MEDICAL, PREVENTIVE, AND SOCIAL ACTIVITY OF THE POPULATION IN SMALL CITIES AND THEORETICAL-ORGANIZATIONAL ISSUES OF ITS ENHANCEMENT

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Abstract. *The article focuses on the role of public health as a key factor in the development of small cities, which are currently undergoing rapid formation in the Republic of Uzbekistan. In this context, the issues of enhancing the medical, preventive, and social activity of the population in small cities on a scientific basis are emphasized as one of the most pressing challenges of the present time. The paper presents reflections on the theoretical and organizational aspects of a comprehensive, in-depth, and dynamic study and evaluation of the underlying factors of this phenomenon. The authors also provide the results of data analysis related to the medical, preventive, and social activity of the population in small cities and offer scientifically grounded considerations and recommendations for its improvement.*
Keywords: *small cities, medical activity, preventive activity, social activity, system approach, system analysis.*

Introduction. An examination of the historical development of major cities across all continents of the world shows that they were originally formed as small urban settlements at earlier stages and over different periods of time. Therefore, it is reasonable to consider existing small and medium-sized cities not only as the most widespread form of settlement but also as an essential foundation for their gradual transformation into large cities through successive stages of development.

At the same time, attention is drawn to the fact that in some countries, such as Russia, approximately 130 small cities are reported not only to have stagnated in their development but also to be gradually disappearing [18]. Among the main reasons for the decline of small cities are the cessation of activities of enterprises that play a key role in their formation, the deterioration of housing and communal services, the obsolescence of infrastructure, the lack of modern transport, communication, and medical services, the mass outmigration of youth, and the natural aging of the local population [19].

Purpose of the research. The objective of this study is to develop scientifically grounded recommendations aimed at improving the living conditions and lifestyle of the population residing in small cities of the Republic of Uzbekistan, based on the study and analysis of relevant indicators.

Research methodology. The study was conducted on the basis of the principles of a systems approach and systems analysis. In this context, it was considered appropriate to carry out the research in small towns located in the regions of Namangan, Andijan, and Fergana, which are situated in the Fergana Valley and are characterized by average indicators of the main demographic, socio-economic, and natural-climatic conditions typical for small cities in the republic. Based on this approach, to ensure the representativeness of the study, the sample size consisted of 394 respondents, with a margin of error not exceeding 5%. Data on the medical, preventive, and social activity of the population, as well as the opinions and views of family

members regarding the improvement of these indicators, were collected through specially designed sociological questionnaires administered among residents aged 15 and above from families living in small towns.

The survey was conducted between February and April 2025. The data collection process was organized by one of the authors of the study, with active participation from students of Andijan State Medical Institute who are originally from the small towns of Namangan, Andijan, and Fergana regions. In the analysis of the obtained data, the value of the representative error (m) was determined. The reliability of differences observed between indicators characterizing the medical, preventive, and social activity of individuals of different age groups, genders, and social statuses was assessed by calculating the value of the Student's t-statistic (t).

Analysis of data presented in various information sources related to the research topic. In studying, observing, analyzing, and drawing relevant conclusions about the political and socio-economic processes occurring in cities worldwide, as well as in developing appropriate recommendations, a unified approach is ensured through the use of classifications of cities based on population size. In this context, classification refers to one of the fundamental scientific approaches widely applied in the fields of Urban Studies and Demography. Although criteria may vary slightly across different organizations, the generally accepted classification is as follows:

1. Small cities – with a population ranging from 10,000 to 100,000 inhabitants. These cities are characterized by relatively simple infrastructure and a predominantly local economy.
2. Medium-sized cities – with a population ranging from 100,000 to 1 million inhabitants. These cities are distinguished by the development of industrial and service infrastructures.
3. Large cities – with a population between 1 million and 5 million. These cities are characterized by well-developed economic systems and transport hubs.
4. Very large cities (metropolises) – with a population ranging from 5 million to 10 million. These cities are characterized by extensive urban territories and, most importantly, high population density.
5. Megacities – with a population exceeding 10 million, distinguished by characteristics typical of global urban centers.
6. Gigacities (according to some sources) – with a population of 20–30 million or more, although such cities are relatively rare. An example is Tokyo.

In other sources, cities are also classified according to population size as follows: small (up to 50,000), medium (50,000–100,000), and large (over 100,000) [9].

It should be emphasized that contemporary urbanization is largely concentrated in megacities. Large cities and megacities are characterized by the highest rates of socio-economic growth.

It is well known that the concept of the "largest city" varies depending on whether it refers to an administrative unit, a city proper, or an urban agglomeration. Typically, when referring to the largest cities in the world, population size is considered in terms of urban agglomerations or metropolitan areas.

