PHC services for diabetes in the Kyrgyz Republic: coverage with the State Guaranteed Benefits Package (SGBP)

Policy Brief

January, 2025

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1 | Introduction

In recent years, many interventions have been carried out at the primary health care level in the Kyyrgyz Republic to ensure access to health NCD-related services for the population and improve their quality.

Kyrgyzstan has the State Guaranteed Benefits Program (SGBP), which ensures access to health care services, as well as a number of other government programs and mechanisms aimed at ensuring the availability and quality of health services. However, many of these programs are not fully implemented and integrated into the health system.

In addition, access to care varies greatly depending on where people live, that is, to the guaranteed primary health care services in terms of scope of services, resources and geographical accessibility.

In this regard, in 2023, a situation analysis was carried out with regard to the service delivery to the population at the PHC for four conditions: hypertension, diabetes mellitus, bronchial asthma and pregnancy.

The key questions were about to explore the pathways of patients when they receive services at the PHC level and how the delivery of basic services for these conditions is reflected in the package according to the SGBP, identification of major barriers that lead to inadequate access to the guaranteed services.

This policy brief focuses only on research findings in terms of receiving T2 diabetes-related services.

2 | Methodology

This study was carried out in two stages: desk review and field data collection. The desk review consisted of collecting information from available sources and requesting statistics on selected health organizations (HO), developing tools for data collection. Field studies were conducted in 13 selected primary health care facilities. Regions were selected based on their geographical location in the south (Osh region) and north (Issyk-Kul region) of the country. In each region, two raions were selected, which also have different geographical locations and population sizes.

The study included interviews and focus group discussions with health facility managers, health professionals, and patients. A total of 24 focus group discussions were conducted, with 178 participants.

Outpatient medical cards were randomly selected. To analyze the compliance of treatment with the CGs/CPs, visits of patients to PHC in the period of 2022 were considered. A total of 60 outpatient records of patients with type 2 diabetes were studied.

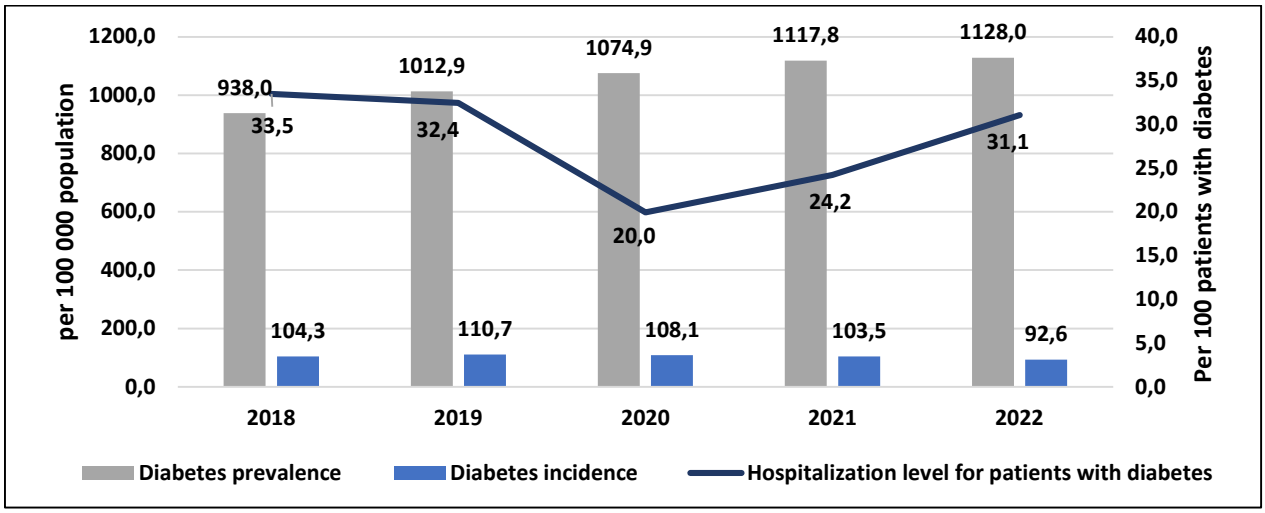
As part of this study, the basic package of primary health care was considered in accordance with the SGBP as amended by the KR Government Resolutions #636 dated December 30, 2020 and #26 which was in force at the time of the study. To explore the cases of managing the selected conditions, the approved clinical guidelines and clinical protocols that were current at the time of the study were used.

3 General description of the situation with diabetes

In 2022, totally 78.7 thousand patients with diabetes were registered in the republic. Every year, from 93 to 111 new cases of diabetes are registered per every 100 000 population, while the incidence rate of diabetes, that is, newly diagnosed cases, is constantly decreasing; it decreased by 11% as compared to 2018.

