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ЕЖЕМЕСЯЧНЫЙ НАУЧНЫЙ ЖУРНАЛ

Медицинские новости Грузии
საქართველოს სამედიცინო სიახლენი

GEORGIAN MEDICAL NEWS

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GMN: Georgian Medical News is peer-reviewed, published monthly journal committed to promoting the science and art of medicine and the betterment of public health, published by the GMN Editorial Board since 1994. GMN carries original scientific articles on medicine, biology and pharmacy, which are of experimental, theoretical and practical character; publishes original research, reviews, commentaries, editorials, essays, medical news, and correspondence in English and Russian.

GMN is indexed in MEDLINE, SCOPUS, PubMed and VINITI Russian Academy of Sciences. The full text content is available through EBSCO databases.

GMN: Медицинские новости Грузии - ежемесячный рецензируемый научный журнал, издаётся Редакционной коллегией с 1994 года на русском и английском языках в целях поддержки медицинской науки и улучшения здравоохранения. В журнале публикуются оригинальные научные статьи в области медицины, биологии и фармации, статьи обзорного характера, научные сообщения, новости медицины и здравоохранения. Журнал индексируется в MEDLINE, отражён в базе данных SCOPUS, PubMed и ВИНТИ РАН. Полнотекстовые статьи журнала доступны через БД EBSCO.

GMN: Georgian Medical News – საქართველოს სამედიცინო სიახლენი – არის ყოველთვიური სამეცნიერო სამედიცინო რეცენზირებადი ჟურნალი, გამოიცემა 1994 წლიდან, წარმოადგენს სარედაქციო კოლეგიისა და აშშ-ის მეცნიერების, განათლების, ინდუსტრიის, ხელოვნებისა და ბუნებისმეტყველების საერთაშორისო აკადემიის ერთობლივ გამოცემას. GMN-ში რუსულ და ინგლისურ ენებზე ქვეყნდება ექსპერიმენტული, თეორიული და პრაქტიკული ხასიათის ორიგინალური სამეცნიერო სტატიები მედიცინის, ბიოლოგიისა და ფარმაციის სფეროში, მიმოხილვითი ხასიათის სტატიები.

ჟურნალი ინდექსირებულია MEDLINE-ის საერთაშორისო სისტემაში, ასახულია SCOPUS-ის, PubMed-ის და ВИНТИ РАН-ის მონაცემთა ბაზებში. სტატიების სრული ტექსტი ხელმისაწვდომია EBSCO-ს მონაცემთა ბაზებიდან.

WEBSITE

www.geomednews.com

К СВЕДЕНИЮ АВТОРОВ!

При направлении статьи в редакцию необходимо соблюдать следующие правила:

1. Статья должна быть представлена в двух экземплярах, на русском или английском языках, напечатанная через **полтора интервала на одной стороне стандартного листа с шириной левого поля в три сантиметра**. Используемый компьютерный шрифт для текста на русском и английском языках - **Times New Roman (Кириллица)**, для текста на грузинском языке следует использовать **AcadNusx**. Размер шрифта - **12**. К рукописи, напечатанной на компьютере, должен быть приложен CD со статьей.

2. Размер статьи должен быть не менее десяти и не более двадцати страниц машинописи, включая указатель литературы и резюме на английском, русском и грузинском языках.

3. В статье должны быть освещены актуальность данного материала, методы и результаты исследования и их обсуждение.

При представлении в печать научных экспериментальных работ авторы должны указывать вид и количество экспериментальных животных, применявшиеся методы обезболивания и усыпления (в ходе острых опытов).

4. К статье должны быть приложены краткое (на полстраницы) резюме на английском, русском и грузинском языках (включающее следующие разделы: цель исследования, материал и методы, результаты и заключение) и список ключевых слов (key words).

5. Таблицы необходимо представлять в печатной форме. Фотокопии не принимаются. **Все цифровые, итоговые и процентные данные в таблицах должны соответствовать таковым в тексте статьи**. Таблицы и графики должны быть озаглавлены.

6. Фотографии должны быть контрастными, фотокопии с рентгенограмм - в позитивном изображении. Рисунки, чертежи и диаграммы следует озаглавить, пронумеровать и вставить в соответствующее место текста **в tiff формате**.

В подписях к микрофотографиям следует указывать степень увеличения через окуляр или объектив и метод окраски или импрегнации срезов.

7. Фамилии отечественных авторов приводятся в оригинальной транскрипции.

8. При оформлении и направлении статей в журнал МНГ просим авторов соблюдать правила, изложенные в «Единых требованиях к рукописям, представляемым в биомедицинские журналы», принятых Международным комитетом редакторов медицинских журналов - <http://www.spinesurgery.ru/files/publish.pdf> и http://www.nlm.nih.gov/bsd/uniform_requirements.html В конце каждой оригинальной статьи приводится библиографический список. В список литературы включаются все материалы, на которые имеются ссылки в тексте. Список составляется в алфавитном порядке и нумеруется. Литературный источник приводится на языке оригинала. В списке литературы сначала приводятся работы, написанные знаками грузинского алфавита, затем кириллицей и латиницей. Ссылки на цитируемые работы в тексте статьи даются в квадратных скобках в виде номера, соответствующего номеру данной работы в списке литературы. Большинство цитированных источников должны быть за последние 5-7 лет.

9. Для получения права на публикацию статья должна иметь от руководителя работы или учреждения визу и сопроводительное отношение, написанные или напечатанные на бланке и заверенные подписью и печатью.

10. В конце статьи должны быть подписи всех авторов, полностью приведены их фамилии, имена и отчества, указаны служебный и домашний номера телефонов и адреса или иные координаты. Количество авторов (соавторов) не должно превышать пяти человек.

11. Редакция оставляет за собой право сокращать и исправлять статьи. Корректур авторам не высылаются, вся работа и сверка проводится по авторскому оригиналу.

12. Недопустимо направление в редакцию работ, представленных к печати в иных издательствах или опубликованных в других изданиях.

При нарушении указанных правил статьи не рассматриваются.

REQUIREMENTS

Please note, materials submitted to the Editorial Office Staff are supposed to meet the following requirements:

1. Articles must be provided with a double copy, in English or Russian languages and typed or computer-printed on a single side of standard typing paper, with the left margin of 3 centimeters width, and 1.5 spacing between the lines, typeface - **Times New Roman (Cyrillic)**, print size - 12 (referring to Georgian and Russian materials). With computer-printed texts please enclose a CD carrying the same file titled with Latin symbols.

