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Peer Review
Medical Education Reform Project MER
Kyrgyzstan
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Peer-review team interacting with the Director of At-Bashy Territorial Hospital, July 2016

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Disclaimer

Abbreviations and Acronyms

CME	Continuing Medical Education
CNE	Continuing Nursing Education
CMEInst	Short for KSMIRCME
FAP	Feldsher Akousherka Punkt (Medical Point with a Feldsher and a midwife)
FD	Family Doctor
FN	Family Nurse
FM	Family Medicine
FMC	Family Medicine Centre
GP	General Practitioner or General Practice
GP/FD	General Practitioner/Family Doctor
GP/FM	General Practice/Family Medicine
HCW	Health Care Worker
HNE	Higher Nursing Education
HPAC	Higher Policy Analysis Centre
HR	Human Resources
ICN	International Council of Nurses
IME	Initiatives of Medical Education
KGZ	Kyrgyzstan
KRSU	Kyrgyz Russian Slavic University, named after B.N. Yeltsin
KSMA	Kyrgyz State Medical Academy
KSMIRCME	Kyrgyz State Medical Institute for Retraining and Continuing Medical Education
MEP	Medical Education Reform Project (Tajikistan)
MER	Medical Education Reform Project (Kyrgyzstan)
MoH	Ministry of Health
MoE	Ministry of Education
NCD	Non communicable diseases
OshSU	Osh State University Faculty of Medicine
PEN	PEN-Protocols, Package of Essential NCD interventions
PG/QC	Peer Groups/Quality Circles
PGME	Post-graduate Medical Education, used here for the PG-Specialty Training only
PHC	Primary Health Care
Pre-GME	Pre-graduate Medical Education, or under-graduate ME
PUST	Post-University Specialty Training
RCFM	Republican Centre for Family Medicine
SCO	Swiss Cooperation Office
SDC	Swiss Agency for Development and Cooperation
SOPs	Standard Operating Procedures
SPME	Secondary Professional Medical Education
SWaP	Sector-Wide Approach
TA	Technical Assistance
ToT	Teaching of Teachers, Training of Trainers
UMO	Teaching and Methodological Union (Discussion platform by MoE)
WHO	World Health Organization

Table of Content

Executive Summary

The most important **key findings (achievements and challenges) and recommendations** of the peer-review can be summarized as follows:

1. Pre-graduate Medical Education

Key Findings

- The **reform of undergraduate medical education started**, in line with national health care reforms focusing on GP/FD: 4th year has been completed and the review of year 5th will start in the last quarter of 2016.
- The **new curriculum** is designed according to a **List of Competencies** accepted by both MoH and MoE. The planning of the **6th year** is **not in line with the basic rules of the curriculum reform,** as it will be similar to year 4 and 5, instead of being fully clinical.
- A **Clinical Skills and Assessment Centre** has been set up. It is functioning well and is used by KSMA for undergraduate education and for Post-Graduate Medical Education (PGME). A ToT program for teachers at KSMA has been launched.
- **Osh State University** Faculty of Medicine (OshSU) is **well under way** in organising undergraduate teaching according to the new curriculum.
- **Structural challenges** still delay and hamper the implementation of the medical education reform: *excessive number of medical students and medical universities*, non-compliance with the quota-system for students coming from rural areas, lack of governance and organizational capacity of concerned institutions, etc.
- **Absence of a single assessment system** at the end of undergraduate studies.

Recommendations

Short-term (current phase)	Recommendations for the next phase
- **Fine-tuning** the **pre-graduate curricula** at KSMA (years 5&6, including practical teaching at clinical sites), revision of years 1 to 4. - **6th year** to be restructured in order to be **fully clinical.** - **Strengthen** the **support** to **medical education institutions** which can act as **drivers of change** to implement the reform. This is the case for OshSU).	- Maintain a high level of **structured and formalized policy** dialogue to address structural issues**:** promoting and raising the general awareness of ongoing medical education reforms; strengthening strategic healthcare workforce management (reducing the number of medical students in the country); intensifying contact and collaboration between MoH and MoE; Revival of UMO ("Teaching-Methodological Unit" at MoE) to form a strong influential national platform to discuss educational issues. - Exploring the possibilities of having **a single agency responsible for the design, accreditation of curricula and of final assessment** of all medical students at the end of study, in all medical universities. - **Strengthen advocacy** efforts for the selection of an increasing number of **students from the regions**.

	- **Raising awareness and promoting institutional governance,** strengthening organizational capacities of medical universities**.**

2. Postgraduate Medical Education (PGME)

Key Findings

- The **Strategy on Postgraduate Medical Education** (*Ordinatura*) has been **developed** and is planned to be implemented in the last quarter of 2016. For all (budget) students, a 2-year ordinatura in clinical sites is intended.
- The **revision of PGME legal framework** is **ongoing**. A MoH order on allocation of budget subsides for PGME on GPs has been issued, including limitation of narrow specialties.
- A **pilot of decentralized PGME** is **well on track in Naryn** oblast. An **enabling environment for decentralized PGME** has been created (high commitment of chief-doctors and other medical personnel, residents, and supervisors).
- A **Catalogue of competencies** for **GP/FD** has been developed, approved and being currently **implemented**.
- **Lack of common understandin**g within and among the institutions **about PGME** has been observed.
- **Limited** information sharing and **negotiations** between **MoH, KSMA, CMEInst** and the presumed peripheral PGME training sites (regional health facilities) has been reported.
- Within **KSMA,** there seems to be a number of **teachers reluctant** to **GP/FM specialty.**
- There is currently **no financial plan for the remuneration of residents.**
- The **control of MoH** on the **PGME** process is **limited**.
- A clear **conflict of interest** exists in the **regulation and assessment of PGME**: the same institutions regulate, supervise and assess PGME and there is no regulatory agency above them.
- **KMA** has **not** yet been **involved in the PGME** process.

Recommendations

Short-term (current phase)	Recommendations for the next phase
- **If not changed, refuse to support the PGME plans currently in place at KSMA,** as they are not in line with the necessary improvement of clinical competences for GP/FD and do not correspond to international standards. - **Skills and capacities of clinical supervisors** in clinical sites (hospitals and	- **A PGME-Agency should be established under the MoH,** with the tasks consisting in designing and/or accrediting PGME *curricula*; creating and/or accrediting the Catalogue of Competencies for all specialties; supervising training institutions and all involved hospitals and FMCs; organising and supervising a unique (single) system for the *assessment* of Ordinators' skills and competencies after training. - **Maintain a high level of, and strengthen the policy dialogue** with the involved Ministries and teaching institutions.

FMCs) should be further **strengthened.** - Continue to **promote E-learning and tele-medicine** as part of **decentralised PGME.** - **Capacities of MoH and the clinical basis to manage PGME** should be **further strengthened.**	- **PGME reform process** through the implementation of the PGME/CME strategy should be **streamlined**. - **Advocacy efforts** for the **introduction** of a **new financing system for PGME should be intensified.** - The **regulation of PMGE of all other specialties should be closely monitored by the program.** - **Support OshSU** in introducing decentralised fully clinical Ordinatura**.** - **Dialogue** and **collaboration** among PGME peripheral **clinical bases** should be further **promoted.**

3. Continuing Medical Education (CME)

Key Findings

- The **regulation** of **CME** is **under revision b**y MoH.
- **A decentralised CME system** based on credits accumulated by participation in CME learning events has been introduced in pilot rayons by CMEInst.
- A crucial and successful element is the piloting of **Peer Group Learning** in the pilot rayons. Members of PG/QC are getting credits for attending the meetings.
- Hardware and capacities for using **e-learning** have been introduced and **strengthened**.
- **Palliative Care** and **NCDs** have become **important issues for CME**.
- A **Kyrgyz Medical Association** (KMA) has been **established**.
- The organisation, the timetable, and the **educational plan for CME** are still quite **chaotic** and too **theory-driven**.
- There is **no coordination** among the numerous **CME providers** and **high competition** and mistrust prevails between them.
- There is currently **no Quality Assurance system** in place.
- **Financing CME** has **not been regulated** yet.

Recommendations

Short-term (within current phase)	Recommendations for the next phase
- **CME decentralization process** should be **accelerated.** - The **scope of CME content** should **be enlarged, by putting** more emphasis on cross-sectional topics. - The **establishment** of a **credit points system** for **CME should be supported**. - **Support** to **PG/QC** should be **continued** and their introduction into more rayons ensured**.**	- The **e**stablishment of an **independent "CME-agency"** for the organisation, supervision, accreditation and re-certification should be supported. Most important is the involvement KMA. - **MER should support the MoH to design a coherent**

- **KMA** should be more **intensively promoted.** KMA has to become an important partner for Medical Educatrion especially at the PGME and CME level. - **E-learning** and **telemedicine** should be **further strengthened and recognized.**	**and transparent CME financing system**.

4. Nursing Program

Undergraduate Nursing Education

Major Findings	Recommendations for the next phase[1]
- **Recent education reforms** have raised the entrance level to completion of secondary school and established a national competency-based curriculum**.** The nursing process is emphasized, lesson plans are a routine part of teaching, and contracts are in place with clinical sites. However, the country lags far behind international standards. - **Nursing** continues to be **taught by physicians** and not by nurses. As a result, what is taught is disease-oriented and theoretical. - There is a **lack of supportive clinical supervision** of students. - **Learning materials are limited**. Equipment is sparse and out-dated. - **Curriculum focus** is mainly on **procedures** rather than critical thinking and the basics of nursing care. - **Undergraduate education** is composed of **several specialties**, some having little to do with nursing. There is **no national exam** for exit from the program, no licensure of the new graduate, and no formal accreditation of the nursing program or use of external examiners. - The **HNE curriculum** is designed to produce teachers and **managers but there is very limited** clinical practice. - A **long-term vision of nursing education** and a strategy to reform it are **needed.**	- Convene a working group to **develop a vision and strategy to reform nursing education.** Consider weighing the benefits of continuing the feldsher program in light of a revamped FN specialist. - Make the **generalist nurse** the **entry level for nursing.** - **Reconsider specialization as 1 year programs for basic specialties following completion of the generalist nurse education.** - Gradually phase out physician teachers and **involve qualified nurse teachers.** - **Offer pedagogy training for current teachers.** - **Introduce external examiners** and a **formal accreditation system for approval of nursing programs.** - Consider structured **study tours** to Europe (e.g. Switzerland).

[1]Reforming nursing education is a long process which cannot be finalized within the next phase of the project. According to the budget, different scenarii can be developed for the nursing component, see annex 7. The recommendations presented in this matrix apply to a comprehensive reform of nursing education. The report also provides findings and recommendations as regards the role of nurses in NCDs prevention and health promotion.

