GLOBAL HEALTH RESEARCH CENTER of CENTRAL ASIA
The Global Health Research Center of Central Asia (GHRCCA) integrates a multidisciplinary team of faculty, scientists, researchers, and students committed to advancing solutions to health and social issues in Central Asia and the surrounding region. In 2007, Columbia University established GHRCCA, Inc. with a branch office in Almaty, Kazakhstan. In 2010, the work of Wellspring NGO in Ulaanbaatar, Mongolia was incorporated into the scope of the Center. In 2011, a local NGO was established in Bishkek, Kyrgyzstan. The Center also has Regional Representatives in Tajikistan and Uzbekistan.

The Center focuses on emerging global health problems such as HIV, HCV, TB, and other infectious diseases in Central Asia. GHRCCA’s main Central Asian office is in Almaty, Kazakhstan with satellite research offices in other Central Asian Republics. GHRCCA aims to develop and advance evidence-based, sustainable solutions to emerging public health and social issues such as the HIV epidemic and widespread drug use affecting communities in Kazakhstan and the Central Asian region. The Center uses rigorous social science and biomedical research, advances educational opportunities, and helps implement innovative public health policy solutions. This multidisciplinary center creates crosscutting partnerships with governments, universities, business, and nongovernmental organizations in Kazakhstan, the region and worldwide to achieve its mission. The Center has built a strong infrastructure (well-trained researchers and superb media and technology systems) to allow for effective communication and shared data between the research teams in Central Asia and NYC. The GHRCCA office in Almaty includes a Director, Deputy Director, a Computer Lab Manager, and a part-time technician who provides technical assistance with other audio-visual technology and data management. In addition to staff, the Almaty office has a Community Collaborative Board and anumber of faculty affiliates from Columbia University and universities in Kazakhstan, several pre- and post-doctorate students, and local and International NGO collaborators.

The GHRCAA has also two clinical spaces in Almaty, which are designed as a “community space” rather than as an academic/higher education institution. Each of the community spaces supports a study and contains 2 assessment rooms that are equipped to conduct the audio computer assisted structured interview (ACASI) assessments; a bio-specimen laboratory which is equipped to process, store and ship specimens; 2 private offices where the face-to-face interviews and pre-test and post-test HIV/STI counseling are conducted; and 2 intervention rooms.
CURRENT RESEARCH
Ongoing epidemiological and intervention research focuses on the populations who are most at risk or who have HIV/AIDS, hepatitis C, and sexually transmitted infections, including injecting drug users, migrants, men who have sex with men (MSM) and sex workers.

The Silk Road Health Project (2009-2013)
Funded by the National Institute of Mental Health (NIMH), this longitudinal study aims to examine the influence of multi-level factors such as migration patterns, and gender roles and expectations on sexual HIV risk behaviors and incidence of HIV, chlamydia, syphilis, and gonorrhea among a representative sample of 2,000 male migrant market vendors in the largest marketplace in Almaty, Kazakhstan. Findings from this study will have important implications for understanding the determinants of HIV risks and health challenges among migrant workers in Central Asia and will inform health policy and advocacy approaches to improving access to health and HIV treatment and services.

Project Renaissance (2008-2013)
This five year study is funded by the National Institutes of Drug Abuse (NIDA) to examine the efficacy of a couple-based HIV and Overdose prevention intervention in reducing HIV risk behavior and overdoses. The study is being conducted with 300 injecting drug users and their main sexual partners (N=600) in Kazakhstan. The findings will have important HIV prevention implications for drug users and their main sex partners in Kazakhstan and other Central Asian countries.

