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Evaluation of "Doctor's Deposit" Program

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1. Introduction

Human resources represent one of the primary elements of health system. However, notwithstanding this fact the issues regarding human resources remain unsettled in many countries worldwide irrespective of their economic conditions. Availability of doctors in rural areas is especially critical issue since the majority of population in developing countries lives in rural areas. Findings of international survey covering 14 countries suggest that from 8% to 22% doctors serve from 25% to 70% of population (Chaytors, 1996 in Kotzee, Couper 2006). Lack of medical doctors in rural and remote regions has aggravated the problem in the Kyrgyz Republic in recent three years. Estimation of true need in medical doctors has not been done to date but high rate of vacancies[4] argues that provision of staff is deteriorating. Moreover, senescence of available cadres is observed as indicated in other reports (see Kojokeev, Murzalieva, Manjieva, 2008). Average age of doctors interviewed in the context of study on reasons for brain drain out of the health system is 48. At the same time, 62% of surveyed doctors are aged over 45 (N=243, n=224) (Kojokeev, Murzalieva, Manjieva 2008).

The fact that young specialists do not go to sites according to distribution plan and external migration negatively affect the availability of specialists in remote rural regions. Share of graduates employed according to MOH KR distribution plan has reduced significantly to date comprising only around 20% (Ministry of Health, May, 2008). Majority of graduates is employed predominantly in Bishkek city and Chui oblast where total number of doctors is anyway relatively large. While the exact figures on the scale of external migration are not available, the findings of recent study (Kojokeev, Murzalieva, Manjieva, 2008) suggest that demand for doctors from Kyrgyzstan is fairly high in neighboring countries such as Russia and Kazakhstan. Doctors are leaving the country and are ready to leave abroad for work by virtue of number of reasons both tangible and intangible.

Granting this, Ministry of Health has undertaken a number of measures in recent two years on attraction and retention of health workers, in particular doctors, in remote rayons and rural areas to ensure access to health services in all regions of the country. One of the most innovative steps based on the experience of education sector was introduction of “Doctor’s deposit” program.

Governmental Decree of the KR #373 as of May 23, 2006, indicates that the main goal of “Doctor’s deposit” program includes staffing of health organizations with doctors as well as creation of necessary social and living conditions for retention of specialists in remote rayons and minor towns. According to this Decree, every month in the course of three years 3000 som are transferred to deposit account of the doctor participating in this program with taxies deducted from the source. However, the doctor is not allowed to withdraw transferred amount on monthly basis. First 50% of annual amount can be withdrawn only after a lapse of the first year. During subsequent two years the doctor is allowed to withdraw funds from the account every six months while the remaining 50% from the first year can be withdrawn only after the program is completed. The deposit is assigned in addition to the salary which means that participation in this program does not affect salary level paid in accordance with occupied position and staff list. According to program conditions, local governments must provide dwelling to program participants for the period of their work and, as far as possible, other social benefits including land plot, permanent dwelling, fuel, preferential mortgage credit, etc. Agreement is concluded

[4] RHIC data for 2006 report that 849 doctor’s positions at hospital level and 504 at PHC level were not staffed.

for three years. If the doctor doesn't work for full term he is obliged to repay all funds to personal account of the Ministry of Health.

According to the Decree, doctors are selected on competitive basis by selection commission created by MOH Order and consisting of representatives from oblast and rayon health organizations as well as local administrations and local governments. The following specialists are eligible to compete: a) doctors who completed advanced training courses within last 5 years and whose age is under 45 and b) graduates of higher medical educational institutions who passed attestation and state registration. Admission of applications, setting the date for selection and conduction of competition including ensuring attendance of applicants and representatives of local governments are functional responsibilities of oblast coordinators.

Oblast coordinators should also prepare information on vacancies in regions, work closely with local governments on creation of living conditions for program participants, inform participants about program conditions and monitor their work on regular basis. Ministry of Health is to prepare information on need in doctors and on provision of dwelling to program participants in the form of a letter of commitment from local government authorities or managers of health organizations. In addition, Ministry of Health is to give clarifications to oblast coordinators about their responsibilities, documents admission order, program conditions and so on.

