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31-YEAR DYNAMICS OF THE AWARENESS LEVEL OF THE MIDDLE-AGED, ELDERLY AND SENIOR POPULATION ABOUT THE PRESENCE OF HYPERTENSIVE CONDITIONS WITH SCREENING AND PHARMACOLOGY

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ABSTRACT: The analysis of the literature data on the use of modern organizational technologies for the prevention of hypertension is carried out. The basic principles and stages of diagnosis of this pathology, risk groups for the development of arterial hypertension, and features of the organization of preventive programs are considered. The basic principles of the application of the blood pressure selfmonitoring system in organizations and public places are considered.
Key words: arterial hypertension, prevention of cardiovascular diseases, organizational technologies, self-monitoring of blood pressure, patient education, hypertension, prevention, scientific basis, screening, territory

Login. Many researchers have confirmed that the death rate from cardiovascular diseases has been increasing and is characterized by sharp changes since the end of the 20th century.
Based on the analysis of epidemiological studies conducted, researchers such as G.Ya. Maslennikova, Oganov R.G. (2018), Ye.V. Akimova et al. (2006), M.M. Kayumova et al. (2023), N.V. Pogosova et al. (2018), A.M. Akimov (2023) convincingly confirm that such trends are observed in most countries due to social and economic changes and psychosocial factors, most of which are recorded in relatively economically active age groups [8., 9, 7., 10., 1].
A.M. Akimov (2023) confirmed the importance of the type of work among the risk factors in the Arctic region, indicating its importance in maintaining the health of the population. The author indicated that in this region, high labor intensity, relatively long work hours, few days off, and minimal social and household welfare are among the risk factors [1].
Therefore, the need to conduct and/or continue epidemiological studies to develop a comprehensive program for the prevention of cardiovascular diseases in specific geographical and ecological regions, for example, in the Arctic, is also recommended by other researchers [5., 2., 3., 4., 12., 13., 15].
We believe that these opinions contain scientific logic and promising topics. Because over the years, the scope of certain diseases is expanding, while others are narrowing, and their accurate, mainly epidemiological studies and analysis are considered an extremely important scientific

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and practical direction. The reason is that the "new foundations" of medicine are built on the basis of such information and conclusions.

Until the beginning of the new century, for example, the idea that the Northern population, the indigenous population, did not suffer from diabetes was "dominant" in scientific sources.

According to data provided by the WHO, international migration has been showing a steady growth trend in recent years [14].

Therefore, the development and improvement of screening and prevention programs in this established migrant population (MAP) is an urgent issue or will become even more urgent in the future. The existing research leads or encourages this conclusion.

According to data published by the Federal State Statistics Service of Russia (2025) and A.S. Andreeva, I.S. Ivanova, Varshaver Ye.A. (2024), the migration flow in the Russian Federation averages 0.5 million people annually, and in most cases, the arrivals are from the CIS countries [11, 8].

Purpose of the study - The aim of the project is to develop regional scientific foundations for innovative prevention of hypertensive cases in Uzbekistan based on the 31st annual screening, taking into account scientific characteristics, and to implement new technologies that have improved treatment and control measures.

Material and methods

As an object of research A population of 3,001 people (1,421 men and 1,580 women) was selected from the unorganized population aged 18-89 in Andijan region using a 10% random sample based on a table of random numbers and involved in AG monitoring from 1989 to 2020.

As a subject of research Venous blood and serum of patients were taken for biochemical analysis; international criteria for diagnosing AB and GH and analyzing risk factors for comorbid diseases, as well as full statistical modeling indicators were obtained, which serve as a scientific justification for regional prevention.

Research methods. Epidemiological, general clinical, instrumental (cardiac echocardiography, ECG, UTT, anthropometric measurements, tonometry), biochemical, pharmacoepidemiological, pharmacoeconomic, pharmacosurveillance, and statistical methods were used.

Results

Table 1 and Figure 1 show the 31-year dynamics of the screening and pharmacovigilance characteristics of the level of awareness of the middle-aged (45-59) population about the presence of hypertensive conditions.

It was reliably confirmed that in the 31st year of the I- and II-screening, respectively, the following prevalence rates of hypertensive conditions were confirmed in the population aged 45-49 years (middle age): AHN - 34.9% and 29.2% (P>0.05); AHd - 34.4% and 28.7% (P>0.05); AHsd - 7.6% and 9.3% (P>0.05) and ABmde - 2.9% and 2.3% (P>0.05).

