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HEALTH POLICY ANALYSIS CENTER

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Policy Research Paper

Evaluation of Postgraduate and Continuing Medical Education in the Kyrgyz Republic

Bishkek - 2013

Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

ABSTRACT

In 2005-2008, the Kyrgyz health care system faced the increased outflow of health workers. The existing mechanisms of the distribution and attracting of young doctors, including the reintroducing one-year internship, were not effective. Moreover, according to the health managers' opinions across the country there is a tendency of decreasing the quality of high medical education, including post-graduate one, weakening clinical skills of young doctors, especially in terms of Noncommunicable Diseases (CVD, Diabetes, etc.). The research is aimed at evaluation of post-graduate and continuing medical education in the Kyrgyz Republic and exploring the ways of improving its quality.

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This study was carried out with the financial assistance from the Swiss Embassy in the Kyrgyz Republic and Medical Education Reforms Project in the Kyrgyz Republic. The selection and interpretation of the conclusions reflected in this report belong to the team that drafted the report.

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ACKNOWLEDGEMENTS

Health Policy Analysis Center is particularly grateful to the heads of regional and territorial hospitals and Family Medicine Centers in Issyk- Kul, Talas, Osh and Batken oblasts, as well as the employees of these organizations for their assistance in data collection and cooperation during the study.

In addition, we would like to express deep appreciation to the experts in the working group of the research project for the fruitful cooperation and valuable advices, recommendations made for the research design and tools, for their invaluable assistance in gathering information:

Ismailov M.A. - Head of HR Department in the Ministry of Health
Umetaliev N.E. - Deputy Head of HR Department in the Ministry of Health
Chubakov T.Ch. - Rector of KSMIR&CE
Turgunbaev T.E. - Dean of KSMIR&CE
Subanbaeva G.M. - Head of Department of Internship, Clinical Residency and Postgraduate KSMIR&CE
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Kaliev R.R. - Dean of Faculty of Postgraduate Education of the Kyrgyz State Medical Academy
Davletalieva N.E. - Head of Sector for postgraduate education of the Kyrgyz State Medical Academy
Mamasaidov A.T. - Director of the Southern Branch of KSMIR&CE
Orozalieva G.S. - Manager of the Initiative in Medical Education NGO

Conducting this study and the preparation of the report were made possible thanks to the financial support of the Swiss Embassy in the Kyrgyz Republic.

ABBREVIATIONS

BRCTO	Bishkek Research Center of Traumatology and Orthopaedics
CME	Continuous Medical Education
GP	General Practitioner
FM	Family Medicine
FMC	Family Medicine Center
HEI	High Educational Institute
HF	Health Facilities
HO	Health Organizations
IGSM	International Graduate School of Medicine
KSMA	Kyrgyz State Medical Academy
KSMIR&CE	Kyrgyz State Medical Institute of Retraining and Continous Education
KRSU	Kyrgyz – Russian Slavic University
LSA	Local State Administration
LSG	Local Self Government
MoH of the KR	Ministry of Health of the Kyrgyz Republic
NC	National Center
NCCT	National Center of Cardiology and Therapy
NMCC	National Maternity and Childhood Center
NSC	National Surgery Center
OMH	Oblast Merged Hospital
OFMC	Oblast Family Medicine Center
OshSU	Osh State University
PHC	Primary Health Care
RMIC	Republican Medical Information Center
RLA	Regulatory and Legal acts
SRIHS&OT	Scientific Research Institute of Heart Surgery and Organ Transplantation
TH	Territorial Hospital

CHAPTER 1. INTRODUCTION

The health care system of the Kyrgyz Republic has been actively reforming since 1996. Many aspects of the previous system were changed like health financing, the structure of health service delivery, introducing the Family Medicine, etc. as well as high medical education (under-graduate, post-graduate and continuous education levels).

By this time the main features of the post-graduate education in the country are:

In 1998 one-year clinical internship was replaced by two-years internship trainings (for clinical specialties) which have been provided only at the central level in Bishkek city based on national/city level health facilities (Hospitals and FMCs);

There are several educational organizations (Institutes and different National health Centers) that are providing the post-graduate programs on the budget- and contract-basis, sometimes duplicating each other. Usually students prefer specialties like obstetrics and gynecology, surgery, cardiology, and much less specialties like family medicine, etc. So, there are excessive numbers of students in some programs and lack of them – in another programs, and it seems this is not regulated according to the actual needs of the health system;

The facts that there are several educational organizations with sometimes excessive number of students in one hand, and lack of capacities of the clinical sites of Bishkek (study rooms, equipment, patients, etc.), in other hand, finally have led to the situation when the post-graduate students do not have sufficient conditions for clinical practice, the quality of provided educational services is decreasing;

This issue was discussed intensively; the MoH issued the regulation on Clinical sites. However some aspects of these issues were not solved fully and there is still a need in the further improvements and this project will assess these as well;

In 2005-2008 the Kyrgyz Health system faced with increased out flow of the health workers, newly graduated doctors do not go to the regions, and the MoH has introduced again one-year internship that aimed to decentralize post-graduate training and fill the vacancies at the regional level. However there are no any evaluations of this measure;

According to the health managers' opinions across the country there is tendency of decreasing the quality of high medical education, including post-graduate, weakening clinical skills of young doctors;

The total number of post-graduate students and their further placement within the health system is not sufficiently monitored at the national level (by specialties, by regions, etc.);

Moreover recently the MoH, KSMA jointly and under the support of the Embassy of Switzerland in the Kyrgyz Republic has started to work on the revisions at the level of under-graduate education and there is a need to revise post-graduate education accordingly with a specific focus of clinical training for both pre and post graduate medical training ;

Taking into account that the Kyrgyz Republic faces with such challenges like increasing the burden of Noncommunicable Diseases (CVD, Diabetes, etc.) and difficulties in further implementation of Family Medicine in Kyrgyz Republic it is also planned to assess these two elements.

Thus, the current study will help to fill the gaps in information for better understanding the current situation in the area of post-graduate and continuing education in the country and develop additional effective interventions where it is needed.

CHAPTER 2. GOAL AND OBJECTIVES

Goal

The research is aimed at evaluation of post-graduate and continuing medical education in the Kyrgyz Republic and exploring ways of improving quality.

Research objectives:

1. Analysis of norms/regulations in area of post-graduate and continuing medical education;
2. Mapping of educational organizations/clinical sites on post-graduate education and CME in the Kyrgyz Republic;
3. Assess the capacity of selected clinical sites at the regional level;
4. Assess the strengths and weaknesses of the current one-year internship program;
5. Assess the role of local authorities and administration in health facilities performance including as a clinical sites;
6. Assess specific factors relevant to CME.
7. Develop recommendations.

CHAPTER 3. METHODOLOGY

Step 1. Desk – Review

1) Review of statistical data (the MoH, Republican Health Information Center, KSMA and other educational organizations, etc.);
2) Analysis of the secondary sources of information (available reports, evaluations, etc.);
3) Analysis of low base in area of high medical education including post-graduate and continuing levels.