Goal of this study is to evaluate "Doctor's deposit" program, namely to address two following questions:

1. What are strengths and weaknesses of regulatory-legal framework regulating the program including mechanisms of its implementation and monitoring?
2. What are the main reasons for low expression of interest in the program especially by young specialists?

Current report has the following structure: introduction section is followed by description of experience from other countries on attraction and retention of staff in rural areas; then comes brief outline of methodology and data sources; and then detailed description of analysis results of administrative data, legal documents and survey of doctors. Recommendations on further refinement of "Doctor's deposit" program are provided in conclusion.

2. Experience of other countries

As stated above, goal of "Doctor's deposit" program is to attract and retain doctors in rural regions of the country. Experience of introducing different incentives systems and compulsory service in rural regions is available from advanced as well as developing countries. Advanced countries such as USA, Canada and Norway usually use different kinds of incentives. Other countries, in particular African and South-East Asian countries often use systems combining compulsory service and incentives (Chomitz et al. 1998). Success of these programs is ambiguous with very little number of evaluation reports and studies on them. However, **they all indicate that inconsistent introduction and poor quality of administration of such programs undermine even most advanced programs in terms of technical design** (WHO, July 2006).

Interesting experience is available from Indonesia where the problem of attracting doctors to rural regions became very acute in the end of 1990ties. Survey of doctors implemented in Indonesia showed that accurately selected incentives and effective program administration can lead to positive results. At the same time this program was not sustainable in financial terms since the cost of it turned to be very high (Chomitz et al. 1998).

In 1992, the Government of Indonesia froze hiring of civil servants and shifted doctors from civil service to contract base. At that, minimum of three years of experience in civil service remained a compulsory condition for obtaining license for any type of medical practice. In 1996, the Government introduced new system of incentives according to which all doctors working in rural areas were almost automatically assigned to civil service while those working in capital city had only 10% of a chance to obtain similar status. Moreover, the state provided subsidies for very expensive education required for acquisition of specialty (i.e., after completion of basic or general medical education) only to civil servants. Subsidies for education were expected to become a significant incentive since narrow specialists in Indonesia practicing in large cities have high level of income.

As described above, findings of that study suggest that incentives introduced in 1996 made significant contribution to improved provision of medical staff in rural and remote regions of Indonesia. After the introduction of new system of incentives the share of graduates from Java/Bali going to work in remote regions of the country increased from 5.6% to 20.7% (Chomitz et al. 1998). Still it is worth mentioning that even with such incentives the share of graduates from Java/Bali willing to work in remote regions was lower than the share of graduates originally coming from those regions who wanted to go back and work in native village or island. Therefore, main conclusion of this study suggests that increasing share of students in medical schools coming from remote regions, providing scholarships to them and rendering assistance to enter medical school were the most effective way of improving provision of medical staff in the provinces (Chomitz et al. 1998).

Other more recent studies show relative impact of a number of factors on work in rural areas including introduction of new allowances paid to health workers in South Africa (Kotzee, Couper 2006; Reid 2004). In 2003, the Government of South Africa introduced new allowances for attraction and retention of health workers. In light of existing twofold problem – lack of medical staff in rural regions in general and extremely urgent problem of availability of doctors of certain specialties – it was decided to introduce two types of allowances: Allowance for specialties in extreme demand or deficit and Allowance for rural health workers (Reid 2004). First allowance was given to doctors of certain specialties especially demanded within and outside the country irrespective of place of residence and practice. It amounted from 10% to 15% of salary depending on specialty. Second type of allowance oriented at rural areas amounted from 8% (for nurses) to 22% of salary. Doctors were eligible for receiving both types of allowances. Survey findings show that about one third of health workers (from 28% to 35%) moved to work to rural regions (Reid 2004).

At the same time, findings of this study show that **level of income is only one of the factors influencing choice of place of residence for health workers. Other factors such as professional growth opportunities, satisfaction with work and opportunities for further training have significant impact on decision of a young specialist about going to work in a village.** Findings of other study implemented in South Africa make it obvious that a possibility of receiving high-quality dwelling remains an important factor for majority of doctors to decide on whether to stay in rural area or not (Kotzee, Couper 2006). Study findings also suggest that financial incentives alone have larger effect on more experienced specialists while priorities for young specialists include opportunities for professional growth, availability of equipment necessary for practice and dwelling (Reid 2004).

