Kyrgyz Republic
Manas taalimi National Health Reform Program

Indicator Package
2010

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
A. EXPECTED PROGRAM IMPACT: MATERNAL AND CHILD HEALTH										
Impact on mother and child health	Infant mortality rate [1]	RMIC MIC'S/DHS	25,6 66 (1997)	29,7 58.0	29,2 38.0	30,6 33.0	27,1	0.6 ‰ annual decline	25,0	Since 2004 Kyrgyzstan has launched to register births according to WHO criteria, and therefore the forecasted growth rate was observed (2003 -20,9; 2004.-25,6; maximal growth –in 2007 - 30,6 per 1000 live births). Since 2008 marked decline up to 25.0.
	Perinatal mortality rate[2]	RMIC	29,8	32,4	33,7	33,0	30,1	0.6 ‰ annual decline	28,6	Decline associated with the introduction of effective perinatal care programs that meet the requirements of WHO, primary neonatal resuscitation and effective health care delivery to the newborn.
	Child mortality rate	RMIC MIC'S/DHS	31,8	35,2 45.0	34,6 44.0	35,3 42.0	31,5	0.8 ‰ annual decline	29,3	Child mortality rate (quantity of dead children under 5 years per 1000 born) during the past 5 years is tend to decline, however it's rate in the rural area exceeds by 2 times the same rate in urban area (respectively 54,5 and 27,7 per 1000 born).
	Maternal mortality ratio	RMIC MIC'S/DHS	46,4	61,0 150.0	53,0 104.0	62,5	58,9	57,0	75,3	Maternal mortality ratio is characterizes by the undulatory pattern. Its growth in 2009 inter alia other reasons is determined by the reliable statistics which enabling to conduct analysis for real reasons as well as acceptance of the reasonable interventions aimed at changing the situation. In the frame of WHO initiative based on methodology "What beyond the figures", there were introduced confidential investigation related to the maternal mortality ratio at the national level and surveys of critical cases at the level of health organizations, it has been envisaged moratorium on punishment for health workers on detecting and registration of maternal mortality (MoH Order # 292 dated 11.06.2008).
B. EXPECTED PROGRAM OUTCOMES: IMPROVED ACCESS TO AND QUALITY OF MATERNAL AND CHILD HEALTH SERVICES										
Improved access and equity in access to	% of obstetric organizations, where EPC program was	Working group on maternal and child	5,4% (3)	7,3% (4)	27% (15)	45% (25)	55% (30)	62% (34)	62,5% (39)	Coverage by the EPC programs (Efficient perinatal care) of obstetric organizations is comprises 62, 5 %).

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
maternal child health services	implemented(with at least 30 % of the personnel trained on EPC) [3]	health								
	% of deliveries in baby-friendly hospitals	RMIC	40,69	51,88	56,65	62,50	43,22	60,0	56,0%	4 health organizations in (Moscow, Kadamjay rayons, Kulunda and Ayderken) were deprived of status of "Baby-friendly Hospitals (DFN)».
C. EXPECTED RESULTS OF MCH COMPONENT										
Improved content of medical practice for pregnancies, deliveries, and children	% of newborns dying from asphyxia during 0-6 days	RMIC	29.8	25.6	26.0	24.1	25.3	24.8	29,2	During early neonatal period the verification of asphyxia diagnostic has been improved.
	% deliveries complicated by anemia	RMIC	40.6	44.4	41.9	43.4	40.1	40.0	41,1	Since 2009 with donor assistance in the pilot regions is being implemented the program "Gulazyk" which is aimed at prevention of micronutrient deficiencies among the pregnant women and children under 2 years old.
Increased coverage of medical services for pregnancies, deliveries, and children	Immunization coverage by age 2[4]	RCI	99,0	98,2	93,9	95,6	96,6	97,0	95,0	This indicator was pointed out without measles vaccination, vaccination of parotiditis and poliomyelitis as rule as coverage by these comprise 98,9%. Vaccine DPT (diphteria and tetanus toxoids and pertussis vaccine) comprises the new pentavalent vaccine. Introduction of new vaccines is always accompanied by an increased number of medical exemptions.
	% of women 15-49 using any form of contraception	RMIC	42,3%	38.2	39,4	35,9	33.2	35,0	31,2%	Unavailability of system in the Kyrgyz Republic which ensure regular supply of contraceptives and limited recourses which does not allow to accomplish procurement activities and as it is affects on dependence from donor supplies (UNFPA,USAID).