Step 2. Developing and piloting research instruments

To collect quantitative and qualitative information have been developed and used the following tools:

1. Conducting Facility Survey (selected clinical sites will be assessed based on selected criteria);
2. In-depth interviews with stakeholders and experts at the national and regional levels;
3. Semi-structured interviews with health personnel of selected health facilities/clinical sites;
4. Semi-structured interviews with local authorities and administrations.

Step 3. Field work

Selection of regions and clinical sites to visit

In order to select regions and clinical sites to visit the activities of all the FMC and TB/GPG at the regional, town and district levels were studied first on indicators such as population, number of visits, number of beds, level of hospital admissions, number of births and operations and staffing. In 28 of the 52 districts and towns (excluding Bishkek and Osh) the health facilities had the level of performance/activities that could meet the clinical base requirements. Of the 28 regions and towns the working group decided to select 15 regional, town and district primary health care facilities and hospital levels in four regions of the country to assess the situation (Table 3.1.).

Table 3.1. Selection of the regions and clinical sites

№	Region	District /town	FMC	Hospital
1	Batken	Kyzyl Kiya	1	1
2	Issyk-kul	Karakol (regional level)	1	1
		Jety-Oguz district	1	1
3	Talas	Talas (regional level)	1	1
4	Osh	Osh (regional level)	1	1
		Kara-Suu district	1	1
		Nookat district	2	1
	Total health facilities		**8**	**7**

Data on quantity ofthe conducted interviews are presented in Table 3.2.

Table 3.2. Data on quantity of the interviews

№	Respondent	Quantity of interviews
1	Stakeholders and experts at the national and regional levels	**Total - 10**
2	Health personnel of selected health facilities/clinical sites	**Total - 43**
3	Representatives of the local authorities and administrations	**Total - 4**

During the data collection process there was some limitation related with its timing (the end of July – the mid-August, 2013), which occurred in the vacation period for the educational medical organizations, due to this fact some data was available partially.

CHAPTER 4. REVIEW OF THE MEDICAL EDUCATION SYSTEM IN THE KR

4.1. Organizations providing Medical Education

Undergraduate training is conducted by 6 higher education institutions (Table 4.1.).

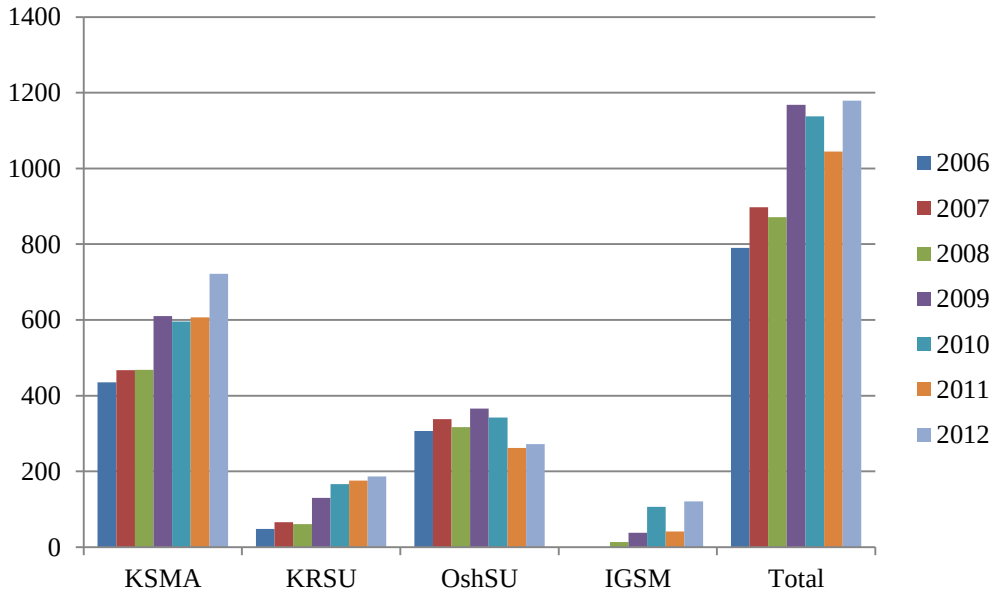
Table 4.1. Medical High Educational Institutes of the KR

HEI	Departments
Kyrgyz State Medical Academy	general medicine, pediatric, public health, pharmaceutical, dental, higher nursing education
Kyrgyz Russian Slavic University	general medicine, pediatric, dental
Osh State University	general medicine, pediatric, dental, preventive medicine
International Graduate School of Medicine(IGSM)	General medicine for South-East Asia, mainly India and Pakistan
Jalal-Abad State University *	general medicine, pharmaceutical
Asian Medical Institute (AMI)*	general medicine for South-East Asia, mainly India and Pakistan

Note: **JASU and AMI are newly opened there are no graduates yet;*

The number of graduates has a tendency to increase annually (Fig.4.1.), and there is focus to meet the needs of not only the internal (local), but foreign market as well. Thus, the 2012 graduate includes 28,9% foreigners (337 out of 1,179 people), the vast majority of graduates were trained on a contract basis (80,4% or 948 people), many less - on the budget form of education (19,6% or 231 people).

Figure 4.1. Training of Medical and Pharmaceutical Staff by Budget and Contract (2006-2012)



Education in the higher education establishments is provided in the medical, pediatric, dental, pharmaceutical faculties, medical and preventive care faculties and higher nursing education.

Postgraduate training is given by the higher education establishments, national centers (NC) and scientific and research institutes (SRI) that have a license to conduct programs of clinical residency and internship (Kyrgyz State Medical Academy, KSMIR&CE, South Branch of KSMIR&CE, KRSU and 5 NC and SRI). The data on the training of interns and medical residents from 2008 to 2013 is shown in Tables 4.2 . and 4.3.

Table 4.2. Training of Medical Residents, 2008-2013

	2008	2009	2010	2011	2012	2013
KSMA	170	62	66	80	116	189
KSMIR&CE	65	28	40	57	63	51
South Brunch KSMIR&CE	238	72	72	60		95
KRSU	73	90	78	110		120
NCCT	13	15	11	11		15
NMCC	1	4	0	6		
NSC	4	3	5	12	17	17
SRIHS&OT	0	4	3	3		
BRCTO	5	7	8	15	5	16
Total	**569**	**285**	**283**	**354**	**379**	**503***

***Note:** *the figure does not include the data from two NC and SRI.*

Table 4.3. Training of Medical Interns 2008-2013

	2008	2009	2010	2011	2012	2013
KSMA	137	144	149	211	162	156
KSMIR&CE	8	5	9	16	14	13
South Brunch KSMIR&CE	224	167	125	102		98
KRSU	0	0	48	56		61
Total	**369**	**316**	**331**	**385**	**365**	**328**

At the same time for the 2008-2013 period the most of the medical interns and medical residents were trained on a contract basis (57.6-61.3% and 59.0-69.3%, respectively).

Training of nurses is given in 14 medical schools across the country in following areas: nursing, nursing, massage, medicine, midwifery, medical and midwifery, dentistry orthopedic, dentistry, preventive medicine and laboratory diagnosis. The total number of trained professionals also has a tendency to increase annually (Table 4.4.).

