharmaceuticals in Brazilian Courts." Under review at *American Ethnologist*.
- Biehl J and Petryna A, eds. When People Come First: Evidence, Actuality and Theory in Global Health. Princeton: Princeton University Press, 2013 ("Introduction: Critical Global Health;" "Overview" of the book's three sections; chapter "Legal Remedies").
- Biehl J. "Patient Value." In *Cash on the Table* edited by Edward F. Fischer. Santa Fe, NM: SAR Press, 2013.
- Biehl J and R McKay. "Anthropology as Political Critique." *Anthropological Quarterly*, 2012, 85 (4): 1211–1230.
- Biehl J, J Amon, M Socal and A Petryna. "Between the Court and the Clinic: Lawsuits for Medicines and the Right to Health in Brazil." *Health and Human Rights: An International Journal*, 2012, 14(1):1-17.
- Biehl J. "Homo Economicus & Life Markets." *Medical Anthropology Quarterly* (special issue: "After Progress" edited by Sharon Kauffman and S. Lochlann Jain), 2011, 25: 278–284.
- Biehl J. "When People Come First: Beyond Technical and Theoretical Quick Fixes in Global Health." In *Global Political Ecology* edited by Richard Peet, Paul Robbins, Michael Watts. London: Routledge, 2011,100-130.
- Biehl J. "'Medication Is Me Now': Human Values and Political Life in the Wake of Global AIDS Treatment." In *In the Name of Humanity: The Government of Threat and Care edited* by Ilana Feldman and Miriam Ticktin. Durham, NC: Duke University Press, 2010,151-189.

- Biehl J, Petryna A, Gertner A, Amon JJ, Picon PD. "Judicialisation and the Right to Health in Brazil." *The Lancet*, 2009, 373: 2182–84.
- Biehl J. "Accès du traite-ment du sida, marches des medica-ments et citoyen-neté dans le Brésil d'aujourd'hui." ("AIDS Treatment Access, Drug Markets, and Citizenship in Brazil Today"). Sciences Sociales et Santé, 2009, 27(3): 13–46.
- McKay, R. "Documentary Disorder: Managing Medical Multiplicity in Mozambique." *American Ethnologist*, 2012, 39(3): 545-561.
- Moran-Thomas, A. "A Salvage Ethnography of the Guinea Worm: Witchcraft,
 Oracles and Magic in a Tropical Disease Eradication Program." In When People
 Come First. Biehl and Petryna, eds. Princeton: Princeton University Press, 2013.
- Moran-Thomas A. "Disparity, Paradox, Ethnography: Observations on the Spread
 of Diabetes in the Developing World" (Society for the Anthropology of Nutrition,
 Section News). Anthropology News, April 2009, 40, 4.
- Gertner A. "Science of Uncertainty: Making Cases for Drug Incorporation in Brazil." *Anthropological Quarterly*, 2010, 83(1), 97-122.
- Gertner A. "Health Technology Assessment and Incorporation in Brazil: Critical Reflections on an Emerging Public Private Field." *Brazilian Journal of Health Economics*, 2009, 1(2), 57–8.
- Blumenthal SJ, Mehta R, Safdi S. "National HIV Testing Day: An Epidemic in Our Nation's Capital." *The Huffington Post* June 27, 2008.
- Samsky, A. "Scientific Sovereignty: How International Drug Donation Programs Reshape Health, Disease, and the State." *Cultural Anthropology*, 2012, 27(2), 310-332.
- Samsky, A. "'Since We Are Taking the Drugs': Labor and Value in Two International Drug Donation Programs." *Journal of Cultural Economy*, 2011, 4(1), 27-43.

• Socal, MP. "Between Policy and Justice: The Brazilian National Policy on Pharmaceuticals." *Journal of Public and International Affairs*, Fall 2010: 150-158.