[1]According to live-birth criteria, introduced in 2004, and to many criteria of registration, increase in rates is expected without real deterioration of a situation. Official data and survey data should be analyzed together.

[2]Peri-natal mortality rate is more than 60% in the structure of infant mortality.

[3]This include implementation of evidence based and European Bureau WHO standards of care quality. It is good indicator for service accessibility and equity assessment, because 97% of deliveries take place in maternity hospitals.

[4] National program of immunoprophylaxis for 2006-2010 has determined the target of immunization coverage by age 2 yr old for 98%, in each region for no less than 95%.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
A. EXPECTED PROGRAM IMPACT: REDUCTION OF CARDIOVASCULAR DISEASE MORBIDITY AND MORTALITY										
Impact on cardio vascular disease outcomes	Mortality rate from cardio-vascular diseases among age group (30-39 years)	RMIC	55,0	55,8	56,1	60,3	54,2	54,0	51,7	Target values for mortality caused by CVD at ages 30-39 and 40-59 years for 2009 were achieved. Thus, as planned, there is a process of relative stabilization with regard to mortality caused by CVD with a tendency to reducing. This situation is explained by the initiated activities for implementing a comprehensive control in the CVD, which include actions to integrate the cardiology services in primary health care (equipped with a phased opening of the regional cardiac surgeries), training, retraining of specialists (based on NTSKT), as well as educational campaigns for the population to combat the CVD risk factors and the introduction of the principles of healthy lifestyles (broadcasting of video clips).
	Mortality rate from cardio-vascular diseases among age group (40-59 year)	RMIC	306.6	312,2	333,7	346,4	329,3	329,0	309,6	
B. EXPECTED PROGRAM OUTCOMES: IMPROVED QUALITY OF CARE										
Program outcome: Improved quality of care	AMI intra hospital mortality rate (14 days after AMI)	NICT Patient records review	–	–	–	11,48	10,0	10,0	-	The data in the analysis.
	Ischemic stroke intra hospital mortality rate (28 days from the beginning of ischemic stroke)	Patient records review	–	–	–	–	31,2	31,1	-	The data in the analysis.
	Hemorrhaging stroke intra hospital mortality rate (28 days from the beginning of h. stroke)	Patient records review	–	–	–	–	46,8	46,0	-	The data in the analysis.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
	Frequency of repeated AMI and stroke (include into ICD)	NICT (Doc.№45, Repeat. doc.)	–	–	–	18,85 ОИМ 18,25 инс.	–	18,85 18,25	-	The data in the analysis.
	Frequency of repeated AMI as % (stroke developed after 28 days from the previous)	Patient records review	–	–	–	–	35,2	35,0	-	The data in the analysis.
C. EXPECTED PROGRAM RESULTS										
Population behavior changes vis-à-vis key CVD risk-factors such as smoking and excess weight	% of population over 18 smoking at least 1 cigarette in a day. (male/female)	KIHS NICT	–	–	–	55 (м) 5 (ж)	55 5	55 5	-	The data in the analysis.
	% of population overweight (BMI>30)	KIHS NICT	–	–	–	13,1	13,0	13,0	-	The data in the analysis.
The health system works effectively to increase population awareness of hypertension status and to ensure that people with hypertension regularly take anti-hypertension medicine	% who aware of hypertension	KIHS (Doc.№44)	–	–	–	26,5	26,5	27,0	-	The data in the analysis.
	% of those with hypertension who have taken treatment during last 24 hours	KIHS (Doc.№44)	–	–	–	17,1	–	18,0	-	The data in the analysis.
	% of adult population who were registered in PHC with hypertension	RMIC	–	–	–	9	9	10	-	The data in the analysis.
	% of patients hospitalized with AMI more than 12 hours after first appearance of symptoms	NICT, KIHS Patient records review (Doc.№45)	–	–	–	19,3	–	22,0	-	The data in the analysis.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
Treatment services are based on evidence at all levels of care	% of patients with AMI who receive aspirin and heparin upon admission	NICT Patient records review (Doc.№45)	–	–	–	3,2	–	10,0	-	The data in the analysis.
	% of patients with AMI and elevated ST who receive thrombolitics	NICT Patient records review	–	–	–	16,5	18,3	20,0	-	The data in the analysis.
	% of patients with AMI who receive aspirin, heparin, betablockers and ACE inhibitors in the hospital	NICT Patient records review (Doc.№45 repeat. doc.)	–	–	–	73,0	–	80,0	-	The data in the analysis.
	% of patients with CHD who receive statins upon discharge	(Doc.№45 repeat. doc.)	–	–	–	17,5	66,0	67,0	-	The data in the analysis.

