



## **SUMMER SCHOOL WITHIN THE FRAMEWORK OF THE PROJECT (11 July 2023)**



From June 26 to July 6, 2023, within the framework of Erasmus+ Program Project 101082831 - BERNICA - ERASMUS-EDU-2022-CBHE "Building Educational and Research Capacities in Nutrition and Dietetics in Central Asia," a Summer School was held in Issyk-Kul, Kyrgyzstan. The event included representatives from Kazakhstan (Medical University of Karaganda, Kazakh National Medical University named after Asfendiyarov), Kyrgyzstan (International Higher School of Medicine, Osh State University), Tajikistan (Tajik State Medical University named after Avicenna, Khatlon State Medical University), and Uzbekistan (Tashkent Medical Academy, Bukhara State Medical University).



The Summer School was organized by the project coordinator, Professor Jusupov Kenesh Uskenbaevich Jusupov, and the team from the International Higher School of Medicine (Kyrgyzstan). The Kazakhstan team consisted of 9 people under the leadership of the republican project coordinator, Doctor of Medical Sciences, Professor Toguzbaeva Karlygash Kabdeshevna. Participants from the Medical University of Karaganda included Professor Ibrayeva Lyazat Kataevna, Professor Abugalieva Tleuzhan Orazalievna, Assistant Professor Bacheva Irina Viktorovna, and teacher Zhamantaev Olzhas Kenzhegalievich.



The Summer School program focused on integrating nutritional science teaching material into Moodle and pedagogical design of teaching. Lecturers included Dr. Manuela Konrad, Erika Pernold, and Anastasia Sfiri from Austria; and Dr. Indrani Kalkan and Dr. Fatmanur Özer Arpa from Turkey. Participants worked in international and interdisciplinary teams to develop modules for both pre-diploma and post-diploma students.

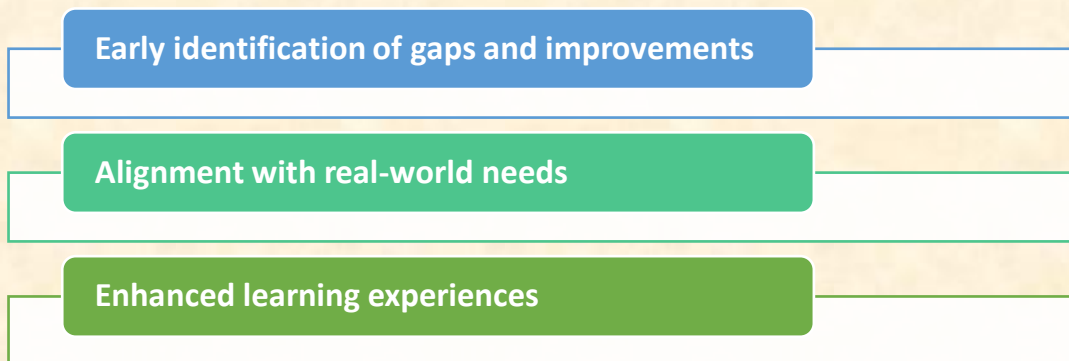
## ENHANCING SYLLABUS DEVELOPMENT THROUGH FEEDBACK. A STEP IN THE ERASMUSPLUS BERNICA PROJECT

Dear Consortium Members,

We are excited to share the latest developments within the Erasmusplus BERNICA project, specifically focusing on the work of the Karaganda Medical University (KMU) quality group. Dr. Olzhas Zhamantayev and Tleuzhan Abugaliyeva, members of our consortium, have taken a small step toward improving the quality of our shared syllabi.

Dr.Zhamantayev and Dr.Abugaliyeva have designed a feedback form to collect insights, opinions, and concerns related to the syllabi currently under development. This form serves as a valuable resource for all stakeholders involved in the project.

### Why feedback collection is a necessary tool?



*Figure 1 Benefits of feedback collection*

At the early stages of syllabus development, gathering feedback allows us to identify gaps, inconsistencies, and areas for improvement (Figure 1). By involving stakeholders, whether educators, students, or practitioners, we can fine-tune our syllabi to meet their needs effectively. The Erasmusplus BERNICA project aims to create syllabi that are not only academically rigorous but also relevant to real-world contexts. Feedback from students, academics, practitioners and industry experts ensures that our syllabi align with current trends, practices, and challenges. Moreover, constructive feedback enables us to enhance the overall learning experience for students. By addressing concerns and incorporating valuable suggestions, we can create syllabi that engage learners, foster critical thinking, and promote practical skills.