According to findings of the study on motivation of specialists structure implemented in Russia, basic conditions for motivation of workers include size of salary, socio-hygienic conditions, technical equipment and possibility to address social and living conditions

(Horoshiltseva). Opportunity for professional growth, diversity of work and other factors are secondary and cannot impact motivation if there is no satisfaction with basic conditions. Horoshiltseva suggests that for any change in remuneration to be effectual for the person it should be meaningful for him: the lower the initial income level is the higher the additional remuneration to this income should be percentage wise. Otherwise it won't be attractive and won't change the behavior of workers.

3. Methodology and sources of data

This study was implemented using mainly qualitative approaches. First, regulatory-legal framework was investigated. Second, statistical data of RHIC were used for recognize rayons with poorest provision of staff and compare them against program distribution list. Third, 264 health workers were interviewed with 21 of them being participants of "Doctor's deposit" program (i.e., 21% of all participants enrolled in the program before March, 2008).

Main criteria for selection of oblasts and rayons were (1) low provision with staff and (2) high level of migration since this study was implemented in the context of larger study on scale and reasons of migration of health workers. In total, thirteen rayons in five oblast of the country were covered by this study with eight rayons in four oblasts having doctors involved in "Doctor's deposit" program. In Panfilov rayon of Chui oblast, doctors involved in the program were absent at the time of study and therefore were not interviewed.

Survey tool for interviewing health workers was developed on the basis of international literature on motivation of staff (Horoshiltseva; Bennett, Gzirishvili 2000) as well as reports of donors and KR Government. It is comprised of four parts. First two parts covering broader issues and addressing general issues of motivation and reasons for outflow of medical staff are described in the report "Studying reasons for brain drain out of the Kyrgyz health system" (Kojokeev, Murzalieva, Manjieva, 2008). Current report mainly talks about third and fourth parts of survey tool since they are directly related to evaluation of "Doctor's deposit" program.

Third part of the tool consists of two options: (1) for program participants and (2) for doctors outside the program. First option aimed at program participants includes questions about selection process, fulfillment of program conditions by the state, strengths and weaknesses of the program and intentions of program participants to work full term. Second option focuses on the awareness level and opinion of health workers about "Doctor's deposit" program and attitude towards program participants. Fourth part provides general information on demographic and professional characteristics of respondents.

Hence, this questionnaire is aimed to give concrete information on factors affecting attraction and retention of doctors in rural areas. Questionnaire was tested in Panfilov rayon of Chui oblast to ensure accurate formulation of questions and explicit understanding of questions by respondents.

4. Results

"Doctor's deposit" program is an innovative program designed as short-term measure to mitigate effects of human resources crisis in rural regions in the context of extremely scarce resources. This should be taken into account when evaluating this program.

4.1. Participation in "Doctor's deposit" program

By the end of 2006 only 24 spots were filled from 150 allocated by the Government (16%) while by mid 2008 already 123 spots or 82% of the initially allocated spots have

been filled (Table 1). At that, total number of applicants was two times more than the number of available spots which indicates quite high level of interest towards the program among doctors. Moreover, one of positive results of this program implementation is low rate of drop-outs from the program. Table 1 shows that during two years of program existence only six people dropped out or 4.7% of all participants.

Table 1: Total number of participants and drop-outs, 2006 – 2008

Total number of spots by program	**150**
Number of applicants or competitors	**332**
Total # of participants in 2 years	129
Total # of drop-outs	**6**
Russia	2
Changed place of residence	3
Family circumstances	1
Total # of filled spots excluding drop-outs	**123**
Remain to be filled	**27**

Source: MOH administrative data as of May 20, 2008

However, it is worth mentioning that major increase in the number of competitors occurred after MOH decision allowing doctors to apply to their current position. Therefore, main goal of the program turned to be retention of existing staff rather than attraction of new specialists. At present, of 123 participants only 44 people or 36% are referred, on other words major share of deposit recipients continue to work at the same place (MOH administrative date as of May 20, 2008).