Table 4.4. Training of Nurses

Medical College	2006	2007	2008	2009	2010	2011	2012
Bishkek	347	572	516	382	536	616	365
Tokmok	100	120	128	137	170	214	315
Talas	99	144	151	131	144	122	122
Karabalta	205	267	281	265	277	307	336
Karakol College named after Academician I. Ahunbaev	113	90	82	98	97	107	151
Naryn	82	74	97	98	86	103	123
Kyzyl-Kiya	280	336	349	375	360	376	347

Jalalabad	465	427	575	469	432	501	501
Maili-Suu	120	117	96	129	132	132	137
Osh	300	340	350	358	360	349	337
Medical College at KSMA	43	41	50	69	10	10	10
Medical College at OshSU	139	232	232	512	458	617	633
Uzgen Medical College at OshSU	88	87	115	123	106	106	106
Medical College at KUU	118	508	303	320	374	385	395
Total	**2499**	**3355**	**3325**	**3466**	**3542**	**3945**	**3878**

During a visit to Osh region the information on the opening of a number of private training centers was received, where there was two month training of nurses-caregivers. At the national level, the information on the number of trained and the quality of teaching in these centers is not available.

At present, one of the main problems in the provision of pre-and post-graduate education in Kyrgyzstan is a poor practical training of students, mostly related to the lack of clinical bases. For example, 16 health care facilities in Bishkek are simultaneously clinical bases for the four higher education institutions – Kyrgyz State Medical Academy, KSMIR&CE, KRSU and MUK. Despite the lack of facilities, limit of hospital beds one-field chairs of the mentioned four institutions are placed in the same department. For example, at the National Hospital (NH) there is a department of ophthalmology, otolaryngology, general medical department, the department of urology and Akhunbaev's Clinic.

There is a great flow of students, overcrowding, limited access for students, medical interns and medical residents to patients to carry out various manipulations during practical trainings. For example, according to the 2012 data in "Surgery" specialty at the NH Akhunbaev Clinic 36 medical residents and one medical intern were trained (KSMA - 18, KSMIR&CE - 1, KRSU - 17, 1 physician-intern); in "Urology" specialty at the Urology Center NG 44 medical residents (KSMA - 13, KSMIR&CE - 7, KRSU - 24) and 2 medical interns were trained (Kyrgyz State Medical Academy); in "Dermatovenereology" specialty 24 medical residents (KSMA – 4, KSMIR&CE - 2, KRSU -18) and 4 physicians interns were trained (Kyrgyz State Medical Academy); in "Obstetrics – Gynecology" specialty on the basis of the Bishkek Maternity hospital #2 35 medical residents (KSMA – 26, KRSU - 9) and two medical interns were trained (KRSU), totally 37 people; on the basis of the NCO 47 medical residents were trained (KSMA – 20, KSMIR&CE – 7, KRSU - 20).

Due to the current situation there is a need to address the issue of expanding the opportunities to use the regional clinical bases.

4.2. Regulatory and Legal Framework

The general list of regulations governing medical education (higher, secondary, pre- and post-graduate and continuing), includes 19 documents (Laws, Government resolutions, the MOH orders) (Annex 1). Postgraduate education and the process of clinical practice is governed by the following basic documents:

- **Resolution # 303 of the Government of the Kyrgyz Republic as of 31.07.07 "On the postgraduate medical education in the Kyrgyz Republic."** The Resolution approved the Provisions on Internship and Clinical Residency. However, there is no clear description of (i) *purpose* to return to a one-year specialization (internship); (ii) how now internship and clinical residency are *related* to each other, i.e. what are fundamental differences between the two types of specializations: benefits of one or another certificate, for example, in employment, assignment of qualification category, the level of wages, the impact on future

career, etc.; (iii) what are the selection procedures and criteria for an internship and clinical residency; (iv) what is their status during the period of specialization - studying or working, it is not mentioned in which post they can find a job.

Ambiguity in this regard is supported by the *List of Medical Specialties* that provides for the internship[1] (the list is less but it is almost identical to the Clinical Residency - what are the procedure and criteria for selection in this case?), and *terms of payment* [2] that is also the same "... for medical staff with secondary education, *medical interns, attending physicians*, nursing staff who does not have the secondary vocational education, a base salary is fixed at 10 per cent below the base salary for the position ."

The teaching load standard for supervisors of postgraduate medical education is established based on: internship - 1:5 (one teacher for five students), clinical residency - 1:4 by budget and contract training. **However, the standards of the load for interns and clinical residents are not specified** (students : the number of patients) that does not allow adequately assessing the capacity of the clinical sites

Also, the most part of the law base (including the tripartite agreement entered by a graduate, an educational institution and a health facility) includes a item that "... During training period doctors interns/clinical residents, if necessary, are provided a service residential area by the health organization…". This item is not implemented locally.

The same requirements are spelled out in the three-party agreement[3] that is made by a graduate, an educational institution and a health facility on mandatory work after specialization. However, there is mutual non-performance of obligations of the main items of this agreement.

- **MOH Order #297 as of 15.08.2007** contains a general list of clinical sites for the internship (251 healthcare organizations including district level health facilities in all regions of the Kyrgyz Republic), and clinical residence (139 healthcare organizations partly including district level healtrh facilities in Osh, Jalalabad and Batken regions).

- **MOH Order # 54 as of 12.08.2008** contains information on the distribution of clinical sites for educational institutions (including Medical College) (Table 4.5.).

Table 4.5. Distribution of clinical sites

№	HEI	Number of clinical sites	Comments
1	KSMA	99	Along with republican health facilities, NC and the Research Institute, health facilities in Bishkek and Osh regions, regional health facilities , Oblast Merged Hospitals, Oblast FMCs, narrow specialized facilities, dental clinics and regional departments of SSES, also includes TH and district-level FMS in Osh and Jalalabad regions
2	KSMIR&CE	53	Only republican health facilities, NC and the Research Institute, health facilities in Bishkek and Osh, Oblast Merged Hospitals, Oblast FMCs

[1] Order # 297 of the Ministry of Health of the KR dated 15.08.2007;
[2] (1) Resolution #303 of the Government of the KR dated 31.07.07. (2) Resolution #411 of the Government of the KR dated June 6, 2006 «On Payment for Medical Workers of the Kyrgyz Republic» and (3) Resolution #246 of the Government of the KR dated «On Apporval of Provisions on Payment for Medical Workers of the Kyrgyz Republic» dated May 26, 2011;
[3] Order # 297 of the Ministry of Health of the KR;

3	KRSU	40	Only republican health facilities, NC and the Research Institute, health facilities in Bishkek and Osh, Oblast Merged Hospitals and two private* structures (dentistry and obstetrics and gynecology)
4	OshSU	32	Regional and town health facilities locates in Osh and district TH and FMC on Osh region
5	IGSM	16	Republican and regional hospitals located in Bishkek city and one FMC #7
6	South branch of KSMIR&CE	50	Regional, town and district health facilities (hospitals, FMC, SES, dentistry and other) located in Osh, Jalalabad and Batken regions

***Note: ****Private structures are allowed by the KR legislation*

- **The Government Resolution #425 as of August 5, 2008** - The leading role in the regulation of the relationship between educational institutions and clinical sites assigned to the Ministry of Health: approval of the model contract (in coordination with the Ministry of Education), the issues of placement of chairs, participation in the resolution of disputes.