This points to low detection and registration of diabetes at the PHC level, however, the results of large-scale national surveys show that more than 7% of the population suffer from diabetes[1]

Figure 1. Diabetes prevalence and incidence over time, (per 100 000 population), hospitalization level for patients with diabetes (per 100 patients with diabetes), Kyrgyz Republic, 2018-2022.



Data source: Database "Medstat", E-health Center at the KR MoH

Approximately one third of all registered cases of type 2 diabetes are hospitalized, with 18 000 to 24 000 receiving inpatient treatment each year, and there is a high level of complications from diabetes. The most common complication of diabetes is polyneuropathy, which is observed in more than half of patients – 52-58%. Retinopathy is diagnosed in 26-31% of cases annually and nephropathy - in 9-10% of patients with diabetes. Such complication as "diabetic foot" is observed in 5-7% of patients with diabetes.

[1] Prevalence of Risk Factors of Non-Communicable Disease in Kyrgyzstan: Assessment using WHO STEPS Approach, 2023

The high rate of complications and hospitalizations indicates poor management at the PHC level and a high financial burden on the health system. Thus, the costs of hemodialysis, which is needed mainly by patients with diabetes complications, amounted to about 6% of total healthcare expenditures. Of 2604 patients undergoing hemodialysis, 95% became in need of this treatment because of a complicated course of diabetes. Overall, non-communicable diseases, including diabetes, account for about 80% of all deaths in the country.

4| Availability of services at the PHC level and coverage with the State Guaranteed Benefits Program (SGBP)

There is a discrepancy between clinical guidelines and the SGBP for the provision of basic diagnostic and laboratory services to patients with type 2 diabetes. Patient consultation and basic laboratory tests are included in the basic package of free SGBP services (determination of blood glucose levels, glycated hemoglobin (HbA1c test), total cholesterol).

According to the SGBP, the HbA1c test can be conducted free of charge once a year, although clinical guidelines recommend conducting it every 3 months. Therefore, patients do such tests free of charge once a year; in other cases, the test is carried out as part of the SGBP according to the price list with a 50% copayment (the discounted price is about 270 soms). In addition, the oral glucose tolerance test, which is compulsory for the initial assessment of type 2 diabetes, is not included in the SGBP and can only be obtained as a paid service.

Figure 2. Recommendations of the CG/CP and availability of diagnostic and laboratory services recommended for patients with type 2 diabetes

Regular diagnostic tests required for patients with diabetes	Basic package of the SGBP	Expanded SGBP package for insured and vulnerable people
Blood pressure monitoring	Yes	Yes
Determination of body mass index	Yes	Yes
General blood test	Yes	Yes
Oral glucose tolerance test	No	No
Glycated hemoglobin (HbA1c)	Yes*	Yes*
Fasting plasma glucose	Yes	Yes
Total cholesterol	Yes	Yes
High-density lipoproteins, low-density lipoproteins	No	No
Serum uric acid (urine sediment microscopy)	Yes	Yes
Creatinine in serum	No	No
Protein in urine using test strip	No	No
Microalbuminuria test	No	Yes
12-lead ECG	No	No
Chest X-ray	No	Yes, with 50% copayment
ECG	Yes	Yes

*** Once a year**

Source: the SGBP as amended by the KR GR No. 636 dated December 30, 2020: edition No. 2 as of January 27, 2021

Pathways of patients with diabetes when receiving services start with contacting a fedsher-midwifery point (FAP) or a family group practice (FGP) at the place of residence, where diabetes may be suspected or first diagnosed. If diabetes is suspected, patients are referred for basic laboratory tests, which should be free of charge according to the SGBP.