Moreover, decision about including doctors already working in a given organization was made without prior analysis of existing program, its strengths and weaknesses and in particular reasons for shortage of participants. Table below shows that during the first year of program implementation not a single spot was filled in Talas oblast. In Osh and Jalalabat oblasts only 10% of spots were filled. In Batken oblast 80% of spots were filled by the end of 2007 (i.e., 24 of 30) while in Osh oblast – only 17.5% (i.e., 7 of 36) were filled. Such disparity in admission of participants into the program makes it necessary to explore underlying reasons for that disparity prior to introducing any changes.

Table 2: Number of doctors admitted to the program, by oblasts, 2006 - 2008

	2006	2007	2008
Number of applicants or competitors	**50**	**82**	**200**
Number of program participants	**24**	**58**	**47**
Batken oblast	7	17	11
Osh oblast	4	3	9
Jalalabat oblast	3	16	9
Naryn oblast	5	6	7
Talas oblast	0	2	4
Issyk-Kul oblast	4	12	7
Chui oblast	1	2	0
Program drop-outs	**4**	**1**	**1**

Source: MOH administrative data as of May 20, 2008

4.2. Geographic distribution of spots

Geographic distribution of spots at least at oblast level corresponds to need index based on statistical data on number of doctors per 10 000 population. At the launch of the program, Batken (12.7 doctors per 10 000 population), Jalalabat (13.7) and Osh (14.2) oblast had lowest staff availability rates which resulted in larger number of spots

allocated to these oblasts (Table 3). Hence, distribution of spots by oblasts was done according to objective criteria.

Table 3: Number of spots allocated by the Government for "Doctor's deposit" program, 2006 – 2008

	2006	2007	2008	% of total # of spots
Total # of spots	**150**	**126**	**68**	
Batken oblast	30	23	6	20%
Osh oblast	40	36	33	27%
Jalalabat oblast	30	27	11	20%
Naryn oblast	15	10	4	10%
Talas oblast	9	9	7	6%
Issyk-Kul oblast	20	16	4	13%
Chui oblast	6	5	3	4%

Source: MOH administrative data as of May 20, 2008

However, regulatory documents regulating the program lack explicit criteria for selection of rayons within oblasts. Rayons were also supposed to be selected in the basis of availability of staff but quite often rayons that were not listed as priority rayons based on availability data were nevertheless included into the program on the basis of solicitation from chief doctors or representatives of local governments. MOH data suggest that such exceptions are made in case when only one specialist of certain type is left in particular rayon. This is not reflected in total availability rate. Moreover, method of determination of spots number by individual oblasts and rayons remains uncertain. Such approach same as other exceptions to the rule give doctors the impression of lack of objectivity and thus undermine credit to the program.

4.3. Selection process and criteria

Two thirds of program participants interviewed during this study (14 of 21 people) indicated the need to improve information dissemination about "Doctor's deposit" program. Results of focus group discussions and interviews with program participants and doctors not involved in this program show that one of the main problems in program administration and implementation is lack of information about program conditions, selection procedure and criteria, qualification and age requirements as well as timelines for decision making.

First, regulatory-legal documents do not specify timelines for competition and details of selection process. According to MOH Order, oblast coordinators are to organize and be involved in competition procedure as well as ensure attendance of all competitors and representatives of local governments on competition day. These documents also do not specify at what level the selection is done and who makes decision about admission to the program. There is also no clear description of selection criteria, i.e., whether selection is done only on the grounds of basic documents required for participation in the program or additional interview is required. How selection is done in case if several competitors comply with basic criteria (age, document supporting completion of advanced training course, etc.)?

Second, results of focus group discussions with doctors not involved in the program show that doctors receive inconsistent information about age limits for program involvement. According to doctors, it was first announced that all doctors irrespective of their age may apply to the program but selection results indicated age as main reason for denial. Survey results for doctors not currently involved in the program (N=243) show that 72% (13 people) of those who applied and was denied (18 people in total) indicated age. At the same time, there are specialists over 45 working under the

program despite the fact that it contradicts Governmental Decree #373 as of May 23, 2006 (13% of program participants are aged 45 and over). Explanation of one of MOH specialist was that such exceptions were made for specialists in particular demand such as surgeons and resuscitation experts. But the problem is that rules for such exceptions are not documented and decisions on them are non-systematic. There is a need to amend regulatory-legal framework in accordance with existing needs, namely cancel age limit, or stipulate grounds for exceptions from this rule.