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Table 1

Level of awareness of hypertension among the population aged 45-59, dynamics in 1989-2020

Screening year, HS screened population	Indicators of HS awareness study							
	AHN		AHd		AHsd		ABmde	
	n	%	n	%	n	%	n	%
I sc (n=410)	143	34,9	141	34,4	31	7,6	12	2,9
P	>0,05		>0,05		>0,05		>0,05	
II sc (n=216)	63	29,2	62	28,7	20	9,3	5	2,3
GenP (n=626)	206	32,9	203	32,4	51	8,1	17	2,7
RR=1,05; 95% ИИ = (1,12-0,98); χ^2 =2,31								

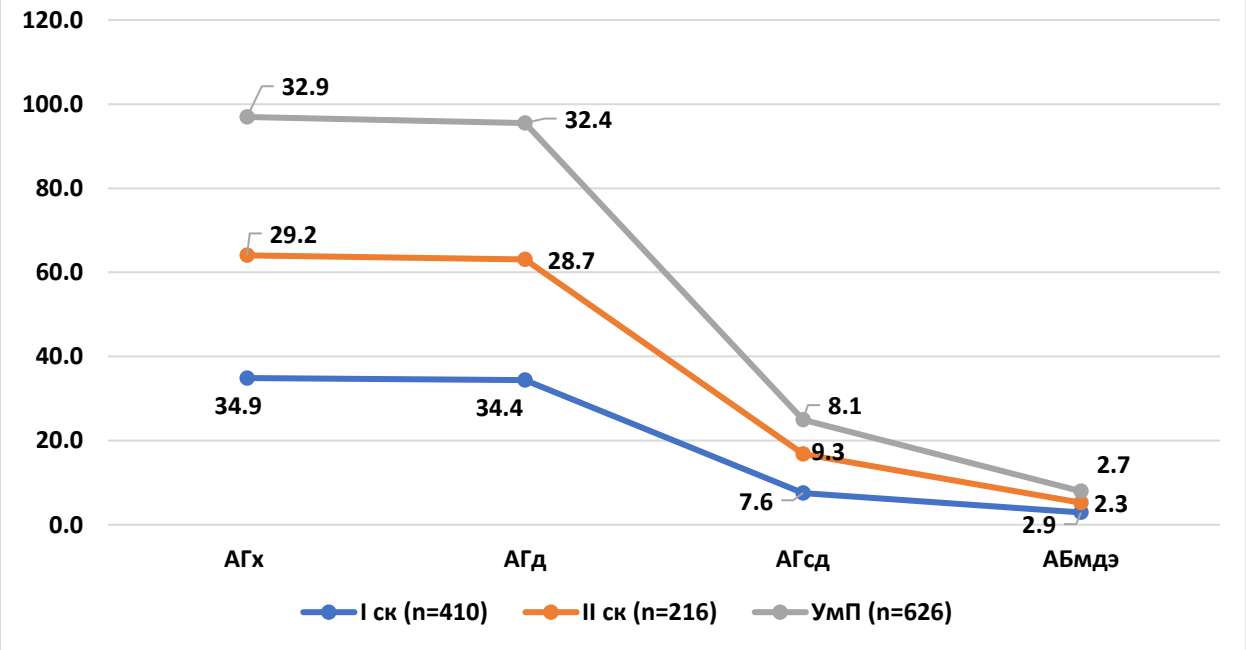

Figure 1. 31-year description of the level of awareness of hypertensive conditions in the population aged 45-59 years

The 31-year epidemiological monitoring shows these indicators, the rate of increase in AHN - by 15.7% and in AHd, - by 5.7%, in AHsd - by 1.7% and in ABmde.- by 0.6%.

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In the general middle-aged population, awareness indicators are confirmed by observation, both in HS and in different frequencies: in AHN – 32.9%, in AHd – 32.4%, in AHsd – 8.1%, and in ABmde – 2.7% [RR=1.05; CI=1.12-0.98; γ2=2.31].

The indicators of the level of awareness of the presence of hypertension among the population aged 60-74 (AHN, Ahd, AHsd and ABmde) and their dynamics in 1989-2020 are shown in Table 2 and Figure 2.

