



**BUILDING ACADEMIC CAPACITY
IN GLOBAL HEALTH IN THE EASTERN
EUROPE - CENTRAL ASIA REGION**



Eurasian Academic Alliance for Global Health



**Co-funded by
the European Union**

Quarterly Bulletin of the Eurasian Academic Alliance for Global Health Quarter 2, 2023

The Eurasian Academic Alliance for Global Health was established under the auspices of the project - *Building Academic Capacity in Global Health in the Eastern Europe & Central Asia Regions (BACE)* - supported by the European Commission's Erasmus+ programme. In the context of the Alliance - *Eurasia* is defined as a group of countries located in the Baltic Sea, Eastern Mediterranean, Black Sea, Caspian Sea and the Central Asia regions.

BACE is implemented by a partnership of eleven academic institutions:

- Heidelberg Institute of Global Health, Germany (Coordinator)
- Al-Farabi Kazakh National University, Kazakhstan
- Astana Medical University, Kazakhstan
- Batumi State University, Georgia
- Bergen University, Norway
- National University of Kyiv-Mohyla Academy, Ukraine
- Tbilisi, Institute of Global Health, Georgia
- Tbilisi State University, Georgia
- Ternopil National Medical University, Ukraine
- University of Georgia
- University of Tromsø, Norway

BACE is aimed at achieving the following objectives:

- Developing curricula and delivering new courses on priority global health topics with specific focus on countries in the Eurasia region;
- Developing curricula and delivering new courses on global health research methods at BACE beneficiary universities;
- Establishing the Eurasian Academic Alliance for Global Health.

The Alliance serves as a collaborative platform on global health education and research among academic institutions of the Eurasian region. Academic institutions from and outside the region, interested in expanding collaboration on global health education and research, are encouraged to join the Alliance. Information is available on the Alliance's web-page:

www.allianceforglobalhealth.net

The Quarterly Bulletin is a dissemination instrument for updates on the Alliance's activities and BACE implementation, as well as various developments in the area of global health.

The Alliance looks forward to welcoming new members and to establishing productive collaboration with interested partners.

Updates from the Alliance

The Alliance is a network of member organizations. It is not a formally registered legal entity governed by a particular country's laws and regulations. Alliance's members can be academic institutions - such as universities, other institutions of higher education, research organizations, think-tanks, NGOs, private sector entities and others involved in public/global health, epidemiology, health policy, health economics and other related areas, which share the purpose of the Alliance. Please refer to the Alliance's website for more details: www.allianceforglobalhealth.net

EuroHealthNet



In this issue of the Bulletin we present EuroHealthNet <https://eurohealthnet.eu/>

EuroHealthNet is a not-for-profit partnership. It includes organisations, institutes, and authorities working on public health, disease prevention, promoting health and wellbeing, and reducing inequalities. EuroHealthNet's mission is to help build a sustainable, fair, and inclusive Europe through healthier communities and to tackle health inequalities within and between European States. The vision is of a society in which all citizens enjoy their fundamental right to the highest attainable standard of health, without distinction of race, religion, gender or economic or social condition.

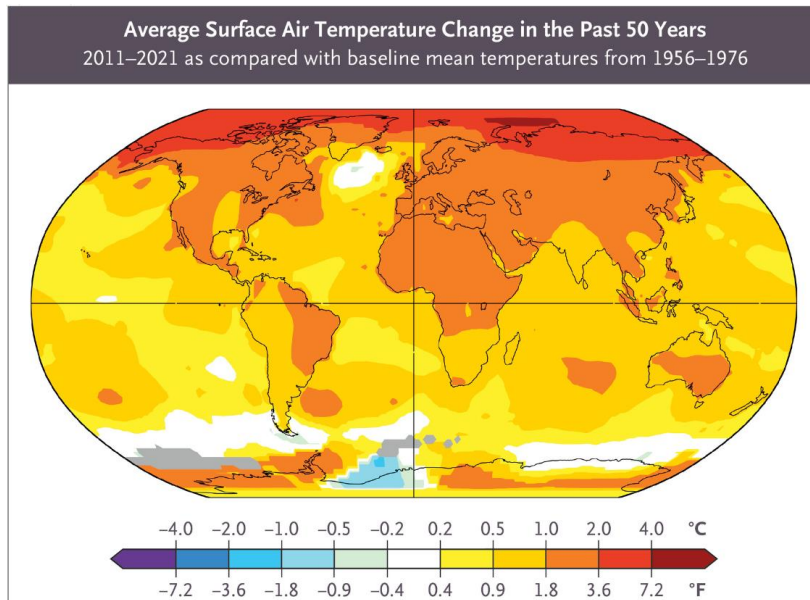
EuroHealthNet builds its work on a wide body of evidence that demonstrates that health inequalities affect all people, and that 'more equitable societies do better', on a very wide range of indicators. It works toward