ADVANCE: Advocacy and Assessment of Naloxone in Central Asia project (2011-2013)
The project on advocacy and assessment of naloxone administration in opioid overdose is the first regional initiative covering Central Asian countries, Kazakhstan, Kyrgyzstan, and Tajikistan. The project is called ADVANCE - Advocacy and Assessment of Naloxone in Central Asia, and is funded by the Open Society Institute. The project goal is to help regional partners to build local capacity for evidence-based advocacy in the countries participating in the project. The project aims to provide technical support to regional initiatives to expand access to naloxone among opiate users' communities and social networks in Kazakhstan, Kyrgyzstan, and Tajikistan by providing training to local partners in advanced technologies of data collection and certification to work with human subjects. Moreover, the project is focused at expansion of partnerships with governmental agencies and donors on procurement and wide distribution of Naloxone among different medical facilities, non-governmental organizations and trust points.
Tuberculosis Mapping in Kazakhstan (2011-2014)
While TB incidence has declined in recent years, multidrug-resistant tuberculosis (MDR-TB) is rising. Risk factors influencing the spread of TB in Kazakhstan are yet undetermined. This project, funded by the Kazakhstan Ministry of Education and Science and The Center of Life Sciences at Nazerbayev University, aims to uncover which risk factors are fueling the epidemic and, in particular, the startling rates of MDR-TB. The information collected from four oblasts will offer insight into how to reduce the disease burden of TB in Kazakhstan. 1,800 participants will be included, with 600 index participants and 1,200 controls, including an internal household control (index participant’s household contact) and an external community control (non-household control). Index participants with newly diagnosed pulmonary TB will be recruited from 4 regions of Kazakhstan and followed-up for 12 months. A case-control study of TB-positive individuals will be complemented by both a household cohort study and a genetic, family-based sub-study of risk determinants. In addition, genotyping of M.Tuberculosis strains and their susceptibility to anti-TB drugs will form the last component of the study. Data will be mapped in GIS to reveal the distribution of cases and strain types across the regions. Separate statistical analysis will be conducted for the case-control, prospective cohort, molecular epidemiology, and family genetic components of the study.

WINGS (2012-2013)
This study aims to evaluate the feasibility and preliminary effects of the intervention WINGS, an evidence-based Screening, Brief Intervention and Referral service (WINGS – Women Initiating New Goals for Safety to be adapted as Wings of Hope in Russian – KRYLYA NADEJDY) designed to increase identification of intimate partner violence (IPV) victimization and to improve linkages to IPV-related services among female injecting drug users need to be adapted for the cultural context and to expand the problem definition of IPV experienced by women in Kyrgyzstan to a more generalized identification of gender-based violence (GBV) and inform our efforts to pilot the adapted version in NGOs in Osh and Bishkek cities (Kyrgyzstan) for feasibility and preliminary outcomes.
A Computerized Family-Based Youth HIV and Drug Abuse Prevention in Kazakhstan (2013-2014)
This study is adapting an evidence-based substance use and HIV prevention intervention for at-risk adolescents and their caregivers (parents or other adult family members) from drug-risk communities in Almaty, Kazakhstan. The Kazakhstani Family Together (KFT) intervention combines empirically tested skills-based and family involvement approaches and utilizes multi-media computer technology to develop an engaging and potentially cost-effective tool with high fidelity and easy scalability. The KFT intervention will be tested in a pilot RCT with 248 adolescents and 248 of their caregivers. Intervention arm adolescent-caregiver pairs will receive three 45-minute interactive multi-media sessions with avatars customized to participants’ gender that will focus on risk reduction self-efficacy, resistance to peer pressure, and caregiver-adolescent communication, support and monitoring. Adolescents from both intervention and control arms will receive the usual care services available for at-risk youth, which includes health education sessions on HIV and drug use delivered by peer educators and outreach workers.

ISWOP (2012-2013):
Informing Social Work Practice with Most-At-Risk-Populations (MARPs) for TB and HIV in Central Asia study aims to achieve the short-term goal of building capacity of those currently providing psychosocial support services to MARPs for HIV and TB, primarily outreach workers and nurses. Utilizing our research team’s expertise and experience in the region we aim to contribute to the USAID-funded Quality Health Care Project’s long-term goal of institutionalizing functions and educational capacity for psychosocial support services and systematizing productive collaboration between NGOs serving MARPs and the health sector. By collecting data using a digital survey and focus groups with Central Asian key informants in Kazakhstan, Kyrgyzstan, and Tajikistan, to include leadership and front-line staff from governmental and non-governmental agencies serving MARPs for HIV and TB regarding the knowledge and skills needed by social service providers, we will inform strategies to address barriers to engagement into care and HIV testing and care of those most at risk. Additionally, academic leadership training social workers will be surveyed to gain expertise in the training of social workers and to enhance uptake of curriculum being constructed. Finally, using focus group and in-depth interviews population key informants will be interviewed to gain understanding of the issues that may inhibit engagement and successful utilization of healthcare services and how social service staff might support clients and mitigate barriers.