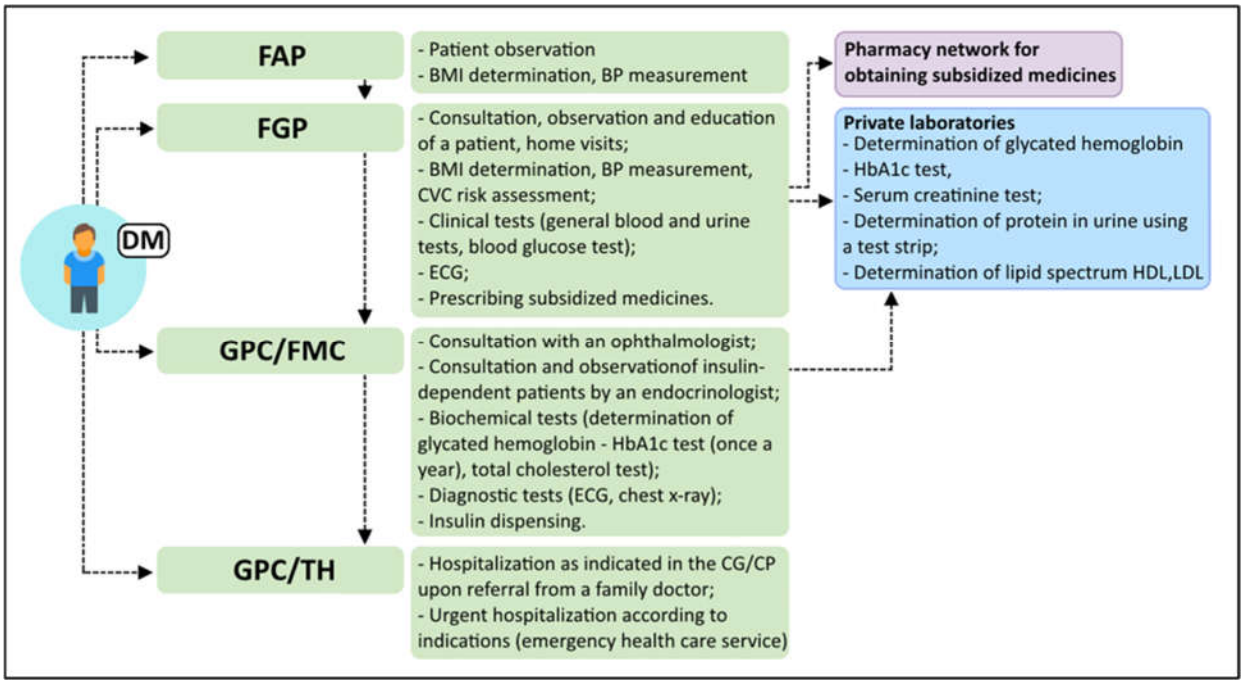
When diagnosis is confirmed, a patient is taken under the supervision of a family doctor, who prescribes treatment, issues prescriptions for discounted medicines, assesses complications and, if necessary, refers to narrow specialists (endocrinologist, ophthalmologist, nephrologist, etc.).

If an endocrinologist consultation is required, the patient is referred to the General Practice Center or Family Medicine Center (GPC/FMC). Additional laboratory and instrumental examinations are also performed there. However, a referral is often not required, and patients self-refer, bypassing their family doctor.

If the condition worsens or acute complications occur, the patient may be hospitalized, bypassing the outpatient stage, which violates the principle of continuity. After discharge, there is no systematic return of the patient to the PHC level for observation.

Thus, *current patient pathways are fragmented and unregulated, with no clear protocols for referral and return of patients between health care levels***.** This reduces the effectiveness of monitoring, increases the workload of specialists and deteriorates outcomes.

Figure 3. Receiving services by patients with diabetes at the PHC levels



Coverage of patients with type 2 diabetes with recommended treatment is inadequate: Analysis of medical records of patients with type 2 diabetes shows that only 43 out of 60 patients had visited a family doctor or endocrinologist in the past year. 24 patients were observed by an endocrinologist.

The results of risk-assessments for cardio-vascular complications were not presented in any of the examined outpatient records in our sample. In addition, only 5 outpatient charts had records of foot examinations. Figure 3 shows the proportion of patients with type 2 diabetes who received services

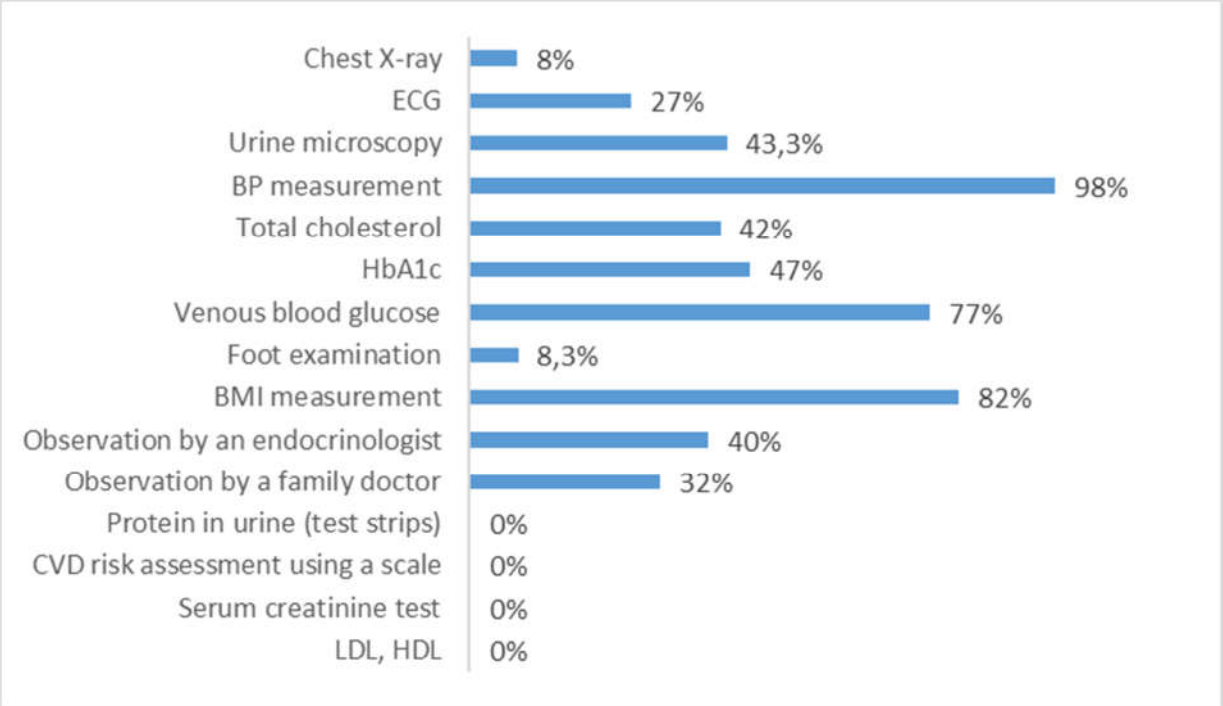
required by clinical guidelines at least once in 2022. Some diagnostic tests recommended by the CG/CP could also be carried out within the framework of the SGBP additional package of services, but are not carried out due to lack of reagents and test systems.

