**Report on implementation of the Global Fund Grant under NFM in RK**

**by results of the year 2019 (“Tuberculosis” component)**

**Grant name: КАZ-Т-NCTP №607.**

**Grant purpose**: Decreasing the burden of TB in Kazakhstan through reforming the TB control system and strengthening the management of drug-resistant forms of TB by ensuring universal access to DR-TB diagnosis and treatment and addressing the needs of population groups at risk — prisoners, people living with HIV and labour migrants.

1. The work on revision and amendment of the following normative and legal acts was performed jointly with external and national consultants:
2. The Order of the Minister of Health of the Republic of Kazakhstan dated July 19, 2019 No. ҚР ДСМ-105 amended the Order of the Minister of Health of the Republic of Kazakhstan dated **26 November 2009 No 801** “About approval of the Rules of tariff formation for the medical services rendered within the guaranteed free medical care and in the system of compulsory social medical insurance and Methodology of tariff formation for the medical services rendered within the guaranteed free medical care and in the system of compulsory social medical insurance” in the **Paragraph 6** “Algorithm for tariff formation for rendering a medical and social support to TB patients” for a purpose to improve the methodology of tariff formation with respect to the principals of non-sequestering the funds:

**The amendments made allowed**:

1. to ensure maintaining the funding level of the TB service in the regions without risk of sequestration;
2. to establish a particular funding for the TB drugs that allowed to flexibly increase funds when planning the procurement of new line drugs;
3. to normatively ensure a separate funding for rehabilitation of persons with inactive TB and high risk to develop a disease.
4. The Order “About introduction of amendments to the Order of the Minister of Health and Social Development of the Republic of Kazakhstan dated February 2, 2016 No. 77 “About approval of Standards for organization of the tuberculosis medical care to the population”

New chapters were formed:

- Chapter 5. Organization of tuberculosis medical rehabilitation;

- Chapter 6. Organization of preventive therapy of the latent TB infection and complications from TB vaccines;

- Annex 3 (ICD-10 codes for rehabilitation)

- Annex 5 (ICD-10 codes for preventive therapy of the latent TB infection and treatment of BCG complications)

C) The Order of the deputy Minister of Health of the Republic of Kazakhstan dated March 29, 2018 No. 138.Registered at the Ministry of Justice of the Republic of Kazakhstan on March 30, 2018 No 16685 “About approval of the Rules on payment for services of the healthcare subjects and the Rules on payment for pharmaceutical services of the subjects in the field of medicines and medical products”

The amendments were made to the Paragraph 3. Method of payment for rendering the medical and social support to the TB patients. **These changes allowed**:

1. To calculate a required volume of funding on a basis of an average number of patients with active TB for the reporting period (reporting month), rather than an annual average number of TB patients accepted for calculation of the complex tariff per one TB patient.
2. **4 Guidelines** were updated and approved at the national level: on treatment, M&E, TB control at the PHC level and infection control.
3. **4 new national Guidelines** were developed and approved: on MGM diagnostics, TB laboratory diagnostics, NGO in the TB services area, ACSM.
4. **Clinical protocols** for HIV/TB diagnostics and treatment were developed and approved, protocols for M/XDR TB diagnostics and treatment were updated (taking into account introducing the new TB drugs and treatment schemes into practice).
5. Since the Quarter 4 of 2019 100% of access to MGM at the district level as well as at the remand center level was achieved. 19 new machines were installed in 10 regions in addition to 33 machines procured with the GF funds in 2017. In total the MGM coverage among notified new TB cases and relapses (including extrapulmonary forms) was 93,2% in 2019 compared to 72% in 2018. MGM coverage under the GF Project in the pilot regions was 99-100%.
6. Substances for DST to the reprofiled drugs were procured, all TB laboratories were trained on DST methods to new TB drugs.
7. New HAIN machines were procured for 5 regions, which did not have this equipment, as well as replacement of twincubators and amplificators was made in 12 laboratories of TBOs.
8. Bactec, Hain reagents and partially cartridges were procured in order to ensure smooth performance of activities on timely diagnostics and treatment monitoring of TB cases.
9. Servicing BSC in the TBO laboratories in all regions and 33 GXpert machines procured under the GF Project were performed.
10. The work to extend the **outpatient treatment of TB patients** in the pilot regions continued. Thus, coverage of DR TB patients with the outpatient treatment increased in 4 pilot regions **from 19,9% in 2017** to 60,3% in 2018 and **up to 74,9% in 2019**. In general, in the country the proportion of TB patients including STB and DR TB started OT from the first day was **61,3%** in 2019 (compared to 49,8% in 2018). During 2019 the social support and/or transport expenses compensation were rendered to **2343** outpatients through the GF funds. In general, **3681**outpatients were covered with the activities on improvement of adherence to treatment during the whole GF Grant implementation period.
11. In 2019 **1045 (15,9%) TB beds were reduced** in total in RK. The budget funds to the amount of 385 218,1 thousand tenge were saved at the expense of reduction of 24-hour TB beds and were allocated to the following priority activities:203 684 thousand tenge (52,9%) for procurement of laboratory reagents, consumables and equipment; 78 107 thousand tenge (20,3%) for IC strengthening in TBO, 59 557 thousand tenge (15,5%) for motivation of TBO medical staff and 1 500 thousand tenge (0,4%) for training on TB issues and 24 thousand tenge for printing IEM on TB. In all regions the funds are allocated to the TB patients’ social support during the outpatient treatment from the local budget: 1 522 298 thousand tenge were utilized in 2019. For the three years a total of **2725 (33%)** TB beds were reduced, from 8254 to 7181. In the pilot regions an average duration of stay on the bed decreased from 115 days in 2018 to 66 days in 2019, including MDR beds – from 139 to **83**, STB beds – from 96 to **58, i.e. in total 1.7 times**.
12. Use of individual regimens was expanded and shorten treatment regimens with new TB drugs were introduced in all regions of RK. A total of 388 RR/MDR TB patients (plan – 350) were enrolled for STR and 897 (plan – 895) for ITR for 2018-2019 under the GF Project. Achievement of the National TB Program is procurement of TB drugs with the state funds through the international mechanisms for the first time from 2019. Thanks to that, **852 patients** were enrolled **for ITR** and **28 patients for STR** in 2019 through the country budget.
13. A basic package of **aDSM (Active drug-safety monitoring)** was introduced in all regions: 28 trainings were organized, 854 TBO, PHC specialists were trained. 6700 peripheral vasofixes and 93 port systems for all TBOs, 20 EKG machines, 5 audiometers were procured. Ishihara table, Severity scale were distributed to all TBOs. Access to timely laboratory treatment monitoring was ensured through compensation of costs for biochemical researches for the patients receiving new treatment regimes.
14. The work on **VOT** expansion continued: smartphones, tablet organizers were distributed throughout the country, VOT instruction was developed. In general, VOT coverage increased from 5,6 % in 2018 to **22,5%** in 2019 among outpatients with TB, M/XDR TB.
15. **Quality control of TB drugs used for treatment of M/XDR-TB patients** was conducted in the KABS Laboratory (Canada). Result: all TB drugs (Lnz,Cfz,Lfx,Mfx,Cs,Z,E,H,Pto,Pas,Am) in the places of storage and utilization correspond to the quality requirements.
16. **Distant forms of consultations, trainings and meetings** put into NTP practice since November of 2018within the project increased.In total **232 online central medical consultative commissions** and **50** NSCP consultations for complicated clinical cases were held in 2019. 11 distant meetings (on actual issues of NTP reforming, drug management, NGO activity expansion, by results of implementation of the M&E visits’ recommendations etc/); 2 online master-classes; 1 online conference; 2 distant trainings.
17. **59 trainings** were held in 2019. A total of 1444 TBO, PHC, CPCS, HD, NGO specialists were trained. In general, for the three years the trainings were held within the project – 2751 persons at the national level. The activities on capacity building of TBO specialists at the international level were organized. All CMCC chairmen from the regions were trained in Minsk on a base of the WHO collaborative center.
