

Improvement of Screening Programs and Home Visits Among the Population of Family Polyclinic

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Abstract

This paper examines the directions of healthcare system reform in the Republic of Uzbekistan aimed at improving preventive measures and enhancing the quality of primary healthcare. Special attention is paid to the early detection of risk factors for chronic non-communicable diseases, the organization of dispensary follow-up, and the improvement of home visit practices among the population. The study was conducted at a family polyclinic and included an analysis of the health status of the attached population, identification of major risk factors, and assessment of the effectiveness of preventive programs. The results demonstrate that a comprehensive approach involving doctors, nurses, and social workers, as well as improved health literacy of the population and strengthening of the material and technical capacity of healthcare facilities, is a key condition for successful public health promotion and reducing morbidity.

Keywords: screening, cardiovascular diseases, diabetes mellitus.

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Introduction

In recent years, the Republic of Uzbekistan has been implementing large-scale reforms aimed at improving the healthcare system and increasing its effectiveness. Transformations in this sector create real prerequisites for the successful implementation of primary and secondary prevention of various diseases, as well as for the formation of a modern, accessible, and patient-oriented healthcare system.

Primary healthcare development, disease prevention and early detection, improving the qualifications of medical personnel, and introducing new management mechanisms into the sector receive special attention. These areas reflect the strategic course of the state toward strengthening public health and improving the quality of medical services.

The regulatory and legal framework for these reforms includes the following key governmental documents:

- Decree of the President of the Republic of Uzbekistan No. PF-6110 (November 12, 2020) *“On the introduction of completely new mechanisms in the activities of primary healthcare institutions and on further improving the effectiveness of reforms in the healthcare system.”*
- Resolution of the Cabinet of Ministers No. PK-215 (April 25, 2022) *“On additional measures to bring primary healthcare closer to the population and improve the effectiveness of medical services.”*
- Order of the Ministry of Health of the Republic of Uzbekistan No. 210 (July 22, 2022) *“On measures to further improve preventive examinations, screening programs, and home visits among the population.”*

Within the framework of these normative acts, active work is underway to improve the system of preventive examinations, screenings, and patronage activities. Network-based preventive action plans are developed and implemented at the district, city, medical institution, and medical team levels, ensuring their timely and high-quality execution.

Special attention is paid to increasing the effectiveness of preventive measures and rational use of medical equipment, reagents, and pharmaceuticals. Dispensary follow-up is organized for patients with chronic diseases, with dynamic monitoring of health status and the implementation of individualized health-improvement programs in accordance with approved clinical protocols and treatment standards.

In addition, systematic monitoring is conducted to ensure the accuracy of medical reporting documentation related to preventive measures, with steps taken to eliminate identified deficiencies and further improve the organization of healthcare facility operations.

Thus, the ongoing healthcare reforms in the Republic of Uzbekistan are aimed at forming an effective, sustainable, and prevention-oriented healthcare system that ensures the preservation and promotion of population health.

Purpose of the Study

To improve preventive measures in family polyclinics, ensure early detection of disease risk factors and their causes, and enhance the quality of home visits among patients with chronic diseases.

Objectives of the Study

- Update the lists of the attached population under the supervision of the family doctor, prepare a “family passport,” and determine the age structure of the population.
- Develop a network plan for screening individuals belonging to risk groups.
- Invite all persons aged over 40 to undergo screening for non-communicable diseases.
- Assess health status using special questionnaires; measure body weight, height, waist circumference, body mass index (BMI), and blood pressure.
- Determine blood glucose and cholesterol levels and perform ECG examinations.
- Refer patients with suspected diseases to specialists and place them under dispensary follow-up.

Materials and Methods

The study was conducted at Family Polyclinic №3 of Samarkand city.

The total attached population amounted to 43,505, of whom 13,126 were individuals over the age of 40.

Among them, the following were under dispensary follow-up:

- 3,013 persons with cardiovascular diseases
- 1,235 persons with diabetes mellitus

The work included an assessment of population health status, preventive examinations, and screening measures, as well as evaluation of the prevalence of risk factors for chronic non-communicable diseases (NCDs).

Data collection methods included:

- Questionnaires and patient interviews to identify risk factors (smoking, physical inactivity, nutrition, heredity)
- Anthropometric measurements (height, body weight, waist circumference) with subsequent BMI calculation
- Blood pressure measurement using certified tonometers
- Laboratory blood tests for glucose and cholesterol
- ECG examinations to detect cardiac abnormalities
- Statistical data processing using variation analysis and percentage distribution methods

In 2024, screenings were completed by 9,314 individuals, among whom the following were detected:

- Overweight — 2,328 cases
- Obesity — 918 cases
- Cardiovascular diseases — 321 cases
- Diabetes mellitus — 103 cases

All identified patients were referred for in-depth examinations and placed under dispensary follow-up. The results were entered into a unified electronic database for further analysis and monitoring.

Results

According to Order No. 3-XS of the Ministry of Health of Uzbekistan (January 12, 2024), the polyclinic supervised 42,235 individuals, of whom 39,447 (93.3%) completed the health census. The remaining 2,788 (6.7%) were migrants residing abroad.

Table 1. Distribution of examined persons by health groups

№	Health Group	Number	%
1	Base group	18,768	47.6
2	Low risk	9,974	25.3
3	Medium risk	10,457	26.5
4	High risk	248	0.6

Table 2. Screening results for non-communicable diseases (2024)

№	Disease	Total Population	Age 40+	Under Follow-up	Eligible for Screening	Completed Screening
1	Diabetes mellitus	42,235	13,126	1,131	11,995	9,868
2	Cardiovascular diseases	42,235	13,126	3,013	10,113	9,868

Table 3. Target screening of individuals aged 40+

Indicator	Total	Screened	Healthy	Risk factors	Overweight	High BP	High glucose	High cholesterol	Obesity	CVD	Diabetes
Age 40+	13,126	9,868	4,948	2,298	1,385	293	179	319	224	128	103

Conclusion

Screening examinations conducted in Family Polyclinic №3 of Samarkand city made it possible to obtain an objective picture of population health status and the prevalence of risk factors for non-communicable diseases.

The study revealed the following new cases:

- Cardiovascular diseases — 128 cases (1.4%)
- Obesity — 224 cases (2.3%)
- Diabetes mellitus — 103 cases (1%)

Regular preventive examinations and screenings contribute to early disease detection, reduction of complications, disability, and premature mortality. Systematic dispensary follow-up and individualized health improvement programs increase the effectiveness of treatment and secondary prevention.

An important outcome was improved cooperation between healthcare workers and the population, as well as increased medical literacy and personal responsibility for health.

The findings confirm the need to further expand preventive measures, strengthen the material and technical base of polyclinics, and continually improve the qualifications of healthcare workers.

Conclusions

1. Screening examinations are an effective tool for primary prevention and early detection of chronic non-communicable diseases.
2. Increasing population coverage with screening and home visits promotes a culture of preventive health behavior.
3. Creating a unified database of the attached population and developing “health passports” improves the accuracy of health monitoring.
4. The integrated approach “doctor + nurse + social worker” enhances the effectiveness of home visit activities.
5. Strengthening the material and technical base of family polyclinics and regularly training medical personnel is necessary to improve preventive program outcomes.
6. Systematic analysis of screening data should be used in planning preventive measures at the city and regional level.
7. Raising public awareness about risk factors and promoting healthy lifestyles are key to reducing morbidity.

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