Numerous studies emphasize the impact of feedback on educational outcomes. For instance:

- In a meta-analysis by Hattie and Timperley (2007), feedback was found to have a substantial effect size on student achievement. It enhances learning when it is specific, timely, and actionable.
- Research by Aldridge and Bianchet (2022) highlights the student feedback, obtained through a learning environment survey, serves as a valuable starting point for involving students in co-

construction and classroom improvement. Findings suggest that teachers can enhance the learning environment by engaging students in meaningful co-construction activities.

## Access the Feedback Form

We invite all consortium members to explore the feedback form created by KMU quality group members.

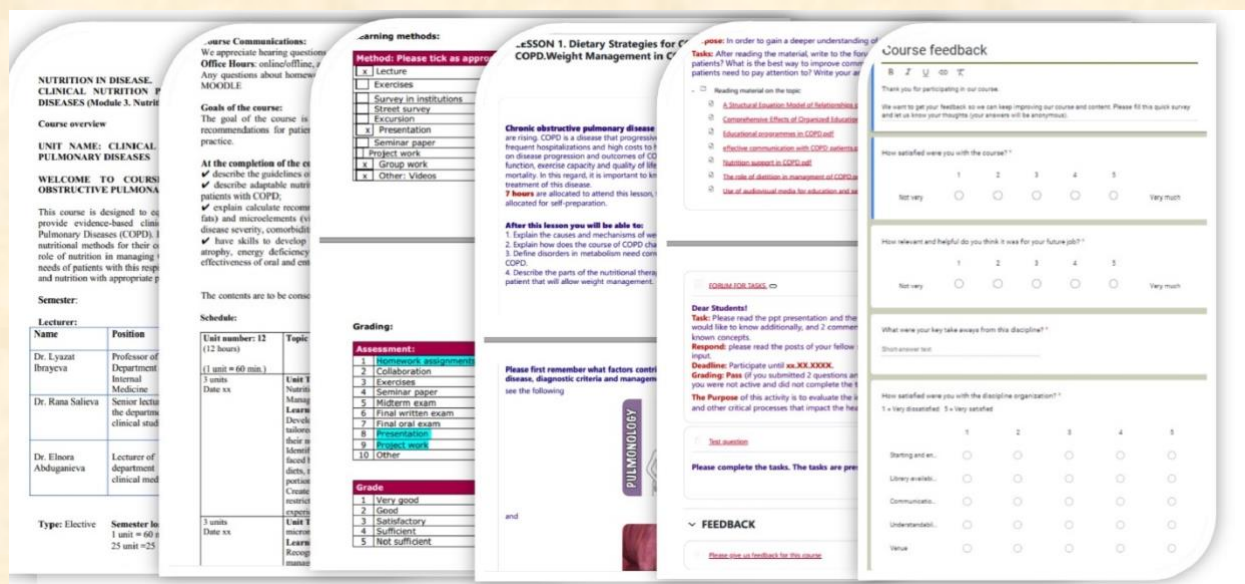


Figure 2. Syllabi and feedback form

You can find it on the Google Forms platform: Feedback form <https://forms.gle/DnDwBKXxiK5EerVd9> (Figure 2). Feel free to disseminate this link widely within the consortium. If you are interested in implementing this feedback survey within your institution or have any questions, please reach out to Dr. Olzhas Zhamantayev directly.

Let's collaborate to enhance the quality of our syllabi and create a lasting impact on education and practice.

Best regards,

**Olzhas Zhamantayev and Tleuzhan Abugaliyeva**

Karaganda Medical University

Erasmusplus BERNICA Consortium

1. Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, 77(1), 81–112.
2. Nicol, D. J., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199–218.

2. Aldridge, J. M., & Bianchet, S. (2022). Using student feedback about the learning environment as a starting point for co-construction. *Learning environments research*, 25(3), 939–955. <https://doi.org/10.1007/s10984-021-09403-9>