Table 2

Level of awareness of hypertension among the population aged 60-74, dynamics in 1989-2020

Year of screening, number of 60-74 year old population screened for HS	Indicators of HS awareness study							
	AHN		AHd		AHsd		ABmde	
	n	%	n	%	n	%	n	%
I sc (n=859)	337	39,2	333	38,8	83	9,7	20	2,3
P	>0,05		>0,05		>0,05		<0,05	
II sc (n=475)	172	36,2	171	36,0	70	14,7	29	6,1
GenP (n=1334)	509	38,2	504	37,8	153	11,5	49	3,7
RR=0,98; 95% ИИ = (1,05-0,91max-min); χ^2 =1,87								

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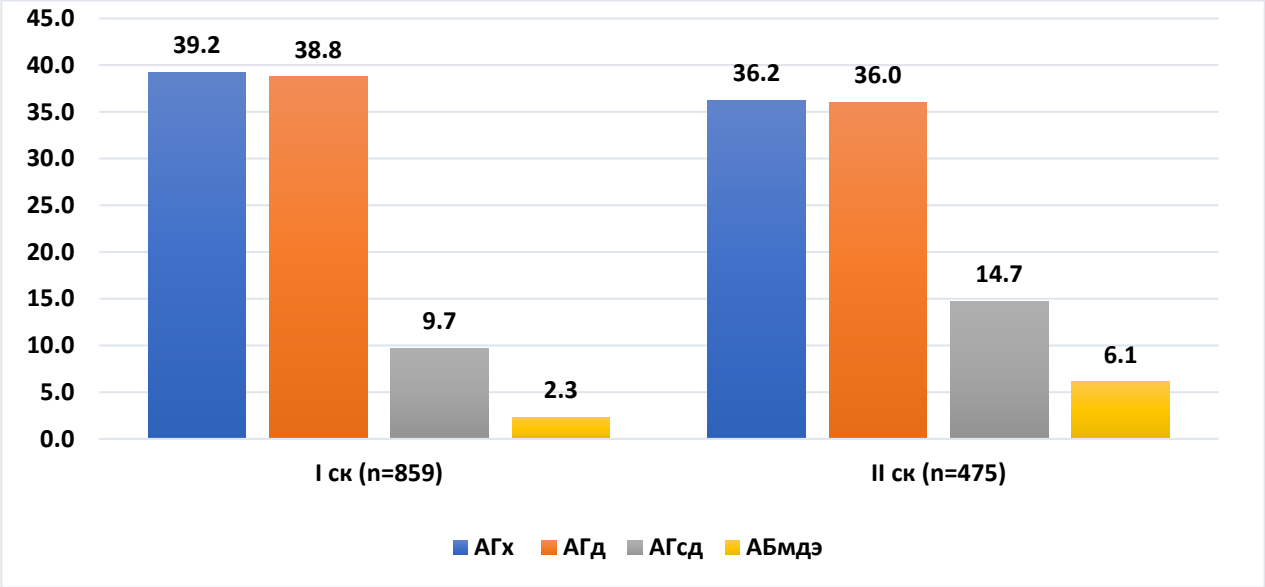

Figure 2. 31-year description of the level of awareness of hypertensive conditions in the population aged 60-74 years

In the elderly population (60-74 years old) according to I- and II-screening, the awareness indicators of HS are confirmed by the following detection frequencies: AHN – from 39.2% and 36.2%, indicating a decrease of 3.0% (P>0.05); AHd – from 38.8% and 36.0%, indicating a decrease of 2.8% (P>0.05); AHsd – from 9.7% and 14.7%, indicating an increase of 5.0% (P>0.05) and ABmde – from 2.3% and 6.1%, indicating an increase of 3.8% (P>0.05). [RR=0.98; 95% CI=1.05-0.91; $\chi 2$=1.87]. In the elderly population, according to the general I- and II-screening, AHN is recorded at frequencies of 38.2%, AHd – 37.8%, AHsd – 11.5% and ABmde – 3.7%.

Table 3 Figure 3 describes the level of awareness of the presence of hypertension in the population aged 75-89, and the awareness indicators for 1989-2020.