Third, there are no official criteria for prioritization of certain specialties. Table below demonstrates that spots are distributed almost equally among doctors of territorial hospitals, narrow specialists of FMCs and family physicians. It is worth mentioning that 58% of spots are filled with doctors in THs and narrow specialists in FMCs located in rayon centers.

Table 4: Average age and distribution of spots among specialties

Total # of filled spots excluding drop-outs	**123**	
Average age*	**35,3**	
By type of organization:		
FMC (narrow specialists)	32	26%
FMC (family physicians)	36	29%
CGPs	11	9%
TH	39	32%
SSES Centers	5	4%

Note: *50% of participants are aged 35 and over, 13% - 45 and over.

Source: MOH administrative data as of May 20, 2008

Fourth, doctors also do not have information about how many spots were allocated under the program for given oblast. There are cases when management requested doctors to prepare documents in short time for participation in "Doctor's deposit" program but without informing them that the number of spots was limited and selection would be done on competitive basis. One respondent said: "Someone from managerial staff came to us, gathered everyone and told everyone to prepare documents. We understood that everyone will be accepted into the program but it turned out later that only one person was selected since no more spots were available".

All these facts have negative effect on attitude of personnel toward program participants and cause rumors that they were accepted to the program thanks to personal contacts rather than professional merits. "I already regret to participate in this program. They should have told us that it is not for everyone. Now people even look at me differently." – confessed one of program participants. Results of interviews with program participants and doctors not involved in this program make it apparent that for successful implementation of "Doctor's deposit" program MOH needs to provide complete and clear information to all health workers in the first place to avoid reticence, conjectures, disappointments and distrust.

4.4. Contract – statement of conditions and implementation mechanisms

Participants did not have a clear idea about program conditions in case of sick leave, maternity leave and unpaid leave. One participant confessed that she fell sick recently but had to work since she was afraid of not being able to receive deposit disbursement on time in case of having one week of sick leave.

Program rules about different types of leaves are described ambiguously. Paragraph 3.3 of typical agreement approved by Governmental Decree says that unpaid leaves, education-related and creative leaves, maternity and child rearing leaves are not

reimbursed. In other words, transfer of funds to deposit account is suspended for the period of leave. It is worth saying that this paragraph does not mention sick leaves. Next paragraph of the Agreement (paragraph 3.4) stipulates that "in case of long interruption… due to valid reason (pregnancy, childbirth, disease, etc.) Ministry of Health reserves the right to amend individual paragraphs of the Agreement (regarding place of work, specialty) by mutual agreement of parties".

First, phrase "long interruption" is not clearly defined, i.e., whether it means one month or six months. Second, since sick leaves are not mentioned in paragraph 3.3 it is not clear whether deposit transfers will be suspended for the period of sickness. Does the length of disease matter? If yes, what are the limits of sick leave lengths? Such ambiguity in conditions of the Agreement results in such facts that some program participants either cannot take even one week of sick leave or cannot receive allotted disbursements after the sick leave. This leads to disappointment and distrust to program and government.

Findings of the study demonstrate that local governments often do not fulfill agreed commitments to program participants. Only two out of 21 surveyed program participants received additional benefits although housing benefits are provided in Resolution on "Doctor's deposit" program implementation. According to MOH specialist, provision of housing is not the responsibility of MOH since local governments are entrusted to provide housing while MOH bears responsibility only for timely allocation and disbursement of deposit.

According to typical agreement approved by Governmental Decree (№373 as of May 23, 2006), local governments should provide program participant with dormitory or other kind of dwelling for the period of work as well as create conditions for retention of this specialist including preferential mortgage credit, loans, permanent dwelling, land plot, fuel for winter, etc. However, existing regulatory-legal documents do not contain mechanisms to bring pressure to local governments in case of non-fulfillment of obligations. This occurs even despite the fact that the agreement with a doctor under the program is signed also by representative of local government.

4.5. Deposit size and timeliness of disbursements

To the question about intentions to complete the program, namely work for full three years, 62% of respondents gave positive answer. This means that one third of program participants are not sure whether they will complete the program. Two most frequently mentioned reasons for such decisions include insufficient size of the deposit and lack of social and living benefits. Moreover, 77% of doctors (n=207) not involved in the program answered "No" to the question on whether "Doctor's deposit" can attract young specialists. One third of these doctors believe that deposit size should be 5000 soms. Interestingly, approximately the same share believes that deposit size should be not less that 10 000 soms to be able to attract young specialists. At the same time it is worth taking into account that average value of monthly salary indicated by surveyed doctors both within and outside the program comes to about 10 000 soms. Doctors believe that this amount is comparable to salaries in other public organizations and represents a living wage.