Note "–" no data (lack of research)

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
A. EXPECTED PROGRAM IMPACT: REDUCTION OF MORBIDITY AND MORTALITY OF TUBERCULOSIS AND RESPIRATORY ILNESSES THROUGH EFFECTIVE IMPLEMENTATION OF DOTS and PAL STRATEGIES										
Reduction in mortality and morbidity of TB and respiratory illnesses through effective implementation of DOTS and PAL strategies	Tuberculosis morbidity rate (gen. pop./incl.prison pop.)	RMIC	113.6 /128.1	115.7 /125.3	110.9 /121.2	108.8 /115.5	101,6 /106.3	105.8/106. 1	100,9/10 3,9	During 2009 the TB incidence rate was 100.9 / 103.9 per 100 000 population.
	Tuberculosis mortality rate (gen. pop./incl.prison pop.)	RMIC	11,2 /14,1	11,0 /14,1	10,2 /12,8	9,6 /11,2	9,2 /9,9	9,2 /9,9	9,2 /9,9	During 2009 the tuberculosis mortality rate was 8.7 / 9.3 per 100 000 population.
B. EXPECTED PROGRAM OUTCOMES: QUALITY , ACCESSIBILITY, EFFICIENCY IMPROVEMENT										
Program impact#1: More accessible TB services	% of registered TB patients who received DOTS treatment -general population -prisoners	National TB Institute (NTBI)	99,6 100	99,3 100	99,5 100	99,2 100	99,7 100	100%	100%	This indicator is achieved through full implementation of DOTS throughout the Kyrgyz Republic, including the system of SPS (State Penitentiary Service).
	% of registered MDR TB patients who received treatment according to DOTS+ - general population - prisoners	NTBI		- -	- -	- -	12,6% 9,6%	32,4% 13,9%	32,4% 13,9%	Indicator is achieved. Accordingly to outcomes 2009 for the treatment of DOTS + has been taken 1,030 patients with MDR-TB.
	% missed TB cases	NTBI	2,7	2,0	1,4	1,7	1,3	Decline %	1,1%	This has been achieved through the early detection of TB cases.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
Program impact #2: Increased efficiency of service delivery	% efficient treatment : DOTS DOTS +	NTBI	85,3 -	84,7 -	82,3 -	84,7 -	84,6 -	85	-	Accordingly to outcomes 2008 the indicator has achieved on 99,5% and it is 84,6%, close to the WHO standards - 85%. Data as of 2009 will be obtained based on outcomes of 2010.
	% of relapsed cases	NTBI	6,5	6,6	7,2	7,1	7,0	Decline %	5,8%	During the period of 2009 % relapse rate was 5,8%.
Program impact #3: Increased efficiency of service delivery	(%) of TB cases detected at the PHC level	NTBI	7,3	8,6	9,0	11,6	9,2	5 - 10	8,5%	During 2009 the rate of detection of (KB)Koch's bacillus (+) in primary health care level - 8,5%.
C. EXPECTED PROGRAM OUTPUTS										
Improved effectiveness of antit-tuberculous services	Detected smear + among pulmonic forms of TB	NTBI	45,3	47,3	46,4	44,1	44,1	50	40,2%	Among the new cases of pulmonary TB rate of bacillary forms is 40,2%. Not reached the planned 50% due to a lack of quality (controlled) and non-detection of sputum smear-positive by the laboratory service.
Strengthened inter-sectoral collaboration	Number of medical staff and GUIN's personnel received training on DOTS strategy and TB prevention	NTBI	-	-	-	-	57	Increase	60	Coverage of training for Health workers in the system of SPS (State Penitentiary Service) 100%.
	Number of prisoners received training on TB prevention	NTBI	-	-	-	-	65	Increase	70	Increases the number of prisoners learning coverage of TB prevention.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
A. EXPECTED PROGRAM IMPACT: HIV-AIDS AND STD CONTROL										
Decrease in incidence, disability and premature mortality through limited HIV/AIDS, STD and drug addiction prevalence	% of HIV- infected among IDU	Republican AIDS Center	6,2%	8%	7,4%	7,7%	6,7%	<10%	14,33%	During the conducting of survey by RDS methodology there were covered the deepest strata groups of IDU. Moreover in 2008 survey were not conducted among IDU in Osh. Taking into account data taken from routine survey of HIV-infected among IDU, there is dramatic rise in 2009 according to Code 102 which is 1,7 times more .
	% of HIV- infected among SW	Republican AIDS Center	1,7%	1,1%	1,4%	1,12%	1,94%	<5%	1,6%	According to the data of Sentinel Surveillance as of 2009 the prevalence of HIV among SW with regard to dynamic is remain the same in actual fact, it is proved implicitly by the prevalence rate of antibodies versus syphilis among SW in 2009 which is 33.8% (in 2007 - 32,2%), that indicates of existing threat for spread by the sexual contacts .