- Health systems and societies that move away from narrow, curative conceptions of health and place a greater emphasis on health promotion, health equity, and achieving an 'Economy of Wellbeing'.
- Health systems and governments that recognise that lifestyle-related risk factors for bad health are strongly related to the conditions in which people learn, live, work, play, and age- the social determinants of health.
- Communities that effectively resource health promotion, and that invest in both up- and down-stream approaches to address the social determinants of health, reduce inequalities and advance sustainability.

For more information please visit: <https://eurohealthnet.eu/>

Health Challenges of Global Importance

Impact of climate change on human health



The climate crisis is the biggest health threat humanity has ever faced. The World Health Organization predicts an estimated 250,000 additional deaths per year from heat stress, malnutrition, dengue, malaria, and other vector-borne diseases between 2030 and 2050.

Climate change has a disproportionate impact on the poorest and most vulnerable communities, exacerbating poverty, displacement, and lack of access to food and clean water. Neglected diseases, including leishmaniasis and sleeping sickness, will spread to new areas, affecting low- and middle-income countries the most.

Global warming will force more than a fifth of the world's population out of the “climate niche” most conducive to human life by 2100 if temperatures continue rising, a new study estimates, articulating the dire toll across many parts of the world in the coming decades if policymakers do not take sharp action to curtail the worst effects of heat. By the end of the century, nearly 2 billion people could be living with average annual temperatures hotter than 84 degrees Fahrenheit, or 29 degrees Celsius, the maximum level at which the study's authors said was historically conducive to human settlement and habitation.

Please, see the following recent publications on climate change and public health issues:

Quantifying the human cost of global warming

<https://www.nature.com/articles/s41893-023-01132-6>

Global Warming and Its Health Impact

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6679631/>

Climate change as a threat to health and well-being in Europe: focus on heat and infectious diseases

<https://reliefweb.int/report/world/climate-change-threat-health-and-well-being-europe-focus-heat-and-infectious-diseases>

Climate change and public health in Germany – An introduction to the German status report on climate change and health 2023

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10278374/>



Innovation in Global Health

Five innovations that are revolutionizing global healthcare

According to World Health Organization healthcare innovation is accelerating at an unprecedented scale, particularly in the digital sphere. Advances such as artificial intelligence and gene editing are transforming the way diseases are detected and treated. Here are 5 innovations that are pushing boundaries in healthcare:

1. Artificial intelligence (AI)

The use of algorithms and machine learning in detecting, diagnosing and treating disease has become a significant area of life sciences. Some believe it is the biggest healthcare revolution of the 21st century. AI can detect diseases early and make more accurate diagnoses more quickly than conventional means. In breast cancer, AI is enabling mammograms to be reviewed 30 times faster with almost 100% accuracy, reducing the need for biopsies.

2. 3D printing

3D printing is used for creating dental implants, replacement joints, as well as for made-to-measure prosthetics. One of the main benefits of 3D printing is that it greatly accelerates production processes and, therefore, also reduces the cost of traditionally manufactured products. Research into using 3D printers for manufacturing skin tissue, organs and even medication is also underway.

3. CRISPR gene editing

Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR) gene-editing technology can potentially transform how diseases are treated. It could help make significant advances against killer diseases like cancer and HIV in a matter of years. The technology works by “harnessing the natural mechanisms” of invading viruses and then “cutting out” infected DNA strands. By altering cell mutations, CRISPR also has the potential to transform the way rare conditions like cystic fibrosis and sickle cell disease are treated.

4. Virtual reality (VR)

The VR and AR (augmented reality) market is booming worldwide, and both technologies are being used increasingly in healthcare applications. The technology can be deployed in various ways, such as performing more advanced surgery, helping with pain relief, and treating mental health conditions. VR represents an effective tool for global health education as well.

5. Smart bandages

A bandage that uses sensors to monitor wound healing has been developed by researchers in the United States. It “promotes faster closure of wounds, increases new blood flow to injured tissue, and enhances skin recovery by significantly reducing scar formation”, according to the Stanford University team behind it.

For more information, please visit to World Economic Forum web-site:
<https://www.weforum.org/agenda/2023/02/health-future-innovation-technology/>