Post-graduate Nursing Education

Major Findings	Recommendations for the next phase
- The formal nursing specialties are in the undergraduate program. At the **post-graduate** level, there are a number of **short courses** ranging from 1 to 3.5 months. - There is **no career path for nurses** and no access to university studies via nursing.	- **Add 1 year following generalist nursing education for core nursing specialties.** Offer other short-term specialties as Continuing Nursing Education. - **Establish criteria** and **regulations** allowing nurses to **access university** level education. - For both postgraduate and continuing education specialty courses**, consider offering theory by distance and also at branch level and the practicum locally, with supervision from central/branch CME staff.** - **Develop a career path for nurses.**

Continuing Nursing Education (CNE)

Major Findings	Recommendations for the next phase
- **CNE** is **required** for advancement and a **credit system** is in place. Trained staff provide short-courses. - **KSMIRCME** staff responsible for nursing is **not trained to provide distance education**. - **Physicians** are **distrustful** of nurses and not aware of nursing roles, while **nurses lack self-confidence**. - There is a plan to **increase the number of CNE and CME credit hours** from 150 to 250. Such an increase for nurses at a time when there is no access to distance education could lead to a decrease in continuing education credits acquired and, therefore, a decrease in the number of nurses who can achieve/retain the qualification categories.	- Train CME Institutions' nursing staff to provide **distance education** and establish **needs based programming.** - Establish **joint physician-nurse peer group meetings** and other CME offerings, starting with family nurses and doctors. **Introduce nursing peer group meetings** starting with FNs **.** - **Consider retaining 150 credit hours** until the distance education platform and programming for nursing are well established. - **Develop needed competencies for specialty short course trainings in general.** - Long-term, **consider how to structure the credit system** so that these can also be credited towards postgraduate education.

5. Policy Dialogue

Major Findigs	Recommendations for the next phase

- The program achieved **impressive results** thanks to intensive and fruitful exchanges and negotiations with the different stakeholders involved in medical education. - The **Swiss Cooperation Office (SCO)** in Kyrgyzstan played a **major role** in conducting high level policy dialogue and ensuring evidence-based policy-making, using evidences from the project and the leverage offered by the SWAp. - Having a **Swiss backstopper** who has been involved in high positions in medical education in Switzerland, indubitably **facilitated** the dialogue and induced sustained commitment from Kyrgyz counterparts.	- - **In order to further increase the policy leverage, better systematize and structure the policy dialogue, and request binding and stringent conclusions.** This might be best done by setting up or revitalizing a formal platform (UMO). The project should dedicate a specific budget to this component. - **Foster an intensive dialogue about medical education between the Ministry of Health and the Ministry of Education.** Responsibility for PGME should be shifted to the MoH. This recommendation is short-term. - **Support MoH in achieving better institutional governance, notably by improving its healthcare workforce management skills and competencies, especially concerning doctors..** - **Strengthen the collaboration between key stakeholders in PGME.**

6. Project Set-Up, Design and Implementation

Major Findings	Recommendations for the next phase
- **Major results** achieved in a short period of time (i.e. undergraduate education years 1 to 4; decentralization of PGME, e-learning, introduction of PG/QC in pilot rayons). - The **capacity-building** support to **IME** provided good results. IME team has gained in ownership and **leadership** for the project. The **exchanges** with the HUG project backstoppers are further **strengthened** and very positive is the possibility to **quickly mobilize different experts.** - **Constructive synergies** have been developed with **other medical education programs** supported by SDC (i.e. Tajikistan).	- **Keep all 3 components** on Medical Education **in the next phase**. - It is relevant to **keep the same set-up,** with IME and the backstopping through HUG. - Develop a **Nursing Education component.** - Hire an additional **IME staff member** for the **new nursing component** and involve an expert in nursing education in the backstopping team**, already during the preparatory phase.** - **Further strengthen the organizational support** to institutions and working groups involved in the medical education reform. - Strengthen **cooperation** with **other SDC-funded projects in Kyrgyzstan**.. - **Systematize the policy dialogue,** increase the policy leverage.

1. Background and Rationale[2]

As part of the reform of the health sector, the Kyrgyz government has introduced a Family medicine system which consists in a unified model of primary care where one family doctor is serving all patients, and when needed, refers them to other specialists. However, challenges concerning human resources in terms of shortage of family doctors at regional level, lack of knowledge of primary care physicians and outdated curriculums and standards in Medical Education, remain the main barriers to improve the quality of medical services.

Against this background and based on the request of the Ministry of Health, SDC has been providing technical assistance to reform the Medical Education system as part of the project "Budget support to the Health SWAp in Kyrgyzstan" since 2008. This was started through a backstopping by the Hôpitaux Universitaires de Genève (HUG) and the University of Geneva (Faculty of Medicine). This has led to the revision and design of a new curriculum to prepare General Practitioners at the level of pre-graduate medical education. The major changes in this new curriculum, which was approved by the Ministry of Education in May 2012, were on reduced theoretical subjects and increase of clinical practice, and on revision of content of clinical subjects to re-orient it towards general medicine. In September 2012, first year students started to learn medicine based on the new curriculum.

While pre-graduate system is actively being reformed, the postgraduate medical education and continuous medical education are still working based on old Soviet standards and curricula. An assessment demonstrated the need to revise these systems and align them with the ongoing reforms at pre-graduate medical education and in the Health sector more generally. Against this background, in 2013, SDC decided to initiate a separate project to continue reforming the medical education in Kyrgyzstan and approved a one-year Opening Credit (April 2013 - March 2014). This one-year project was followed with 3-year Phase I (May 2014 - April2017), which is implemented by the local NGO "Initiatives in Medical Education" (IME), with the backstopping of HUG.

The overall goal of this main phase is to **improve the quality of medical education/ training and to better connect them to rural health systems' needs and practice**. As a result of project implementation, General Practitioners will be prepared to deliver health services in a responsive and people-centered manner.

The project's beneficiaries are at 3 levels of medical education: i) admitted students at pre-graduate level: 2'200 students (550 per year); ii) 80% of those students that will continue postgraduate education and c) medical personnel being retrained annually (2'300/year).

The project expected outcomes are:

Outcome 1: Students' competencies improved through a reformed pre-graduate medical education system in line with global standards

Outcome 2: Postgraduate medical education (PGME) system is modernized to allow doctors, with a special focus on General Practitioners, to be trained in response to the needs of the reformed health system

Outcome 3: Quality continuing medical education (CME) programs reformed to upgrade competencies of General Practitioners and integrated into daily medical practice

[2] Terms of Reference Peer-Review mission, June 2016. See annex 1.

Purpose and overall objectives of the peer review mandate

The current phase of the project is to come to an end in April 2017. Given that medical education reform is still in an early stage of implementation, it is planned to continue the project with a following 4-year phase. The review assessed the results and approaches of SDC support and tried to inform on the content and appropriate duration of the following phase. **More specifically, the review aimed at**:

1. Reviewing the pre-graduate reform process and defining scope for the following phase;
2. Deepening the reflexion on post-graduate medical education and its pilot on decentralized residenship program in Naryn Oblast;
3. Reviewing CME component and define areas of intervention for the following phase;
4. Reviewing nursing education and recommending scope of activities for the next phase.
5. Assessing the relevance of the implementation approach and management arrangement, in particular as regards optimizing cost-efficiency and ensuring systemic change and sustainability of results;
6. Further developing SDC vision and improving performance in medical education reform by synergizing and engaging SDC-funded Health projects in Kyrgyzstan and Tajikistan in mutual experiences and knowledge sharing.

The format of the review was a peer review. The review not only focused on results so far but also had a forward looking perspective (e.g. adaptations in project activities) informing the planning process of the second phase of the MER.

In accordance with DAC criteria for evaluating development assistance, the scope of the review has been enhanced by questions related to the project's relevance, effectiveness and, efficiency. Answers to specific questions[3] are provided in Annex 1.

In the light of the results achieved by a Peer Review organised in Tajikistan for the Medical Education Project (MEP) in 2014, it is hoped that the present "reverse" Peer Review will help to design the next phase of the MER program.

2. Methodology

A core Review team of 5 people were selected and worked together in Kyrgyzstan for 9 days, from 22-30 June 2016:

- The team leader – international consultant
- A senior nurse - international consultant
- A national programme officer in charge of SDC health programs in Tajikistan
- A national programme officer in charge of SDC health programs in Ukraine

Additionally, the following resource persons have actively and constructively participated to the review:

- IME staff
- The Swiss Backstopper from HUG
- Representatives of OshSU

The Review team prepared by reading relevant project-related documents prior to the start of the mission. The list of interviewees, site visits and overall schedule was elaborated by the

[3] The questions are sorted per outcome, but cross-checking with the other outcomes may be necessary.

SDC/SCO in Kyrgyzstan, in cooperation with the Swiss backstopper and the local implementing partner, IME.

In carrying out the present Review, the team operated primarily according to the Terms of Reference for the Team Leader (see annex A). A preliminary semi-structured questionnaire has been elaborated by the team leader and shared with the team.

The mission itself started with all core and extended team members attending most interviews and site visits together, in order to gain a common initial understanding of the issues which fed ongoing discussions among the team members. Later, the team divided for some visits in order to gather more information and opinions/ideas. The senior nurse has specifically concentrate on nursing issues, following a separate program with common segments.

The Review Team, together with the Project team, the Senior Program officer of SDC/SCO, the backstopper of HUG and the representatives of OshSU, have then discussed the findings and proposed recommendations in a daylong session. Using a SWOT analysis, a participative process has allowed collecting the preliminary findings and recommendations presented in the matrix in annex 4 and 5. The present report has been elaborated according to these preliminary findings.

Key results and recommendations have been shared at a stakeholder workshop at the end of the mission. Representatives of MoH and of medical education institutions were present at this event.

As regards the nursing component, the review drew on both primary and secondary data collection methods. The latter entailed an extensive desk review of data and reports from the project, as well as reports from UN agencies and information on the political, economic, health and nursing situation in the country. Primary data collection included consultations with SDC staff, briefings provided by Embassy staff and the project's core team, and field visits to several facilities and extensive interviews with key informants. Key informants included individuals in the Ministry of Health, HPAC, the CME Institute, nursing association representatives, staff of Bishkek and Naryn Medical Colleges, and staff of hospitals and health centers in Naryn oblast.

3. Findings and Recommendations (Doctors' Education)

In spite of the challenges and weaknesses listed below, which are mostly structural and therefore not in the direct sphere of influence of the project, the achievements of the project within a short period of time, both at policy and at technical level, are tremendous.

The following sections present the main results, strengths, challenges, weaknesses and recommendations concerning the program for undergraduate, postgraduate and continuing medical education for family doctors. Two additional sections address recommendations on policy dialogue issues and on the project set up and implementation strategy. Finally, the report provides an assessment of the opportunities, challenges and weaknesses of the current nursing education system in Kyrgyzstan. The peer-reviewed project in its current phase doesn't address nursing education issues. The assessment is meant as a good basis to develop this component in the next phase.