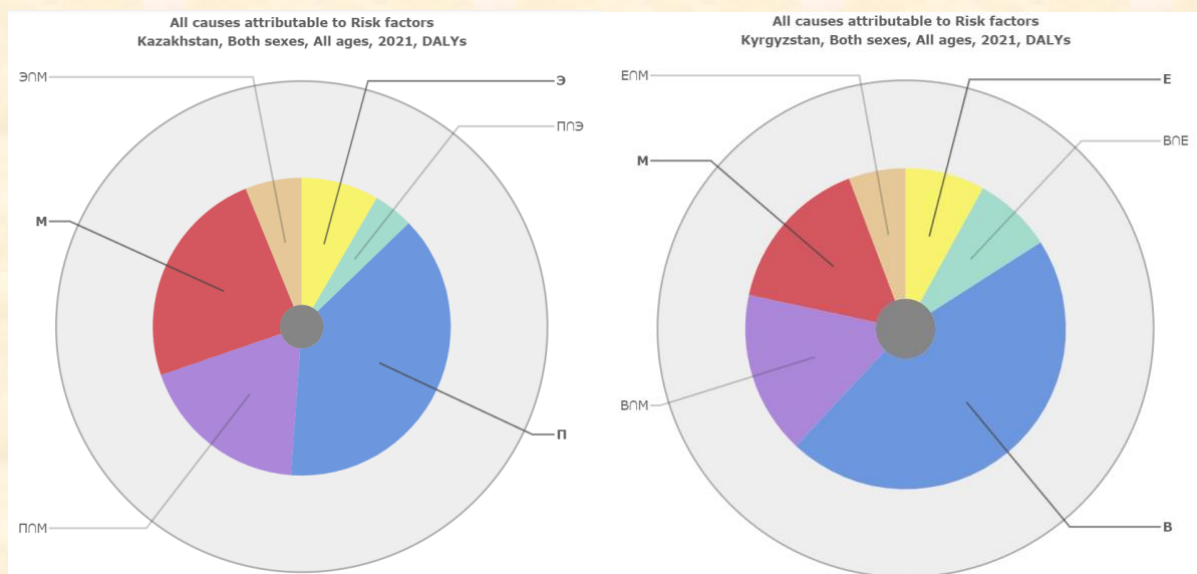


According to epidemiological data for 2021, metabolic and behavioral risk factors

**Epidemiological digest of data on the significance of metabolic and behavioral risk factors, correctable by nutritional support, in the countries of Central Asia**

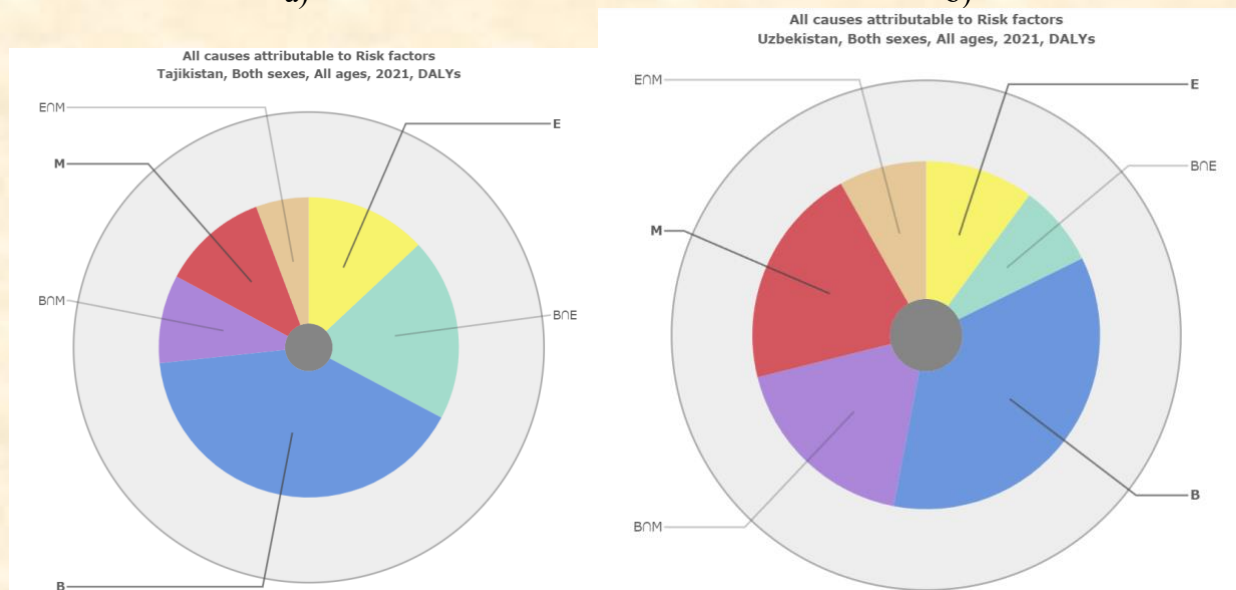
accounted for a significant

proportion of years lost due to disease and mortality in Central Asian countries (Fig. 1).



a)

b)



c)

d)

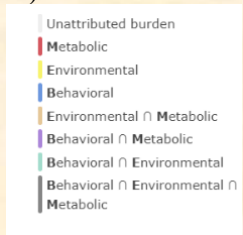


Fig. 1 – Structure of risk factors for loss of years due to morbidity for the population of Central Asian countries (a – Kazakhstan, b – Kyrgyzstan, c – Tajikistan, d – Uzbekistan) for 2021.