At present (approximately 2024–2025), the largest cities in the world by population include Tokyo (~37 million), Delhi (~33 million), Shanghai (~29 million), Dhaka (~23 million), São Paulo (~22 million), Mexico City (~22 million), Cairo (~21 million), and others. It is noteworthy that the majority of the world's largest cities are located in Asia, and rapidly growing urban populations are predominantly found in developing countries [13,22,23,26,27].

Currently, various “associations of small cities” (i.e., associations of small and medium-sized cities) operate worldwide. These are organizations established in different countries to strengthen local governance, economic development, and territorial cooperation. It should be noted that this concept does not refer to a single global organization but rather to multiple scientific and practical platforms.

An association of small cities can be defined as a voluntary union of cities with relatively small populations (typically ranging from 10,000 to 500,000 inhabitants), which operate to exchange experience, develop policies, and support economic development. Within such associations, the activities of several key international organizations are particularly recognized [14,15,16,17].

1. United Cities and Local Governments (UCLG) – one of the largest global networks of cities, which also represents the interests of small and medium-sized cities. Its activities focus on local governance, urbanization, and sustainable development.
2. Council of European Municipalities and Regions (CEMR) – an association of municipalities and small cities in Europe. Its activities are aimed at promoting political cooperation and territorial development.
3. ICLEI – Local Governments for Sustainability – an organization working in the field of environmental protection and sustainable development, developing “green policies” for small cities.

Associations of small cities operate in the following key areas: exchange of best practices; development of urban development strategies; attraction of investments and grants; implementation of Sustainable Development Goals (SDGs); and strengthening of local governance. Within the activities of such associations, several scientific directions also occupy an important place, including Urban Studies, Regional Development, research by the World Bank on the economies of small cities, and the United Nations’ Sustainable Development Goals (SDGs). Small cities constitute an essential component of the global urban system. Their cooperation facilitates more efficient resource management and enhances competitiveness. In contemporary research, small cities are increasingly regarded as “key drivers of sustainable development.” According to scientific literature in the fields of Urban Studies and Demography, cities with a population ranging from 10,000 to 100,000 are generally classified as small cities. In Uzbekistan, there are approximately 120 cities in total, of which around 80–90 are small cities undergoing rapid development [2,8,24,25].

According to the opinions of researchers studying urban development issues in Uzbekistan, the development of small and medium-sized cities is of significant importance. This issue is determined by factors such as migration patterns, demographic growth rates, land and water resources, and the need for industrialization. In order to enhance the effectiveness of ongoing efforts and ensure the productivity of future initiatives, it is considered appropriate to conduct monitoring-based sociological studies in this field [7,20,21,22,27].

The authors emphasize that a healthy lifestyle can be regarded as a guarantee of a healthy future [6]. In this context, when planning measures aimed at promoting healthy lifestyles among rural populations, it is important to study and take into account their specific characteristics, particularly in increasing medical awareness. Such data serve as a scientific basis for organizing cooperation between families, local communities (mahallas), healthcare workers, and state institutions in addressing healthcare-related issues [12].

Increasing the medical activity of the population should be considered an important factor, especially in ensuring child health [10]. According to the results of certain studies, medical activity often manifests specific characteristics, particularly when individuals fall ill. For instance, elderly individuals often underestimate their health condition, while many people attempt self-treatment or expect illnesses to resolve on their own. This tendency is more common among men. According to the author, the main reasons for this situation are deficiencies in the healthcare system (54.7%) and patients' perceptions and attitudes (45.3%) [1].

In studies devoted to the essence and content of a healthy lifestyle, researchers identify several conditions for maintaining good health, ensuring active labor activity, achieving longevity, and leading a prosperous and fulfilling life. They also note that failure to adhere to hygiene practices may negatively affect the health of others. In this regard, factors such as smoking, the spread of infectious diseases and helminth infections, and deterioration of indoor air quality are highlighted [11]. Some researchers examining the relationship between a healthy lifestyle and medical activity report that 56.2% of the population expressed readiness to lead a healthy lifestyle, with higher rates observed among adolescents (62.1%) and young people (61.9%). At the same time, the authors suggest that the low level of medical activity among the population may be associated with insufficient knowledge about healthy lifestyles [4]. Studies also indicate that in certain districts, the medical activity of rural populations remains low, partly due to the superficial implementation of preventive measures by healthcare personnel at family physician centers, particularly among healthy individuals [5]. Furthermore, research conducted in certain regions of the Amur region, involving the clustering of municipal structures and sociological surveys among 16,432 respondents, demonstrated that access to medical services significantly influences the level of medical activity of the population [3].

