



## GEORGIA Brief 2020

# Implemented Activities Related to the Antimicrobial Resistance (AMR)

The national Antimicrobial Resistance (AMR) strategy in line with the One Health approach was developed by national experts with the participation of the World Health Organization (WHO) consultants. Government of Georgia approved national AMR strategy in January 11, 2017.



The national AMR strategy is based on the guidelines and recommendations of WHO, CDC, as well as on international scientific literature and the current data in Georgia with regard to AMR. The national AMR strategy has been developed on the basis of coordination of evaluation activities carried out at the state level, though considering the lessons learned in the process of implementation, it also presents the opportunities for further improvement and development.

On AMR related issues, NCDC established successful cooperation with the World Health Organization (WHO), the European Centre for Disease Prevention and Control (ECDC), U.S. Centers for Disease Control and Prevention (CDC), the University of Antwerp and etc.

### Recent Key Achievements

- More than 5 years of successful collaboration with WHO in carrying out jointly planned AMR activities;
- high scientific and technical capacity at national and international levels (Lugar Center Capacity);
- prominent place in the country's public health, scientific and educational structures (NCDC's role and mission);
- high quality of scientific and technical leadership, and sufficient number of staff with high-level qualifications;
- strong working relationship with other institutions in the country, and at intercountry, regional and global levels (working under one health approach globally, especially very close working relation with Caucasian region);
- Lugar Center, (International ISO 15189 accredited laboratory in microbiology/AMR) assists the country with:
  - ❖ standardization of laboratory diagnostic for AMR;
  - ❖ development of technical guidelines, SOPs, procedures for laboratory methods/procedures;
  - ❖ implementation of IQC/EQA program with appropriate technology;
  - ❖ provision of reference services.
- Georgia has joined the Central Asian and Eastern European Surveillance of Antimicrobial Resistance (CAESAR) network and the Global Antimicrobial Resistance Surveillance System (GLASS) and Baltic Antibiotic Resistance Collaborative Network (BARN);
- NCC, NAC and NRL had been established;
- 23 microbiological laboratories including Lugar Center (NCDC) are involved in WHO EQA Program;
- Since 2015, National Microbiology Laboratory Network was established and working together on AMR related subjects;
- National AMR reference laboratory capacity at Lugar Center has been strengthened in terms of antimicrobial resistance surveillance capability and verified and implemented phenotypic and molecular confirmatory tools of AMR mechanism.
  - ❖ Carbapenem-resistant *Enterobacteriaceae* (CRE) isolates are screen for the presence of KPC, VIM, IMP, NDM, MOX/CMY and OXA48 using PCR (research capacity)



- ❖ AMR isolates are screen for the presence of KPC, NDM, OXA48, mcr1, mcr2 using qPCR (diagnostic capacity)
- ❖ Whole Genome Sequence analysis are conducted on Illumina Miseq platform for CRE isolates.
- The national AMR committee was created, where epidemiologists, veterinarians, infection disease, public health and environmental experts are working together;
- Infection prevention and control (IPC) legislation were updated
- Developed new guidelines “Infection prevention and control” and “Infection prevention and control in dental clinics”
- Developed and implemented a national plan for IPC monitoring and evaluation in health care settings
- Developed and conducted training programs of IPC modules for medical personnel
- Point Prevalence Survey (PPS) of Antimicrobial Consumption and Resistance was conducted according to the Global-PPS protocol in intensive care units of more than 20 multi-profile hospitals.
- The Sanford Guide to Antimicrobial Therapy (2018) has been translated and published
- World Antibiotic Awareness Week (WAAW) campaign is carried out annually in Georgia since 2016
- Information on antibiotics (for humans) exported in Georgia is collected – Antimicrobial Medicines Consumption network
- A One Health Division was formed at the National Center for Disease Control and Public Health (NCDC)
- Medical personnel of more than 80 health facilities were trained on "Infection Prevention and Control during the COVID-19 Pandemic"
- A Memorandum of Understanding was signed between the Ministry of Internally Displaced Persons from the Occupied Territories, Labour, Health and Social Affairs of Georgia, the Ministry of Environmental Protection and Agriculture of Georgia, and the International Centre for Antimicrobial Resistance Solutions (ICARS), which will result in stewardship programmes for fighting antimicrobial resistance in Georgia. The partners will co-develop demonstration projects, working with hospital administrations, healthcare professionals, veterinarians and local farmers to create and implement a set of standards for the use of antibiotics in human medicine and agriculture.

### **Future steps and areas which need strengthening**

- Joint action and research in direction of AMR of in medicine, veterinary and environment
- Modern molecular diagnostic methodology of AMR
- Implementation of antimicrobial stewardship
- Establishment of diagnostic stewardship
- Increase awareness on AMR and antibiotics
- Awareness for AMR and IPC - moving into behaviour change
- Improve awareness and understanding of AMR - effective communication, education and training
- Strengthen the knowledge and evidence - surveillance and research of AMR in medicine, veterinary, food and environment
- Optimize the use of antimicrobial medicines in human and animal health - development of a national antimicrobial stewardship programs in human and animal health
- AMR Surveillance among outpatient hospitals.



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