Manuscripts and Awards by members of research team:

Undergraduate Senior Theses (Anthropology, Advised by João Biehl except where otherwise noted)

- Raphael Frankfurter. (Expected 2013). "These Things are Hard to Drop':
 Healthcare Development, Traditional Healing, and Medical Pluralism in Kono
 District, Sierra Leone."
- Christine Blauvelt. (2012). "Economies of Survival: When Global AIDS Interventions Meet Local Communities in Kenya."
 Honorable Mention, Global Health Program (GHP) Senior Thesis Prize
- Allison Daminger. (2012). "Known, Un- known: An Ethnography of AIDS Care and Treatment Adherence in Guatemala."
 Winner, Senior Thesis Prize, Program in Global Health and Health Policy Winner, Dean Hank Dobin Prize for Community-Based Independent Work
- Kulani Jalata. (2012). "How the Tortured Body Speaks: The Oromo People in the Narratives of Ex-Political Prisoners."
- Caroline Pinke. (2012). "An Ethnography of Care: Reclaiming Dignity for Boston's Chronically Homeless."
 Honorable Mention, Global Health Program (GHP) Senior Thesis Prize
- Sojung Yi. (2012). "Uncharted: Territorialization of Health Care and the Travails of the Urban Poor in Rio de Janeiro, Brazil."
 Winner, Kenneth Maxwell Senior Thesis Prize for Brazilian and Portuguese Studies
- Sarina Dutta. (2011). "The Story of Malnutrition: Experiences from a Nutrition Center in Khayelitsha."

- Olaf Sakkers. (2011). "Things of this World: An Ethnographic Study of a Rural South African Hospital."
- Joshua Franklin. (2011). "Claiming the Right to Transgender Health in Brazil."

 Honorable Mention, Department of Anthropology Senior Thesis Prize

 Winner, Dean Hank Dobin Prize for Community-Based Independent Work

 Winner, Kenneth Maxwell Senior Thesis Prize for Brazilian and Portuguese

 Studies Winner, Stanley Stein Senior Thesis Prize

 Fulbright IIE Award

 Honorable Mention, Rudolph Virchow Award, Best Undergraduate Student

 Paper, Society for Medical Anthropology, 2011
- Sonia Porter. (2011). "The Art of Aspiration: Crafting Life Chances at an Income Generation Project in Cape Town, South Africa."
 Honorable Mention, Department of Anthropology Senior Thesis Prize Winner, Dean Hank Dobin Prize for Community-Based Independent Work
- Alyse Wheelock. (2011). "Maps of Rural Health: An Ethnography of Access to Care in Peru."
 Winner, Global Health Program (GHP) Senior Thesis Prize
- Alex Gertner (2010). "Pharmaceutical Care, Public Experiments, and Patient
 Knowledge in the Brazilian Public Healthcare System."
 Winner, Senior Thesis Prize, Program in Global Health and Health Policy
 Winner, Dean Hank Dobin Prize for Community-Based Independent Work
 Winner, Stanley J. Stein Senior Thesis Prize, Program in Latin American Studies
 Winner, Kenneth Maxwell Senior Thesis Prize, Program in Latin American
 Studies Honorable Mention, Anthropology Senior Thesis Prize
- Jessica Lander (2010). "From Lost Causes to Leaders: The School of St. Jude and Its Mission to Educate Tanzania's Poorest and Brightest."
- Kathryn Bailey (2010). "Vulnerability and Belonging: An Ethnographic study of profit/not- for-profit care for ex-mineworkers living with HIV/AIDS in southern Africa."
- Elizabeth Chen (2010). "Border Health: An Anthropological Study of Health Promotion on the U.S.-Mexico Border."

- Tolu Lanrewaju (2009). "The Invisible Population: HIV/AIDS along the U.S.-Mexico Border." (Advisor: Isabelle Clark-Decès)
- Karen Lillie (2009). "La Vida Normal (The Normal Life): Self-Perceptions of HIV Infected Patients in Puebla, Mexico." (Advisor: Lawrence Rosen).
 Honorable Mention, Community-Based Learning Initiative Senior Thesis Prize Fulbright IIE Award