Undarga (2011-2013)
This study is the first test of a microfinance intervention combined with HIV prevention aimed to reduce sexual risk behaviors among female sex workers (FSWs) in Mongolia. The US/Mongolian collaborative research team will develop and implement a microfinance intervention that will promote women’s HIV risk reduction and economic self-sufficiency. It will test a model that is sensitive to the unique needs of FSWs by providing substantial training for personal financial literacy and business management (which most microfinance institutions do not provide); teaching women about the risks of credit; and providing matched savings to build assets towards business development.
COMPLETED RESEARCH STUDIES

Women’s Wellness Project (2007-2012)
In collaboration with the Mongolia National AIDS Center, this study is the first behaviorally-based randomized clinical trial conducted in Ulaanbaatar, Mongolia with the support from the National Institute on Alcoholism and Alcohol Abuse (NIAAA). The study is designed to examine the efficacy of an integrated microfinancing and HIV prevention intervention for women who are engaged in sex work and who have a history of alcohol abuse. The findings will have important HIV prevention implications for female sex workers in Mongolia.

The Preliminary Research Investigation of MSM Estimation (PRIME) (2011-2012)
This study was funded by the Republican AIDS Center of Kazakhstan (RAC) and conducted in conjunction with the NGO Amulet. The overarching goals of the study were to generate preliminary estimates of the number of men who have sex with men (MSM) - Almaty, Astana, Pavlodar, and Shymkent Kazakhstan, - and to suggest research methodologies for the future larger-scale estimations. Summary average point estimates from the estimation methods used in PRIME suggest that MSM represent about 4.2% of the 18-59 year old male population in Almaty, 2.2% in Astana, 0.9% in Pavlodar, and 1.9% in Shymkent. If extrapolated (with weighting based on the population size of each city) to all of Kazakhstan, findings suggest 3% of the 18-59 year-old men in the country are MSM; credence in this value is supported by the finding that among the 18-59 year old men in the study’s general population sample, 2.5 – 3.0% were MSM depending on whether sex with another man was reported in the past 12 months or ever in the respondent’s lifetime.

Project SHARP (2009-2011)
This study, funded by the Open Society Institute, collected biological and behavioral data in order to inform the design of surveillance systems to accurately track the HIV epidemic among men who have sex with men (MSM), characterize the behaviors driving HIV transmission, target and evaluate prevention and care programs, and advocate for health resources for this population. The survey started with a qualitative formative phase to assess the diversity of social networks of MSM in the designated area followed by a structured survey with 400 MSM in Almaty using respondent driven sampling and biological testing for HIV using rapid testing. In addition to the question on the size of the participants’ social networks and HIV prevalence, key measures included a set of standardized questions on demographics, risk behaviors, health services, and human rights. This study found that about one-fifth of the 400 MSM participants tested positive for HIV.
Factors that Affect HIV Treatment Adherence among IDUs (2009-2010)
This one-year pilot project funded by a Seed Grant from the Center and the Institute for Social and Economic Research Policy (ISERP) was designed to explore factors associated with HIV treatment adherence and non-adherence among HIV-positive injecting drug users in Karaganda and Temirtau, Kazakhstan. The study completed 25 qualitative interviews with HIV positive injecting drug users and focus groups with HIV care service providers.

SHIELD Central Asia (2008-2009)
Funded by the National Institute of Drug Abuse (NIDA), Project SHIELD was a one-year project which adapted an existing HIV prevention program for injecting drug users in Osh, Kyrgyzstan. The intervention – SHIELD – is a social network, peer driven program that addresses both sexual and drug risk behaviors, and focuses on individual behavior and group norms. Findings from immediate post intervention demonstrated that the SHIELD intervention has a potential for wider scale-up in Central Asia to reduce drug and sexual risk among IDUs and their risk networks. Pre post repeated measure show that at immediate post test for both index and network members reported in the previous thirty days, a reduction in number of sexual partners, a decrease in having unprotected vaginal and/or anal sex, an increase in number of participants who reported reduced frequency of sharing needles and increased utilization of needle exchange programs.