	% of HIV- infected among MSM	Republican AIDS Center	2,7%	0,4%	3,5%	11,7%	4,8%	<5%	-	Due to the lack of financing Sentinel Surveillance was not conducted among MSM in 2009.
B. EXPECTED PROGRAM OUTCOMES: IMPROVED ACCESS AND EQUALITY OF ACCESS TO HIV SERVICES										
Program **impact №1:** Improved access and equality in access	% of pregnant women consulted and tested for HIV	Republican AIDS Center	15.3%	6.8%	18.6%	37.1%	76%	80%	93,5%	According to MoH KR Order # 400 as of 13.11.07, compulsory testing for HIV is conducting among overall registered pregnant women (with informed consent) for the purpose of timely detection and prescribing of the ARV chemoprophylaxis of HIV Mother-to-Child transmission.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
C. EXPECTED PROGRAM OUTCOMES										
Strengthened prevention of HIV/AIDS	% of key population covered by preventive programs									
	IDU	Republican AIDS Center	23.3%	13.6 %	17.6%	36.4%	-	> 60%	38,44%	Prevention programs for IDU includes damage reduction programs (provision of sterile syringes, needles, condoms, primary care provision , consultation of specialists, Methadone treatment, "Equal-to-Equal" training , behavior skills for less danger injection of drug usage, community role enhancement as well as co-dependents in the damage reduction programs , personnel training for damage reduction programs , distribution of information materials. This indicator was obtained based on Sentinel Surveillance survey findings, which was conducted by the coverage of eight sites across the Kyrgyz Republic. Given percent was figure out as per EPI-INFO program of those persons who aware about where undergo testing, received condoms and sterile needles and syringes, if breakdown the structure into some prevention actions, there will be more percentage of IDU that have been covered by prevention programs.
	SW	Republican AIDS Center	80%	32.7 %	26%	27.3%	-	> 60%	60,96%	Prevention programs for SW includes programs of condoms provision , friendly dermatovenerologic health care provision, provision of information materials
	MSM	Republican AIDS Center	44%	12%	9%	15.6%	-	> 60%	-	Due to the lack of financing Sentinel Surveillance was not conducted among MSM in 2009.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
	% of IDU indicated usage of sterile injection instruments during the last injection	Republican AIDS Center	71%	90%	77%	39%	48%	>70%	-	Due to the changing of Sentinel Surveillance survey methodology, there were changed questions in the questionnaire and this question was not written in the questionnaire for IDU.
	% of SW indicated usage of condom during the last sexual contact with a client	Republican AIDS Center	57.8%	86.5 %	83%	82%	95%	>85%	93,9%	According to data of Sentinel Surveillance taken from conducted questionnaire, 93,9% SW pointed out that they used condoms during sexual contact with the last client
	% of MSM indicated usage of condom during the last sexual contact with a client, when had anal sex	Republican AIDS Center	100%	100%	100%	80%	100%	>85%	-	In 2009 Sentinel Surveillance was not conducted among MSM because of lack of financing
Increased coverage and improved quality of health care to people living with HIV (PLWH)	% of HIV-infected, pregnant women who received ARV prevention	Republican AIDS Center	100%	61,5 %	56,2%	28,5%	74,3%	85%	54,2%	In 2008 there were covered 74,3% by ARV prevention ,in 2009 - 54,2%, reduction of this indicator caused by confirmation of positive status among children which took place in 2009,while pregnancy take place in 2008 ,therefore despite of actions for enhancement on prevention of HIV MTCT , in comparison with 2008 indicators related to the 2009 are worse.
	% of PLWH need in HAART	Republican AIDS Center	-	11,2 %	13,1%	16,0%	16,1%	>30%	15,6%	Reduction below target level is determined by: 1. IDU comprise 66% of overall PLWH and it is represents as non-organized as well as not easily accessible group, it's coverage by periodic health examination is problematic. 2. Diagnostic of HIV-infection is specified anonymous testing, in case of positive HIV status this group also is not accessible, not being at preventive medical examination and timely prescribing of HAART is not conducting.

