

# DISTRIBUTION OF AVERAGE DIASTOLIC BLOOD PRESSURE LEVELS IN UNORGANIZED POPULATION GROUPS OF ANDIZHAN CITY

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## Abstract

Spread average degrees of systolic and diastolic arterial pressure (the SAP and DAP) was studied among unorganized population (1574 men and 2395 women) on new epidemiological of the arterial hypertension. The Average degree among of SAP men is 144,8 mm.Hg., among women - 141 mm.Hg., but average degree of DAP among men - 92,3 mm.Hg., among women - 90,2 mm.Hg. With increase the age average degree and DAP increase criterions, particularly after 50 years the increase becomes more important

**Keywords:** Diastolic blood pressure, average blood pressure, blood pressure distribution, unorganized population, Andijan city, cardiovascular health, public health, hypertension prevalence, population screening, epidemiological study.

## Introduction

Currently, arterial hypertension (AH) remains a common chronic non-communicable disease in all countries of the world [3,2]. According to recent statistics, 85% of deaths from cardiovascular diseases are caused by ischemic heart disease (46.8%) and stroke (38.7%) [5]. Among the population over 18 years of age, HA occurs in an average of one in four people [4]. Scientific sources indicate that the prevalence of this disease is 4% among the population under 30 years of age, 44% among those aged 50-60, 54% among those aged 60-69, and 65% among those over 70. In Uzbekistan, as in other economically developed countries, hypertension is one of the urgent medical and social problems of modern science and healthcare organizations. There are several reasons for this: 1) it is widespread among the population; 2) most of the atherosclerotic continuum and disability cases are due to this disease; 3) insufficient blood pressure control has not been achieved at the population level [1,2]. Therefore, the creation of a scientific basis for improving the system aimed at early detection and treatment of hypertension has become a necessity in Uzbekistan, that is, the need to create standards of preventive care for hypertension based on advanced epidemiological technologies in various parts of the healthcare system has sharply increased.

In order to reveal the epidemiological characteristics of modern AG, it is important to study the comparative distribution of average blood pressure levels based on the experience gained in preventive activities.

The purpose of the study is to study and evaluate the comparative epidemiological characteristics of the distribution of average diastolic blood pressure levels in different population groups of





Andijan city.

### Material and Methods

The population of Andijan city aged 15-70 years and older was selected as the object of the study (1574 men, 2395 women). The study was organized and conducted in accordance with the requirements for conducting epidemiological studies set by the World Health Organization. The study used questionnaire, epidemiological, instrumental and statistical methods.

### Results

The average levels of diastolic blood pressure (DBP) and its age-related changes in the population groups involved in the study were studied.

The average level of DBP in the general population was  $91.3 \pm 1.1$  mm Hg, with levels of 90.2 mm Hg in women and 92.3 mm Hg in men, i.e. with a difference of 2.1 mm Hg ( $R > 0.05$ ).

The DBP increased with age, with a mean difference of 21.2 mmHg ( $P < 0.05$ ) in the general population from 15 to 70 years of age, 21.4 mmHg in women, and 21.0 mmHg in men ( $P < 0.05$ ). This is consistent with the data reported in some studies [1], but differs from some in that it is relatively higher. Of course, such differences are natural, given that certain climatic conditions and various epidemiological factors can affect blood pressure levels.

The average levels of DAB in different age groups were determined in the population as follows: at 15-19 years old, DAB was equal to  $76.8 \pm 0.70$  mm Hg, at 20-29 years old,  $79.9 \pm 0.74$  mm Hg, i.e. an increase of 3.1 mm Hg ( $R > 0.05$ ), at 30-39 years old,  $85.8 \pm 0.98$  mm Hg, or an increase of 5.9 mm Hg ( $R < 0.05$ ), at 40-49 years old,  $89.2 \pm 0.99$  mm Hg, or an increase of 12.4 mm Hg ( $R < 0.05$ ), at 50-59 years old,  $91.3 \pm 1.0$  mm Hg, or an increase of 14.5 mm Hg ( $R < 0.01$ ), at 60-69 years old,  $93.7 \pm 1.6$  mmHg or an increase of 16.9 mmHg ( $R < 0.01$ ), and in those aged 70 years and older, it was  $95.0 \pm 1.7$  mmHg or an increase of 18.2 mmHg ( $R < 0.01$ ) compared to the 15-19 age group.

In men, the average DAB level was  $77.4 \pm 0.72$  mmHg in the 15-19 age group, increasing by 2.8 mmHg (80.2 mmHg ( $P < 0.05$ )) in 20-29 years, 86.4 mmHg in 30-39 years, or 9 mmHg ( $P < 0.05$ ),  $89.6 \pm 1.0$  mmHg in 40-49 years, or 12.2 mmHg ( $P < 0.05$ ),  $92.2 \pm 1.2$  mmHg in 50-59 years, or 14.8 mmHg ( $P < 0.05$ ), and  $94.2 \pm 1.8$  mmHg in 60-69 years, or 16.8 mmHg ( $R < 0.01$ ) and in men over 70 years of age, it was determined by a difference of  $95.6 \pm 1.9$  mm Hg or an increase of 18.2 mm Hg ( $R < 0.01$ ).

Among women, DAB is equal to  $76.2 \pm 0.68$  mm Hg in 15-19 years old, increases to  $79.6 \pm 0.71$  mm Hg in 20-29 years old or a difference of 3.4 mm Hg ( $R > 0.05$ ), in 30-39 years old it is equal to  $85.2 \pm 0.97$  mm Hg or a difference of 9 mm Hg ( $R < 0.05$ ), in 40-49 years old it increases to  $88.7 \pm 0.98$  mm Hg or a difference of 12.5 mm Hg ( $R < 0.05$ ), in 50-59 years old it is  $90.3 \pm 1.0$  mm Hg or a difference of 14.1 mm Hg ( $R < 0.05$ ), in 60-69 years old it is  $93.2 \pm 1.4$  mm Hg The mean level of DAB after the age of 70 is  $94.4 \pm 1.5$  mm Hg or 18.2 mm Hg ( $R < 0.05$ ).

Thus, the levels of diastolic blood pressure in the studied population vary depending on age. Based on this, the simultaneous implementation of combined preventive measures, planning a secondary prevention system and early prediction and implementation of tertiary prevention have scientific and practical potential, which will significantly reduce the socio-economic losses associated with





hypertension among the studied population groups. Early diagnosis and treatment of hypertension will prevent the complications that this disease can cause in the population, and will have a social and economic impact. In this regard, it is important to increase the medical culture of the population, undergo medical examinations on time, fully follow the doctor's recommendations, eat properly and follow a healthy lifestyle. Doctors, in turn, should pay special attention to comorbid conditions when prescribing antihypertensive drugs, use rational combinations, and monitor the regularity of antihypertensive treatment.

### Conclusion

The following conclusions can be drawn from the results of the study:

1. The average level of diastolic blood pressure increases with age, and this process becomes more pronounced after the age of 50.
2. The average level of diastolic blood pressure among men is higher than that of women, differing by 2.1 mm Hg.
3. It is important to pay attention to age and gender when organizing treatment and prevention of AG.

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