2. Size of the article, including index and resume in English, Russian and Georgian languages must be at least 10 pages and not exceed the limit of 20 pages of typed or computer-printed text.

3. Submitted material must include a coverage of a topical subject, research methods, results, and review.

Authors of the scientific-research works must indicate the number of experimental biological species drawn in, list the employed methods of anesthetization and soporific means used during acute tests.

4. Articles must have a short (half page) abstract in English, Russian and Georgian (including the following sections: aim of study, material and methods, results and conclusions) and a list of key words.

5. Tables must be presented in an original typed or computer-printed form, instead of a photocopied version. **Numbers, totals, percentile data on the tables must coincide with those in the texts of the articles.** Tables and graphs must be headed.

6. Photographs are required to be contrasted and must be submitted with doubles. Please number each photograph with a pencil on its back, indicate author's name, title of the article (short version), and mark out its top and bottom parts. Drawings must be accurate, drafts and diagrams drawn in Indian ink (or black ink). Photocopies of the X-ray photographs must be presented in a positive image in **tiff format**.

Accurately numbered subtitles for each illustration must be listed on a separate sheet of paper. In the subtitles for the microphotographs please indicate the ocular and objective lens magnification power, method of coloring or impregnation of the microscopic sections (preparations).

7. Please indicate last names, first and middle initials of the native authors, present names and initials of the foreign authors in the transcription of the original language, enclose in parenthesis corresponding number under which the author is listed in the reference materials.

8. Please follow guidance offered to authors by The International Committee of Medical Journal Editors guidance in its Uniform Requirements for Manuscripts Submitted to Biomedical Journals publication available online at: http://www.nlm.nih.gov/bsd/uniform_requirements.html
http://www.icmje.org/urm_full.pdf

In GMN style for each work cited in the text, a bibliographic reference is given, and this is located at the end of the article under the title "References". All references cited in the text must be listed. The list of references should be arranged alphabetically and then numbered. References are numbered in the text [numbers in square brackets] and in the reference list and numbers are repeated throughout the text as needed. The bibliographic description is given in the language of publication (citations in Georgian script are followed by Cyrillic and Latin).

9. To obtain the rights of publication articles must be accompanied by a visa from the project instructor or the establishment, where the work has been performed, and a reference letter, both written or typed on a special signed form, certified by a stamp or a seal.

10. Articles must be signed by all of the authors at the end, and they must be provided with a list of full names, office and home phone numbers and addresses or other non-office locations where the authors could be reached. The number of the authors (co-authors) must not exceed the limit of 5 people.

11. Editorial Staff reserves the rights to cut down in size and correct the articles. Proof-sheets are not sent out to the authors. The entire editorial and collation work is performed according to the author's original text.

12. Sending in the works that have already been assigned to the press by other Editorial Staffs or have been printed by other publishers is not permissible.

**Articles that Fail to Meet the Aforementioned
Requirements are not Assigned to be Reviewed.**

ავტორთა საქურაღებოლ!

რედაქციაში სტატიის წარმოდგენისას საჭიროა დაიცვათ შემდეგი წესები:

1. სტატია უნდა წარმოადგინოთ 2 ცალად, რუსულ ან ინგლისურ ენებზე დაბეჭდილი სტანდარტული ფურცლის 1 გვერდზე, 3 სმ სიგანის მარცხენა ველისა და სტრიქონებს შორის 1,5 ინტერვალის დაცვით. გამოყენებული კომპიუტერული შრიფტი რუსულ და ინგლისურენოვან ტექსტებში - **Times New Roman (Кириллица)**, ხოლო ქართულენოვან ტექსტში საჭიროა გამოვიყენოთ **AcadNusx**. შრიფტის ზომა – 12. სტატიას თან უნდა ახლდეს CD სტატიით.

2. სტატიის მოცულობა არ უნდა შეადგენდეს 10 გვერდზე ნაკლებს და 20 გვერდზე მეტს ლიტერატურის სიის და რეზიუმეების (ინგლისურ, რუსულ და ქართულ ენებზე) ჩათვლით.

3. სტატიაში საჭიროა გაშუქდეს: საკითხის აქტუალობა; კვლევის მიზანი; საკვლევი მასალა და გამოყენებული მეთოდები; მიღებული შედეგები და მათი განსჯა. ექსპერიმენტული ხასიათის სტატიების წარმოდგენისას ავტორებმა უნდა მიუთითონ საექსპერიმენტო ცხოველების სახეობა და რაოდენობა; გაუტკივარებისა და დაძინების მეთოდები (მწვავე ცდების პირობებში).

4. სტატიას თან უნდა ახლდეს რეზიუმე ინგლისურ, რუსულ და ქართულ ენებზე არანაკლებ ნახევარი გვერდის მოცულობისა (სათაურის, ავტორების, დაწესებულების მითითებით და უნდა შეიცავდეს შემდეგ განყოფილებებს: მიზანი, მასალა და მეთოდები, შედეგები და დასკვნები; ტექსტუალური ნაწილი არ უნდა იყოს 15 სტრიქონზე ნაკლები) და საკვანძო სიტყვების ჩამონათვალი (key words).

5. ცხრილები საჭიროა წარმოადგინოთ ნაბეჭდი სახით. ყველა ციფრული, შემაჯამებელი და პროცენტული მონაცემები უნდა შეესაბამებოდეს ტექსტში მოყვანილს.

6. ფოტოსურათები უნდა იყოს კონტრასტული; სურათები, ნახაზები, დიაგრამები - დასათაურებული, დანომრილი და სათანადო ადგილას ჩასმული. რენტგენოგრამების ფოტოასლები წარმოადგინეთ პოზიტიური გამოსახულებით **tiff** ფორმატში. მიკროფოტოსურათების წარწერებში საჭიროა მიუთითოთ ოკულარის ან ობიექტივის საშუალებით გადიდების ხარისხი, ანათალების შედეგების ან იმპრეგნაციის მეთოდი და აღნიშნოთ სურათის ზედა და ქვედა ნაწილები.

7. სამამულო ავტორების გვარები სტატიაში აღინიშნება ინიციალების თანდართვით, უცხოურისა – უცხოური ტრანსკრიპციით.