  The important thing is the situation that "...the health facilities can be clinical sites, regardless of the type of ownership and departmental affiliation that provide different types of medical care, have a sufficient level of material and technical equipment and human resources ... ". Currently, there are examples when some interns and medical residents (especially in the field of dentistry, obstetrics - gynecology) take the initiative themselves by finding private institutions for practical training (*from interview, Osh city)*.

  The objectives and organization of the clinical sites are specified. However, as shown by the data of the interviews conducted the approved rules *are followed not fully* (especially in health facilities in Bishkek). Today the leading role of chair staff in the health facilities' activities is much reduced; their access to patients and the practice is largely limited and largely governed by head of department of the health facility. Terms of use of clinical sites by different higher education institutions differs as well, that to increasing degree dependents on the capabilities of the higher education institution and the relevant conditions in the agreements (payment of utilities, the size of the lease, etc.).

- **Resolution #246 of the Government of the Kyrgyz Republic "On Approval of the Remuneration of Health Workers of the Kyrgyz Republic" dated May 26, 2011.** The current legislation stipulates remuneration to interns/clinical residents, and clinical supervisors during the period of specialization[4]: "…The salary of instructors of interns/medical residents in health care facilities will be increased by 10 percent…" But in practice it is not done for several reasons :
- none of the documents specifies a position that interns and clinical residents can seek employment in health facilities (for example, a medical practitioner, medical assistant, laboratory, etc.), since as a doctor in their chosen specialty interns and medical residents may start working only when there is "… a diploma of higher medical education and certificate (certificate) on postgraduate education"[5]; (ii) for remuneration the interns and clinical residents and their clinical managers health facilities should *foresee* additional funds in the annual budget. For this the health facilities should have the presice plan for admission/distribution of medical interns/clinical residents. Since their number varies during the year (depending on the total admission and admission by certain specialities in a current year, cycles of training programs, etc.), then the funds planning in practice is difficult

[4](1) please see as well The Government Resolution of the KR dated 31.07.07. № 303, and (2) The Government Resolution of the KR dated 6 June 2006 N 411 "On compensations of health workers in the KR";
[5] The Government Resolution of the KR dated 31.07.07. № 303

to implement, especially given that the formation of the budget is based on the calendar, not by academic year.

4.3. Summary

- The activities of higher education institutions of the Kyrgyz Republic are focused to meet the needs both domestic and foreign markets. Since the training of medical personnel in the Kyrgyz Republic has a tendency to increase annually, as of today there is a question about the lack of clinical sites and ensuring quality of education, especially in gaining practical skills;
- The current legislation on education issues formally does not contain any restrictions on further decentralization of training in practical skills in a clinical internship and residency, since the most of regional and district level health facilities are included in the approved list of clinical sites;
- There are some discrepancies between the Orders ## 297 and 54, for example, a list of clinical sites for the internship in the first Order is much broader than in the second one. In addition, some organizations have been reorganized and changed their names, the lists need to be updated;
- *Indirect obstacles for decentralization* may be issues such as financing and creation of conditions: (i) legal base provides for the payment for clinical supervisors and interns/medical residents, however, the provided payment mechanisms have not worked, they do not work in practice and require additional study (the status of interns/ clinical residents, establishing communication between universities and health facilities, planning, budgeting); (ii) legal base requires from the heads of clinical sites and LSG/LSA create conditions for training (housing, benefits, land allocation, etc.). But in practice these provisions are not implemented; (iii)there are no load standards for interns and medical residents (students: the number of patients) that does not allow adequately assessing the capacity of the clinical site;
- Relations between higher education establishments and health facilities are regulated by contracts. Persisting for a long time disputed issues indicate the need to revise the Model Contract in order to ensure an equal conditions for all institutions and account capacity of clinical sites;
- The leading role in the regulation of the relationship between educational institutions and clinical sites assigned to the Ministry of Health.

CHAPTER 5. POSTGRADUATE MEDICAL EDUCATION: INTERNSHIP AND CLINICAL RESIDENCY

5.1. Characteristics of Selected Health Facilities

In the framework of this study activities, infrastructure, equipment in 8 FMC and 7 hospitals have been studied in four regions of the country in order to assess their capacity as clinical sites. Key features of FMC (Indicators ##1-2) and TH/OMH (Indicators ## 3-6) are shown in Table 5.1.

Table 5.1. Characteristics of Selected Health Facilities

	Region	Batken	Issyk-Kul		Osh				Talas
№	District/town	Kyzyl-Kiya	Karakol	Jety-Oguz	Osh	Kara-Suu	Nookat	Alai	Talas
1	**Average #of population, thousand people**	45,9	69,7	84,3	258,1	366,7	250,9	76,4	33,8
2	**# of visits at PHC, total, including:**	230856	382638	192165	1298854	1093562	656762	134340	127969
	outpatient	179241	328645	128052	1011966	746547	534670	108144	98626
	at home	14105	34673	26234	132672	300142	50798	13413	16365
3	**# of beds**	510	487	110	952	400	605	190	275
4	**# of admissions**	20130	21777	4579	59733	26260	28582	7281	15377
5	**#of deliveries**	2512	3116	1169	5118	7729	5877	1368	2720
6	**# of operations, total, including :**	3349	4597	643	17883	4493	2619	1148	1830
	obstetric	752	922	297	2070	674	733	399	713
	gynecological	105	929	189	1086	1089	67	302	165

As one can see from the data, the regional level health facilities (Karakol, Osh and Talas) are the most actively used by the population, and from the district level health facilities there are FMC and TH in the Osh region (Kara-Suu, Nookat). The lowest level of activities (number of visits, hospitalizations, deliveries, operations) were recorded in the Jeti-Oguz district, although in terms of number of population, hospital bed power, etc. it is comparable to the Alay district.

These differences in the use of FMC services and TH are caused by differences in the available infrastructure, laboratory and diagnostic equipment, and staffing by qualified medical personnel.

It should be noted that the list of clinical, biochemical, bacteriological and serological/ immunological tests and the availability of ECG, ultrasound studies in the health facilities at the district and provincial levels is practically the same; the list of tests performed expands at the regional level because of the serological/immunological and cytological tests. Such examination

methods as echocardiography, endoscopy (sigmoidoscopy, gastroscopy fibrosis, bronchoscopy, taking a biopsy material, etc.) are usually carried out only at the regional level.
With respect to staffing by qualified medical personnel the situation varies considerably (Table 5.2.)

