



## Hello and welcome!

*It is our pleasure again to share the WHO laboratory-supported activities in the Kyrgyz Republic, for the months of September and October, 2022. Please note that this bulletin only features highlights of key activities and achievements. As always, we would like to thank the Ministry of Health and all stakeholders and experts for their valuable contributions to the continuous improvements to the laboratory system in the Kyrgyz Republic. Thank you!*

### Better Labs for Better Health - second international mentoring visit

WHO Europe has been supporting laboratories through national and international mentoring guidance within the Better Labs for Better Health initiative. Mentoring of laboratories is an essential component in helping national partners to implement quality management systems (QMS).

Under the international mentoring programme, WHO provided a second international mentoring visit in 2022 to Kyrgyzstan, with WHO Europe consultant Dr Renata Szypulska visiting the country between 5-16 September. During her visit, she assessed quality system implementation according to the WHO laboratory quality system implementation tool (LQSI), and provided support, practical recommendations and comments for next steps.

The mission covered four laboratories, supporting their efforts in implementing QMS in accordance with ISO 15189:2012 as follows:

- Laboratory of molecular genetics and virological research of the department of disease prevention and state sanitary and epidemiological surveillance of the Ministry of Health, Bishkek.
- Sub-national virology laboratory of Osh, centre of disease prevention and state sanitary and epidemiological surveillance, Osh.
- Clinical diagnostic laboratory of the national centre of cardiology and internal medicine, Ministry of Health, Bishkek.
- Virology laboratory of the Bishkek city centre of the state sanitary and epidemiological surveillance of the Ministry of Health, Bishkek.

As a result of the two international mentoring visits, some of the main recommendations given are: Standard Operating Procedure numbering system, chapters to be covered within the Quality Manual, review of verification results, and check of equipment inventory system.



### Vaccine effectiveness study in Kyrgyzstan still ongoing

Kyrgyzstan was one of the first countries in Central Asia to implement the WHO Europe study to review effectiveness of SARS-CoV-2 vaccination. The study is still ongoing and surveillance continued throughout September and October. In this study, patients with severe respiratory illness are tested for several respiratory pathogens including SARS-CoV-2 and influenza. Data is then analysed in line with their vaccination status to determine their level of protection against COVID-19. Final data will be published once the study is complete.



## Monkeypox diagnostic training, 22-23 September 2022, Bishkek, Kyrgyzstan

On July 23, the WHO Director-General declared the monkeypox (MPXV) outbreak as a Public Health Emergency of International Concern (PHEIC). Based on the COVID-19 lessons learnt, WHO Europe responded as follows: Interim guidance on laboratory diagnostics for proper detection of the virus was issued, molecular diagnostic kits were procured and delivered to countries, and a training program on laboratory diagnostics was developed and provided on how to properly identify and detect the disease. The training package covered MPXV case definition in comparison to other rash-inducing diseases, sample collection and safe handling, transport of samples and laboratory testing.



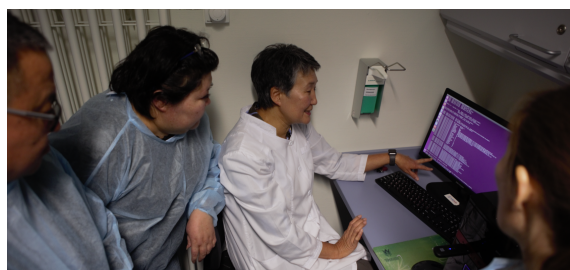
From 22-23 September, WHO conducted a 2 day MPXV diagnostics training course for public health laboratory professionals who had been selected by the Ministry of Health. Evaluation of participant's performance showed average results of 56% for the pre-test and 72% for the post-test, with an average of 17% increase in knowledge after participation in the training.

Dr Aigul Djumakanova, Head of the Centre of Laboratory Investigations of the Department of State Sanitary and Epidemiological Surveillance, Ministry of Health, and member of the Coordinating Laboratory Council, Kyrgyzstan, said: ***“WHO’s rapid procurement and supply of monkeypox diagnostic reagents has been most impressive and, along with the comprehensive in-country training, WHO has truly supported us in setting up a robust monkeypox diagnostic system in our national laboratory”***.

Please see story on WHO Europe web site: [WHO/Europe providing monkeypox diagnosis support to countries that need it most](https://www.euro.who.int/en/press-releases/2022/09/who-europe-providing-monkeypox-diagnosis-support-to-countries-that-need-it-most)

## Training on the basics of Next Generation Sequencing (NGS), 3-7 October 22, Bishkek, Kyrgyzstan

The progress of the COVID-19 pandemic showed the significance of sequencing in tracking and monitoring the circulation of variants. Key aspects are to characterize the origin of the virus, monitor global spread, and identify new variants, in order to help authorities to take appropriate public health measures for an efficient response. As part of the technical support to strengthen capacity in the field of sequencing and bioinformatics in Kyrgyzstan, WHO facilitated a training on basic sequencing for laboratory professionals through national experts of the National TB laboratory. The training included practical and theoretical aspects of the use of Next Generation Sequencing to perform Whole Genome Sequencing of SARS-CoV-2 virus. Average Pre-test result was 29%, while average post-test result showed 88%, with an increase of knowledge of 59%.



## Kyrgyzstan delegation attends the BACAC conference in Georgia, 6 - 7 October 2022

A Kyrgyzstan delegation of laboratory professionals participated in the BACAC conference on COVID-19 lessons learned, organized by the Biosafety Association of Central Asia and the Caucasus (BACAC) in Tbilisi, Georgia between 6 to 7 October 2022. Experts exchanged experiences from across the region, with specific reference to biosafety, biosecurity and laboratory preparedness.