The peer-review team is aware that the recommendations provided below could have considerable implications on the project set up, including human resources issues, the implementation strategy, and the budget which should be adapted accordingly.

3.1. Undergraduate (Pre-Graduate) Education

Undergraduate Medical Education represents the basic training of medical doctors ending with a Diploma. According to international standards[4], it has to prepare the students to start Post-Graduate Medical Education (or Post-Graduate Specialty Training), where residents work under supervision in order to get a Certificate as a specialist. This will allow them (after licensing by a governmental agency) to practice independently.

3.1.1. Achievements and Strengths

- The **reform** of undergraduate medical education **started**, in line with national health care reforms focusing on GP/FD. According to the National Medical Education Reform Strategy in place, the Kyrgyz Republic is currently implementing **a new curriculum** at the Kyrgyz State Medical Academy (KSMA). This year (2016), it has completed the 4th year and will start with the 5th year in fall. The implementation of a similar curriculum and a similar organisation of medical undergraduate education will start in fall at the Osh State University Faculty of Medicine (OshSU). The **reform is endorsed by most stakeholders**, including MoH, MoE, medical organisations, and clinical sites ready for educating residents, and the relevant ministries show a clear commitment to continue to implement the Strategy. The **working groups** in charge of developing the new curricula worked well and efficiently, and their composition has proven to be relevant.
- The **new curriculum** is designed according to a **List of Competencies** accepted by both MoH and MoE. Undergraduate education should lead to a Diploma in "General Medicine". The curriculum is based on two new pillars: the provision of integrated teaching during the basic years and on modular teaching during the clinical years, as well as on an early starting and increased clinical skills teaching in a Skills Centre and at the bedside during the later years. The **6th year** is meant to be **fully clinical** with little theoretical teaching.

[4] World Federation for Medical Education (WFME) standards on undergraduate Education, 2015, http://wfme.org/standards/bme/78-new-version-2012-quality-improvement-in-basic-medical-education-english/file.

- The internal organization and the **teaching process** at KSMA has **improved**, as integrated and modular teaching are well accepted by KSMA members and the General Medicine approach seems to be taught well, as confirmed by a 4th year student interviewed during her “practicum” in a regional hospital.
- *A* **Clinical Skills and Assessment Centre** has been set up with the help of MER. It is functioning well and is used by KSMA for undergraduate education and for Post-Graduate Medical Education (PGME). A ToT program for teachers based on clinical skills teaching, clinical reasoning and giving feedback, has been launched at KSMA.
- **OshSU is well under way in organising undergraduate teaching** according to the new curriculum, although it will start only in fall. The design and IT preparations for the start are convincing. Some cooperation and exchange have been in practice between OshU and KSMA.

3.1.2. Challenges

Structural challenges*,* which are mostly beyond the sphere of influence of the project, still delay and hamper the implementation of the medical education reform. The rationalization of the entire health sector (downsizing hospitals, introducing performance-based financing, strengthening preventive approaches, etc.) is in fact still to be carried further. Additionally, organizational and policy capacities of educational institutions are low and their governance weak. Finally, the structure of both MoH and MoE is not optimal and conducive for structural changes.

- One of the most difficult structural obstacles for the quality of medical education in Kyrgyzstan is the **excessive number of medical students and medical universities**. A comprehensive strategy for healthcare workforce is missing, data and statistics are lacking and planning is impossible. This is the case at KSMA but also in the country as a whole. Nearly 1500 students are admitted annually to KSMA and many more to other, mostly private, universities. The consequences are tremendous: lack of classrooms, bad teacher-to-student-ratios, and insufficient clinical sites for bed-side teaching. This is an important obstacle to clinical teaching which is crucial for sound undergraduate medical education.

  The notion that medical undergraduate education is market-driven is erroneous, as this “market” is provider- and not demand-driven. Demand has to be assessed by a strong and coherent human resources management and access to medical education needs to be regulated by a governmental agency, i.e. by MoH. However, in the Kyrgyz Republic*,* **MoE is responsible for undergraduate medical education**, and its driving force seems to be “market” and not “regulations”: more medical universities are to be opened with approval by MoE and more students paying fees (not those on state budget receiving a subsidy) are to be accepted by all medical universities, in order to improve the income of the institutions and individual members. This income-driven development produces too many ill-trained medical doctors in the country and is also the reason for their inadequate distribution throughout the country (concentration in large cities and scarcity in rural areas). In addition, this preference for students paying tuition fees goes in parallel with a non-compliance with the quota-system for students coming from rural areas, an additional reason for the shortage of doctors in the rayons.
- As regards the institutions, it seems that **many of the faculty members have not properly internalized the spirit and the rationale for the reform**. They still remain

with an old understanding of teaching (mainly theoretical) and don't support the reform process and its promoters. Sabotage statements by one of the faculty members about the non-value of GP/FM made in the presence of students applying for FD/GP residency have been reported to the peer review team during the mission. This and the fact that the remuneration system for the staff from an hourly to a course-based calculation has not been adapted, is a sign of **lack of governance and organizational capacity** of the concerned institutions.

- The review team had the impression that **consultations and cooperation between KSMA and OshSU are not functioning optimally**. Exchanges of documents and mutual information seem not to be formalized and institutionalized. KSMA documents have not been made available to OshSU, because of so called "intellectual property of KSMA". This non-cooperative and corporatist attitude might hinder the harmonization of undergraduate education at country level.
- This **lack of countrywide harmonisation** is exacerbated by the absence of a single assessment system at the end of undergraduate studies. Each teaching institution is in fact using its own assessment tool. A unique countrywide assessment system by an external agency could also be used to harmonize the curricula. Unfortunately, one of the undergraduate medical educational institutions, the KRSU, is also responsible to a foreign ministry and will have the possibility to avoid regulation by the Kyrgyz MoE and/or MoH making full harmonization less possible
- As regards the curriculum at KSMA, the **planning of the 6th year is not in line with the basic rules of the curriculum reform.** As currently planned, it will be similar to year 4 and 5, instead of being fully clinical.

3.1.3. Recommendations

Short-term:

- **Fine-tuning** the **pre-graduate curricula** at KSMA (years 5 & 6, including practical teaching at clinical sites), revision of years 1 to 4. Curriculum-building should be considered as an ongoing process.
- **6th year has to be restructured** in order to be **fully clinical**. Sixth year students should be integrated into clinical institutions and have regular patient contact. Theoretical teaching should not be more than 25%, i.e. not more than 1.5 to 3 months during the year. Students should be posted in hospitals or FMCs, in Bishkek *and* in the regions (oblast and rayons), with adequate supervision and mentoring. It doesn't have to be a university hospital, as teaching contracts with involved hospitals and out-patient clinics like FMCs and ToT for clinical teachers in these institutions could resolve most of the problems.
- **Provide and strengthen the support to medical education institutions which can act as drivers of change** to implement the reform**.** This is the case for OshSU where a clinical skills centre could be established in the next phase of the project.

Recommendations for the next phase:

- Use the currently **optimal momentum** for changes **and maintain a high level of structured and formalized policy dialogue** (including through SWAp) to address the **following issues** with the involved Ministries and teaching institutions:

- Promoting and raising the **general awareness** of ongoing medical education **reforms**, especially within KSMA (chairs, students), seizing the opportunity of having a new rector at KSMA.
- Strengthening strategic **healthcare workforce management** (assessment of needs, planning, distribution and concentration). The strategy should be based on reliable data and statistics, with the **possibility of reducing the number of medical students.**
- **Increasing contact and collaboration between MoH and MoE**, and strengthening the commitment of MoE to health education reform, or shifting responsibilities from MoE to MoH. Better definition of respective responsibilities between MoH and MoE as regards undergraduate education.
- **Revival of UMO** (the "Teaching-Methodological Unit" at MoE) to form a strong effective and influential **national platform** for the discussion of educational issues among MoE, MoH, universities, other educational institutions, presumed clinical teaching sites, and the newly formed KMA.
- Exploring the possibilities of having **a single agency responsible for the design and accreditation of curricula** in all medical universities, for the accreditation of all teaching institutions and for the assessment of all graduates of all medical universities.
- Full **integration of KRSU** into the Kyrgyz educational system.
- Strengthen **advocacy efforts** for the **selection (quota) of an increasing number of students from the regions** (order to be issued by MoH and MoE).
- **Raising awareness** and **promoting institutional governance, strengthening organizational capacities** of medical universities**,** by addressing the following issues: strengthening leadership, organizational integrity/governance, clear definition of roles and responsibilities (those who teach should be those who practice clinically), reduction of teaching hours, shifting from teaching hours to responsibility for whole courses; changes in financing and remuneration; rationalization and optimization (reducing/merging chairs). These issues can be raised through a policy platform (UMO, see above). This dialogue and negotiations have to be carried out jointly by MoH and MoE in order to induce ownership. The need to mobilize a specific backstopping resource for governance and organizational strengthening issues should be assessed. The budget should be adapted accordingly.

3.2 Postgraduate Specialty Training, PGME

PGME is the training undertaken following successful completion of the undergraduate teaching program. It produces specialists, be it as a GP/FD or as a cardiologist, internist, etc. PGME is normally carried out in institutions providing medical services like hospitals or policlinics. It is not provided at a central teaching institutional level, but at decentralized clinical sites (teaching hospital or teaching out-patient clinic). Work is under constant supervision of practicing doctors who act as mentors. This supervision is decreasing over the time, in order to prepare the residents to work independently after certification and licensing.

3.2.1 Achievements and Strengths

- The **Strategy on PGME reform** (Ordinatura), cancelling the one-year Internatura, has been **developed** and is planned to be implemented in the fall of 2016. For all (budget) students, a 2-year ordinatura in clinical sites is intended.

- The **revision of PGME legal framework** *(*laws, standards, programs, etc.) is **ongoing**, with involvement of clinical teaching sites. A MoH order on allocation of budget subsides for PGME on GPs has been issued, including limitation of narrow specialties.
- A **pilot of decentralized PGME** is well on track in **Naryn oblast.** The generated experiences and observations are positive, as shown by the opinions expressed by head doctors and residents involved in this pilot in the current phase of the program. The Peer Review has visited training sites in Kochkor, Naryn and At-Bashy. The success of decentralised Ordinatura in the Naryn Oblast is however not yet properly recognized by KSMA and MoH/MoE.
- A **catalogue of competencies for GP/FD** has been developed, approved and being currently **implemented**. It forms the basis for the development of the PGME curriculum for GP/FD.
- In clinical sites in the pilot rayon (Naryn Oblast), an **enabling environment for decentralized PGME** has been created (high commitment of chief-doctors and other medical personnel, residents, and supervisors). Doctors selected as clinical supervisors for residents are willing and motivated to follow courses in teaching clinical skills. Clinical skills training courses for clinical supervisors have already been started. The added value of having residents in the team of a clinical service delivery institution is well recognized.