The dynamics from 1990 to 2021, with a forecast up to 2050, show an increasing trend in the loss of years due to diabetes mellitus (DM), a primary condition associated with metabolic risk factors, and chronic kidney disease (CKD), related to behavioral risk factors, in Central Asia (Fig. 2).

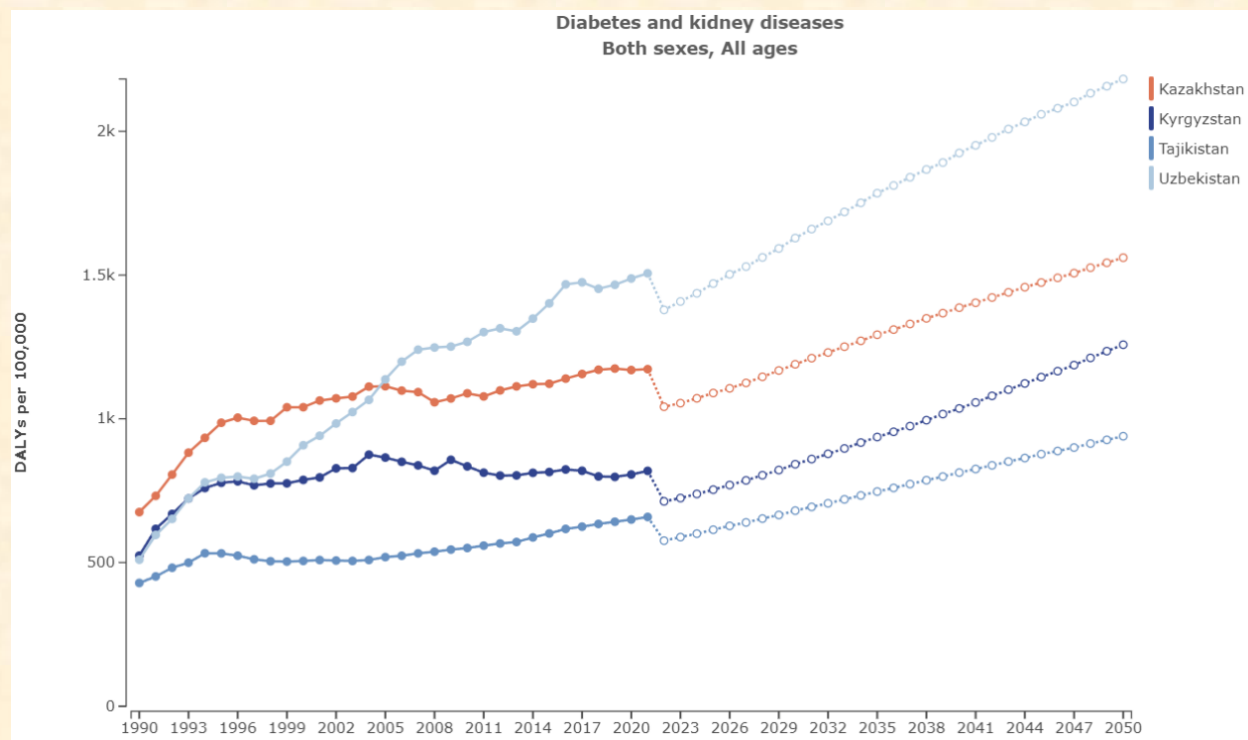


Fig. 2 – Dynamics of years lost due to diabetes and chronic kidney disease from 1990 to 2021 in Central Asian countries

Years lost due to neoplasms, which are the main cause of mortality in Central Asia and often stem from developing nutritional imbalances, accounted for more than 10% in 2021 (Fig. 3).