Marketplace Pilot Study (2007)
Funded by Columbia University’s Institute for Social and Economic Research and Policy (ISERP), GHRCCA and the Moore Foundation, this pilot study examined correlates of risky sexual behaviors and the prevalence of HIV, hepatitis C, and syphilis among migrant market workers in Almaty, Kazakhstan. Data was used to inform a larger study, The Silk Road Health Project.

Renaissance Pilot Project (2005-2006)
The Center’s researchers received funding from the National Institutes of Health (NIH) to test the safety, feasibility, and preliminary effects of a couple-based HIV prevention intervention with injecting drug users in Chu, Kazakhstan. Data from this study informed the larger study, Project Renaissance.

Family-Centered HIV/AIDS Treatment and Care (2008-2009)
Funded by a Seed Grant from the Center and the Institute for Social and Economic Research Policy (ISERP), this project assessed the needs of women and children infected with HIV/AIDS. The Center worked with UNICEF-KZ to develop and implement a survey to assess current psycho-social programs set up to address the HIV outbreak among women and children in Shymkent. The survey and site visit provided a foundation to develop new research projects focusing on family-centered HIV/AIDS treatment and care programs for women and children.

With the support from the National Institutes of Health (NIH), the Center collaborated with the Tajikistan Ministry of Health and the Tajik HIV/AIDS Center for Prevention and Care to develop and implement HIV prevention research with sex workers in Tajikistan.
GHRCCA conducts research trainings for its government and university partners in Central Asia and New York through the following courses.

- Intermediate and Advanced Epidemiology
- Operational Research
- Program Evaluation
- Bioethics
- Biostatistics
- Science of Intervention Research
- Clinical Approaches to Behavioral Interventions

Through our training modules and courses, GHRCCA is enhancing the Center’s capacity for research and training via:

- Collaborations and consultations with GHRCCA partners and affiliates whose specializations in a wide range of sectors and subjects augment the Center’s scope of knowledge and ability in studies related to global health issues.
- A multidisciplinary approach that encompasses a variety of subjects from medicine to the social sciences, and more.
- Organizing exchanges of faculty, researchers, students, and technology with partners and affiliates in Central Asia.

The training and education gained from the Center’s modules and courses are implemented in strategies used to facilitate joint studies addressing prevention, care, and treatment of regionally significant communicable and non-communicable diseases. The Center also aims to promote regional health studies and projects, and develop research focusing on improving the health of at-risk populations. Below is a list of current and past training and capacity building projects.
Treatment as Prevention international conference (2012)
The GHRCCA in partnership with the Fogarty-funded New York State International Training and Research Program (NYS-ITRP), Kazakhstan Republican AIDS Center, UNAIDS, and CDC conducted the international HIV Research Conference “Scaling up Treatment and Treatment as Prevention Efforts in Kazakhstan” on November 13-15 in Almaty, Kazakhstan.

The conference goals were twofold: 1) to review and discuss the international trends and national situation with prevention and treatment of HIV infection in Kazakhstan, scientific evidence behind providing ARV treatment at the early stages of HIV infection, opportunities and barriers for scaling up ARV treatment and treatment as prevention efforts in Kazakhstan; and 2) to build capacity and partnership for fruitful research, training and development of clinical study programs on HIV infection. This 2-days event brought together professionals from the Kazakhstan Ministry of Health, international and national NGOs, practitioners, scientists and faculty from the US and Kazakh universities for a fruitful discussion and potential collaboration in the above mentioned areas.

Modern Strategies of Primary Prevention of Chronic Non-infectious Diseases, Effective Screening Methods, Cluster Mechanisms and Inter-sectoral Cooperation (2012)
In December, 2012, GHRCCA received funding from Kazakhstan’s Ministry of Health to implement a train-the-trainer curriculum on the prevention of non-communicable diseases. Doctors from local and regional offices participated in a 5-day training designed to increase awareness of health risks, screening, treatment and ways to enhance dialogue with patients in medical practice. It used a combination of teaching methods including lecture, group work and interactive role play to build knowledge and skills, including the model Motivational Interviewing.

Practice exercises and scenarios addressed issues relevant to Kazakhstan’s at-risk populations as well as system issues that may be barriers to implementation and the training of medical staff.