3.2.2 Challenges

As for undergraduate medical education, most of the challenges listed below are not in the direct sphere of influence of the project. However, they could hamper its achievements and hamper their sustainability. Therefore, these **structural challenges** have to be more strongly addressed in the current and the next phase of the project.

- There seems to be **a lack of common understandin**g within and among the medical education institutions **about PGME***.* KSMA is keeping residents posted in Bishkek and is providing them with mainly theoretical teaching - which is contrary to international standards for PGME -, sending them to peripheral hospitals and FMCs only for 3 months instead of 2 years. The main reasons for this reluctance are most probably the lack of capacity of change management, lack of clinical experience of KSMA staff, lack of trust into the training capacities of peripheral institutions, and the fear of losing the budget, as it would be shifted to peripheral sites.

  CMEInst, on the other hand, is delivering to all students an introduction into GM/FM for two months. After this theoretical part, students are sent to peripheral institutions. For CMEInst this is easily feasible because of the presence of CMEInst's institutional branches in some rayons.
- The peer-review team observed that there is clearly **not enough information sharing and negotiations between MoH, KSMA, CMEInst** on the one side and the presumed peripheral PGME training sites (regional health facilities) on the other side. Peripheral hospitals and FMCs have significant knowledge and clinical experience which is underused for training of future specialists and is therefore not acknowledged by the higher training institutions. In addition, high motivation to welcome residents has been showed by the visited facilities.
- Within **KSMA***,* there seems to be a number of **teachers reluctant to GP/FM specialty**. It has been reported to the peer-review team that high ranking members of KSMA have

given advice against choosing GP/FM as a specialty. The reason reported (among others) was that GP/FD would not find jobs in Kyrgyzstan! Faculty members are also very reluctant to send residents to the rayons, as they do not appreciate the teaching capacities of the local staff in the regional health facilities, and they do not want to lose the income generated from the supervision of residents. As a consequence, the number of graduates choosing GP/FM as specialty training at PGME is very low.

- There is currently **no financial plan for the remuneration of residents**. In addition, they still pay fees to KSMA. As students should be practising and delivering services, and thus, generating revenues for the medical facility where they are doing their residency, they should be adequately remunerated. The sources of funding could be mixed: state budget, insurance, facility income, etc.

- The **control of MoH** on the **PGME** process **is limited**. There is to date no human resources strategy, nor plan about the number of specialists needed in the different specialities and the number of training sites required for them. In addition, there is still no up-to-date program for the PGME training of other specialties. Students are still doing a one-year Internatura to become recognised as a specialist; for instance, in cardiology or OB/GYN. This is clearly not in accord with current international standards.

  More generally, it can be noted that the MoH has up to now not showed a strong interest in promoting GP/FM among students. Additionally, as already mentioned, MoH has not yet regulated the financial issues and there is still no "social package" for residents, and lodging and housing are not organised in all the rayons.

- A clear **conflict of interest** exists in the **regulation and assessment of PGME**. In fact, the same institutions regulate, supervise and assess PGME, and there is no regulatory agency above them. This implies non-uniformity of the PGME-process and doesn't guarantee good and appropriate training quality. Without a unified training system, there will never be certainty about the competences and skills of medical service providers. This is worsened by the fact that there is no clear "Career Path" for doctors. This does not only apply to GP/FM, but also to other specialties.

- **KMA** has **not yet been involved** in the **PGME** process. The newly founded Kyrgyz Medical Association (an association of the already existing specialty associations) should become an important partner for the PGME process. The knowledge and experience of its members-associations could be involved in curriculum building and in the selection and training of clinical supervisors.

3.2.3 Recommendations

Short-term:

- If not changed, **refuse to support the PGME plans** currently in place at KSMA**,** as they are not in line with the necessary improvement of clinical competences for GP/FD and do not correspond to international standards

- The **skills and capacities of clinical supervisors in clinical sites (hospitals and FMCs) are crucial for the PGME process and should be further strengthened.** Training courses for clinical supervisors (cascade training model) have already started and the Peer Review team had positive feedback about them. The training courses aim at strengthening the teaching skills at bedside. In addition, the process of permanent (but over the two Ordinatura-years decreasing) supervision of residents, has to be taught.

- Continue to **promote E-learning and tele-medicine** as part of decentralised PGME. The use of new technologies to spread and disseminate information should be a cornerstone in the decentralised PGME system. Cooperation with other donors involved in the medical education process using new technologies (like Aga Khan University of Central Asia with its program on Mother and Child care) should be engaged.

- The **capacities of MoH and clinical basis** to manage PGME should be **further strengthened.** PGME has to be managed at the local, rayon level by the training hospitals and polyclinics (FMCs). This implies significant changes and adjustments in the employment system: temporary and permanent posts will have to be distinguished; residents will have to be on temporary assignment during the Ordinatura

Recommendations for the next phase:

- A **PGME-Agency should be established** under the MoH. Of prime significance is to have a central agency or board to organise PGME. This agency would carry out several tasks and has to be accredited by MoH. The agency's major tasks would consist in:
  - **Designing and/or accrediting PGME curricula** (together with KSMA, CMEInst, training institutions, and KMA). This agency would also be in charge of creating and/or accrediting the Catalogue of Competencies for all specialties. It would be responsible for the strict clinical orientation (training at the bedside with responsibilities of patients) of all clinical Ordinatura.
  - **Supervising training institutions and all involved hospitals** and FMCs (and other out-patient's clinics). All institutions will have to be accredited (step by step). All selected training institutions will have to fulfil certain predefined requirements and obligations. The training process in each institution should be checked on a regular basis.
  - Organising and supervising a **unique (single) system for the assessment** of Ordinators' skills and competencies after training. In order to avoid a conflict of interest, this assessment should not be left solely in the hands of training institutions. If all requirements are met and the assessment shows positive results, the agency should issue the Certificate of the Specialty (together with KMA). It should also be investigated whether this agency could also be tasked with selecting the residents.

- **Maintain a high level of, and strengthen the policy dialogue (including through SWAp) to address structural issues** with the involved Ministries and teaching institutions (see the policy dialogue section below). As already mentioned for undergraduate education, it is crucial to establish a common platform for discussion and negotiation, in order to guarantee commitment and accountability with regards to the implementation of decisions. It is highly important to involve KMA, peripheral hospitals and FMCs in such a platform.

- The **PGME reform process** through the implementation of the PGME/CME strategy accepted by the MoH (and the government) **should be streamlined.** The strategy applies for both students on state budget and on contract, after graduation from all universities in the country. Up to now, they are doing a one year Internatura, which is clearly not enough for specialty training according to international standards. In addition, this double system will create an unacceptable disparity and inequality among specialists.

- The **advocacy efforts for the introduction of a new financing system for PGME should be intensified.** PGME, according to the new strategy, will need a new financing system for the training institutions, the remuneration of residents, of clinical teachers and clinical training bases. A joint Decree has been issued by MoH and MHIF for rayons piloting the implementation of PGME strategy (Naryn, Al Bashy, Kochkor): 90% of the salary of a family doctor is allotted to the resident and incentives/top up to supervisors (10% of their salary). The nationwide scaling up of this regulation and related sub-regulations (not yet approved, most probably enforced in early 2017) should be closely monitored by the program.
- The **regulation of PMGE of all other specialties should be closely monitored by the program.** To date, MER does not tackle this topic, although it largely affects the GP/FM program. PGME reform of other specialties should be properly monitored and addressed, using the existing policy dialogue platforms (UMO and SWAp for example).
- **Support OshSU in introducing decentralised fully clinical Ordinatura,** using the experience and best practices compiled in the Naryn oblast. OshSU could put positive peer pressure on other oblasts not yet implementing PGME.
- **Dialogue and collaboration among PGME peripheral clinical bases should be further promoted.** Hospitals and out-patient clinics in the different rayons seem to have little to no contact with each other. Clinical sites are meant to become important stakeholders for PGME in the planned system which will generate common managerial and financial challenges. Therefore, it may be worthwhile to support the establishment of a discussion and experience sharing platform. Coordination between clinical institutions is also important to guarantee a homogenous PGME process.

3.3 Continuing Medical Education or Continuing Professional Development

Continuing Medical Education (CME) or continuing Professional Development, is the lifelong phase of learning after the PGME-specialty training has been completed and doctors have started to work independently (in private practice or in clinical institutions like hospitals or polyclinics). CME, according to international standards[5], is mainly driven by the individual necessities and problems encountered by the doctor during his daily work. It should be tailored to the specific needs of the practicing physicians.

3.3.1 Achievements and Strengths

- The **regulation of CME is under revision** by MoH. Main points are:
  - the introduction of the credit system,
  - the decentralisation,
  - the introduction of Learning in Peer Group/Quality Circles (PG/QC)
  - the functioning of an e-learning system and tele-medicine
- The old CME system consisting in month-long courses at a central institution in Bishkek every five years is being abandoned in favour of a **decentralised system based on credits** accumulated by participating in CME learning events. The new approach has been introduced in pilot rayons by CMEInst. This system, however, needs fine-tuning

[5] World Federation for Medical Education (WFME), Continuing Professional Development of Medical Doctors. WFME Global Standards for Quality Improvement. The 2015 Revision by the WFME Office. Ferney-Voltaire, France and Copenhagen, Denmark.

and extension to all rayons. A high degree of motivation and commitment to introduce the new system has been observed by the review-team.

- A crucial and successful element is the **piloting of Peer Group Learning** in the pilot rayons. Members of PG/QC are getting credits for attending the meetings. PG/QC are organizing themselves with the help of CMEInst and MER and meet regularly, mostly every month. They choose the topic, prepare the meeting, and may invite specialists. Facilitators for PG/QC are trained by a specialist from Dushanbe with ample experience in PG/QC organisation within the Medical Education Project (MEP) in Tajikistan, and also by members of the teaching staff of CMEInst. These groups also foster the decentralisation of seminars and the use of IT for e-learning.
- Hardware and capacities for using **e-learning** have been introduced and strengthened by the MER project and are now widely used in CME, both in CMEInst in Bishkek and in decentralized hospitals and FMCs serving as clinical basis in pilot rayons. A Web platform has been created and seems to work. Many case reports and other teaching materials have already been assembled and are available for use in CME events.
- **Seminars for GP/FD are held in Naryn oblast** by CMEInst and are monitored by the association of GP/FD. However, the topics of the seminars are mainly chosen by CMEInst and not designed according to the needs of the practicing physicians.
- **Palliative Care and NCDs** have become important issues for CME. A special pocket leaflet on palliative care has been created with the help of MER. It will help FNs and other HCWs in PHC to care for patients with pain and with terminal illnesses. The WHO PEN-Protocol introduced in Kyrgyzstan deals mainly with the recognition and reduction of risk factors for cardiovascular diseases. The introduction of the other PEN-Protocols about diabetes, respiratory diseases and breast cancer has already started or is planned.
- A **Kyrgyz Medical Association** (KMA) has been established with the help of the MER project, and legal documents required for its founding have been signed by the MoH. KMA is an association of Specialist's Associations already existing in Kyrgyzstan (umbrella association). Twelve of 78 associations have already joined KMA. Members are very motivated to take responsibilities and be more involved in the educational process, especially in PGME and CME.