Results and discussion. In our view, from the perspective of public health and healthcare systems, small cities represent a socio-spatial reality composed of populations residing in specific natural and climatic conditions. Each individual possesses not only distinct morpho-functional characteristics but is also influenced, both physically and psychologically, by a complex and dynamically evolving set of political, socio-economic, and environmental factors. The existence and development of this reality in space and time are closely associated with living conditions created for the population and their lifestyle patterns. Indeed, only physically and mentally healthy individuals are capable of formulating and implementing strategies that ensure societal progress. Therefore, the rapid development, stagnation, or even disappearance of small cities is largely determined by the health status of their population, as well as by the governance capacity of both national and local authorities. The study of natural-climatic conditions, socio-economic factors, and the morpho-functional characteristics of individuals residing in the investigated small cities revealed the following. It was observed that seasonal changes (beginning and end of the four seasons) in the studied regions often differ by 4–5 days compared to previous years. In addition, several features related to the socio-economic aspects of the population's life were identified.

Analysis of morpho-functional characteristics of the population, including age and gender distribution, showed the following structure: children aged 0–1 years constituted 3.5%, 1–14 years – 28.3%, 15–24 years – 19.5%, 25–34 years – 17.9%, 35–44 years – 11.5%, 45–54 years – 8.7%, 55–64 years – 5.1%, 65–74 years – 3.0%, and 75 years and above – 2.5%. Women accounted for 52.3% of the population, while men comprised 47.7%. Among the working-age population, 48.0% were employed in state enterprises, organizations, and farming entities, while the remainder were engaged in private service sectors within the city and surrounding areas, employed on a daily or

contractual basis, or working abroad. According to respondents, their occupational activities required different types of physical and psychological engagement: 12.0% reported tasks requiring precision, 28.0% vigilance, 5.0% rapid movement, 22.0% repetitive movements, 18.0% sedentary work, 29.0% standing work, 8.0% working at heights, 13.0% working in dusty environments, 19.0% working in wet or muddy conditions, 5.0% working in unpleasant or polluted environments, 10.0% working in cold conditions (including abroad), 7.0% in extremely cold environments, and 33.0% in hot conditions.

Analysis of respondents' answers revealed specific characteristics in their lifestyle patterns. Only 12.0% of respondents reported engaging in morning physical exercise, while an even smaller proportion (4.0%) practiced morning running. At the same time, 9.0% reported engaging in morning walking. The study also revealed that only 6.0% of respondents had participated in tourism activities. During interviews, it became evident that the majority of respondents were not sufficiently aware of ongoing initiatives aimed at developing domestic tourism, including the conditions and benefits created for tourists.

The study of respondents' attitudes toward their own health demonstrated that only 30.0% undergo medical examinations at least once a year, even in the absence of symptoms. Moreover, nearly all of these cases were associated with mandatory periodic medical check-ups required by their employment. When experiencing initial symptoms of illness, only 32.0% of respondents sought medical assistance at family polyclinics. The reasons for not seeking medical consultation for preventive purposes or at early stages of disease were attributed, in 62.0% of cases, to long waiting times at family polyclinics and insufficient diagnostic and treatment equipment in small towns.

It should be emphasized that among women in small cities, no cases of smoking or alcohol consumption were reported. However, among men, harmful habits were relatively widespread: 33.0% reported smoking and 21.0% reported alcohol consumption. Additionally, the use of local smokeless tobacco (nas) was found to be common among men. Other unhealthy lifestyle factors included overeating (67.0%), eating before sleep (73.0%), consumption of salty foods (32.0%) and spicy foods (24.0%), irregular meal patterns (18.0%), and skipping breakfast (41.0%). While physical inactivity is often reported as a significant issue in large cities, it was found to be relatively lower in small cities, with only 23.0% of respondents indicating sedentary lifestyles. Numerous studies emphasize the importance of sleep in maintaining and strengthening health. However, responses indicated that only 47.0% of respondents adhere to regular sleep schedules, and the duration of sleep is not always sufficient. Among the indicators of medical activity, adherence to physicians' recommendations is of particular importance. It was found that 30.0% of respondents do not fully and timely comply with medical recommendations. The main reasons identified were financial constraints (18.0%), lack of time due to work overload (43.0%), and lack of motivation or discipline (39.0%).

Conclusion and Recommendations. At the current stage of the historical development of human society, it is appropriate to consider existing small and medium-sized cities not only as the most widespread type of settlement, but also as an essential foundation for their gradual transformation into large cities through successive stages of development, as required by the dynamics of modern life. At the same time, the fact that in certain countries small cities are not only experiencing stagnation but are also gradually disappearing necessitates continuous and in-depth study of the underlying causes of this phenomenon. Such analysis should be conducted in a dynamic context, based primarily on the principles of a systems approach and systems analysis,

with particular emphasis on forecasting potential consequences. This remains one of the pressing scientific and practical tasks of contemporary research. In the development and implementation of comprehensive measures aimed at the formation of prospective small cities, primary attention should be given to the issues of forming and maintaining the health of the population, as well as ensuring active longevity. The results of the conducted study indicate that, under current conditions, it is advisable to systematically and consistently carry out theoretical and organizational work aimed at studying the medical, preventive, and social activity of the population in small cities. Based on the data obtained, it is necessary to develop innovative proposals and recommendations to enhance the level of these indicators.

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