MOH data suggest that 21 program participants, i.e., more than half of all participants who worked under the program for more than one year, received all allotted payments by May of 2008. This was a positive achievement for increasing interest in the program especially taking into account its innovative nature for Central Asia. Main reasons for delays in payments for others include incorrect fill-out of supporting reference from place of work, contradictory information coming from oblast coordinators and chief

doctors, incorrect fill-out of agreements with savings banks and lack of identification number necessary for deduction of taxes.

While from MOH perspective these delays are valid, the problem of low awareness of program participants revealed with respect to other aspects of the program becomes relevant here as well. Some participants mentioned during interviews that they did not have complete and clear information about reasons for delays in payments and faced extremely bureaucratic system in the process of deposit acquisition. “I received the money, whole amount, but I had to run for them for the whole month. There was a lot of procrastination. They were saying that MOF and MOH cannot decide on something” – shared his experience one of program participants. In other cases participants didn’t receive neither allotted payments not explanations for reasons of delays. “I went to many places trying to receive money or at least obtain the answer why the deposit still has not been paid to me. But nothing came out of it; I was referred from one person to another but nonetheless didn’t receive the money. I don’t even hope to receive it at all” – confessed one of the participants. It is likely that problems with disbursements occurred due to objective reasons but this means that work on explanation of contract conditions to the doctors needs to be improved, proper contract preparation with savings banks needs to be ensured, etc.

In addition, majority of surveyed doctors involved in the program do not have exact information about timelines and amounts of deposit disbursements. Some respondents expected that total accrued deposit amount would be paid after the lapse of first six months while others thought that it would happen only after the lapse of three years. Low awareness problem is especially critical regarding taxes under the program. Many doctors were not informed that the deposit is taxable.

4.6. Program administration and monitoring system

Regulatory-legal framework does not have mechanisms of regulatory control from MOH side and feedback from participants. For example, of those doctors who applied but were not selected for the program only 36% (18 people out of 50) received explanations. Dissemination of information about the program and reception of applications for consideration by selection commission are the responsibility of oblast coordinators. Interviews results show that there were single instances when oblast coordinators didn’t submit complete sets of documents for doctors willing to apply for the program. In such cases doctors had to bring their documents to Bishkek and cover travel expenses themselves.

Moreover, review and reconciliation of lists of program participants demonstrate that MOH does not have recent data on program participants since MOH updates these lists only when funds are transferred to deposit accounts, i.e., once in six months or even once a year. For example, list of participants approved by MOH Order contained doctors who refused to participate in the program. In many respects this results from the fact that information about participants is not automated. Lists are prepared in Word and in different files not linked to each other.

Lack of planning is one of program bottlenecks which can be eliminated quite easy. Review of documents on program implementation shows that applications are admitted at different times meaning that there is no plan for admission to the program. This results in, first, the fact that doctors willing to participate in the program have to collect and fill documents in very short time (sometimes in one or two days); second, in inefficiency in program administration with poor monitoring being part of it. More systematic approach with selection of participants taking place at least once a year in the same month and disbursements made in the same periods.

5. Recommendations

At present, 123 doctors are already working under the “Doctor’s deposit” program. This means that any changes in program terms and conditions and deposit size should consider impact on current program participants. For example, if the decision is made to increase deposit size will this new condition be applied to current participants? Will this condition be applied to all participants including those who have only one year remaining to work? These and other similar questions need to be answered when amendments are introduced into the program.

Recommendations on how to improve “Doctor’s deposit” program can be divided into three categories: (a) amendments to regulatory-legal framework regulating the program; (b) measures aimed at improvement of program administration at oblast and central levels; (c) changes in deposit size.