3.3.2 Challenges

As for undergraduate and PGME, most of the challenges listed below are not in the direct sphere of influence of the project. However, they could hamper its achievements and hamper their sustainability. Therefore, these **structural challenges** have to be more strongly addressed in the current and the next phase of the project.

- The **organisation, the timetable, and the educational plan for CME** are still quite **chaotic and theory-driven**. There is in fact no clear plan of what has to be taught or learned. Some of the seminars are outdated and have not undergone revision in the last years. Most important, the selection of the topics and the teachers is not demand-driven (according to the needs of local GPs/FDs) but relies on the collection of seminars by the available teachers at CMEInst. These seminars are very theoretical and do not involve practitioners as presenters. CMEInst teachers spend only a restricted time in medical service delivery.

- There is **no coordination among the numerous CME providers and high competit**ion and mistrust prevails between them. Professional organisations are also providers of CME but are not recognized by the CMEInst and other institutions. KMA has not been involved in the planning and organisation of CME on a larger, country-wide scale. In addition, many donor organisations offer courses on special subjects, but no related accreditation or credit system is foreseen (e.g. UNICEF).
- In addition, there is currently **no Quality Assurance system** in place. The same institution is giving the teaching and assessing its quality. There is a clear conflict of interest, and no outside supervision.
- **Financing CME has not been regulated yet**.
- **E-Learning and tele-medicine** are available but their structure and content are quite unsystematic. The content is not accredited by an outside institution and is checked only by its designers. Moreover, the content of the programs is selected by the providers and is thus not demand-driven (meeting the needs of practising physicians). There is no cooperation and no coordination between the different e-learning providers. For example, Aga Khan University of Central Asia provides hardware and teaching material for both PGME and CME, but there is no cooperation or coordination with CMEInst.
- **KMA** has **not been yet accepted as a partner** by the other institutions overseeing PGME and CME, nor by the MoH. In many countries, medical associations, in particular specialty associations, are promotors, planners, organisers or even accreditors of PGME and/or CME. In Kyrgyzstan, their involvement in and influence on educational activities is currently low or non-existent.

3.3.3 Recommendations

Short-term:

- The **CME decentralization process should be accelerated.** It is crucial for the quality of medical service delivery to speed up the decentralisation and the expansion of CME nationwide.
- **The scope of CME content should be enlarged.** Medicine is not only about diseases and therapy, but also about patients, communication, ethical issues, about how to deal with errors and, very significantly, about attitudes of doctors, HCWs and patients. Therefore, MER project should support CMEInst and other CME providers to put more emphasis on such cross-sectional topics. NCDs should become a focus of CME, especially of PR/QC meetings.
- **The establishment of a credit points system for CME should be supported**. Credit points should be clearly defined and their allocation to CME events should be transparent. Credit should also be given for the preparation of PG/QC meetings and for the supervision of 6thyear students and residents. The registration of credit points should be centralised in the CME/PGME agency mentioned above.
- **The support to PG/QC functioning should be continued and their introduction into more rayons ensured.** The Project should supervise the accreditation process. Official recognition as a CME tool in a decentralized CME system is important. PG/QC facilitator trainings should continue, as well as the cooperation with the MEP project in

Tajikistan on PG/QC issues. Topics have to be chosen by peer groups member themselves and planning should be demand-driven. PG/QCs and their facilitators should be more involved in local CME planning. This could be done in cooperation with CMEInst or with the CME/PGME agency when formed.

- **KMA should be more intensively promoted.** Its institutional development and active role (advocacy, promoting family medicine, lobbying towards MoH, etc.) should be further strengthened. A strategy for its development and a related action plan would help in its promotion among all the not-yet member associations. KMA has to become the primary interlocutor of MoH for all issues related to the practice of medicine and all educational issues after graduation of medical students. KMA should be supported, even logistically, to become a partner of all educational institutions, including KSMA, especially for the 6th year (practical year).
- **E-learning** and **telemedicine** should be **further strengthened and recognized.** See above under 4.2.3.

Recommendations for the next phase:

- The establishment of an **independent "CME-agency" for the organisation, supervision, accreditation and re-certification shoud be supported.** As for undergraduate and post-graduate level, there should be an independent body for the planning, organisation, and accreditation of CME events, the allocation of credit points, and the management of a registry of practitioners. As mentioned above, institutions providing CME should not be the same as those who evaluate and accredit it. It might be historically founded that CMEInst would take over this task, but then it should redirect its activity from providing CME to monitoring and supervising the CME system in the country. Should CMEInst want to continue to be a provider of CME, then another agency might have to be founded, maybe the same as for PGME. The latter solution might even be more adequate, as the new agency would monitor and supervise all postgraduate medical educational activities, i.e. PGME-specialty-training and CME/CPD. As mentioned under 4.2.3., such an agency is crucial for a homogenous medical education system. Medical education cannot be left in the hands of single educational institutions like KSMA, KRSU or CMEInst. Most important, and also mentioned above, is the involvement of the association of practitioners (KMA) which has to be somehow a member of the new agency or one of its counselling bodies. Within this agency, KMA should be responsible for curricula and lists of competencies, while the agency would be responsible for the accreditation of these curricula and the teaching institutions. Another task of this agency would be to check the credits earned by individual doctors and to issue re-certification that all the requirements are fulfilled by the doctor. This re-certification process could replace the "Pavishenie Qualificatia" (increase in qualification) which is now in use. This has to be done in cooperation with KMA. An important task of this agency would be to foster the dialogue and collaboration between CME institutions, clinical training sites (hospitals, FMCs, polyclinics, etc.), universities, and KMA, by building mutual trust and promoting joint advocacy initiatives.
- **The support to PG/QC functioning should be continued and their introduction into more rayons ensured.** The project should supervise the accreditation process. Official recognition as a CME tool in a decentralized CME system is important. PG/QC facilitator trainings should continue, as well as the cooperation with the MEP project in Tajikistan on PG/QC issues. Topics have to be chosen by peer groups member

themselves and planning should be demand-driven. PG/QCs and their facilitators should be more involved in local CME planning. This could be done in cooperation with CMEInst or with the CME/PGME agency when formed.

- **MER should support the MoH to design a coherent and transparent CME financing system.** CME has to become affordable for all practicing physicians, especially for GP/FD and nurses.

4. Policy Dialogue and Governance

Inducing changes at the higher levels (MoH, MoE), strengthening the leadership of KSMA and the CMEInst, and establishing independent PGME and CME agencies is absolutely crucial for the sustainability of the structural transformations fostered and supported by the MER project. Creating an enabling regulatory environment to implement the medical education reform is a complex task: laws, regulations, and legal standards need to be changed or be adapted. They should be clear and non-contradictory. They have to be valid for and understood and followed by all individuals and institutions (including KRSU). Their editing, approval and implementing processes must be transparent and traceable.

The program achieved **impressive results** thanks to intensive and fruitful exchanges and negotiations with the different stakeholders. The Swiss Cooperation Office (SCO) in Kyrgyzstan played a major role in conducting high level policy dialogue and ensuring evidence-based policy-making, using evidences from the project and the leverage offered by the SWAp.

Having a Swiss backstopper on board who has been involved in high positions in medical education in Switzerland, indubitably facilitated the dialogue and induced sustained commitment from Kyrgyz counterparts. However, up to now, policy dialogue activities have been conducted in a rather unstructured way. Sporadic round tables and mostly bilateral meetings between project representatives and members of administration or leaders of involved institutions have produced many interesting and valuable results as can be seen by the positive pilot projects that have been started. However, from now on, as the pilots should phase out and will have to be replaced by more general plans and should be spread out through the whole country, policy dialogue should take place under more structured and binding conditions.

Power issues are becoming more and more important, as structural and far-reaching, changes have to be implemented. An example of this is the issue of sending 6th year students and residents to clinical institutions where they will be engaged in patient work. KSMA is up to now completely reluctant to support this, as it implies important changes not compatible with its current structure and its self-standing concept. In this environment, a strong stand on the basic principles governing the proposed and supported changes in medical education is crucial. These changes are not chosen at random, they are well-grounded in international standards, international experience and practice.

Recommendations

- **Systematize and better structure the policy dialogue, increase the policy leverage and request binding and stringent conclusions, contributing thus to better governance of the whole medical education system.** This might be best done by setting up or revitalizing (i.e. Ministry of Education Training and Methodological Union, UMO) a formal platform for exchange and policy dialogue on ongoing reforms in medical

education. UMO meetings should be facilitated and conveyed by the project, with the support of the SDC/SCO and using at the same time the leverage offered by the SWAp. The composition of the platform has to be enlarged, its sessions should be planned ahead and it should meet regularly. Representatives of all higher medical education institutions, KMA, teaching hospitals and other clinical institutions involved in clinical teaching, should be invited and be part of UMO. Hospital directors contacted during the Peer Review involved in PGME strategy implementation in pilot oblasts have shown a clear commitment to be part of such a platform. They should be considered as drivers of change. The project should dedicate a specific budget to this component.

- **Look for strategic alliances with other donors** interested in supporting medical education in Kyrgyzstan. The good results achieved so far and the best practices compiled by the program could be used to attract other donors, as well as making the case for investing (time and monney) in medical education.

- **Foster an intensive dialogue about medical education between the MoH and the MoE**. Responsibility for PGME should be shifted to the MoH as PGME is mainly conducted in hospitals and out-patient clinics; i.e. in institutions responsible to MoH. As mentioned, other stakeholders to be included in a structured dialogue on medical education include representatives of major medical institutions, practitioners and KMA. The regions which are not part of the PGME strategy implementation pilot (i.e. Talas) should also be linked-in in order to increase the pressure. The participation of OshSU is an important asset for the project. **This recommendation is short-term, as important issues need to be discussed and negotiated within the current phase of the program**.
- **Support MoH in achieving better institutional governance, notably by improving its healthcare workforce management skills and competencies, especially concerning doctors.** As mentioned under the Undergraduate Education section, one of the most urgent problems to be solved is the excessive number of medical students in the country. MoE is said to be on the verge of allowing the opening of a new medical school in Bishkek. This should not occur, given the oversupply of students and the concerns about the quality of education. The number of medical graduates has to be regulated in order to guarantee good (primarily clinical) education and thus, good quality medical service delivery. In this respect, a closer contact with MoE is mandatory and lobbying MoE for good governance and a modern internationally comparable medical education system is crucial. Another problem to be solved by improving HR management is the uneven distribution of specialists (GP/FD and others) between Bishkek and the rayons. Regulating the number of students, applying the Quota System for budget students from the rayons, and decentralising PGME (as proposed by MER), are important measures to address this.
- **Strengthen the collaboration and the communication between key stakeholders in PGME.** It will be particularly important to foster a fluid communication between piloted and non-piloted oblasts. As an example, the collaboration between OshSU and Al Bashy territorial hospital should be consolidated.
- The newly developed SDC policy influencing concept or any other **concept allowing to better set the policy objectives,** with a clear separation of roles and responsibilities between the SCO and the implementing parner, could be used in the next phase. SCO

Moldova recently developed a policy influencing concept aiming at facilitating the strategic planning and coherent implementation of policy influencing activities by the SCO and its project partners. A key component of the concept is a user-friendly instrument/template for formulating a policy influencing strategy. The elaboration of such a strategy should help create a common understanding between the SCO and its project partners about the key objectives and general direction of policy influencing efforts over the duration of a project phase. It should also delineate in a clear way the division of labor with regard to policy influencing between the SCO, on the one hand, and the project implementer/facilitator, on the other hand.

