Environmental and Occupational Health: Mining and Construction in Transition Economies

International experts from around the world met in Yerevan on April 22-23 for a two-day scientific symposium at the American University of Armenia (AUA) on mining and construction related environmental and occupational health in transition economies (http://eoh2013.aua.am).

The AUA School of Public Health and the AUA Acopian Center for the Environment in cooperation with the Collegium Ramazzini, an independent international academy advancing the study and practice of occupational and environmental health and safety, organized the symposium titled “Emerging Issues in Environmental and Occupational Health: Mining and Construction in Transition Economies.” The symposium aimed to improve the understanding of how evidence-based scientific findings can be applied strategically to protect workers’ and community health. The symposium covered such important topics as: the World Health Organization's (WHO) resolution on workers’ health and plan of action in the WHO European Region; human carcinogens, especially those related to mining; preventing mining-related illness in miners and the community; environmental and work-related cancer, and preventing work-related illnesses in construction workers.

The audience included experts from the Ministries of Health and Environmental Protection and local government offices, a broad spectrum of occupational and environmental health scientists and professionals working in universities and non-governmental organizations, faculty, students and researchers from AUA and other universities, representatives of private industry and civil activist groups.

The symposium was possible thanks to the following organizations for sponsorship and in-kind support: Collegium Ramazzini, American University of Armenia, World Health Organization, USA National Institute of Environmental Health Sciences, TerraGraphics International Foundation, Blacksmith Institute, and Counterpart International’s USAID supported Civil Society/Local Government Support Program.
investigate diagnostic accuracy of the Armenian epidemiological research. The aim of this study was to accurate detection of those conditions in generation of “psychometrically sound” instruments and of the issue favors the focus of scientific studies on the 350 million people worldwide. The growing awareness the global burden of disease and is estimated to affect Depression in its turn is another significant contributor to psychopathologies in the aftermath of disasters. (PTSD) is one of the most commonly studied and central Post-traumatic stress disorder Spitak Earthquake Survivors Depression Scale among 1988 Center for Epidemiologic Studies Version and Modified Versions of Disorder Checklist - Civilian Accuracy of Post-traumatic Stress Management of FMF. duration of FMF attacks in women to improve the management of FMF. Anush Khachatryan; Understanding Barriers to Chemotherapy Treatment in Breast Cancer Patients in Armenia: a Qualitative Study Breast cancer (BC) is the most common type of cancer among women worldwide. It comprised 23% of all new cancer cases and 14% of all cancer deaths worldwide in 2008. The recent increase breast cancer morbidity and mortality is a great area of concern in lower-middle income countries, where the survival rates are low due to lack of awareness about the disease, late diagnosis, and lack of resources and appropriate health care infrastructure. The aim of the current study was to examine the process of delivery of chemotherapy and barriers to receiving chemotherapy in BC patients, to explore the cost and quality of chemotherapy drugs currently used in Armenia. Ani Movsisyan; Diagnostic Accuracy of Post-traumatic Stress Disorder Checklist - Civilian Version and Modified Versions of Center for Epidemiologic Studies Depression Scale among 1988 Spitak Earthquake Survivors Post-traumatic stress disorder (PTSD) is one of the most commonly studied and central psychopathologies in the aftermath of disasters. Depression in its turn is another significant contributor to the global burden of disease and is estimated to affect 350 million people worldwide. The growing awareness of the issue favors the focus of scientific studies on the generation of “psychometrically sound” instruments and accurate detection of those conditions in epidemiological research. The aim of this study was to investigate diagnostic accuracy of the Armenian versions of the PTSD Checklist Civilian (PCL-C) and Center for Epidemiologic Studies Depression Scale (CES-D) modified (16 item scale vs. 20 item scale with negatively restated Positive Affect items) among 1988 Spitak earthquake survivors. Yelena Sardaryan; Domestic Violence From the Perspective of Women Supported by Shelters and Crisis Centers in Armenia: a Qualitative Study Domestic violence is a serious public health issue, which influences women's lives and well-being and their children, who are directly and/or indirectly involved in the abusive relationships within the family. Women victims of domestic violence endure multiple forms of violence, including psychological, physical and sexual. This study explored the main reasons explaining why women stayed in abusive relationships. The study sought to understand who the main perpetrator of the violence was within the family, if stay/leave decisions were associated with personal and social risk factors, health status, and the empowerment of women victims of domestic violence. Anzhela Tadevosyan; Control of High Blood Pressure in Gavar Region: Knowledge, Attitude and Practice (KAP) Survey of Hypertensive People Hypertension is one of the preventable leading risk factors for cardio vascular disease (CVD) and mortality worldwide. The prevalence of hypertension continues to increase in low- and middle- income countries including Armenia, where it reached 3,684.4 per 100,000 people in 2011. The aim of this study was to assess the knowledge, attitude and practice of non-drug control of hypertension in Gavar region of Gegharkunik marz. The study evaluated the perceived risk for cardiovascular disease among hypertensive people living in Gavar. Arman Tsaturyan; Risk Factors Associated With Postoperative Complications Following Radical Cystectomy Bladder cancer is the most often occurring cancer in the urinary system. At the time of diagnosis, one third of cases are already muscle invasive requiring radical cystectomy with or without chemotherapy and radiation therapy. Radical cystectomy is associated with high rates of postoperative complications. The aim of the study was to assess postoperative complications of radical cystectomy in Armenia and explore the associated risk factors.
AUA Evaluates 25 Toxic Waste Sites Near Communities in Armenia

The Blacksmith Institute has partnered with the AUA School of Public Health and the AUA Acopian Center for the Environment, and the Ministries of Health and Nature Protection to develop an inventory of toxic waste sites in Armenia.