Undergraduate Senior Theses in Other Departments

- Benjamin Oseroff. (Near Eastern Studies, 2011). "The Ethics of Prevention:
 Counseling, Consanguinity, and Premarital Testing for Beta-Thalassemia in
 Jordan." (Advisor: M. Qasim Zaman; Co-Advisor: João Biehl)
 Winner, Allen Macy Dulles '51 Award
 Winner, Bayard and Cleveland Doge Memorial Prize
- John Torrey. (Religion, 2011). "Power Consecrated: An Ethnographic Critique of Donor Engagement with Churches and Mosques in Tanzania's AIDS Response." (Advisor: M. Qasim Zaman; Co-Advisor: João Biehl)
 Honorable Mention, Global Health Program (GHP) Senior Thesis Prize
- Josephine Yolisa Nalule (Molecular Biology, 2010). "Evaluation of the Introduction of the Heptavalent Pneumococcal Conjugate Vaccine (PCV-7) in Kenya." (Advisor: Adel Mahmoud)
- David Laslett (Operations Research and Financial Engineering, 2009). "Verbal Autopsies: Methods to Enhance Performance and Accuracy." (Advisor: Jianqing Fan)
- Raaj Mehta (Ecology and Evolutionary Biology, 2009). "Immunosuppression by Soil-Transmitted Helminths and its Connection to Allergy." (Advisor: Simon Levin)

Fulbright IIE Award

Junior Papers (Anthropology, Advised by João Biehl)

- Courtney Crumpler. (2012) "Measuring Mozambique: A Critical Analysis of Quantification in Global Health."
 2012 Davis Projects for Peace Award
- Raphael Frankfurter. (2012) "Living Under Threat: Material Constraints, Social Instability and Witchcraft Beliefs in Mondu Village, Sierra Leone."
 2011 Davis Projects for Peace Award
- Kulani Jalata (2011). "To Live with HIV/AIDS: An Ethnographic Study of Wellbody Alliance's HIV/AIDS Community-Based Treatment Program."
- Christine Blauvelt (2011). "The Dynamics of HIV/AIDS in the Islamic Republic of Iran."
- Allison Daminger (2011). "An All-Consuming Passion: Identity, Power, and Inca Kola in the Construction of Peruvian Modernity."
- Sojung Yi (2011). "The Shifting Role of NGOs in Mediating HIV/AIDS Knowledge in South Africa"
- Joshua Franklin (2010). "Lost People,' speaking subjects: Sex reassignment Surgery in Porto Alegre, Brazil."
- Sonia Porter (2010). "Imagined Humanity: An Anthropology of Humanitarianism."
- Alex Gertner (2009). "Making Models, Making Markets: Evidence, Interests and Uncertainty in Health Technology Assessment in Brazil."
- Karen Lillie (2008). "The Real Epidemic: the Anthropology and Epidemiology of HIV/AIDS in the Caribbean."

Junior Paper in Other Department

• Yolisa Nalule (Molecular Biology, 2009). "Research proposal to evaluate the introduction and application of the Pneumococcal Conjugate Vaccine in Kenya."

PhD Dissertations (Advised by João Biehl)

- Ari Samsky (May 2009). "Topographies of Need: Humanitarianism, Science and the Market in Two International Drug Donation Programs."
 Winner, Rudolph Virchow Award, Best Graduate Student Paper, Society for Medical Anthropology, 2009
- Amy Moran-Thomas (September 2012). "Metabola: Chronic Disease and Damaged Life in Belize."

Winner, David M. Schneider Award, American Anthropological Association, 2011 Winner, Science, Technology and Medicine Interest Group Graduate Paper Prize, Society for Medical Anthropology, 2011

Winner, Elsie Clews Parsons Prize from the American Ethnological Society, 2011 Winner, Rudolf Virchow Award, Best Graduate Student Paper, Society for Medical Anthropology, 2011

Winner, Christine Wilson Award, Best Graduate Student Paper, Society for the Anthropology of Food and Nutrition, 2009

Honors

- Biehl, J. David Schneider Memorial Lecture: "Life Stories," Society for Cultural Anthropology, 2012.
- Biehl, J. Marvin Harris Lecture: "The Juridical Hospital," University of Florida, 2012.
- Biehl, J. President's Distinguished Lecturer: "When People Come First: Social Innovation in Global Health," Princeton University, March 2009.

Invited Lectures and Presentations by João Biehl

- "Bodies of Rights and Therapeutic Markets." Conference: Ciências na Vida, UFRGS, Porto Alegre, Brazil, August 2011.
- "The Juridical Hospital." Workshop on the Intersections of Law and Medicine, University of Edinburgh, May 2011.