8. სტატიას თან უნდა ახლდეს ავტორის მიერ გამოყენებული სამამულო და უცხოური შრომების ბიბლიოგრაფიული სია (ბოლო 5-8 წლის სიღრმით). ანბანური წყობით წარმოდგენილ ბიბლიოგრაფიულ სიაში მიუთითეთ ჯერ სამამულო, შემდეგ უცხოელი ავტორები (გვარი, ინიციალები, სტატიის სათაური, ჟურნალის დასახელება, გამოცემის ადგილი, წელი, ჟურნალის №, პირველი და ბოლო გვერდები). მონოგრაფიის შემთხვევაში მიუთითეთ გამოცემის წელი, ადგილი და გვერდების საერთო რაოდენობა. ტექსტში კვადრატულ ფხიხლებში უნდა მიუთითოთ ავტორის შესაბამისი N ლიტერატურის სიის მიხედვით. მიზანშეწონილია, რომ ციტირებული წყაროების უმეტესი ნაწილი იყოს 5-6 წლის სიღრმის.

9. სტატიას თან უნდა ახლდეს: ა) დაწესებულების ან სამეცნიერო ხელმძღვანელის წარდგინება, დამოწმებული ხელმოწერითა და ბეჭდით; ბ) დარგის სპეციალისტის დამოწმებული რეცენზია, რომელშიც მითითებული იქნება საკითხის აქტუალობა, მასალის საკმაობა, მეთოდის სანდოობა, შედეგების სამეცნიერო-პრაქტიკული მნიშვნელობა.

10. სტატიის ბოლოს საჭიროა ყველა ავტორის ხელმოწერა, რომელთა რაოდენობა არ უნდა აღემატებოდეს 5-ს.

11. რედაქცია იტოვებს უფლებას შეასწოროს სტატია. ტექსტზე მუშაობა და შეჯერება ხდება საავტორო ორიგინალის მიხედვით.

12. დაუშვებელია რედაქციაში ისეთი სტატიის წარდგენა, რომელიც დასაბეჭდად წარდგენილი იყო სხვა რედაქციაში ან გამოქვეყნებული იყო სხვა გამოცემებში.

აღნიშნული წესების დარღვევის შემთხვევაში სტატიები არ განიხილება.

Yaomin Luo, Xin Chen, Enhao Hu, Lingling Wang, Yuxuan Yang, Xin Jiang, Kaiyuan Zheng, Li Wang, Jun Li, Yanlin Xu, Yin Xu Wang, Yulei Xie. TRANSCRIPTOME ANALYSIS REVEALED THE MOLECULAR SIGNATURES OF CISPLATIN-FLUOROURACIL COMBINED CHEMOTHERAPY RESISTANCE IN GASTRIC CANCER.....	6-18
Abramidze Tamar, Bochorishvili Ekaterine, Melikidze Natela, Dolidze Nana, Chikhelidze Natia, Chitadze Nazibrola, Getia Vladimer, Gotua Maia, Gamkrelidze Amiran. RELATIONSHIP OF ALLERGIC DISEASES, POLLEN EXPOSURE AND COVID-19 IN GEORGIA.....	19-26
Ibtisam T. Al-Jureisy, Rayan S. Hamed, Ghada A. Taqa. THE BIO-STIMULATORY EFFECT OF ADVANCE PLATELET RICH FIBRIN COMBINED WITH LASER ON DENTAL IMPLANT STABILITY: AN EXPERIMENTAL STUDY ON SHEEP.....	27-31
Amandeep Singh, Navnath Sathe, Kanchan Rani, Saumya Das, Devanshu J. Patel, Renuka Jyothi R. IMPACT OF MOTHER'S HYPOTHYROIDISM ON FETAL DEVELOPMENT AND OUTCOMES: A SYSTEMATIC REVIEW.....	32-36
Sevil Karagül, Sibel Kibar, Saime Ay, Deniz Evcik, Süreyya Ergin. THE EFFECT OF A 6-WEEK BALANCE EXERCISE PROGRAM ON BALANCE PARAMETERS IN FRAILTY SYNDROME: A RANDOMIZED CONTROLLED, DOUBLE-BLIND, PROSPECTIVE STUDY.....	37-42
Zainab Suleiman Erzaq, Fahmi S. Ameen. COMPARISON BETWEEN PCR STUDY AND ELISA STUDY AMONG PATIENTS WITH DIARRHEA.....	43-47
Igor Morar, Oleksandr Ivashchuk, Ivan Hushul, Volodymyr Bodiaka, Alona Antoniv, Inna Nykolaichuk. THE INFLUENCE OF THE ONCOLOGICAL PROCESS ON THE MECHANICAL STRENGTH OF THE POSTOPERATIVE SCAR OF THE LAPAROTOMY WOUND.....	48-51
Lyazzat T. Yeraliyeva, Assiya M. Issayeva, Malik M. Adenov. COMPARATIVE ANALYSIS OF MORTALITY FROM TUBERCULOSIS AMONG COUNTRIES OF FORMER SOVIET UNION.....	52-57
Rana R. Khalil, Hayder A.L. Mossa, Mufeda A. Jwad. MITOFUSIN 1 AS A MARKER FOR EMBRYO QUALITY AND DEVELOPMENT IN RELEVANCE TO ICSI OUTCOME IN INFERTILE FEMALES.....	58-61
Geetika M. Patel, Nayana Borah, Bhupendra Kumar, Ritika Rai, V. K. Singh, Chandana Maji. MEDITERRANEAN DIET AND ITS IMPACT ON THE ILLNESS CHARACTERISTIC OF YOUTH WITH IRRITABLE BOWEL CONDITION.....	62-66
Ketevan Arabidze, Irakli Gogokhia, Khatuna Sokhadze, Nana Kintsurashvili, Mzia Tsiklauri, Tamar Gogichaishvili, Iamze Tabordze. THE EVALUATION OF THE RISK OF COMPLICATIONS DURING MULTIMODAL AND OPIOID ANESTHESIA IN BARIATRIC SURGERY AND ABDOMINOPLASTY.....	67-71
Hadeer Sh Ibrahim, Raghad A Al-Askary. MARGINAL FITNESS OF BIOACTIVE BULKFILL RESTORATIONS TO GINGIVAL ENAMEL OF CLASS II CAVITIES: AN IN VITRO COMPARATIVESTUDY.....	72-79
Lobashova O.I, Nasibullin B.A, Baiazitov D.M, Kashchenko O.A, Koshelnyk O.L, Tregub T.V, Kovalchuk L.Y, Chekhovska G.S, Kachailo I.A, Gargin V.V. PECULIARITIES OF THE ORGANS OF THE REPRODUCTIVE SYSTEM OF WOMEN OF REPRODUCTIVE AGE WITH LIVER DYSFUNCTION UNDER THE INFLUENCE OF EXOGENOUS POLLUTANTS.....	80-86
Victoriia Ivano. EXPLORING NEONATAL HEALTH DISPARITIES DEPENDED ON TYPE OF ANESTHESIA: A NARRATIVE REVIEW.....	87-93
Omar B. Badran, Waleed G. Ahmad. THE COVID-19 PANDEMIC LOCKDOWN'S IMPACT ON ROUTINE CHILDHOOD VACCINATION.....	94-98
Valbona Ferizi, Lulëjeta Ferizi Shabani, Merita Krasniqi Selimi, Venera Bimbashi, Merita Kotori, Shefqet Mrasori. POSTNATAL CARE AMONG POSTPARTUM WOMEN DURING HOSPITAL DISCHARGE.....	99-104
Devanshu J. Patel, Asha.K, Amandeep Singh, Sakshi Vats, Prerana Gupta, Monika. A LONGITUDINAL STUDY OF CHILDHOOD SEPARATION ANXIETY DISORDER AND ITS IMPLICATIONS FOR ADOLESCENT PSYCHOPATHOLOGY.....	105-111
Kachanov Dmitrii A, Artsygov Murad M, Omarov Magomed M, Kretova Veronika E, Zhur Daniil V, Chermoew Magomed M, Yakhyaev Adam I, Mazhidov Arbi S, Asuev Zaurbek M, Bataev Ahmed R, Khasuev Turpal-Ali B, Rasulov Murad N. COMPARATIVE ANALYSIS OF THE EFFECTS OF SOME HEPATOPROTECTORS IN EXPERIMENTALLY INDUCED MAFLD IN ADULT WISTAR RATS.....	112-115
Nada J Alwan, Raghad A Al-Askary. EVALUATION OF INTERFACIAL ADAPTATION BETWEEN VARIOUS TYPES OF FIBER POSTS AND RESIN CEMENTS USING	