	Indicator	Source	2004 Baseline	2005	2006	2007 Mid-term review	2008	2009		Comments
								target	actual	
	% of adults and children with HIV-infection receiving HAART	Republican AIDS Center	-	67,6 %	43,5%	47,3%	59,0%	70%	60,5%	As of the end of 2009, 242 receiving HAART out of 401 PLWH for whom prescribed ARVT, reduction below target level is determined by the low adherence of ARVT basically among IDU, who are the most non-organized as well as not easily accessible group. IDU comprise of 66% out of overall PLWH
	% of adults and children with advanced HIV-infection stage receiving HAART	Republican AIDS Center	-	68,8 %	29,8%	42,5%	37,0%	60%	57,6%	As of the end of 2009, 242 receiving HAART out of 401 PLWH, among them- 231 with the advanced stage of HIV. Growth of this indicator relative to the previous years is determined by the low adherence of ARVT basically among IDU (66%), who are the most non-organized as well as not easily accessible group, accordingly ARVT is prescribing at later HIV stages
	% of adults and children with HIV-infection who continue receiving ARVT after 12 months	Republican AIDS Center	-	-	10,6%	9,2%	42,2%	80%	72,8%	Reduction below target level is determined by: 1. % of PLWH is remain high, among those were detected HIV-infection at advanced stage and accordingly ARVT is prescribing late, annual survival rate is reducing. 2. There are available cases of ARV intolerance, denial of treatment (side effects), and dead during the treatment receiving.