Table 3

Level of awareness of hypertension among the population aged 75-89, dynamics in 1989-2020

Year of screening, population aged 75-89 years with HS detected	Indicators of HS awareness study							
	AHN		AHd		AHsd		ABmde	
	n	%	n	%	n	%	n	%
I sc (n=207)	64	30,9	63	30,4	17	8,2	1	0,5

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P	>0,05		>0,05		<0,05		<0,001	
II sc (n=138)	50	36,2	49	35,5	20	14,5	6	4,3
GenP (n=345)	114	33,0	112	32,5	37	10,7	7	2,0
RR=1,11; 95% ИИ = (1,24-0,71); χ^2 =2,45								

They provide reliable evidence that, according to the data of the I- and II-screens, the indicators of awareness of GH are confirmed at the following detection frequencies: AHN – 30.9% and 36.2% (P>0.05); AHd – 30.4% and 33.5% (P>0.05); AHsd – 8.2% and 14.5% (P>0.05), ABmde – 0.5% and 4.3% (P>0.001).

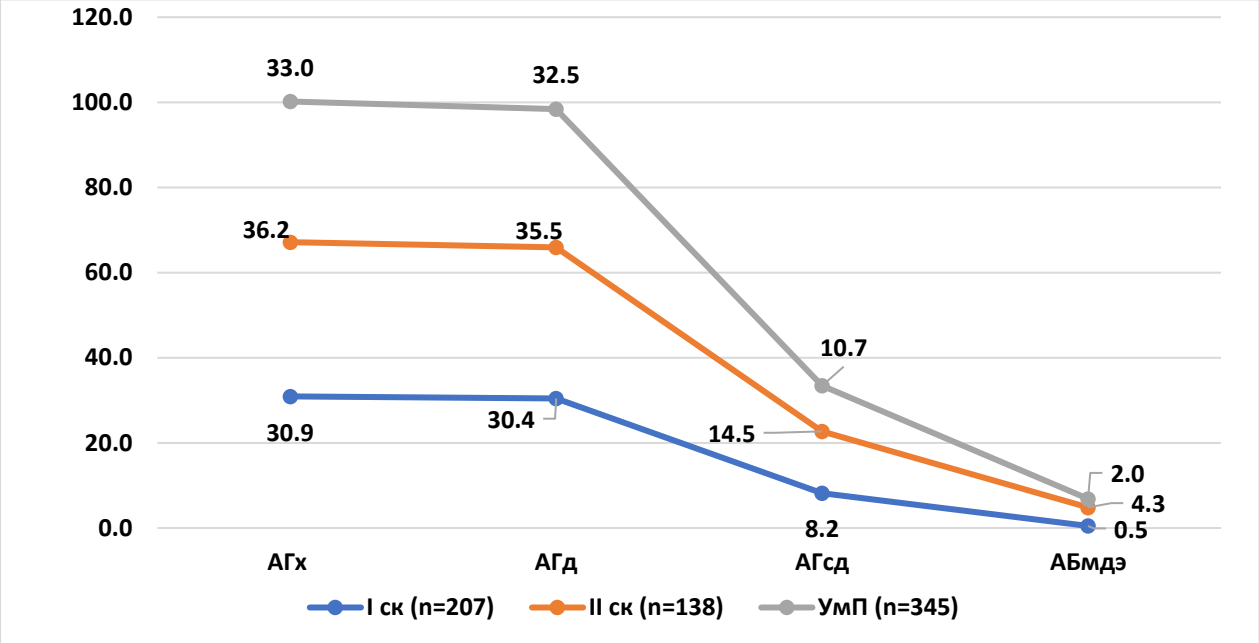

Figure 3. 31-year description of the level of awareness of hypertensive conditions in the population aged 75-89 years

In the elderly population (75-89 years old), i.e. in the GenP (I- and II-screening populations), the detection frequencies of AHN, Ahd, AHsd and ABmde are confirmed to be 33.0%, 32.5%, 10.7% and 2.0%, respectively [RR=1.11; 95% CI=1.24-0.71; χ2=2.45].

From this population, it can be concluded that, firstly, it would be advisable to study the level of awareness of hypertensive conditions not only in patients, but also in the healthy population and assess it through screening observations; secondly, the inclusion of such practical activities in the first line of medicine will create an opportunity to increase the effectiveness of treatment and antihypertensive activities by 45.2% or even higher results.

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Conclusion

According to the results of the 31-year screening study, hypertensive crisis, types GK-I and GK-II are confirmed with a frequency of 37.9% (with a decrease from 68.43% to 32.51%), 14.5% (with a decrease from 55.4% to 40.9%) and 14.5% (with an increase from 44.6% to 59.1%).

The manifestation of the crisis course is significantly different and is noted at higher frequencies in aborigines, men, 45-59, 60-74 and 75-89 years old.

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