MICRO CT: AN IN VITRO COMPARATIVE STUDY.....	116-121
Anish Prabhakar, Vinod Mansiram Kapse, Geetika M. Patel, Upendra Sharma. U.S, Amandeep Singh, Anil Kumar. EMERGING NATIONS' LEARNING SYSTEMS AND THE COVID-19 PANDEMIC: AN ANALYSIS.....	122-127
Tereza Azatyan. THE STUDY OF SPATIAL REPRESENTATIONS OF CHILDREN WITH DIFFERENT DEGREES OF INTERHEMISPHERIC INTERACTION.....	128-132
Sefineh Fenta Feleke, Anteneh Mengsit, Anteneh Kassa, Melsew Dagne, Tiruayehu Getinet, Natnael Kebede, Misganaw Guade, Mulat Awoke, Genanew Mulugeta, Zeru Seyoum, Natnael Amare. DETERMINANTS OF PRETERM BIRTH AMONG MOTHERS WHO GAVE BIRTH AT A REFERRAL HOSPITAL, NORTHWEST ETHIOPIA: UNMATCHED CASE- CONTROL STUDY.....	133-139
Himanshi Khatri, Rajeev Pathak, Ranjeet Yadav, Komal Patel, Renuka Jyothi. R, Amandeep Singh. DENTAL CAVITIES IN PEOPLE WITH TYPE 2 DIABETES MELLITUS: AN ANALYSIS OF RISK INDICATORS.....	140-145
Mukaddes Pala. ExerciseandMicroRNAs.....	146-153
Zurab Alkhanishvili, Ketevan Gogilashvili, Sopia Samkharadze, Landa Lursmanashvili, Nino Gvasalia, Lika Gogilashvili. NURSES' AWARENESS AND ATTITUDES TOWARDS INFLUENZA VACCINATION: A STUDY IN GEORGIA.....	154-159
Aveen L. Juma, Ammar L. Hussein, Israa H. Saadon. THE ROLE OF COENZYME COQ10 AND VITAMIN E IN PATIENTS WITH BETA-THALASSEMIA MAJOR IN BAGHDAD CITY POPULATION.....	160-162
Merve Karli, Basri Cakiroglu. ADRENAL METASTASIS OF BILATERAL RENAL CELL CARCINOMA: A CASE PRESENTATION 12 YEARS AFTER DIAGNOSIS.....	163-165
Manish Kumar Gupta, Shruti Jain, Priyanka Chandani, Devanshu J. Patel, Asha K, Bhupendra Kumar. ANXIETY SYNDROMES IN ADOLESCENTS WITH OPERATIONAL RESPIRATORY CONDITIONS: A PROSPECTIVE STUDY.....	166-171
Mordanov O.S, Khabadze Z.S, Meremkulov R.A, Saeidyan S, Golovina V, Kozlova Z.V, Fokina S.A, Kostinskaya M.V, Eliseeva T.A. EFFECT OF SURFACE TREATMENT PROTOCOLS OF ZIRCONIUM DIOXIDE MULTILAYER RESTORATIONS ON FUNCTIONAL PROPERTIES OF THE HUMAN ORAL MUCOSA STROMAL CELLS.....	172-177
Nandini Mannadath, Jayan. C. EFFECT OF BIOPSYCHOSOCIAL INTERVENTION ON BEAUTY SATISFACTION AFTER STAGED SURGERY AMONG ADOLESCENTS WITH ORAL FACIAL CLEFTS.....	178-182
Bhupendra Kumar, Sonia Tanwar, Shilpa Reddy Ganta, Kumud Saxena, Komal Patel, Asha K. INVESTIGATING THE EFFECT OF NICOTINE FROM CIGARETTES ON THE GROWTH OF ABDOMINAL AORTIC ANEURYSMS: REVIEW.....	183-188
Musheghyan G.Kh, Gabrielyan I.G, Poghosyan M.V, Arajyan G.M. Sarkissian J.S. SYNAPTIC PROCESSES IN PERIAQUEDUCTAL GRAY UNDER ACTIVATION OF LOCUS COERULEUS IN A ROTENONE MODEL OF PARKINSON'S DISEASE.....	189-195
Bhupendra Kumar, Barkha Saxena, Prerana Gupta, Raman Batra, Devanshu J. Patel, Kavina Ganapathy. EFFECTS OF SOCIAL ESTRANGEMENT ON YOUNG PEOPLE'S MATURATION: A REVIEW OF THE RESEARCH.....	196-202
Mordanov O.S, Khabadze Z.S, Meremkulov R.A, Mordanova A.V, Saeidyan S, Golovina V, Kozlova Z.V, Fokina S.A, Kostinskaya M.V, Eliseeva T.A. COMPARATIVE SPECTROPHOTOMETRY ANALYSIS OF ZIRCONIUM DIOXIDE WITH THE CUBIC AND TETRAGONAL PHASE AFTER ARTIFICIAL AGING.....	203-210
Mohammed Abidullah, Sarepally Godvine, Swetcha Seethamsetty, Geetika Gorrepati, Pradeep Koppolu, Valishetty Anuhya, Sana vakeel. EFFECT OF GOAL-ORIENTEDPATIENT CENTRIC HEALTH CARE PROFESSIONAL INTERVENTION ON BLOOD GLUCOSE CONTROL INTYPE 2 DIABETES MELLITUSANDLEVEL OF PATIENT SATISFACTION.....	211-217

COMPARATIVE ANALYSIS OF MORTALITY FROM TUBERCULOSIS AMONG COUNTRIES OF FORMER SOVIET UNION

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Abstract.