This 4-day training of medical providers of HIV care in three countries is sponsored by The Republican AIDS Center and The Republican Narcology Center with the Support Project of ICAP and the Global Health Research Center of Central Asia (GHRCCA) of Columbia University, funded by the US Centers for Disease Control and Prevention (CDC). The goal is to build capacity of clinical providers of HIV care to implement effective counseling strategies with patients to enhance engagement and treatment adherence. Using the ecological framework the training is designed to increase knowledge and skills of evidence-based strategies that target multi-level, contextual patient factors, including systemic-level determinants of health including family and network dynamics of patients living with HIV/AIDS. The content addresses relevant challenges to treatment adherence; including substance misuse and mood disorders, and ways to enhance dialogue with patients, their families and networks in HIV care practice.
Improving Social Work Practice in Central Asia

In 2011, GHRCCA received funding from the Kazakhstani Ministry of Health to develop a basic social work training curriculum for primary care providers with the long term goal of integrating basic social services into primary care and to build the capacity of primary care providers to work with vulnerable populations and to provide basic social services, including screening for mental health and psychosocial problems, conducting needs assessment, crisis management, brief evidence-based counseling services and interventions, and conducting case management, treatment planning and referrals. In 2012, GHRCCA was awarded a subcontract by Quality Health Care Project, USAID to develop a social work training curriculum for NGOs that serve Most-At-Risk-Populations (MARPs) in Kazakhstan, Kyrgyzstan and Tajikistan. Formative research methods and data collection informed educational content and future HIV and TB prevention and care programming.

AITRP Fogarty Training for Kazakhstan

Dr. Chris Beyrer of Johns Hopkins School of Public Health (JHSPH), in collaboration with the GHRCCA team, received funding from the Fogarty Center to provide training in Kazakhstan that will continue to build research capacity and support ongoing research projects. Training and mentoring by a joint team from JHSPH and Columbia University has been implemented related to bio-ethics, treatment of HCV, overdose prevention, research methods and conducting qualitative research.

Fogarty Public Health Fellows Program for Kazakhstan

Dr. Jack Dehovitz of SUNY Downstate University, in collaboration with GHRCCA, received funding to offer full scholarships to enroll in SUNY’s Masters of Public Health Program. The Fogarty scholarship program is open to qualified Kazakhstani individuals who are interested in pursuing a career in public health in Kazakhstan.

COMPLETED TRAINING AND CAPACITY BUILDING PROJECTS

2010-2012 Training at GHRCCA - Branch Office, Almaty, Kazakhstan


Health Science and Systems of Care Training in New York (November 2009)

GHRCCA hosted and facilitated an 8-day program of trainings, site visits and lectures with a focus on hospital management in New York for thirty MBA students from the Astana Medical University in Kazakhstan. Training was conducted by faculty from Columbia University and SUNY Downstate Medical Center and was funded by the Kazakhstan Ministry of Health.

Summer Internships in Central Asia (Summer 2009)

GHRCCA staff in Central Asia hosted three Columbia University interns. Wilber Yen, a graduate student at the School of Social Work, interned at Project Shield in Kyrgyzstan. Annie McMillan, a graduate student of the Mailman School of Public Health, spent six months in Kazakhstan working on the Silk Road Study with migrant workers. Grace Zhou, a junior and Linguistics major concentrating in Anthropology and Slavic Studies utilized her Russian for work with GHRCCA in Kyrgyzstan.
Research Science Training in Kazakhstan (May - June 2009)
Twenty health professionals from Kazakhstan participated in the GHRCCA Research Science Training on biostatistics and epidemiology at the Almaty Institute of Public Health in Almaty, Kazakhstan. Training was conducted by the faculty of Columbia University and other U.S. universities. This training was funded by the Republic of Kazakhstan Ministry of Health.

Motivational Interviewing Training (January 2009)
GHRCCA conducted an introductory training on Motivational Interviewing for thirty social service and health professionals at the Almaty City Republican AIDS Center in Kazakhstan.