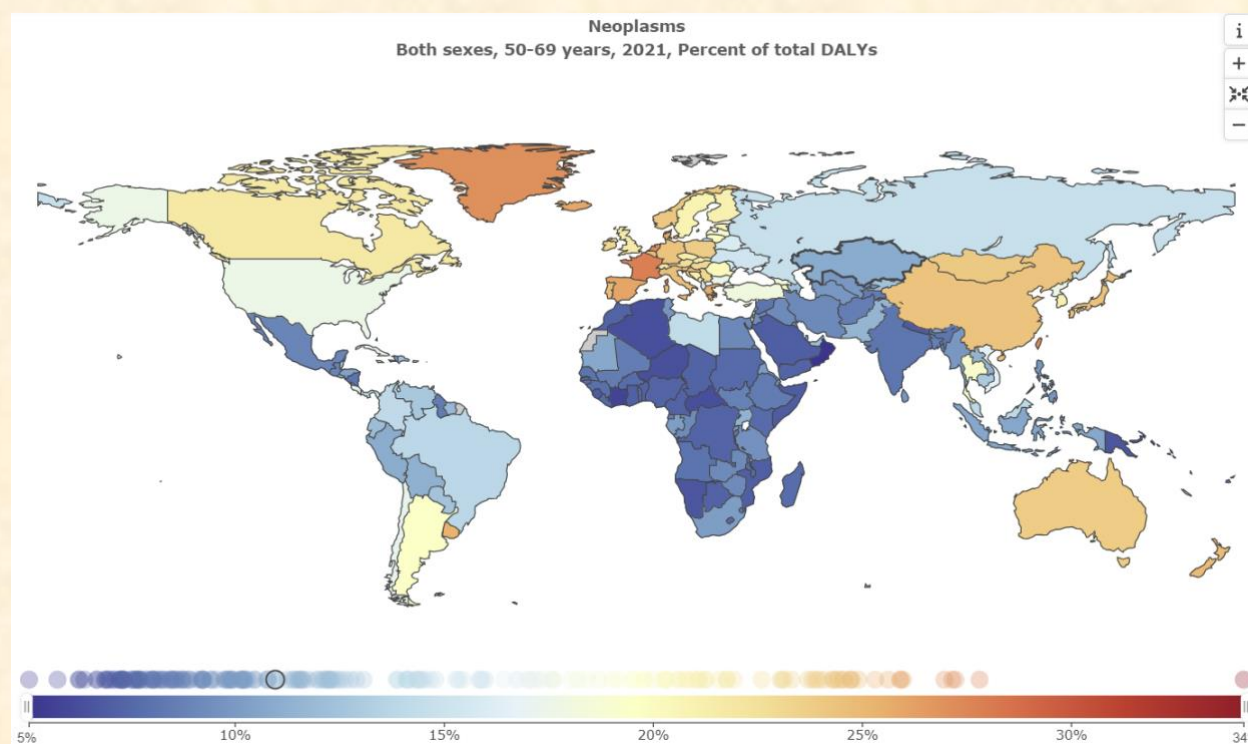


Fig. 3 – Rank cartogram of the share of neoplasms in the structure of years lost due to morbidity for 2021.



Excess body weight in Kazakhstan was identified as a significant factor contributing to cardiovascular diseases, endocrinological disorders, musculoskeletal issues, and digestive system dysfunctions in 6% of cases in 2021 (Fig. 4).