5. Project Set-Up and Design

5.1 Achievements and Strengths

- MER project achieved very **impressive results** in the last few years. This is especially true for Undergraduate Education years 1 to 4, where at the same time, the teaching structure has changed (integrated teaching) and clinical skills teaching has been introduced and developed. Another area where the achievement is excellent is e-learning, with the decentralisation of CME and the introduction of PG/QC in the pilot rayons. Detailed description can be found under the individual chapters above.
- It was also noted that the **capacity-building** support to **IME** provided good results. The level of competence of the staff members is in fact higher and at a needed level to deal with the counterparts in the country. IME has also gained in ownership and leadership for the project.
- The exchanges with the HUG project backstoppers are further strengthened and very positive is the possibility to **quickly mobilize different experts** for consultation and training. It was specially noted that the project is quite **cost-effective** and that the cooperation with other SDC projects (health care waste management and health facility autonomy) is tight and efficient for both sides.
- MER project has developed many constructive **synergies with other medical education programs** supported by SDC (i.e. Tajikistan). Additionally, the experience compiled so far has been broadly shared with internal and external partners at conferences, seminars, forums, workshops, and learning events.

5.2. Challenges

- The implementation of the project faces important **obstacles** which are mostly **beyond** its **sphere of influence**. As an example, the clinical training at the undergraduate level in year 5 and especially year 6 didn't get the attention it needed from Kyrgyz counterparts, despite the significant advocacy work carried out by the program and the SCO. KSMA is very reluctant, if not obstructive, to the introduction of real clinical hands-on bedside training working with patients[6]. The same holds true for the PGME program of KSMA.
- As mentioned above, the **policy dialogue should be strengthened** in order to sustain the project's achievements.

5.3. Recommendations (especially for the next phase)

[6] For details, see related sections above.

- **Keep all 3 components on medical education** (Undergraduate, PGME and CME) **in the next phase**. The approach is systemic and all segments are inter-related and closely connected with each other. The necessary changes have already started to be tackled and this needs to be continued in the next phase. The pilots have to be completed and the changes have to be spread out to other rayons.
- It is also relevant to **keep the same set-up**, with IME based in Bishkek and the backstopping in Geneva, through HUG. The need to set up a local project implementation unit in Osh in order to better support and coordinate the activities should be explored.
- **Develop a new component on Nursing Education.** Health care, especially at PHC level, is internationally considered as a team work, with **doctors and nurses** working together. Therefore, it is crucial to explore the possibilities of initializing and supporting the reorganisation of the Nursing Education sector in Kyrgyzstan. This topic was the task of Judith Oulton, whose report is integrated as chapter 5 in the present report.
- **Hire an additional IME staff member responsible for the new nursing component and involve an expert in nursing education in the backstopping team.** Broad and comprehensive knowledge of nursing education and of nursing as a profession is needed to develop and implement the proposed new component. In the current composition, IME has not enough capacity to absorb this additional work. *This new resource should be already involved in the preparation of the next phase of the project.* Knowledge and experience on an international level will also be needed, as the basis for the changes do not seem to be well represented in the Kyrgyz nursing community. Therefore, the backstopping institution should be able to quickly mobilize resource-persons and experts in nursing.
- **Further strengthen the organizational support** to institutions and working groups involved in the medical education reform, including as regards MoH and OshSU. For organizational governance issues, SDC's Decentralization and Local Governance Network resources and experts can be mobilized.
- **Continue and even strengthen the cooperation with other SDC-funded projects in Kyrgyzstan**. Synergies should be specifically build and duplication avoided with the upcoming project on control and prevention of NCDs.The collaboration and sharing of experience and best practices with other SDC-funded health projects in Eastern Europe and Central Asia, should be pursued. A specific budget line could be dedicated to this component ("regional exchanges, knowledge sharing and capitalization").
- **Systematize the policy dialogue, increase the policy leverage and require binding and stringent conclusions.** See under 4.4.
- It is highly recommended for the next phase to select **low profile indicators**, as systemic changes take time. Baselines and targets should be made available, and if not, a baseline study should be conducted as soon as possible.

6. Findings and Recommendations for Nursing Education, by Judith Oulton

Kyrgyzstan has made remarkable progress in health care reform in recent years, with a major focus on access to services and the role of the physician. At the same time, significant challenges remain, particularly in relation to population health and the prevention and treatment of NCDs. Costs to individuals, health systems and national economies are

enormous. One estimate is that the global cost of diabetes alone is likely to exceed US$ 302.5 billion by 2025[7]. Increasing the role of nurses in general and in NCDs in particular, can have significant impact. Research findings confirm that nurses with the knowledge, skills and opportunity can promote healthy behaviour, support lifestyle changes, prevent and detect disease, manage ill-health and prevent complications, and influence health and wellbeing[8].

Cost-effective approaches to addressing the growing disease burden in Kyrgyzstan will require rethinking the education and roles nurses currently play. Some progress is already underway, particularly in Naryn oblast where some Family Nurses (FNs) are playing a greater role in NCDs and in chronic care management in general. The same applies for the stroke unit pilot at Naryn District Hospital, where nurses and physicians are working as a team to improve the quality of care and length of stay of stroke victims.

Some change is also underway in relation to basic nursing education with curricular changes and the planned introduction of the credit system. Nurse leaders are ready for change and some Medical College Directors and staff, such as the Naryn Medical College, understand that the way forward will require a different role for nurses. This report reflects major findings and recommendations related to nursing education; the role of FNs, particularly in relation to NCDs, and some general observations related to planning, policy and nursing services.

In Kyrgyzstan, nursing education and services are based on the Soviet system, although some reforms are underway. Nursing remains a low status occupation rather than a profession, with nurses seen as assistants to the physician rather than as professionals with autonomy and decision-making rights and skills. The one area where there is some degree of autonomy and independent decision-making is the role of the FN.

Nurses are poorly paid, have limited access to continuing education and no career path. Many are unemployed, others are under-employed, and some are working in an extended role in Feldsher Ambulatory Posts (FAPs). Lack of language and computer skills constrain them, although there is some migration to Russia and former Soviet countries. Mal-distribution within the country means there is an oversupply of nurses in rural areas and too few in urban areas, a reversal of what is seen in most countries. However, high costs of living and low salaries keep nurses from working in large cities. Where they do, some augment their salary with secondary employment.

As health care evolves, nursing education and service must adapt, a situation that requires a sustained investment in education, training and continuous learning. As with the Medical Education Reform, reform of nursing education requires curriculum development, training of teachers, more and better clinical practice, and the introduction of e-learning.

6.1 Undergraduate Nursing Education

6.1.1. Major Findings

In Kyrgyzstan, recent education reforms have raised the entrance level to completion of secondary school and established a national competency-based curriculum. There is a code of ethics, the nursing process is emphasized, lesson plans are a routine part of teaching, and contracts are in place with clinical sites. At the same time, there are many deficits and the country lags far behind international standards.

[7] International Diabetes Federation. IDF. 2009. World Diabetes Day Media Kit, http://www.idf.org/websdata/docs/World_Diabetets_Day_Media_Kit.pdf, p24.

[8] Pat Hughes. (2015). *Non-communicable disease: how can nurses better contribute?* Power Point Presentation. International Council of Nurses Congress, Seoul, 2015.

Nursing continues to be taught by physicians and not by nurses. As a result, what is taught is disease-oriented and theoretical, and teachers' ability to teach a competency-based and nursing care-based approach is limited. There are too few hours of actual patient contact and many hours of independent study. There is a lack of supportive clinical supervision of students (up to 50% do their concentrated clinical practice in other communities) and, in the first cycle, assisting the hospital cleaners is counted as clinical practice, thus reinforcing an image of low skill and knowledge. Teaching and learning materials are limited, particularly in the Kyrgyz language. Limited Russian language skills further restrict student access to learning materials. Equipment is sparse and out-dated, though this will be addressed shortly via the SWAp.

The curriculum focus is mainly on procedures rather than critical thinking and the basics of nursing care. There is no life span orientation, little focus on healthy lifestyles and no course on community nursing. At the same time, there is some duplication of content in terms of NCDs, but insufficient focus on diabetes. There is limited emphasis on patient teaching, communication or team work, all of which are key to fuller utilization of nurses' roles and to greater physician confidence in graduates' abilities.

Teachers have no mandate to teach students to chart and students and nurses have no space on patient charts on which to write their observations aside from FNs undertaking home visits. Charting generally is in the form of checklists with no space for other contributions. There are no resource materials on the wards for students to use and few for nurses as well.

Undergraduate education is composed of several specialties, some having little to do with nursing. What could be considered nursing specialties are not built on a common nursing base, which is the norm today. Rather, there are several specialty silos which restrict the nurse in terms of practice and career path and constrain the employer in terms of staff utilization. There is no national exam for exit from the program, no licensure of the new graduate, and no formal accreditation of the nursing program or use of external examiners. However, Bishkek Medical College did include an external examiner this year for the first time and found it useful.

There are two entry levels to nursing; one in medical colleges and the other in higher nursing education (HNE). While on paper, the latter accepts 25 students annually, in practice the numbers are far fewer (400 graduates in 18 years). Some key informants purport that the program exists now only on paper. Most graduates do not remain in nursing. The HNE curriculum is designed to produce teachers and managers but there is very limited clinical practice. The international norm today requires those who wish to teach or manage to first have practised as a nurse and then to enter a postgraduate program.

Reforms are continuing with a credit system being introduced for the curriculum this year, although the impact on content is not yet known. Some colleges already feel there are insufficient hours to teach the entire curriculum. Other pre-service issues include patients' low acceptance of care by students, nurses opinion that the new graduate is not well enough prepared to practice, and the increase in the number of private medical colleges licensed by the MoE.

A long-term vision of nursing education and a strategy to reform it are needed. There are many ways to accomplish this and the answer has to be specifically developed to fit the realities of Kyrgyzstan. Examples are provided in Annex 4.