Relevance: Mortality from tuberculosis has decreased from 11.89 deaths per 100,000 population in 1990 to 4.18 deaths per 100,000 population in Kazakhstan in 2019. Thus, the deviation was (-)35.5%. If Kazakhstan showed the above result over the 29-year period, then how are things with other republics that were part of the Soviet Union and how have the countries' economies changed?

Aim: Determination of the difference in 15 republics using the mortality rate from tuberculosis per 100,000 population.

Materials and methods: The study included the following countries: Ukraine, Georgia, Kazakhstan, Kyrgyzstan, Uzbekistan, Russia, Estonia, Lithuania, Latvia, Turkmenistan, Tajikistan, Belarus, Moldova, Azerbaijan, Armenia. The analysis was carried out using the Global burden of diseases database.

Results: A relatively high reduction in TB mortality was found in Kazakhstan (-3.61%). In second place is Estonia (-3.25%), in third place is Azerbaijan (-2.39%), in fourth place is Latvia (-2.16%), and the top five is closed by Georgia (-1.98%).

Despite the high level of GDP, countries such as Russia (6th place in the world ranking of GDP per capita) and Ukraine (42nd place in the world ranking of GDP per capita) are not in the leading positions in reducing the burden of TB. For example, Russia is in 10th place (-0.81%) in terms of the percentage reduction in mortality from TB, and Ukraine is in last place. According to the Global Burden of Disease, Ukraine has seen an increase in TB mortality (+1.62%).

Discussion: The leader among the former Soviet countries in terms of spending on the healthcare system is Armenia (12.24%). In general, current public spending on health care per capita is 11.6 times lower than in OECD (Organization for Economic Cooperation and Development) member countries: in 2020 in Kazakhstan this indicator was 341.5 USD, in the OECD - on average 3 959 USD.

Conclusions: According to WHO recommendations for sustainable development, financing of the health care system should be up to 5% of GDP, while the share of private spending should not exceed 20% of current health care spending. As the experience of developed countries shows, the level of life expectancy directly depends on the financing of the healthcare system.

Key words. Tuberculosis, epidemiology, economics, gross domestic product, mortality, Union of Soviet Socialist Republics.

Introduction.

Although tuberculosis (TB) is a preventable and treatable disease, it causes more than a million deaths every year. In 2015, the Sustainable Development Goals (SDGs) were developed

by the UN General Assembly as a “blueprint for achieving a better and more sustainable future for all” out of 17 interrelated goals [1-5]. This program consists of 17 global goals and 169 corresponding targets. Goal number three is to ensure healthy lives and promote well-being for everyone at all ages [4-7]. For tuberculosis, quantitative milestones have been set with a 10% annual reduction in global tuberculosis incidence by 2025 [1,2,8-13].

TB mortality in Kazakhstan has decreased: from 11.89 deaths per 100,000 population in 1990 to 4.18 deaths per 100,000 population in 2019. Thus, the deviation was (-)35.5%.

As shown in Figure 1, the highest mortality from TB was in the age group of 50-69 years. By 1995, there was an upward trend among Kazakhstanis. In our opinion, this was due to the economic situation that developed after the collapse of the Soviet Union. Subsequently, a steady decline was observed. Thus, over the years of independence, the healthcare system of Kazakhstan has shown good results in the fight against tuberculosis.

Aim.

Determining the difference in mortality from tuberculosis in 15 republics using the mortality rate from tuberculosis per 100,000 population.

Materials and Methods.

The starting year was the last year of the existence of the Soviet Union - 1990. Our study included 15 republics (despite the fact that some Balkan countries declared sovereignty starting in 1988, but secession from the USSR took place in 1990).

The study included the following countries: Ukraine, Georgia, Kazakhstan, Kyrgyzstan, Uzbekistan, Russia, Estonia, Lithuania, Latvia, Turkmenistan, Tajikistan, Belarus, Moldova, Azerbaijan, Armenia.

The analysis was carried out using the Global burden of diseases database.

Results.

To begin, we examined the levels of gross domestic product (GDP) in all countries of the former Soviet Union in 1990 (the penultimate year of the USSR's existence). GDP (gross domestic product) is the value of all goods and services produced solely for consumption. The gross product indicator reflects the “value” of the economy, and when compared over different periods, the nature of its dynamics. Thus, Kazakhstan has shown a good result over the years of independence in comparison with neighboring countries.

It was determined that in the starting year of the study the highest level of GDP] (table 1) was in the Russian Socialist Federative Socialist Republic (after 1991 - the Russian Federation). GDP in 1990 was 516.80 billion USD. In second place was the Ukrainian Soviet Socialist Republic (after 1991

Table 1. Comparison of GDP for countries of the former Soviet Union.

млрд USD	1990	Место	2019	Место
Russia	516,80	1	1693,00	1
Ukraine	81,39	2	153,90	3
Kazakhstan	26,93	3	181,70	2
Belarus	21,65	4	64,41	4
Uzbekistan	13,36	5	59,91	5
Lithuania	10,20	6	54,75	6
Latvia	9,60	7	34,34	9
Azerbaijan	8,85	8	48,17	7
Georgia	7,75	9	17,47	11
Estonia	5,70	10	31,08	10
Moldova	4,80	11	11,97	13
Turkmenistan	3,18	12	45,23	8
Kyrgyzstan	2,67	13	8,87	14
Tajikistan	2,63	14	8,30	15
Armenia	2,25	15	13,62	12