Engagement with Men Who Have Sex with Men and Sensitivity Training for Health Care Workers in Kazakhstan (2011)
This 2-day training funded by Open Society Institute’s Sexual Health and Rights Project in collaboration with the Center for Public Health and Human Rights at Johns Hopkins University, the Global Health Research Center of Central Asia/Columbia University and NGO “Amulet” aimed to build capacity of a core group of medical staff and MSM advocates in Kazakhstan to train health care workers in the necessary skills and knowledge to provide sensitive services that support and adequately cater to MSM and their unique needs within Kazakhstan health care settings. Participants from four regions in Kazakhstan were encouraged to build on their current knowledge and experience and to commit to training other health care providers in their home regions.

Prevention and Intervention Science Research Training (January 2009)
The Center’s country representative in Tajikistan, Makhbat Bahkromov, MD, was awarded a one-year NIDA INVEST Fellowship, with GHRCCA Director Dr. Nabila El-Bassel as his mentor. As part of the fellowship, Dr. Bakhromov participated in research training at Columbia University to develop and implement a pilot project in Tajikistan.

Visiting Researcher Exchange (January 2009)
On invitation from the Center, Visiting Researcher Dr. Anna Skosireva visited the New York office at Columbia University to conduct research and discuss her work with GHRCCA Director, Dr. Nabila El-Bassel. During her stay, Dr. Skosireva was able to connect with other Columbia University faculty/researchers and learn more in-depth information about their projects.

Internship for Open Society Institute Fellows (2008-2012)
We have had over 20 Open Society Institute fellows from Central Asia who have completed one-year internships with the Center in New York City. We have also had several visiting faculty fellows from Central As sponsored by OSI who have been mentored by GHRCCA faculty and researchers.
Health Science and Service Training in Kazakhstan (November 2008)
In collaboration with Columbia University School of Social Work and Columbia University Mailman School of Public Health, the Center held an advanced training program for medical and public health professionals, scholars, and Kazakhstani government representatives in Almaty, Kazakhstan. The four-week program built on the previously offered course work in epidemiology, bioethics, biostatistics, health sciences and services, and provided additional training in proposal writing, peer review, and publication.

MSM: An Introductory Guide for Health Care Workers in Kazakhstan (October 2011)
Funded by Open Society Institute, GHRCCA staff in conjunction with Johns Hopkins Center for Public Health and Human Rights (JHSPH) and the NGO Amulet developed and delivered a train-the-trainer curriculum for medical providers of HIV and STI services in four cities of Kazakhstan called Men Who have Sex with Men: An Introductory Guide for Health Care Workers in Kazakhstan. This two-day curriculum design included the partnership of a MSM trainer with a clinical provider to deliver the clinical content in healthcare settings. Follow-up technical assistance and implementation evaluation is on-going.

Program on Integrated Systems of Care in the United States (December 2007)
The Center hosted a week-long training program for four medical professionals from the City of Astana Health Department in Kazakhstan. The training program assisted in building infrastructure and scientific capacity to advance knowledge on global health issues in Central Asia. Participants had an opportunity to learn about innovative models of medical treatment, systems of care, and integration of social services as part of the continuum of care.

Health Science & Service Training at Columbia University School of Social Work (November - December 2007)
Together with the Columbia University School of Social Work, the Center held a four-week training program for medical professionals and scholars from Kazakhstan. The program offered course work in epidemiology, bioethics, biostatistics, and health sciences and services; site visits to health and social service facilities; and meetings with leading health experts working in New York City.
PROFESSIONAL AND FACULTY EDUCATION EXCHANGES

GHRCCA collaborates with a number of U.S. and Central Asia universities to facilitate short- and long-term educational exchanges for pre- and post-doctoral students, faculty and scholars.

Pre- and Post-Doctoral Scholars Education: In collaboration with the Kazakhstan National University, the Center hosts an exchange program for pre- and post-doctoral scholars.

Undergraduate & Graduate Student Intern Field Placement: GHRCCA serves as a field placement for Columbia University and Central Asian students from different disciplines and fields. The Center provides internship opportunities for undergraduate and masters level students who are interested in continuing their work in the region and/or furthering their knowledge of Central Asia. In 2009, the Central Asia staff hosted three Columbia students. The New York staff continues to host two Open Society Fellow/Master of Social Work students.

Currently, faculty, and scholars from Central Asia and the Caucasus are training at Columbia University School of Social Work through the Open Society Institute Faculty Exchange Program. Future opportunities for US investigators interested in collaborating with partners in Central Asia will be posted as they are announced.