- "Right to Heath Litigation: Technology Access and privatized Health in Brazil." Social Science and Policy Seminar Series, World Bank, Washington, D.C., March 2011.
- "Bodies of Rights and Therapeutic Markets." Conference: The Body and the State, New School for Social Research, February 2011.
 - "Claiming the Right to Health in Courts in Brazil." Seminar: Health and Citizenship, Danish Research School of Anthropology and Ethnography, University of Copenhagen, June 2010.
- "Right to Health Litigation in Brazil." Human Rights Watch, New York, June 2010.
- "When People Come First: Technical Fixes and Social Innovation in the World/Market of Global Health." Advanced Seminar on Markets and Moralities organized by Edward Fischer and Peter Benson, School for Advanced Research, May 2009.
- "The Judicialization of the Right to Health." International Seminar Labour, Value, Class and Experimentation, the London School of Hygiene and Tropical Medicine, February 2009.
- "The Pharmaceuticalization of Public Health." Seminar *Políticas de saúde e evidência científica: Acesso aos medicamentos de alto custo*. Hospital de Clínicas de Porto Alegre, Brazil, August 2008.
- "The Will to Live: AIDS Therapies and the Politics of Survival" (keynote lecture). International conference *The Social Coordinates of Illness in Post-Colonial Africa*, Duke University, October 2008.
- "'Medication Is Me Now': Human Relations and Political Life in the Wake of Global AIDS Treatment Programs." University of Illinois at Urbana-Champaign, September 2008.
- "The Judiciary and the Right to Health." Seminar *Medicamentos via justiça:* Reflexões técnicas, éticas e políticas. Secretaria da Saúde e Procuradoria Geral do Estado do Rio Grande do Sul, August 2008.

- "Human Values in the Bio-Economic Government of AIDS." Department of Anthropology, Stanford University, May 2008.
- "Will to Live." International Conference on Global Values for Global Health. University of California, Berkeley, May 2008.

Future Directions:

As the "Future of Global AIDS Treatment and Social Determinants of Health" Grand Challenges Project tenure comes to a close in 2012, our research team is working to find ways to continue the conversations and learning experiences that have grown out the past four years of collaborative work. For example, based on our field projects, we have developed people-centered case studies that will be disseminated to the academic and wider public, most notably in the forthcoming edited volume *When People Come First: Evidence, Actuality and Theory in Global Health* (edited by João Biehl and Adriana Petryna). This book will published by Princeton University Press in 2013, as a key step in finding ways to publicize our major ethnographic findings more broadly and to place them in dialogue with larger debates about global health humanities, politics and ethics.

In addition, a small team composed of Ramah Mckay (now Assistant professor of Anthropology at the University of Minnesota), postdoctoral researcher Amy Moran-Thomas, graduate student Serena Stein, undergraduate researchers Courtney Crumpler and Chao Long and myself has begun multi-sited fieldwork on emerging linkages between Brazil and Lusophone African countries in the areas of pharmaceutical production, health policy and foreign assistance and, more broadly, on the politics of South-South connections as a site of transformation in global health. A continuing collaboration now builds directly on this Health Grand Challenges research, as our smaller team continues drawing on the rich ethnographic materials and interviews that we collected during our tenure as Grand Challenges fellows and furnishes materials for continuing engagement with these core questions. In the coming years, we aim to organize a conference on the anthropology of "South-South" collaboration at Princeton inspired by these Grand Challenges materials, analyzing in particular the need for more nuanced understandings of these emergent forms and the larger issues they raise about changing circulations of technoscience today. The results of this

conference may afterwards be published as a journal special issue or other scholarly collaboration, as we continue to hold workshops to analyze and reflect critically.

Finally, working together with a team of interdisciplinary colleagues, I have recently received a grant from Princeton University's Council for International Teaching and Research to develop a pilot project expanding current models of global education. This project is part of broader institutional partnership between Princeton and the University of São Paulo (USP). It will bring together faculty, undergraduate students, and graduate students to conduct collaborative research and pedagogical initiatives around global health, health policy, and the anthropology of medicine and health. Initiatives will involve Princeton's Program in Global Health and Health Policy, the Department of Anthropology, and the Center for Health and Wellbeing of the Woodrow Wilson School of Public and International Affairs, in conjunction with USP's Departments of Anthropology and Preventive Medicine and the School of Public Health. This project builds directly on the lessons and experiences of our Health Grand Challenges research team, as I work to expand the findings and techniques of the "Future of Global AIDS Treatment and Social Determinants of Health" project into a lasting platform for collaborative learning models and innovative future scholarship at Princeton.