At the same meeting, BACAC held internal elections with Kyrgyzstan being elected for the chairman seat of the Association for the next round. **Congratulations!**





## COVID-19 laboratory lessons learnt meeting, Paris, France

25 - 26 October 2022, Paris. WHO Europe hosted a meeting for laboratory professionals from Central Asia and Caucasus countries, to review the laboratory lessons learnt during the COVID-19 pandemic. Countries shared their experiences, findings, and discussed main achievements and challenges faced while responding to the pandemic. Next steps to improve laboratory preparedness for future public health events were also discussed, with several common areas identified between countries such as: the need to enhance equipment maintenance process, laboratories better to have separate budget lines for better planning, update of laboratory policy and strategy, laboratories to adopt an integrated surveillance system with more focus on OneHealth approach, and many others.

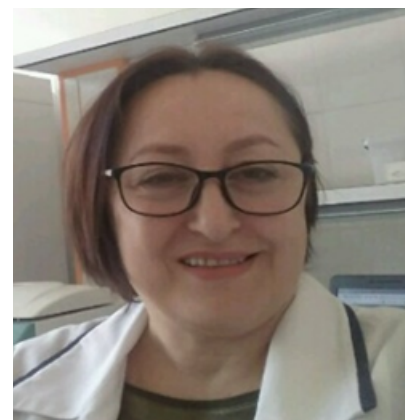


Group photo of WHO meeting on COVID-19 laboratory lessons learnt. 25 - 26 October 2022. Paris, France

**From the field: "Describe the benefits of collaboration for national and international experts"**

### **Dr. Tatyana Kuchuk - Head of the republican scientific and practical centre for quality control of laboratory diagnosis of infectious diseases, Institute of Preventive Medicine - Ministry of Health of Kyrgyzstan, and co-chair of the Coordination Laboratory Council**

*"At the beginning of the SARS-CoV-2 pandemic, the Ministry of Health of the Kyrgyz Republic initiated a Sero-epidemiological study to assess the extent of immunity towards COVID-19. The initiative was supported by WHO Europe, and was included in the "Solidarity II" programme, which covered many countries worldwide. The study in Kyrgyzstan was conducted during the three peak phases of the pandemic in Kyrgyzstan covering the period from June 2020 until April 2022. The study assessed population immunity to COVID-19 in different age groups, and geographic regions of Kyrgyzstan and to study the duration of the antibody response in people who had previously tested positive for COVID-19. This information has been used to help public health officials to respond in a timely fashion and to take appropriate public health measures at every stage of the pandemic.*



*Quality assurance and test reliability have always been very relevant and essential topics in my scope, specifically in my laboratory - being an accredited provider of proficiency testing programs ISO 17043 and an accredited testing laboratory ISO 17025. At the start of the COVID-19 pandemic, assay verification and validation were crucial to monitor and improve COVID-19 testing. In coordination with the WHO and Coordinating Laboratory Council, my laboratory has been responsible for the proficiency testing programs for SARS-CoV-2 by serological methods (from 2021) and PCR (from 2022) for medical laboratories. Since June 2020, the diagnostic performance of SARS-CoV-2 antibody test systems arriving in the country has been evaluated, and a control panel of samples has been prepared to assess the diagnostic performance of PCR tests for RNA detection and rapid tests for SARS-CoV-2 antigen detection"*



**Dr. Dzaparova Aigul - Head of the bacteriology laboratory of the Republican centre for quarantine and especially dangerous infections of the Ministry of Health of the Kyrgyz Republic. Quality manager, member of the Coordination Laboratory Council, and national mentor**

*"The Republican Center for Quarantine and Especially Dangerous Infections has been participating in the Better Labs for Better Health mentoring programme since 2016. The programme supports QMS implementation and prepares laboratories for accreditation according to the international quality standard ISO 15189."*



*WHO Euro consultant Natalia Costik and Better Labs for Better Health team lead Joanna Zwetyenga, were instrumental in this project. Our team worked hard with them to introduce QMS to all aspects of our work and we are very proud to have acquired ISO 15189:2012 accreditation in 2021.*

*Laboratories are central to providing a reliable basis for disease control and prevention, especially in the context of highly dangerous infections. Our laboratories are critical for early treatment and for improving the health of the Kyrgyzstan people"*

**Dr. Renata Szypulska - WHO/EURO consultant and international mentor on QMS**

*"The introduction of the Better Labs for Better Health initiative by WHO Europe, focusing on laboratory system strengthening launched in Kyrgyzstan in 2016 showed progress of continuous improvements of laboratories in preparedness and response to public health services, pandemics and novel threats. In Kyrgyzstan, two laboratories through the programme have already achieved ISO 15189:2012 accreditation. Laboratories which are implementing QMS elements improved overall laboratory services to deliver accurate and timely results - which gave capacity for laboratories to properly respond to COVID-19 pandemic and established laboratory networks for emergency preparedness.*

*It is always a pleasure to visit the beautiful country of Kyrgyzstan and to work with the national experts to further enhance quality measures in laboratories. I can see the willingness and eagerness to improve the laboratory services and we are working together to implement QMS in a stepwise approach"*



**Quality Corner**

Digesting the Norm sessions on Quality Management System according to ISO 15189:2012 standard continued in September and October. There will be a short break in November and December 2022 but sessions will resume as normal in January 2023. As usual, every two weeks, on Wednesday, 15:00 Bishkek time.

**Please contact us for access details**