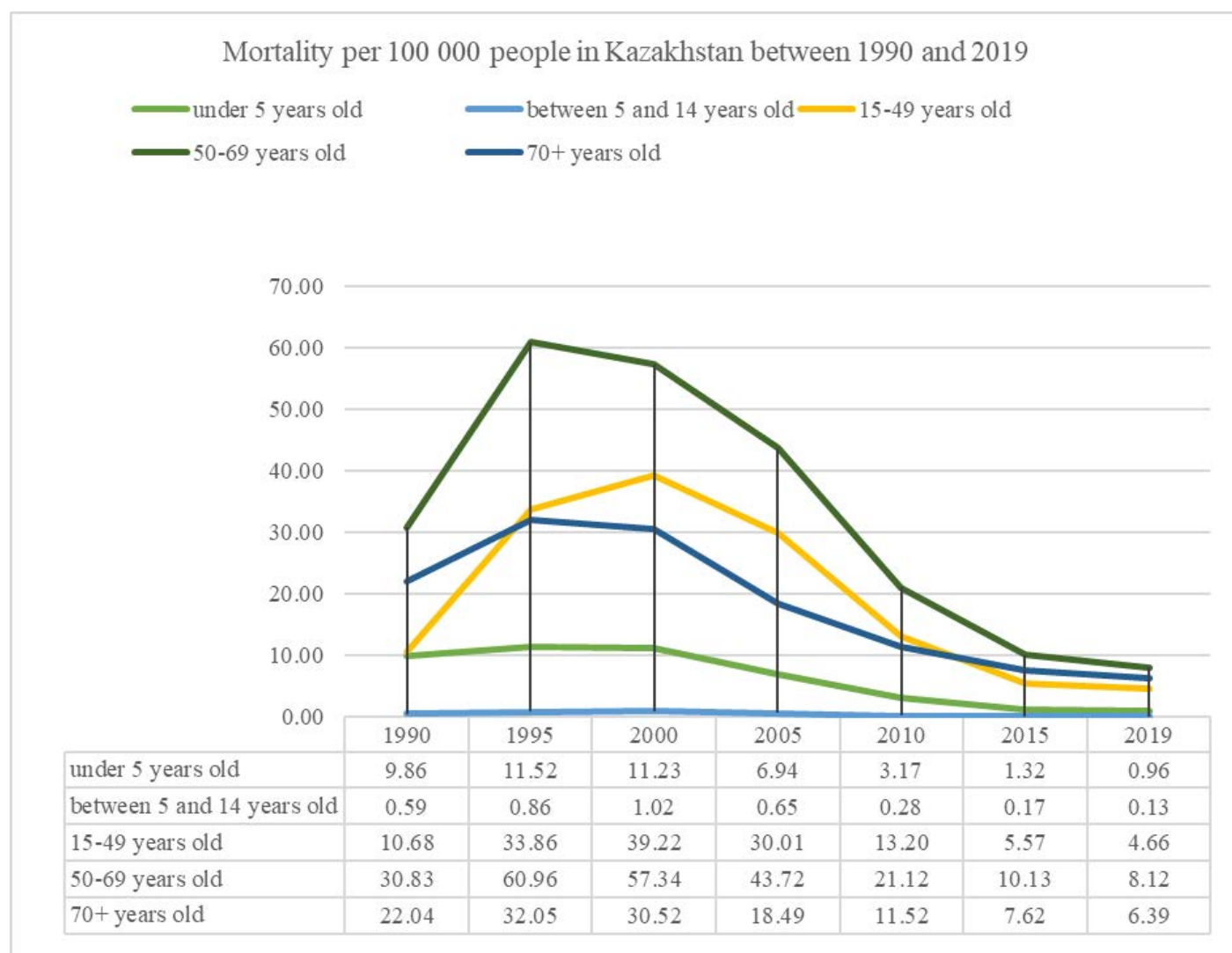


Figure 1. Mortality from tuberculosis by age group among the population of Kazakhstan (per 100,000 population). If Kazakhstan has shown the above result over a 29-year period, then how are things going with other republics that were part of the Soviet Union and how have the countries' economies changed?