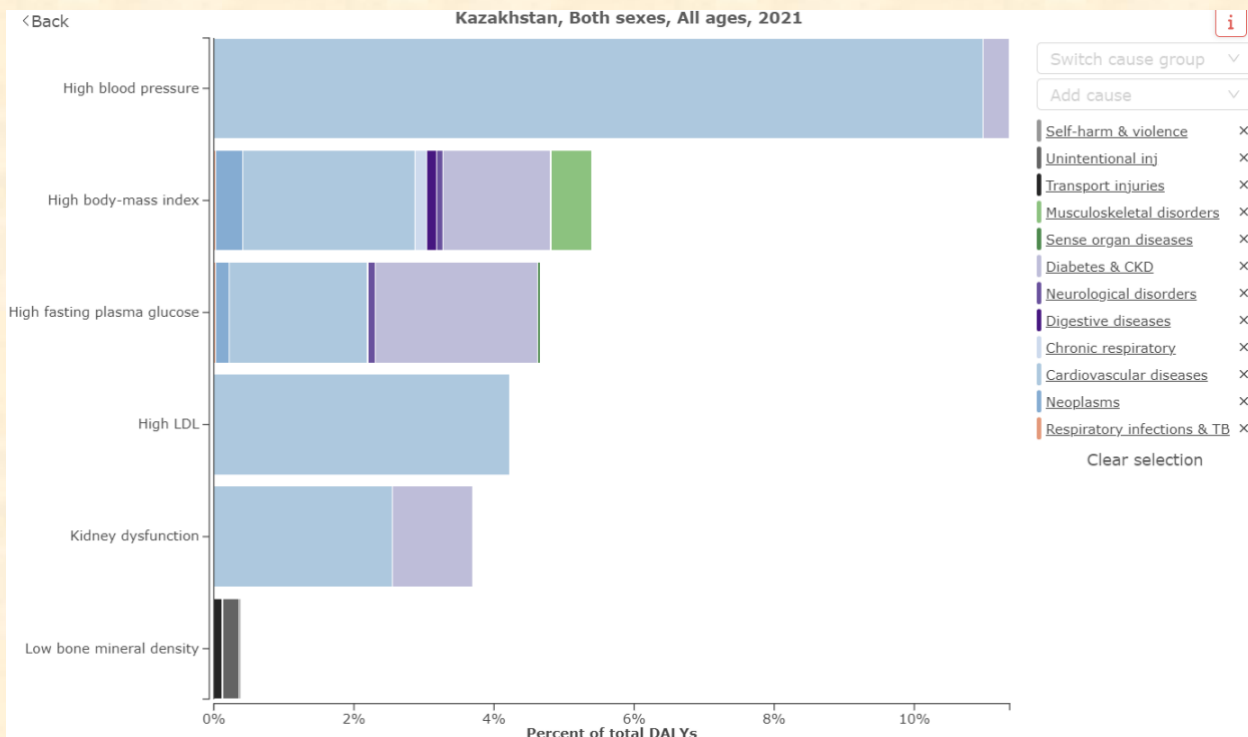


Fig. 4 – Structure of metabolic risks important for disease development in Kazakhstan for 2021.

No significant gender differences in metabolic risks were observed across Central Asian countries except for the behavioral risk associated with alcohol consumption (Fig. 5).