Based on the data, it is clear that the majority of patients with type 2 diabetes who were included in the sample are not receiving the preventive services they need. Out of 60 outpatient records examined, we found none with records of some compulsory tests (determination of serum creatinine, urine protein by test strip, determination of blood lipid profile).

It should be noted that despite the fact that in 2020, glycated hemoglobin tests for patients with diabetes were included in the basic package of free services of the SGBP, the coverage remains inadequate - less than half of patients (47%), while in a number of coverage areas was below 20%.

One of the reasons is the lack of reagents due to interruptions in tender purchases. Often patients pay for the test in private laboratories, not knowing that 1 free examination per year is provided by the SGBP.

Figure 4. Health services delivered to patients with T2 diabetes in the surveyed HOs, %



Medicines provision for patients with diabetes within the SGBP guarantees free use of insulin, which is procured using the republican budget funds and provided to patients with diabetes free of charge at the GPC/FMC

Use of a number of antidiabetic tableted medicines is recommended, however, only Metformin has been dispensed to patients at a discounted price since 2021, but its dispensing standards (maximum 1500 mg/day) limit the control of diabetes.

In 2022, only 38.8% of registered patients with diabetes received at least one subsidized prescription, and in some areas, less than 10%. Other medicines listed in the clinical guidelines are not covered and fully paid out of pocket.

Patients may buy test strips at a discounted price: 500 per year for adults, 2000 for children. However, for insulin-dependent patients this norm is inadequate. There is also a limited range of test strips in pharmacies, which are not always compatible with patients' glucometers.

Figure 5. Recommendations and availability of prescription medicines for patients with diabetes

Recommended medicines	Provided within the SGBP and ADP	Copayment
Insulin*	Yes (government procurement)	0%
Metformin	Yes	50%
Pioglitazone/Rosiglitazone	No	
Glibenclamide/ Gliclazide/ Glipizide	Yes	50%
Nateglinide/Repaglinide	No	
Teneleglitpin/Sitagliptin/Vildagliptin	No	
Acarbose	No	
Empagliflozin/Dapagliflozin	No	
Test-strips	Yes	50%

** Source: Directory of medicines reimbursed under subsidized medicine programs through a pharmacy network, Mandatory Health Insurance Fund under the Ministry of Health of the Kyrgyz Republic, 2022.*

5 | Conclusion

Despite the availability of the SGBP, access to quality services for diabetes in primary health care remains limited. Better funding, routing and patient awareness will improve the effectiveness of care and reduce complications and hospitalizations.

Additional efforts are needed to remove barriers that limit the effectiveness of primary health care. These include poor integration of laboratory and consultative services, a shortage of trained personnel, inadequate diagnostic equipment, and interruptions in the supply of medicines and supplies. In addition, the low level of digitalization of health data makes it difficult to monitor chronic patients, including those with diabetes, and to respond promptly to deteriorating patient conditions.

It is also important to strengthen the role of nurses at the FAP level by providing them with training and access to nursing care standards for diabetes management.

Strengthening cooperation between FAPs, FGPs and GPC/FMCs with introduction of clear patient pathways will improve the availability of care for patients with diabetes.

Thus, better efficiency of primary health care in managiing patients with diabetes requires a comprehensive approach, including improving human resources, subsidized medicine provision, routing, digitalization and informing patients about their rights under the SGBP, the availability of free services and pathways to receive health services.

6 | References

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