Participating Departments:

Primary departments include:

Anthropology, Woodrow Wilson School of Public and International Affairs

Additional departments include:

Ecology and Evolutionary Biology, Molecular Biology, Near Eastern Studies, Operations Research and Financial Engineering, Economics, Religion

Collaborating Institutions/Faculty:

Joseph Amon (Director of the Health and Human Rights Division of Human Rights Watch)

Adriana Petryna (Edmund J. and Louise W. Kahn Term Professor in Anthropology, University of Pennsylvania)

Susan Reynolds Whyte (Professor of Anthropology, University of Copenhagen)

Michael Whyte (Professor Emeritus of Anthropology, University of Copenhagen)

Ingo Sarlet (Professor of Law, Pontifícia Universidade Católica do Rio Grande do Sul)

Laura Bannach Jardim (Professor and Chief of Genetic Medicine, Universidade Federal do Rio Grande do Sul)

Claudia W. Fonseca (Professor of Anthropology, Universidade Federal do Rio Grande do Sul)

Kate Somers (Curator of the Bernstein Gallery of the Woodrow Wilson School of Public and International Affairs)

Related Media and Press Coverage:

- "Discovery: Research at Princeton 2012" http://discovery.princeton.edu/?portfolio=global-health-research
- "Crossing Boundaries to Confront Global Problems" (University news): http://www.princeton.edu/pei/news/archive/index.xml?id=1144
- "Global Health at Princeton" (video featuring students from the Grand Challenges research team):

http://aspire.princeton.edu/news/media/globalhealth/

"Social Innovation in Global Health: When People Come First,"
 President's Lecture Series, Princeton University (2009)
 http://hulk03.princeton.edu:8080/WebMedia/flash/lectures/20090304_preslect_biehl.shtml

Final Remarks:

The Grand Challenges program has influenced my research and teaching in multiple and deeply interconnected ways. Several of my core courses at Princeton, especially Medical Anthropology and Critical Studies of Global Health and Health Policy, have been critically shaped by conversations, debates, and insights from this project. As they engage in ethnographic interviews and fieldwork across various sites in Latin America and Africa, the students have learned a great deal from their interlocutors on the ground, and I have learned tremendously from them in turn.

The undergraduates, graduate students, and other team members involved in this research have continuously surprised me with their relentless creativity and keen ethnographic insights. Coming from diverse backgrounds and using the toolkits of their various disciplines in dialogue with anthropological methods, the Health Grand Challenges project has allowed us to together create an "interdiscipline" that expands the parameters of what can be known about emergent questions and experiences in the field of global health today. For example, as our group has used my own ongoing research in Brazil as an ethnographic baseline, I have also been able to place my work there in comparative light and understand in more detail how the current situation in Brazil articulates with politics and sociomedical realities emerging elsewhere in what many scholars now call "the global south." This wider picture has lead not only to the ongoing analysis of these "South-South" collaborations (placing Brazilian initiatives in transnational perspective by partnering with Africanist team members to examine Brazil's recent pharmaceutical and development work in Mozambique, for example)—but more generally, it has also pushed my research and thinking toward a panoramic picture of transnational processes that moves across a plurality of global regions and interrelated conditions. This perspective would not be possible without the richness of a dialogue among multiple researchers and students.

Over the years, this project has ultimately allowed multiple cohorts of undergraduate and graduate students and postdoctoral researchers to directly encounter complex realities on the ground, and in turn to be enabled to pass on the fine-grained ethnographic knowledge they acquire and find ways of communicating their discoveries to each other, to other peers and academic communities, and a broader public. Perhaps the most crucial legacy of this Health Grand Challenges project has been its unique capacity to bring the real world into

the classrooms of Princeton—building an ethnographic archive of sorts that challenges potential abstractions and one-size-fits-all solutions, and instead insisting on forms of policy and knowledge based on concrete realities of people's actual lives and conditions. These insights do not stop with the students who participated in Grand Challenges research; this work has permeated the academic community at Princeton by serving as a pedagogical model for independent and collaborative research across disciplines. For this reason, it would be difficult to underestimate the impact of these Grand Challenges-sponsored projects on students' development. This award has helped to articulate a critical and more realistic global health science and to support a new generation of global citizens who are not only contributing to the growing fields of Health and Development—they are driven by an engaged and ethical commitment to query and expand the definition of these very terms and what they might mean for our society's future.