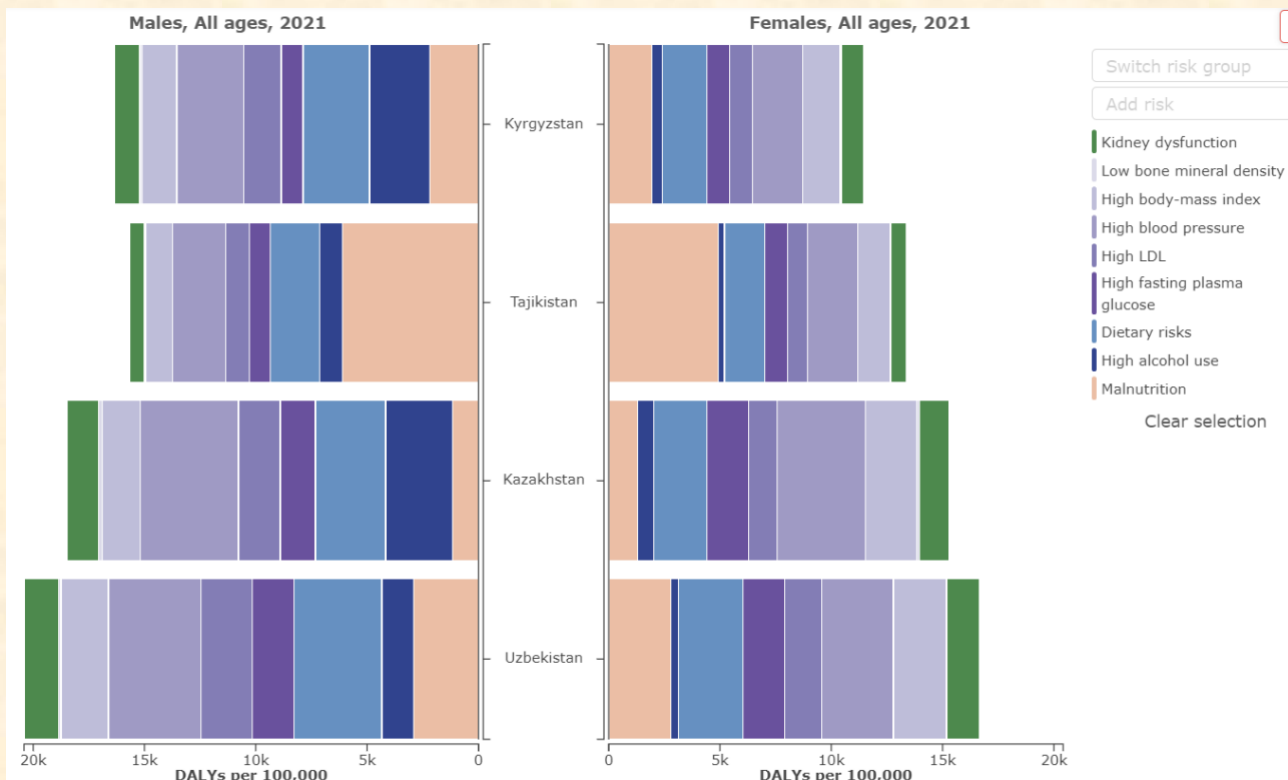
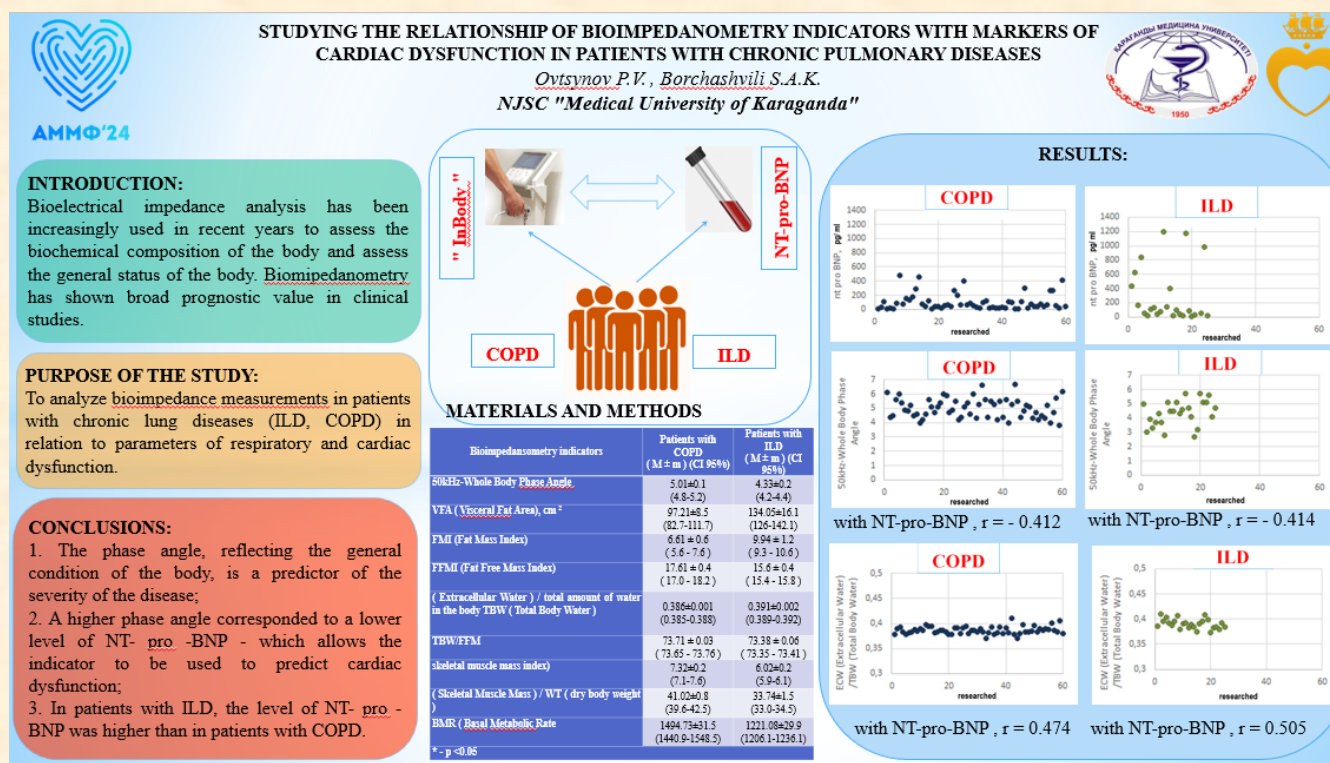


Fig. 5 – Gender characteristics of years lost due to metabolic risks for the population of Central Asian countries in 2021.