Table 5.2. Characteristics of the working personnel of the selected clinical sites

	Region	Batken	Issyk-Kul		Osh				Talas
№	District/town	Kyzyl-Kiya	Karakol	Jety-Oguz	Osh	Kara-Suu	Nookat	Alai	Talas
1	**Staff of FMC, doctors, total**	68,5	128,75	64,25	537,75	259,25	218,75	67,25	72
	occupied	69	118	55	397	230	174	49,75	57
	individuals	65	109	41	339	185	136	35	38
	coefficient of combining	1,1	1,1	1,3	1,2	1,2	1,3	1,4	1,5
2	**Staff of hospitals, doctors, total**	112,25	159,25	37,25	257,25	160,25	124,5	61,5	118,75
	occupied	112,25	158,25	23,75	255,75	154,75	120,75	53,75	118,75
	individuals	96	105	17	215	150	79	26	60
	coefficient of combining	1,2	1,5	1,4	1,2	1,00	1,5	2,1	2,0
3	**Improvement of qualification, doctors, %**	13,6	20,9	2,9	16,2	21,9	28,8	26,2	61,6
4	**Improvement of qualification, midlevel, %**	9,7	14,8	46,1	9,9	24,5	18,3	13	43,2
5	**Working pensioners, doctors, %**	10,4	26,5	43,5	11,2	2,3	10,7	32,3	22,4
6	**Working pensioners, midlevel, %**	6,7	15,4	8,5	5,4	2,9	7,3	18,8	6,3

Note: *Indicators # 3-6 are generally shown for FMC and hospitals as a percentage of the total number of staff.*

The half of the selected FMC and TH/ OMH a high rate of joint appointment (1.3-2.1) was noted, and a high percentage of working pensioners as well (22.4 - 43.5%) and they do not attend qualification improvement training courses already. These circumstances have a significant impact on the health facility's ability to function fully as a clinical site for educational institutions.

5.2. Experience in Providing Postgraduate Education in Regional Clinical Sites

At the level of each FMC and TH/ OMH managers, heads of departments and employees of departments involved in the educational process were interviewed. Based on the survey of respondents the information on the organization of the educational process and its problems was received.

Admission and distribution. Each state educational institution usually has a plan for admission ofinterns and medical residents according to the control figures that is defined by the Ministry of Health of the KR. However a number of interns and clinical residents in various

specialties depends on the number of who are willing and not tied to the capabilities of clinical sites. In this regard, the number of students in certain specialties may vary considerably over the years and clinical sites. The most frequently chosen specialties are obstetrics - gynecology, surgical specialties, and dentistry. To the attempts to reorient a future intern or clinical intern to other specialties where there is a lack of specialists and vacancies are available, there are arguments such as “in the future I will be working in a private organization”, “planning to leave the country”, etc. The future dentists more often pick themselves the health facilities for training (usually a private entity).

Clinical instruction and payment. In Bishkek, the clinical instruction is the responsibility of an educational institution without any involvement of a health facility. In the regions, the clinical instructor is assigned among health facility employees. The functions of the clinical instructor include distribution of students in specialties/office/departments, attendance control, etc. In this case, the clinical instructor and clinicians involved in the learning process are not paid or partially paid (0.25-0.5 rate) by the educational institution (the situation is different in different regions). Many of them do not have any teaching experience or expertise in the field of pedagogy.

Weak connection between clinical site and educational institution. Clinical instructor and the staff of clinical sites are ill-informed about the curriculum, requirements, interns’ and medical residents’ training schedule and do not always have complete lists of students by the new academic year. Some interns and medical residents start training with a delay of one or two months. In practice, there is a lack of clinical instructors when the actual ratio exceeds the norm several times.

The quality of intruction. Talking about the quality of postgraduate education, many respondents noted that one of the factors causing difficulties in learning is a weak basic training. For example, almost universally highlighted the low level of basic knowledge and skills of the Osh State University graduates (“ ... *no knowledge of anatomy, pathophysiology , and others”, “ ... cannot fill out the medical history, writing case history”, “ ... cannot distinguish between an x-ray of a shoulder and forearm”, etc.*). In this regard, the time to complete a particular module is spent to fill the partial lack of knowledge there is incomplete digestion of the scheduled training material. Many professionals are not motivated to invest in the learning process because there is no corresponding reward. Generally heads of health facilities and departments noted poor discipline of interns and clinical residents and weak control over class attendance on the part of educational institutions, noted low interest and motivation to learn among students.

Assessment of students. The interns’ and clinical residents’ work are not paid, the training is mainly paid. control over the knowledge and skills obtained is one every six months or a year. In cases when the future intern or medical resident selects for training a health facility in a remote area, he is issued an assignment and he usually takes exams only at the year end.

5.3. Internship: Strengths and Weaknesses

The internship or one year specialization was introduced in 2007[6] as one of the measure to improve provision of the regional health facilities by young doctors, especially in rural areas including the PHC. It was assumed that the reducing the overall period of the training and passing it at the regional clinical sites will contribute to the retention of young professionals in the regions.

It should be noted that since the introduction of the internship the main part of interns of KSMA and KSMIR&CE have received the training based on clinical sites in Bishkek. For example, in 2013 in the regional clinical sites there were enrolled only 15,2% of interns of KSMA (Table 5.3.) and 100% of interns of KSMIR&CE.

[6] The Government Resolution of the KR dated 31.07.07. № 303 «On medical postgraduate education in the KR»

Table 5.3. Distribution of interns of KSMA among clinical sites, 2012-2013

KSMA	Total number of interns	Clinical sites of Bishkek	Regional clinical sites
General medicine	50	33	17
Preventive Medicine	22	14	8
Pediatrics	3	3	0
Stomatology	89	89	0
Total	**164 (100%)**	**139 (84,5%)**	**25 (15,2%)**

Note: *01.01.2013 data.*

A similar situation remains on the employment. For example, only 24,6% of graduates of internship in KSMIR&CE continued their career in the regions (Table 5.4). When taking into account only the interns and clinical residents who had trainings on a budget base, the employment situation in the regions look more favorable (for example, KSMA, Table 5.5.).

Table 5.4. Employment of interns of KSMIR&CE

Year	Total	Bishkek	Region	Outside of the county
2008	8	2	n/a	1
2009	5	2	2	1
2010	9	7	2	0
2011*	16	6	5	2
2012*	14	8	4	1
2013*	13	6	3	1
Total	**65 (100%)**	**31 (47,7%)**	**16 (24,6%)**	**6 (9,2%)**

Note: ** - Part of the data is not available*

Total 5.5. Employment of interns and clinical residents of KSMA

	2008	2009	2010	2011	2012
Graduates, total	170	206	215	291	278
Inc. Budget	123	92	82	99	77
Batken	8	10	11	4	10
Jalalabad	6	4	12	8	8
Osh	11	11	6	7	4
Naryn	3	1	0	3	2
Talas	2	1	5	4	3
Issyk-Kul	8	3	5	6	6
Chiu	42	22	12	15	12
Total in Regions	**80 (65%)**	**52 (57%)**	**56 (68%)**	**47 (47%)**	**45 (58%)**
Bishkek	**43**	**40**	**26**	**52**	**32**

In addition, the results of the conducted interviews showed that (i) the majority of respondents were not aware of the purpose of the introduction of the internship, they perceived interns as "future practitioners" and clinical residents - as "future scientists", also there was expressed an opinion that " ... in the internship is possibility to save money for training ... »; (ii) the general opinion was that one year is not enough to train a doctor who will be able to work independently in the future . It was noted that after the end of the internship the part of the graduates have to

go back and go through the primary specialization; (iii) a proposal was made to strengthen the control over the quality of teaching at undergraduate level.