6.1.2. Recommendations

- **Convene a working group to develop a vision and strategy to reform nursing education with identification of immediate and longer term reforms.** The international standards promulgated by the WHO, the International Council of Nurses (ICN) and the Bologna process, - as well as most nations - , begins with all nursing education built from a generalist base. Entry to professional nursing is university-based and consists of three cycles: an undergraduate bachelor's degree, followed by postgraduate master and doctoral degrees. For countries at the same stage as Kyrgyzstan, this is most likely to be a very long-term goal. However, both immediate and intermediate reforms are needed to begin to move nursing to a more professional base. One of the issues worth consideration is weighing the benefits of continuing the feldsher program in light of a revamped FN specialist.
- **Make the generalist nurse the entry level for nursing.** This can be achieved in a 3 year Secondary Professional Medical Education (SPME) program, by revamping the curriculum to focus more on health as well as illness, nursing care and critical thinking skills. It should also increase the direct patient contact hours and decrease independent practice hours. Many nursing schools in other countries are using screening programs (e.g. blood pressure checks, basic eye exams, paediatric assessments, immunization clinics) to offer students-patient contact and health promotion opportunities. The role of the FN can be introduced alone with PEN and a general increased focus on the major NCDs affecting the population.
- **Reconsider specialization as one year programs for basic specialties following completion of the generalist nurse education.** These could include FN, midwife, teacher, manager. Another option would be to provide a completion certificate at the end of 3 years, but add the option of one additional year for Family Nursing and one for Midwifery, leaving the other specialties to require work experience before enrolling in them. Other current specialties which are essentially technician programs (e.g. pharmacy nurse, lab nurse, dental nurse, etc.) could be refocused and more accurately labelled as technical faculties separate from nursing.
- **Gradually phase out physician teachers and involve qualified nurse teachers.** The goal is to have nurses teach nursing and to focus on nursing care. This may mean bringing in expatriate teachers in the beginning and sending others away to study once they have acquired some English skills. Distance education programs may also be available for part of the course work, thus reducing costs and time away from home and work.
- **Offer pedagogy training for current teachers.** This should include both content and methodologies, including how to teach a competency-based curriculum.
- **Introduce external examiners and a formal accreditation system for approval of nursing programs.** This will also require standards review for accreditation. There are many initiatives underway in this regard in Africa and Asia and many tools available.
- **Consider structured study tours to Europe (e.g. Switzerland).** Educators, nurse leaders, managers and policy-makers should be included in order to experience nursing education and services that meet international standards.

6.2. Post-graduate Nursing Education

6.2.1. Major Findings:

As noted previously, the formal nursing specialties are in the undergraduate program. At the post-graduate level, there are a number of short courses ranging from 1 to 3.5 months which are mainly offered in Bishkek.

There is no career path for nurses and no access to university studies via nursing. While at one time SPME graduates could access higher nursing education following a period of practice, this option no longer exists.

6.2.2. Recommendations

- **Add 1 year following generalist nursing education for core nursing specialties.** Offer other short-term specialties as Continuing Nursing Education and, with employer input, decide needed competencies for training, then decide the length.
- **Establish criteria and regulations which will allow nurses to access university level education.** This will be important to prepare nurses to teach nursing. Initially, it may mean nurses will need to receive degrees in health related fields rather than nursing. This has historically been and continues to be the case in many countries as nursing education evolves.
- For **both postgraduate and continuing education specialty courses, consider offering theory by distance and also at branch level and the practicum locally,** with supervision from central/branch CME staff.
- **Develop a career path for nurses.**

6.3. Continuing Nursing Education

6.3.1. Major Findings

Kyrgyzstan is in line with many countries globally where continuing nursing education (CNE) is required for advancement and a credit system is in place. As well, trained staff provide short-courses and a number of these are available annually. At the same time, the degree to which CNE is paid for in the public sector depends on the employer, as does approval of time away from work to undertake training.

A key issue is that KSMIRCME staff responsible for nursing is not trained to provide distance education. As well specialty/CNE education offerings are decided centrally a year or more in advance and uniformly offered across all regions, which limits the ability to meet local emerging needs.
Physicians are distrustful of nurses and not aware of nursing roles, while nurses lack self-confidence and knowledge in areas such as nursing process, NCDs, and health promotion. Furthermore, they have limited computer skills or access to computers. In some instances, computers are available but nurses do not know how to use them.

There is a plan to increase the number of CNE and CME credit hours from 150 to 250. Such an increase for nurses at a time when there is no access to distance education could lead to a decrease in continuing education credits acquired and, therefore, a decrease in the number of nurses who can achieve/retain the qualification categories. Such a situation affects both quality of care and staff morale, as failure to achieve the qualification category means dropping back to the first level and a drop in salary.

6.3.2. Recommendations

- **Train CME Institutions' nursing staff to provide distance education and establish needs based programming.** There is a distance-learning platform at the oblast level which is a major advantage. Input from employers and nurses should form the basis of planning in order to ensure needs are being properly addressed.
- **Establish joint physician-nurse peer group meetings and other CME offerings, starting with family nurses and doctors.** This will help to address the physician-nurse relationship as well as access to CNE.
- **Introduce nursing peer group meetings starting with FNs.** This will help to address issues of competence and confidence and will contribute to increase nurses' morale, demonstrating an interest in them and creating a support mechanism.
- **Consider retaining 150 credit hours until the distance education platform and programming for nursing are well established.** Limits on access affect nurses' ability to gain/maintain the qualifications category and also affect quality of care, morale and nurses' compensation.
- **Develop needed competencies for specialty short course trainings in general and then decide the length of the courses.** Distance education should also be competency-based. This will affect the length of the course.
- **Long-term, consider how to structure the credit system so that short courses/programs and peer review meetings can also be credited towards postgraduate education.** Often, universities will assess and provide credit for short courses/programs. For example, the ICN Leadership for Change is recognized for credits in several universities globally.

6.4. NCDs and Family Nursing

6.4.1. Major Findings

The review found highly committed FNs in place and some very good examples in Naryn oblast of nurses taking initiative in home visits, interested in implementing protocols and care plans and having a greater role in NCDs. Nurses are appreciated in their home visiting role and are doing basic health promotion at home and in FMCs. However, none are using WHO PEN, nursing protocols are out-dated, standard operating procedures are not available, and neither the nursing process nor nursing care plans are used routinely.

Nurses working in FAPs are undertaking extended roles and both FMC and FAP nurses work well with the VHCs, relying on them to assist with getting immunizations done, reminding patients of appointments, etc. These Committees can have a positive impact on the public's perception of the FN.

FNs provide an important service, being the first provider to see the patient in the FMC. Because they also visit them at home, nurses know families and their issues. From the FN room, they determine the purpose of the visit, check vital signs, undertake a partial risk assessment, and offer basic health counselling. However, because the FD often lacks confidence in the nurses, they recheck the vital signs, history, etc. - actions which undermine the patient's confidence in the nurse. Nurses are also hampered further when physicians utilize part of the nurses' salary budget to augment their own salaries. This means the physician/nurse ratio is not met and therefore nurses cannot work to their full potential, either in FMCs or in home visits, and workloads and budget support limit their access to CNE. Nurses and managers interviewed identified a number of other barriers to full utilization of the FNs:

- Physicians expect the nurse to be an assistant and not a partner
- The administrative burden is high (some 13-19 logs need to be completed daily by the FN in addition to patient charts)
- Job descriptions are not updated or available
- There is no standard annual performance appraisal system
- The narrow specialist nurses seem less busy. They do not carry out any home visits and there is poor communication between them and the FN
- There is no transport or allowance to assist the FNs in performing home visits or funds for use of cell phones in planning or patient follow up

Other issues which arose during the review include the following:

- FNs attestations are delivered by FDs but the Association of Nurse Specialists issues attestations for nurses working with specialists in primary health care.
- While nomenclature exists for the FN, Senior FN and Assistant FN, there are no assistant posts and not all FMCs have a Senior FN post, though usually someone acts in that capacity.
- Standards of practice and criteria are not available, such as those for care of NCD patients. It is therefore difficult to evaluate nursing activities.
- The limits on the role of the FD lead to limits on the role of the FN. There is a heavy reliance on specialists for uncomplicated care (e.g. diabetic patients).
- The current 2-month preparation of the FN is not sufficient to support a broader scope of practice.
- There is no appointment system for seeing the FN or FD. While priority is given to veterans and infants, as well as the acutely ill, a system could enhance productivity and allow the FN to do more education sessions.
- Alcohol, tobacco and nutrition are seen as needing more prevention emphasis and are areas where group sessions could be given by the FNs or screening could be done in markets, etc.
- Palliative care is being done at home by feldshers as well as FNs and their respective roles are not always clear when employed in the same setting.

6.4.2. Recommendations

There is great potential to more positively impact the health of communities, the workload of family physicians and the role, satisfaction and workload of FNs.

- **Support the MoH in their review of FNs regulations, job descriptions, curriculum, protocols and workload.** The MoH is planning to undertake this review and has formed working groups looking at some aspects at present. This represents encouraging policy momentum which would benefit from support. This should include a review of the role and workload of the nurses supporting medical specialists in FMCs. While there is generally 1 nurse for each specialist, these nurses serve as assistants, do not chart, and carry out limited assessments and no home visits. A readjustment of roles and/or staffing may benefit everyone. The review should incorporate a review and recommendations concerning incentives (e.g. money, workload, social support, education, etc.). Timelines should also be established for regular review of SOPs, standards, protocols, etc. to rectify the current situation of 10-year-old, out-dated documents.
- **Introduce distance education for FNs;** once established, extend the platform and training to hospitals. Consider giving priority to retraining on nursing process, nursing care plans, patient teaching, and health promotion, as well as introducing computer skills.

- **Carry out FNs training and joint education sessions with FDs and FNs to promote task-sharing** (e.g. measuring blood glucose, improving patient health literacy, use of WHO PEN protocols by nurses) **and team building.** Rather than recreate/revise nursing protocols for NCDs, consideration should be given to identifying aspects of WHO PEN protocols that nurses can carry out and to developing modified tools to assist in this. Make sure that updated tools, including SOPs, are readily available. There are excellent examples of partnerships and collaboration among FNs and FDs. It would be relevant to involve some teams to in future conferences (i.e. making a presentation or participating in a panel discussion), such as those of the Association of Family Doctors and Family Nurses.
- **Review the Bishkek NCD Unit pilot results and how the model may be incorporated into family nursing.** The NCD unit carries out routine risk assessments on those over age 40 and has shown positive results in terms of hypertension. While it would be wrong to duplicate services in FMCs, combining the roles in the FN Unit should produce the same results, assuming the workload permits this.
- **Extend the authority and scope of work of the FN in home visits.** Some FNs can decide which patients to visit and others rely on FDs to decide. Nurses should be able to do this for many NCD patients, as well as able to prescribe and offer a range of treatments and education. Training sessions will need to be developed when the scope changes.
- **Review the role of nurses in the FAPs** (particularly related to risk assessment and therapy and how to incorporate aspects of this into the role of the FN) and of the fledsher. This will be important in relation to establishing a one year FN specialization.
- **Address the non-nursing functions of the FN, particularly the time spent in filling in logs.** There are many logs and duplicated data. A computerized system could readily decrease this workload and make the data more useful to a broader range of stakeholders. Naryn would seem to be a natural location for such a pilot.
- **Establish criteria to support evaluation of the impact of the FN.** Currently, there is no emphasis on nursing research and little is done in this regard. Moving to a new training program and expanded roles offers an excellent opportunity to begin to address this and to serve as a model for others.