18. Support was rendered to the NTP on strengthening of monitoring and evaluation in various aspects of the TB activities. A total of **64 M&E visits** were held in 2019, out of them 31 – by the NSCP specialists and 33 – by the GF PIU specialists. Meetings with the oblast deputy akims supervising social issues and healthcare, managers of Health departments were held by results of each visit. Tracking and assessment of implementation of the recommendations by results of the M&E visits through holding distant meetings 3 months later with the regions jointly with the region curators, head of the national M&E team and NSCP of MoH of RK administration were put into practice. 9 ToR for M&E of various TB service aspects were updated and approved (reforming, detection and diagnostics, treatment, PV, drug management, IC, interaction with AID centers, PCS, NGO).
19. Work on **improving NTBR modules** (inpatient, laboratory and drug) continued. New modules (Situational center and VOT) were developed and implemented at the working version of the NTBR portal.
20. Work on informing the RK population about TB through “Instagram”, “VK”, “Facebook” social networks was activated. As a result, reviews of the TB reels increased up to 700 000 per a month, **over 2,5 million reviews** for 3 months, as well as up to 2 million offline reviews per a month (during 1 month in the underground of Almaty, Population service centers in Nur-Sultan). Over 180 new posts with actual TB themes were published at the web-site and accounts of NSCP in the social networks. An online competition on TB knowledge was for the first time organized.
21. An access to ARV therapy was ensured for 153 foreigners with cost compensation for laboratory tests. A program of the Liverpool University <https://www.hiv-druginteractions.org> was put into clinical practice to control interactions of ARV drugs with TB drugs and other medicines.
22. Laptops were procured and distributed to all regional TBOs for the VOT responsible specialists, as well as for the bacteriological service coordinators in order to regularly monitor and analyze the coordinated work directions and preparation of reporting data on a monthly basis.
23. 455 shielded UV irradiators were procured and installed at the M/XDR TB hospitals in PCS under the GF Project. Heat-loss anemometers, UVI radiometers, respirators, fittests were procured for all TBO and PCS. Within the strengthening NTBR for CPCS MED and PCS TB facilities, the IT equipment was procured and installed. The work to increase an access to MGM detection and diagnostics was made at the level of field PCS facilities among TB suspects from 50% in 2017 to 78,2% in 2019. Through increased access to MGM and new TB drugs, an effectiveness of M/XDR-TB treatment in the PCS facilities was improved. This indicator was 83,1%in 2019compared to 70,5% in 2018.
24. Number of regions with introduction of NGO experience in TB control increased from 8 in 2017 to 12 (1 NGO began working in Nur-Sulat in 2018, and 3 new NGOs began working in North-Kazakhstan, Kostanai and Atyrau oblasts in 2019). In general, thanks to inclusion of NGO in activities on timely TB detection and improvement of adherence to treatment among target population groups the number of neglected TB cases and TB treatment regimen violators at the outpatient phase decreased. During 2019 the specialists of 14 NGO detected 294 (213 planned) active TB cases, out of them 38,8% with MDR TB; 330 treatment regimen violators were found and treated. At the initiative of NGO a brochure “It’s in your hands” (in State and Ru ssian languages) with stories of various people, who had TB, M/XDR-TB, was published.
25. A sub-recipient of the GF Grant (KNCV office in the Central Asia) performed an operational research to study NGO contribution in decreasing the burden of TB. They found a positive effect of the NGO activity on the following: 1) TB detection (number of TB patients from key groups detected by NGO, increased from 14% in 2017 to 45% in 2018); 2) Reduction in time between first symptoms and TB diagnostics (e.g., a TB diagnosis was established within 2 weeks in 68% of cases, 1-3 months – in 30% and 3-6 months – in 2% of cases, while in the years 2016-2017 over 50% of patients from the target groups were diagnosed within 1-6 months, and in 4% and 5% - even more than 6 months); 3) Decrease in failures, interruptions of TB treatment (as a result of NGO activity on adherence improvement a proportion of patients without interruption increased from 30% in 2016 to 64% in 2018, with one interruption (2-4 and more doses) decreased from 38% to 27%, with interruptions for 30-60 days – from 14% to 5%, with frequent interruptions for 2-3 days, but summarily not more than 2 months - from 10% to 1%, with interruptions for 2 and more months – from 8 % to 3%).
26. Within implementation of the activities aimed at the transborder control and TB, MDR-TB and TB/HIV treatment among labour migrants, the sub-recipient of the GF Grant (Project HOPE) created a migrant-oriented model on TB prevention, diagnostics and treatment for the migrant and their family members. On a basis of introduction of this model the Guide on TB control among migrants in the Republic of Kazakhstan was developed. During the year 2019 52 748 external migrants were covered with the outreach work on TB informing, out of them 12 110 migrants had an X-ray TB screening and **3 625** migrants with TB symptoms were examined according to the diagnostic algorithm approved in the country. In total **105 external and 294 internal migrants with TB** were notified.
27. For the whole country the **TB prevalence by results of 2019** decreased and was **65,4** compared to 69,2 in 2018, the mortality was **2,0** and 2,4 accordingly. There is a positive trend in the penitentiary system as well; decrease in TB morbidity and mortality in 2019 was 200,9, and mortality rate was 15,5 compared to 236,8 and 23,3 in 2018 accordingly.