It is known, one of the main areas of health care reforms in Kyrgyzstan was the strengthening primary health care and the development of family medicine. During the period of implementation of the "Manas" Program (1996-2005) there were progress has made: increasing the proportion of primary care funding, curriculum developments, retraining of existing medical and nursing staff, changes in the content of practice and others. There were introduced clinical residency and internship in specialty "Family Medicine". It was assumed that the composition of family physicians will be continuously replenished. However, the prestige of the family medicine for many reasons, continues to fall down, there is an outflow of personnel from the PHC level, particularly in rural areas, the number of applicants to the "Family Medicine" program is also annually decreasing, despite the fact that the Ministry of Health allocated 15 to 40 budget places per year (see Table 5.3.) . The introduction of internship in this sense also had no impact on the situation and the students have continued to choose mainly narrow specialties for training.

Table 5.3. Number of interns and clinical residents who trained on "Family Medicine" Program, 2009-2013

№	HEI	2009	2010	2011	2012	2013
1	KSMA	16	4	10	7	0
2	KGMIR&CE	0	4	7	4	0
	Total	**16**	**8**	**17**	**11**	**0**

Also the training programs on "GP"/"FM" have been studied (internship, clinical residency, programs for doctors and nurses). The structure of the curriculum for interns id presented below (as an example) (Fig.5.1. and 5.2.).

Fig. 5.1.Distribution of training hours by disciplines

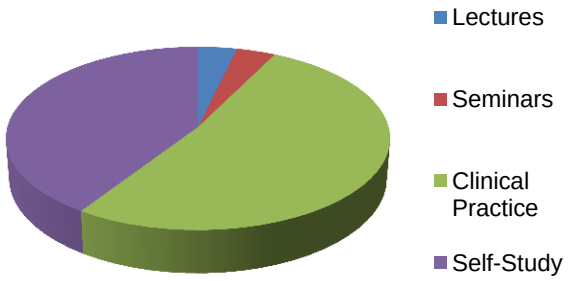
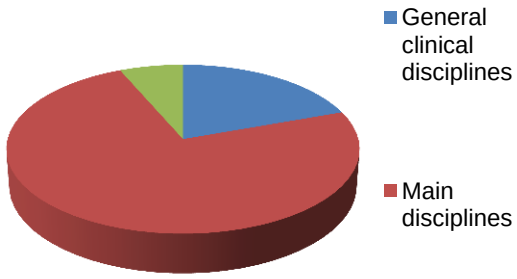


Fig.5.2. Distribution of training hours



Analysis of previous years shows that training in Family Medicine was conducted primarily at clinical sites in Bishkek and Osh, where the model of family practice is not taken root and is not working. Despite the fact that the curriculum contains a sufficient number of practical hours the interns and clinical residents had their practice in the tertiary care hospitals (especially in Bishkek), but on an outpatient level - for narrow specialists, i.e. they were not able to make a complete model of the “family doctor”.

According to respondents, the high workload, a large amount of paper work and low salary are the reasons for the low prestige of the family medicine ("... it necessary to reduce as much as possible the amount of paper work, what possible should be automatized, to improve equipment for primary health care, it will make work at PHC more attractive for youth ..”).

5.4. Decentralization of practical part of Postgraduate Medical Education: review of opinions

The respondents' opinion on the possibility of further decentralization of the practical part of the training in internship and clinical residency was obtained in all health facilities that were selected for visit as well as at the national level. Opinions were different.

Most of the respondents reacted positively to this idea:

- It is believed that many of the health facilities at rayon level , especially rayons with large number of populations have sufficient equipment and staff to carry out the functions of a clinical site (for example, TH of Kara- Suu rayon);
- Managers and heads of departments at the rayon hospital said that may take from 2 to 4 interns and clinical residents in each department (obstetrics - gynecology, surgery, general somatic , etc.);

Among those who expressed doubts expressed the following arguments:

- Low level of professional training and capacity at the rayon level. It was noted that one of the main obstacles may be the lack of qualified personnel with the pedagogical skills and ability to serve as a clinical supervisor;
- In addition, it was noticed that the limited list of activities and manipulations in the regions (for example, surgery manipulations) may lead to further deterioration in the quality of education;
- In FMCs at rayon level, it was noted that they "may provide a practical training, but the theoretical part of the intern and clinical residency should be provided in Bishkek or Osh, as we have no those who are able to teach ...";
- Much less concerns have been expressed in terms of the adequacy of the infrastructure and laboratory and diagnostic equipment to the requirements of clinical sites.

  All respondents were expressed problems such as (i) provision of housing students and (ii) preparation of clinical supervisors and providing them with payment and, if necessary, of traveling expenses.

5.5. Role of Health Facilities, LSG and LSA in creating conditions for Internship and Clinical Residency in Regions

The results received based on the interviews of the heads of the health facilities and the representatives of the LSG and LSA are presented below.

Heads of the Health Facilities:

- In Talas the willingness was expressed to provide housing for interns/clinical residents and young doctors and other provision providing that there is the Order of the Ministry of Health;

- In Nookat district of Osh region the heads of all institutions interviewed indicated that they could assist in addressing the issue of housing;
- In the town of Karakol in Issyk-Kul region they noted that there are unused spaces that can be converted as a dormitory, there is need for a little help in renovation, and hospital can cover utilities.

Representatives of LSG and LSA:

A survey among representatives of LSG and LSA (regional and district levels) showed that the overall capacity of the local authorities is little due to the limited budget (for example, many districts in Osh region are subsidized). But everywhere there are concerns about staffing and quality of services. Today the assistance of local authorities includes assistance to local health facilities in solving the problems of economic nature (current repairs, etc.). There are different opportunities in different regions, for example:

- In the Kara-Suu district in Osh region they noted that housing is a problem, the monthly rent is expensive (up to 5,000 soms, about 100 USD) due to the proximity of large commercial market. There is no experience to provide help for health care workers, but there are instances when they supported the young teachers (10,000 soms (about 200 USD) as a one-off aid, the allocation of land);
- In the town of Kyzyl-Kiya they noted that they cannot solve the housing problem.

In general, the current common practice is when for internship/clinical residency in regions mainly those come who have families and living conditions there.