## Bioimpedansometry is an effective tool for studying the nutritional status of patients

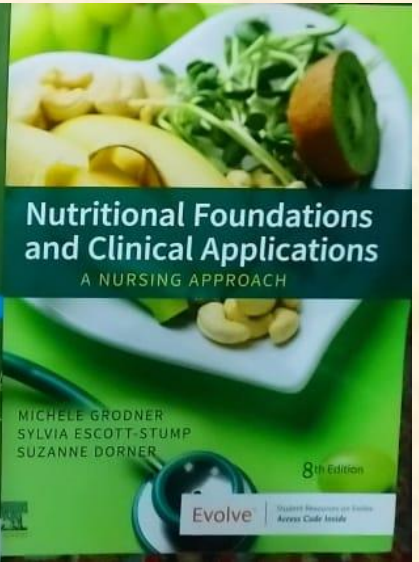
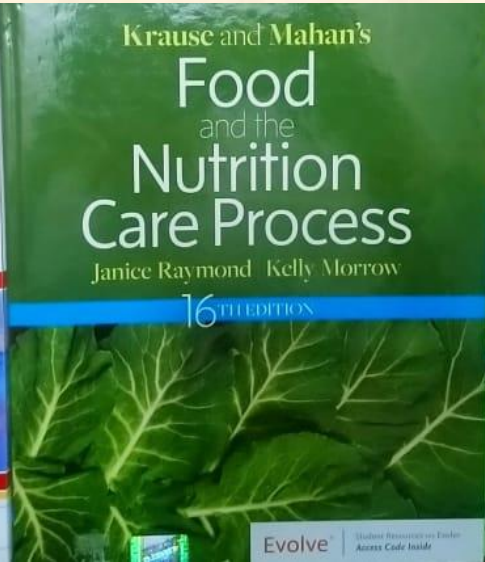
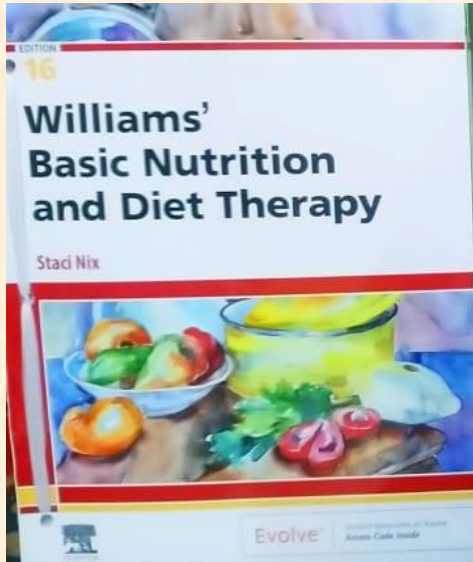
InBody 770 device, purchased as part of the BERNICA project, is used in scientific research under the grant project AP19676870 with funding from the Ministry of Education and Science of the Republic of Kazakhstan “Pathogenetic significance of the structural and functional imbalance of the vascular system in the pulmonary-cardio-renal continuum” under the leadership of Ibraeva L.K., MD .Sc., Professor of the Department of Internal Medicine, Karaganda Medical University. For the International Youth Forum, young scientists prepared a poster report describing the results of bioimpedance analysis conducted in patients with COPD and ILD (Fig. 6).



## Eating patterns for eating disorders

At the Karaganda Medical University clinic, information leaflets on nutritional support are provided to patients. These leaflets are based on monographs acquired as part of the BERNICA project, including:

- Williams' Basic Nutrition & Diet Therapy, 16th Edition by Staci Nix McIntosh (2021)
- Krause and Mahan's Food and the Nutrition Care Process, 16th Edition by Janice L. Raymond (2022)
- Nutritional Foundations and Clinical Applications, 8th Edition by Michele Grodner (2023).



### Dietary Treatment

The following are recommendations in the dietary treatment of hypercalcemia:

- Limit daily calcium intake to 600-800 mg/day unless otherwise instructed
- Limit dietary oxalate, especially when calcium intake is reduced; high oxalate levels are found in strong teas; nuts; chocolate; coffee; colas; green, leafy vegetables (eg, spinach); and other plant and vegetable products
- Avoid excessive purines and animal protein (< 1.7 g/kg of body weight)
- Reduce sodium (salt) and refined sugar to the minimum possible
- Increase dietary fiber (12-24 g/day)
- Limit alcohol and caffeine intake
- Increase fluid intake, especially water (sufficient to produce at least 2 L of urine per day)