Amendments to regulatory-legal framework are required, first, to ensure its compliance to changes in program policy and goals; second, to strengthen mechanisms of fulfillment of commitments by all parties and protect rights of participants; third, to clarify some general points. In particular, the following need to be revised:

- ⇒ Change age limit in light of the fact that significant share of participants are over 45 years old or at least adjust cases allowing exceptions to this criteria. For example, it is possible to make use of the experience of South Africa described earlier with allowances for doctors with extremely demanded specialties separated from allowances for rural doctors. Selection criteria and amounts of allowances for these two categories were also separate.
- ⇒ Develop mechanisms for ensuring fulfillment of commitments by local governments in accordance with Governmental Decree #373 as of May 23, 2006.
- ⇒ Itemize or expand some paragraphs (for example, on meaning of phrase “long interruption”) to avoid uncertainties.

During the revision of regulatory-legal framework it is recommended to separately address the issue of expediency of the requirement to reimburse whole amount of the deposit in case if program participant doesn’t work for full term. Will administrative and financial costs of MOH related to this process justified?

To increase interest in “Doctor’s deposit” program even under *unchanged* deposit size, increase confidence in program and prevent negative attitude towards program participants by those who are not involved in the program it is required to reinforce program administration at central and oblast levels. In particular it is necessary to:

- ⇒ Expand functional responsibilities of oblast coordinator by including work on raising awareness of doctors about selection process and program conditions, explanation of contracts to participants, timely notification of competitors about selection results, timely submission of reports to MOH, reinforcement of work with representatives of local governments to raise their awareness and interest in this program.
- ⇒ Develop feedback mechanisms for program participants and MOH and design system of routine monitoring at central level.
- ⇒ Create electronic database using, for example, Exel which can be updated automatically and contain information about each participant. This will facilitate improvement in managerial effectives, improve

reliability of data and reduce time required for routine monitoring done by MOH.

⇒ Systematize application admission, i.e., replace sliding schedule by definite predetermined deadlines for admission of documents and conduct of competition – for example, twice a year in January and July.

⇒ Raise awareness among rayon departments of savings banks and provide them with copies of typical agreements to avoid delays with disbursements and complications for participants in receiving the money.

Size of deposit remains to be one of the most challenging tasks. Existing deposit size is not sufficient to attract young specialists under 45. Current deposit size allows for retaining of existing staff in working places but fast senescence of staff should be taken into account. Findings of the study on reasons for brain drain suggest that 35% of doctors are aged over 50 (N=243, n=224) (Kojokeev, Murzalieva, Manjieva, 2008). When making a decision about further continuation of "Doctor's deposit" program it is recommended to do the following:

⇒ Estimate financial consequences for state budget in case of introduction of annual adjustment for inflation. Many program participants and other doctors recommended at least adjusting deposit size for inflation. This issue becomes especially critical in light of high rate of inflation experienced last year and forecasted for the current year.

⇒ Consider state budget capacity to increase deposit size.

"Doctor's deposit" program is an innovative mechanism for mitigation of human resource crisis in rural areas of the country for a short-term period in the context of extremely scarce public resources and more attractive opportunities in the capital city of the country and neighboring countries. It is important to say that the need in medical doctors is significantly higher that financial capacity of the budget. Government allocated 150 spots under "Doctor's deposit" program in three oblasts. However, 1515 doctors are needed to bring provision with doctors to a country average. Thus, Osh oblast needs to receive 607 doctors more, Batken – 305 and Jalalabat – 604 doctors more[5].

It is well known that the desire of professionals to live in certain country or region is influenced not only by the level of salary but also overall socio-economic and cultural conditions of that locality (Chomitz et al., 1998, BCMA Rural Issues Committee, September 1998). Therefore, just increase in income level through raise in salary or deposit size cannot solve the problem of brain drain from rural regions of the country completely. Experience of other countries shows that investments should be made into overall infrastructure of rural regions and quality of life should be improved in order to attract young professionals. This requires having multifold, multi-sectoral approach to address this problem especially when similar problems exist in education sector as well. Special emphasis is placed on local governments in consideration of recent administrative-territorial reforms.

[5] Calculation were made on the basis of data on availability of doctors per 10 000 population. E.g., population of Osh oblast was 1 065 000 in 2006 with availability of doctors per 10 000 population being 14.2. Total number of doctors required for brining availability in Osh oblast to country average (19.9), indicated by ***X,*** is as follows: (19.9 – 14.2) * 1 065 000 / 10 000.

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