5.4. Summary

- **The capacity of clinical sites varies**. Better prepared in terms of staffing and equipment are regional health facilities. But both regional and selectively district health facilities are in need of training and capacity building of teaching staff;
- The study of the current situation on the provision of postgraduate education in regional clinical sites revealed the presence of organizational problems: lack of planning and control of the educational process, the weak link of the educational institutions with clinical sites, break of discipline and low interest from the part of students' side, the unresolved issue on adequate payment for clinical governance, etc.;
- According to interviewed specialists the one year is not enough for high quality training of young doctors (possible exception can be some theoretical subjects). Introduction of the internship did not have much effect on increasing of young doctors' employment in the regions, including the PHC;
- The possible extension of decentralization of the practical part of the of postgraduate education was supported by most of the respondents. There is need for targeted initiatives and discussions with LSG and LSA for the joint development and approval of different mechanisms to create an environment for young professionals to undergo specialization and assignment, since there are still unused opportunities locally;
- In addition, it should be noted that at the national level, *there is no official statistical reporting forms* that require universities, NC and the Research Institute to provide information on *the internship and clinical residency* on the annual basis (number, qualification, contract / budget, the citizens of the Kyrgyz Republic / foreign citizens, locations and employment). This data is usually available as necessary and upon request of the MOH only.

CHAPTER 6. CONTINUING MEDICAL EDUCATION

During the conducted interviews the respondents were asked on the issues related to the continuing medical education for doctors as well as nurses. In terms of the quality of provided educational services and existing problems the following opinions were received:

- **The quality and training opportunities in regional training centers are restricted** because of it there is no possibility to get a real training. The results of the interview of working professionals at regional and district levels indicate that the preferred location to improve qualification they believe is Bishkek or, if possible - travel outside the country;
- **The majority of professionals believe that the continuing education of physicians should be concentrated in Bishkek**, but they agree and support the idea of decentralization of internship/clinical residency with having it in regional and district health facilities;
- **There are financial constraints in the provision of courses for continuing professional development**. Education is funded from the state budget, but more often at the physicians' own expenses or in the framework of implementation of international donor organizations projects ;
- **The quality of practical training of nurses is low**, according to specialists a three-year training program contains sufficient number of practical hours but at the end of training graduates have little or no practical experience. This happens for several reasons : (i) load of clinical sites (especially in Bishkek); (ii) teachers are doctors but not specialists of nursing; (iii) limitations in law base - at the level of continuing education there is no point allowing the admission of experienced/skilled nursing specialists to the teaching process (there is permission for undergraduate level);
- **There is uncertainty regarding the niche in practical public health for nurses with higher education**. A large gap according to experts is the fact that the curriculum for higher nursing education is also taught by doctors but not nurses;
- **The country has an experience in the implementation of "nursing process"** (based on the pilot in the Naryn region), all necessary regulations and recommendations have been developed. However, this experience does not find its distribution in the country. There is need the support from the Ministry of Health and legislative recognition of the initiative that would contribute to improvement of the quality of teaching in medical colleges.

Thus, despite the fact that the training program for continuing education are constantly being improved with the allocation of a sufficient number of hours for practical work (Annex 3), the quality of teaching, the content and form of continuing medical education programs are required the further improvements.

CHAPTER 7. CONCLUSION AND RECOMMENDATIONS

In general, it should be concluded that the most regulatory and legal base existing today and governing postgraduate studies are outdated and do not meet the current requirements. They are not related to the true need for personnel, availability of material and technical base for training, modern requirements to the quality of education. In fact, the imperfection of the regulatory and legal bases and their focus on the preparation of a growing number of narrow specialists creates barriers for further decentralization. The most of the RLA are required the deep revisions in accordance with the "Concept of reforming postgraduate and continuing medical education in Kyrgyzstan" that is currently developing in the country. In this case, the priority should be given to the training of general practitioners and more attention should be paid to the requirements to improve the quality of training, rather than increasing the number of trained professionals, especially narrow specialists.

The current legislation on education issues formally does not contain any restrictions on further decentralization of training in practical skills in a clinical internship and residency, since the most

of regional and district level health facilities are included in the approved list of clinical sites. ***Indirect obstacles for decentralization may be issues such as financing and creation of conditions:*** (i) law base provides for the payment for clinical supervisors and interns/medical residents, however, the provided payment mechanisms have not worked, they do not work in practice and require additional study (the status of interns/ clinical residents, establishing communication between universities and health facilities, planning, budgeting); (ii) law base requires from the heads of clinical sites and LSG/LSA create conditions for training (housing, benefits, land allocation, etc.). But in practice these provisions are not implemented; (iii) there are no load standards for interns and medical residents (students: the number of patients) that does not allow adequately assessing the capacity of the clinical site.

According to interviewed specialists the one year is not enough for high quality training of young doctors (possible exception can be some theoretical subjects). After the internship many have to go back and take an additional primary specialization in their chosen specialty.

There is need for targeted initiatives and discussions with LSG and LSA for the joint development and approval of different mechanisms to create an environment for young professionals to undergo specialization and assignment, since there are still unused opportunities locally.

Quality of teaching, the content and form of continuing medical education programs need to be improved.

At the national level, there is no regular collection of detailed information on graduates of internship and clinical residency, which would be reflected in the official statistics forms. Information is available upon the request of the Ministry of Health only.

Recommendations

Review of the Regulatory and legal base in order to:

- Define more clearly the goals and differences of internship and clinical residency;
- Develop training load standards for interns and medical residents (students: the number of patients);
- Develop and approve effective mechanisms for remuneration of clinical managers and interns/medical residents;
- Develop mechanisms for additional funding of health facility that are clinical sites;
- Improve the Model Agreement concluded between the host university and health facility, and resolve the issue on redistribution of clinical sites between universities according to their capacity;
- Solve other contradictions impeding the provision of high quality continuing education for physicians and nurses;

Postgraduate education

- Arranging the process of selection, distribution and evaluation of the internship and clinical residency;
- Further strengthening of the capacity of selected clinical sites for the internship and clinical residency, especially at the regional level (preparation of teaching staff, facilities, training materials);
- Resolving the issue in seeking opportunities to build housing for the post-graduate education period;
- Finalization the Concept of Postgraduate Education Development in the Kyrgyz Republic;
- Taking into account the importance of the planning, distribution and employment of graduates of internship and clinical residency it is recommended to establish an annual collection of official statistical information from medical universities, national centers and research institutes that involved in the educational process.

ANNEXES

Annex 1.