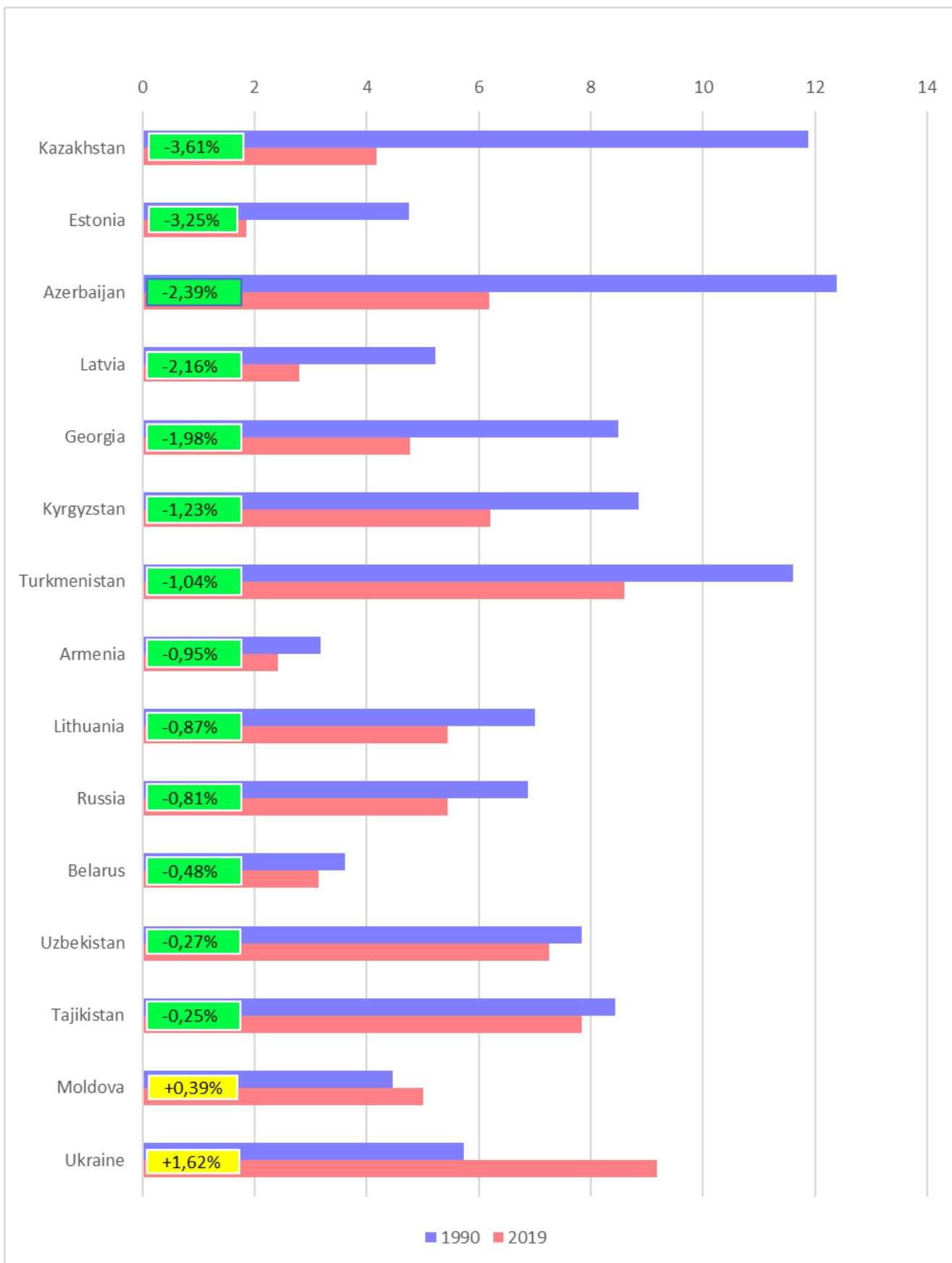


Figure 2. Percentage changes in TB mortality from 1990 to 2019 in the countries of the former Soviet Union.

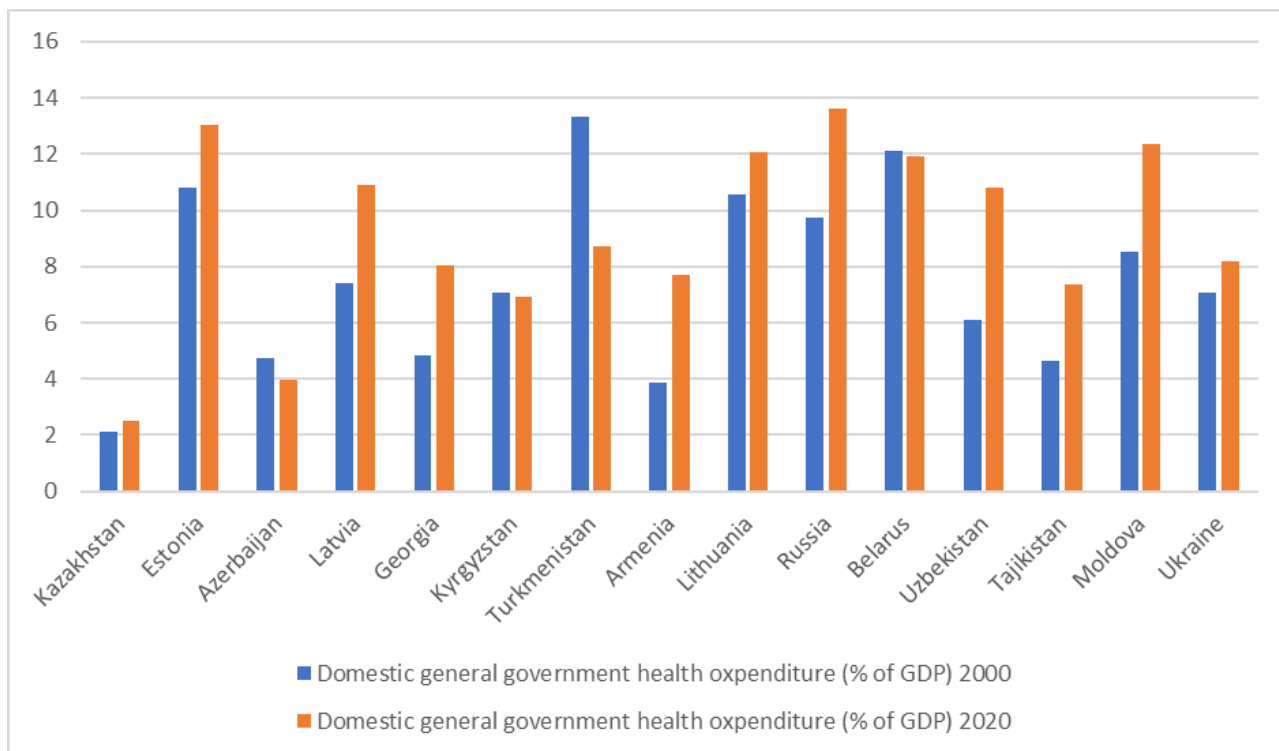


Figure 3. Domestic general government health expenditure (% of GDP), 2000-2020.