The inventory has been prepared following the guidelines of the Blacksmith Institute—an international not-for-profit organization developing a global inventory of toxic hotspots that pose a risk to human health in low- and middle-income countries. The project evaluated 25 sites across 5 marzes in Armenia impacted by mining and other industrial activity. A team of five AUA researchers has worked over one year, in 2012, under the leadership of the project's principal investigators, Dr. Varduhi Petrosyan, Associate Dean of the AUA School of Public Health and Dr. Karen Aghababyan, Chief Scientist of AUA ACE. The team has analyzed and synthesized the data and shared with the Government of Armenia.

The study found that tailing ponds in the mining communities were in a neglected state with no proper fencing and no systematic or adequate monitoring. These communities reported many cases of accidents that had resulted in leakage of toxic pollutants into residential areas. In some communities abandoned tailing ponds were used as pastures or gardens, while in others the materials from the tailing ponds were used as construction materials by residents. The research team found significant heavy metal contamination in the residential sites of those communities involved in mining and smelting activities or near mining tailing ponds. Children have been exposed to heavy metals through contaminated soil in their yards and school playgrounds.

To address these environmental and public health problems, the research team has been involved in community trainings and development of a National Action Plan in close collaboration with the Government of Armenia, particularly the Ministries of Emergency Situations, Health, and Nature Protection.

International Experts in Mining Towns of Akhtala and Alaverdi

On April 25 the AUA SPH led a group of international experts on a scientific trip to examine local conditions and environmental concerns in two heavily polluted mining communities in northern Armenia. The group visited the smelter town of Alaverdi and the tailing ponds in Akhtala—both are areas where a research team from AUA School of Public Health (SPH) and AUA Acopian Center for the Environment (ACE) recently found heavy metal contamination. The international experts had the opportunity to observe the general situation in those communities and share their expert opinion on how things could be improved to better protect the health of the people living in those communities. The trip followed a two-day scientific symposium on April 22-23 focusing on the impact of mining and construction on community and worker health in Armenia and other transitional economies.
May 31, 2013: The AUA School of Public Health (SPH) partnered with the Armenian Volunteer Corps (AVC) to conduct observational research in tobacco advertising and promotion in Armenia. On May 31 each year, the world celebrates World No Tobacco Day under the auspices of the World Health Organization (WHO) highlighting the health risks associated with tobacco use and advocating for effective policies to reduce tobacco consumption. The theme of this year’s campaign was “Ban tobacco advertising, promotion and sponsorship.” Dr. Arusyak Harutyunyan, Research Associate and Project Coordinator at SPH, has been leading joint efforts for the research. Master of Public Health (MPH) students, SPH staff, and AVC volunteers and alumni participated in data collection and analysis efforts. On May 31, AUA SPH and AVC representatives shared their findings at a live streamed press conference at Media Center (mynews.am) and Public Health Seminar for health professionals and AUA community.

April 29, 2013: The AUA School of Public Health and AUA Acopian Center for the Environment along with the Blacksmith Institute organized a round table discussion about the need to develop a National Action Plan for resolving the problem of toxic waste sites in Armenia. Experts from the Ministries of Health, Nature Protection, and Emergency Situations, as well as from the World Bank and the European Union participated in the round table.

Feb. 21, 2013: AUA SPH hosted a public seminar examining the impact of narrative medicine as it relates to Alzheimer’s disease. Dr. Dana Walrath presented the lecture “Alzheimer’s Through the Looking Glass: Narrative Medicine and Healing” as a part of AUA School of Public Health Seminar Series. Providing specific background on the biomedical approach to dementia and drawing on examples from her Aliceheimer’s stories, Dr. Walrath focused on the power of graphic storytelling to heal and support individual caregivers, to support those with dementia, and to rewrite the story of how we age globally.

MPH ALUMNI SUCCESSES

Ani Movsisyan, MPH (2013) has earned Open Society Foundations Oxford Scholarship to study in the Master of Science Program in Evidence Based Social Intervention, Department of Social Policy and Intervention at the University of Oxford.

Lusine Kocharyan, MPH (2013) has been appointed as the Head of the Public Health Department in the RA Ministry of Health.

Lilit Hovhannisyan, MPH (2011) and her coauthors Anahit Demirchyan, MPH (1999), Senior Research Specialist with the AUA School of Public Health and Varduhi Petrosyan, Associate Professor and Associate Dean of the School, published the article Estimated Prevalence and Predictors of Undernutrition among Children Aged 5-17 Months in Yerevan, Armenia in the Public Health Nutrition internationally ranked peer-reviewed journal.

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