The List of Regulations on Medical Pre- and Post-Graduate Education

Key reguletions for medical postgraduate education in the Kyrgyz Republic

1. Resolution of the Government of the Kyrgyz Republic dated 31.07.07. # 303 “On the postgraduate medical education in the Kyrgyz Republic”.
2. Order of the Ministry of Health of the Kyrgyz Republic dated 15.08.07. # 297 “On the implementation of the decision of the Government of the Kyrgyz Republic dated 31.07.07. “On medical postgraduate education in the Kyrgyz Republic”

General Regulations on Medical Education in the Kyrgyz Republic

3. The Law of the Kyrgyz Republic dated April 30, 2003 # 92 «On Education ».
4. The Law of the Kyrgyz Republic dated January 9, 2005 #6, «Health Protection in the Kyrgyz Republic ».
5. Resolution of the Government of the Kyrgyz Republic dated February 3, 2004 # 53 « On approval of regulations governing the activities of the educational institutions of higher and professional education of the Kyrgyz Republic ».
6. Resolution of the Government of the Kyrgyz Republic dated August 5, 2008 # 425 "On additional measures for the implementation of the Law of the Kyrgyz Republic «On health care facilities in the Kyrgyz Republic ».
7. Resolution of the Government of the Kyrgyz Republic dated May 31, 2011 # 270 «On Approval of the Procedure for the Calculation of Wages of Educational Institutions’ Employees ».
8. Resolution of the Government of the Kyrgyz Republic dated May 26, 2011 #246 « On Approval of the remuneration of health workers of the Kyrgyz Republic ».
9. Resolution of the Government of the Kyrgyz Republic dated May 24, 2012 # 309 «On the Densooluk National Health Reform Program 2012-2016 of the Kyrgyz Republic» .
10. Resolution of the Government of the Kyrgyz Republic dated May 27, 2013 #291 «On approval of the Agreement on the admission of professionals who have the right to engage in medical or pharmaceutical activity in one of the member states of the Eurasian Economic Community, to the similar activities in other member states of the Eurasian Economic Community, signed on September 28, 2012 in Yalta ».
11. Resolution of the Government of the Kyrgyz Republic dated June 10, 2013 #324 « On approval of the Agreement on Cooperation of the Eurasian Economic Community in the field of training and further training of medical and pharmaceutical personnel, exchange of scientific and medical experts , signed on September 28, 2012 in Yalta » .
12. Order of the Ministry of Health of the Kyrgyz Republic dated February 12, 2008 #54 « On approval of the list of clinical sites in higher and secondary medical educational institutions of the Kyrgyz Republic ».
13. Order of the Ministry of Health of the Kyrgyz Republic dated August 8, 2008 # 406 «On accumulation system of passed hours (credit hours) in continuing medical education of the Kyrgyz Republic».
14. Order of the Ministry of Health of the Kyrgyz Republic on January 19, 2009 # 10 « On approval of the standard of the model agreement on interaction of health care facilities and medical education organizations in the practical training of students, staff training and retraining ».
15. Order of the Ministry of Health of the Kyrgyz Republic dated June 24, 2011 # 325 «On the implementation of the Resolution of the Government of the Kyrgyz Republic dated May 31, 2011 #270 «On Approval of the Instruction on the order to culculate wages for employees of educational institutions ».
16. Order of the Ministry of Health of the Kyrgyz Republic dated July 8, 2011 #354 « On

approval of the methodological guidelines for remuneration ».

17. Order of the Ministry of Health of the Kyrgyz Republic dated July 4, 2011 #338 «On approval of the certification and registration of health care professionals of the Kyrgyz Republic».
18. Order of the Ministry of Health of the Kyrgyz Republic dated November 21, 2012 #630 «On the establishment of the Testing Center ».
19. Order of the Ministry of Health of the Kyrgyz Republic dated July 5, 2012 #384 «On approval of the action plan and the indicators to monitor implementation of the Densooluk National Health Care Reform Program for 2012 – 2016».

New draft regulations developed for review and approval

20. The draft of the Law «On higher and postgraduate medical and pharmaceutical education ».
21. The drafts the State educational standards of higher and postgraduate education in all specialties, training plans and programs.
22. Draft Concept of Postgraduate and Continuing Medical Education of the Kyrgyz Republic.

Annex 2. The model of curriculum for interns on "General Practitioner" specialty, the total period of training is one year

№		Classroom part 10%		50%	40%	100%	
		Lectures hours	Seminars hours	Clinical practice hours	Self-Study hours	Total hours	Total weeks
I.	**General cilinical disciplines**					**486**	**9**
	Radiology	2	2	28	22	54	1
	Dermatovenerology	2	2	28	22	54	1
	Neurology, Neurosurgery	4	4	56	44	108	2
	Psychiatry	2	2	28	22	54	1
	Oncology	4	4	56	44	108	2
	Progessional Pathology	2	2	28	22	54	1
	Clinincal Pharmacology	2	2	28	22	54	1
II.	**Main disciplines**					**1836**	**34**
	GP / outpatient clinic	10	10	140	110	270	5
	Therapy (phthisiology, infectious diseases)	16	16	224	176	432	8(9)
	Pediatrics (pediatrics, child infections, child surgery)	12	12	168	132	324	6
	Obstetrics and gynecology	10	10	140	110	216	4(5)
	Surgery (surgery, ENT, ophthalmology, urology, traumatology)	16	16	224	176	378	7(8)
	Emergency care	4	4	56	44	108	2(3)
	Simulation course (in frame of mastering modules)					108	2
III.	**Humanities and General Education disciplines (electives)**	6	6	84	66	**162**	**3**
	Foreign languages Pedagogy and Psychology IT and medical statistics Health management						
	Total	92	92	1288	1012	**2484**	**46**

Annex 3. Examples of curriculums on Continuing Medical Education

The training programs are written in accordance with the established standards and consist of an explanatory note, two reviews of the program, content, teaching agenda with number of training hours, questions for control testing and a list of required and recommended literature.

Table A. Training hours' distribution on some NCD, for doctors

№	Topic	Number of developed programs	Total training hours	Out of them, theory+ seminars	Out of them, practice
1	CVD	2 clinincal cycles (CC) (2 weeks), 3 advanced program on topic (AP) (1 month), 1 primary specialization (PS) (3,5 months)	1101	336,5	764,5
2	Chronic obstructive lung diseases	6 CCs и 1 AP	368	153	215
3	Endocrinology	3 CCs и 2 AP	486	181	305
4	Oncology	5 CCs и 2 AP	554	183	371
5	Palliative Care	3 CCs	248	66	182

Table B. Training hours' distribution on « Family medecine » program, for doctors

№	Topic	Number of developed programs	Total training hours	Out of them, theory+ seminars	Out of them, practice
1	Hypertension	Distance learning - 2 AP, 4 weeks each	144	40/40	64
2	Selected issues of family medicine	2 CCs, 2 weeks	72	16/16	40
3	Actual issues of family medicine	37 CCs, 1 week	36	6/6	18

Table C. Training hours' distribution in curriculums for nurses

№	Topic	Number of developed programs	Total training hours	Out of them, theory+ seminars	Out of them, practice
1	Actual issues of nursing in therapy (care for patients with CVD, lung diseases, HIV, emerhgemcy care.	3 КЦ по 2 недели	72	16	40
2	Actual issues of nusrsing for FGPs/FMCs	2 AP, 1 month	156	40/40	76
3	Actual issues of nusrsing for FGPs/FMCs	1 CCs, 2 weeks	72	16/16	40
4	Nursing in family medicine	1 PS, 2 months	312	80/80	152

Table D. Training hours' distribution in curriculums for feldshers

№	Topic	Number of developed programs	Total training hours	Out of them, theory+ seminars	Out of them, practice
1	"Actual issues paramedical case in family medicine"	1 Advanced program on topic	156	40/40	76
2	"Actual issues paramedical case in family medicine"	1 (General advanced program)	288	80/80	128