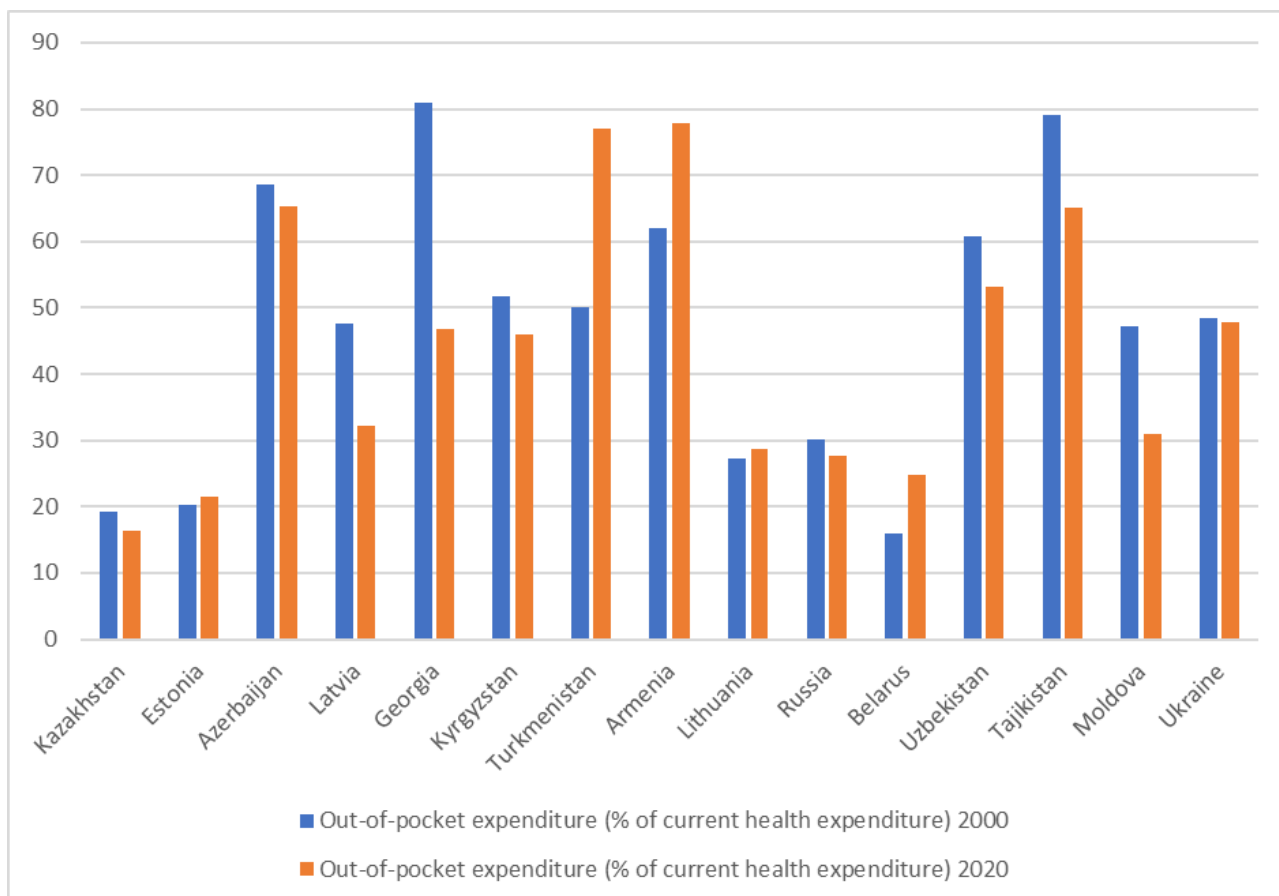


Figure 4. Out-of-pocket expenditure (% of current health expenditure), 2000-2020.

- Ukraine), GDP - 81.39 billion USD. In third position is the Kazakh Soviet Socialist Republic with a GDP of 26.93 billion USD. Despite the fact that the RSFSR had the highest GDP among all the republics of the Union, the consumption of goods and products was lower than production (-5.7 billion USD). A similar situation with a negative balance was observed in 1990 in Belarus (-3.6 billion USD).

In 2019, the Russian Federation was also in first place (USD 1,693.00 billion), and Kazakhstan was in second place (USD 153.90 billion). Thus, Kazakhstan is the only country (except Russia) where GDP has grown 9 times.

We set our goal in this work to identify how mortality from tuberculosis has changed in 15 republics over 30 years.

A relatively high level of reduction in TB mortality was found in Kazakhstan (-3.61%). In second place is Estonia (-3.25%), in third place is Azerbaijan (-2.39%), in fourth place is Latvia (-2.16%), and rounding out the top five is Georgia (-1.98%).

Despite the high level of GDP, such countries as Russia (6th place in the world ranking of GDP per capita) and Ukraine (42nd place in the world ranking of GDP per capita) have results in reducing the TB burden; they are not in leading positions. For example, Russia is in 10th place in terms of percentage reduction in mortality from TB (-0.81%), and Ukraine is in last place. According to the Global Burden of Disease, there is an increase in mortality from TB in Ukraine (+1.62%).

All information on the percentage change in TB mortality from 1990 to 2019 is shown in Figure 2.

As you can see from Figure 3, domestic general government health expenditures differ between countries. We should always remember that GDP is not equal between countries. However, several countries, such as Turkmenistan, Belarus, Estonia, and Moldova, despite the fact that they do not have a high level of GDP, spend more than 8% of GDP on healthcare. In contrast, Kazakhstan spent around 2% of GDP in 2000, and after 20 years, in 2020, they still spent approximately 2% of GDP on the healthcare system, in spite of increasing GDP. Russia, a country with a GDP of more than a billion dollars, will spend 11.94% of its GDP in 2020. All the information is illustrated in Figure 3.

The out-of-pocket expenditure (% of current health expenditure) is an important metric for a country's healthcare system as it provides insights into the financial burden on individuals and the overall affordability of healthcare services. Here are some reasons why this metric is significant:

- **Reflects Financial Burden:** Indicates the proportion of healthcare costs individuals pay directly, impacting financial burden and accessibility.
- **Measures Equity:** High out-of-pocket costs may lead to disparities in healthcare access, affecting the less affluent disproportionately.
- **Affects Health Utilization:** Impacts healthcare-seeking behavior; high costs may deter individuals from seeking timely medical care.
- **Evaluates Policy Effectiveness:** Helps policymakers assess the success of interventions aimed at reducing financial barriers to healthcare.
- **Influences Economic Productivity:** Unaffordable healthcare can lead to decreased workforce productivity and economic losses.

- **Affects Public Satisfaction:** Influences citizen satisfaction with the healthcare system, highlighting the importance of affordability and accessibility.

- **Guides International Comparisons:** Enables benchmarking and learning from other countries' experiences, informing healthcare financing models.

- In summary, monitoring out-of-pocket expenditure is vital for assessing healthcare system fairness, efficiency, and effectiveness, guiding policies for improved financial protection and population health.

As we see in Figure 4, we can consider that Kazakhstan has a good index for out-of-pocket expenditure in contrast to other former Soviet Union republics. Kazakhstan is just one country where the index has not changed in 20 years and the number is less than 20%. For instance, in 2000, in Georgia, that index was over 80%, and in 2020, it was 47%. Countries except Kazakhstan, Russia, Belarus, Estonia, and Lithuania have an index above 30%.

Discussion.

The results of our study show encouraging results, but we should not forget about the problems with financing the health care system. According to the World Health Organization (WHO), in 2020, spending on the healthcare system amounted to only 3.8% of GDP, while Russia allocated 7.6% of GDP [14]. The leader among the former Soviet countries in terms of spending on the healthcare system is Armenia (12.24%). In general, current government spending on health care per capita is 11.6 times lower than in OECD (Organization for Economic Co-operation and Development) member countries: in 2020 in Kazakhstan this figure was 341.5 USD, in the OECD - on average 3,959 USD. Today, the number of countries that are full members of the OECD has reached 38. One of the problems of the healthcare financing system is the high level of private spending. Thus, in Kazakhstan, government expenditures amounted to 66% of current healthcare expenditures, that is, the rest of the expenditures are covered from the population's own funds. At the same time, in OECD member countries, budget expenditures averaged 73.2%, and in a number of countries - more than 80% (Luxembourg, Czech Republic, Sweden, Norway, Denmark, etc.) [15].

Conclusion.

According to WHO recommendations for sustainable development, financing of the health care system should be up to 5% of GDP, while the share of private spending should not exceed 20% of current health care expenditures. As the experience of developed countries shows, the level of life expectancy directly depends on the financing of the healthcare system.

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