6.5. General Nursing Issues

Several key issues are evident from the review and concern themselves with the broader issues of nursing policy and practice.

6.5.1. Nursing Resource Planning

There was an increase in the intake of SPME students in 2014 and there is currently an oversupply which represents 1-200 nurses in some localities. While some medical colleges, such as Naryn, have lowered their numbers this year, there is a need to address in the long-term the issue of human resources as it relates to nursing. This should go hand in hand with the vision and strategy.

6.5.2. Nursing Associations

At present, there are many nursing associations in Kyrgyzstan, both large and small. The Association of Family Doctors and Nurses seems to have few benefits for nurses. Attention

should be given to nursing content in conferences and to having nurses carry out the attestations for FNs rather than having doctors do this.

The newer umbrella organization, the Association of Nursing Professionals is young and has no resources, relying solely on volunteers to carry out its mandate. The MoH seems supportive; however, more assistance is needed to help them become sustainable.

6.5.3. Nursing in Hospitals

While the current emphasis is on nursing education and Family Nursing, in the longer term, attention needs to include hospital-based care where nurses are seen as assistants, physicians perform nursing care (especially in relation to education), and nursing is task-based rather than patient-centred. Management training for nurses is needed. A more immediate concern is the issue of patient safety and nurses' wellbeing, with nurses routinely working a 17-hour shift.

The current pilot in the Naryn Hospital stroke unit is an excellent start and the hospital has plans to extend this to patients suffering from a myocardial infarction and diabetes. This experience needs to be captured in case studies and rolled-out further across the country.

SDC interest in nursing is timely and commendable. There is a great deal to be done and the issue is what to address in which time frame. However, no matter the timing and intensity of involvement, the project would benefit from specific backstopping from HUG and a person responsible for nursing at the IME level. Examples of the level of SDC involvement are provided in Annex 5.

Annex 1: TOR of Peer-Review

Contract no. 81043366 (B Mandate)

Peer Review of Medical Education reform Project in the Kyrgyz Republic

7F-08530.01.05

I. General Context in Kyrgyzstan and contextual patterns related to the health sector and medical education

Since its independence, the Kyrgyz Government has been actively reforming the health sector with the aim to create an affordable and accessible health care system. This has been partially achieved through the reduction of the number of plethoric costly hospitals and by strengthening primary care. As part of this effort a "Family medicine system" was introduced, which started to provide primary care to the entire population: the Soviet type of primary care was provided by narrow specialists and less focused on the prevention measures; by contrast, the newly established family medicine system is an unified model of primary care where one family doctor is serving all patients, and when needed refer them to other specialists. However, challenges concerning human resources in terms of shortage of family doctors at regional level, lack of knowledge of primary care physicians and outdated curriculums and standards in Medical Education remain the main barriers to improve the quality of medical services.

Against this background and based on the request of the Ministry of Health, SDC has been providing technical assistance to reform the Medical Education system as part of the project "Budget support to the Health SWAp in Kyrgyzstan" since 2008. This was started through a backstopping by the Hôpitaux Universitaires de Genève (HUG) and the University of Geneva (Faculty of Medicine). This has led to the revision and design of a new curriculum to prepare "General Practitioners" at the level of pre-graduate medical education. The major changes in this new curriculum, which was approved by the Ministry of Education in May 2012, were on reduced theoretical subjects and increase of clinical practice, and on revision of content of clinical subjects to re-orient it towards general medicine. In September 2012, first year students started to learn medicine based on the new curriculum.

While pre-graduate system is actively being reformed, the postgraduate medical education and continuous medical education are still working based on old Soviet standards and curricula. A recent assessment has demonstrated the need to revise these systems and align them with the ongoing reforms at pre-graduate medical education and in the Health sector more generally. Against this background, in 2013, SDC decided to initiate a separate project to continue reforming the medical education in Kyrgyzstan and approved a one-year Opening Credit (April 2013 - March 2014). This one-year project was followed with 3-year Phase I (May 2014 - April2017), which is implementing by the HUG in partnership with the local partner Public Foundation "Initiatives in Medical Education".

II. Expected Outcomes of the Medical Education Reform (MER) Project

This project is focused on the main tasks of medical education and healthcare policy, in terms of principles of personnel planning, developing standards that meet public needs and close to international educational standards, providing pre-graduate students with relevant and quality training and resources for continuing their education with postgraduate and continuous education adapted to the Kyrgyz context and based on effective legislative regulations. In particular, medical education reform should allow resident students to be in charge of patients, under the supervision of more senior doctors, both in hospitals (in-patient) and ambulatory care settings (out-patient) such as Family Medicine Centers. Following the pre-graduate and postgraduate medical education reforms, the reform of continuous medical education should allow updating and upgrading the professional competencies and knowledge of medical doctors to respond to the changing needs of the patients and society and the new developments of medical practice.

The overall goal of this main phase is to **improve the quality of medical education/ training and to better connect them to rural health systems' needs and practice**. As a result of project implementation, General Practitioners will be prepared to deliver health services in a responsive and people-centered manner.

The project's beneficiaries are at 3 levels of medical education: i) admitted students at pre-graduate level: 2'200 students (550 per year); ii) 80% of those students that will continue postgraduate education and c) medical personnel being retrained annually (2'300/year).

Outcome 1: Students' competencies improved through a reformed pre-graduate medical education system in line with global standards

Under this outcome, the project is supporting the elaboration of modules for 2-5 years of education, and training of teachers on new methods of pre-graduate teaching. Each module incorporates theoretical subjects and includes practice-based learning and acquisition of clinical competence in early stages of education. The newly created e-M&E of students' knowledge and teaching process are functioning. It was expected that by the end this phase, all new 2'200 medical students in Kyrgyzstan are learning medicine based on the new modular system and early immersion to the clinical practice. The integrated teaching system of basic sciences with clinical subjects is improving students' knowledge and its application during clinical practice. Students also evaluate the teaching system and teachers to further improve curriculum and education process.

Outcome 2: Postgraduate medical education (PGME) system is modernized to allow doctors, with a special focus on General Practitioners, to be trained in response to the needs of the reformed health system

Under this outcome, the project is supporting implementation of the strategy to reform postgraduate medical education on "General Practitioner" specialty. The project is facilitating the decentralization of the postgraduate education system, which should result in reduced over concentration of medical students in Bishkek and Osh city hospitals. Expected results: postgraduate medical education is harmonized with the reforms conducted at pre-graduate level and the legislation is adapted. Curriculum, qualification criteria, standards, teaching methods and certification of the newly trained General Practitioners have been revised. The PGME reforms allow 550 graduates annually to get clinical residentship in rural hospitals, with better chance to practice and gain skills, and obtain better recognition for career and specialization purposes.

Outcome 3: Quality continuous medical education (CME) programs reformed to upgrade competencies of General Practitioners and integrated into daily medical practice

Under this outcome, continuous education needs to be built into everyday practice allowing doctors to improve regularly their knowledge and skills through peer-to-peer educational session, conferences, expert meetings, distance learning sessions, etc. The transparency and independency of evaluation and control of the quality and knowledge of doctors/nurses should be provided through the creation of a single electronic system of attestation and registration. Expected results: curriculum, qualification criteria, standards, legal framework and CME courses are revised against the demands of the health system with integration of findings of evidence based medicine. Medical personnel have an improved knowledge and hence, are able to provide a better quality of health services. A distance learning system connecting all oblasts level training centers is established and improves the teaching and coaching of residents at postgraduate level and doctors/nurses at CME level. These centers give access to scientific literature, provide timely distance courses for all medical personnel, conduct regular scientific forums, discussions of best practices, share of findings of evidence based medicine and consultations in difficult cases based on telemedicine tool. This distance learning system should considerably reduce expenditures for medical education process at PGME and CME levels.

III. Purpose and overall objectives of the review mandate

The current phase of the project is to come to an end in April 2017. Given that medical education reform is still in an early stage of implementation, it is planned to continue the project with a following 4-year phase. The review is assessing results and approaches of SDC support and inform on the content and appropriate duration of the following phase, more specifically:

7. To review the pre-graduate reform process and define scope for the following phase;
8. To deepen the reflexion on post-graduate medical education and its pilot on decentralized residenship program in Naryn Oblast;
9. To review the CME component and define areas of intervention during the following phase;
10. To review nursing education and recommend scope of activities for the next phase (PUST, task shifiting, and cooperation with medical colleges);
11. To assess the relevance of the implementation approach and management arrangement, in particular as regards optimizing cost-efficiency and ensuring systemic change and sustainability of results;

12. To further develop SDC vision and improve performance in medical education reform by synergizing and engaging SDC-funded Health projects in Kyrgyzstan and Tajikistan in mutual experiences and knowledge sharing.

The format of the review is a peer review. The review will not only focus on results so far but will also have a forward looking perspective (e.g. adaptations in project activities) informing the planning process of the second phase of the MER.

IV. Scope, Review Criteria and questions

In accordance with DAC criteria for evaluating development assistance, the scope of the review will be enhanced by questions related to the project's relevance, effectiveness and, efficiency.
Therefore, the review will find out answers to the following questions[9]:

Outcome 1 - Pre-graduate reform	**Review Criteria (DAC)**	**Stakeholders involved**
• To what extent is the new curriculum **implemented** and showing **positive results** on students' knowledge and practices? • Does the **working group** in charge of overseeing the revision of the curriculum at KSMA function well, in a participative process, and what are the main challenges faced? • Is there any institutional resistance to change and how it is being overcome? • How much collaboration is being implemented between institutions (KSMA, Osh University) in implementing the reform?	Effectiveness Efficiency	KSMA, Osh University,
• What mechanisms are being put in place at pre-graduate level to promote GP/FM?	Effectiveness Efficiency	KSMA, Osh University
• How to address the issue of regulating the number of students to improve the quality of pre-graduate education/training? (reduction of number of students and increase in tuition fees; competitive selection mechanisms; coordination between universities) • Are effective mechanisms, rules, programs, in place to select students coming from the regions to increase the chances of residents to practice in the regions?	Effectiveness Efficiency Relevance	MoEducation, MoHealth, KSMA, Osh University MoH, KSMA, Osh University, municipalities, Health Insurance fund?
• How does the reform contribute to significantly increase exposure and experience for students in clinical skills development by working with patients in Y 4 – Y6 with a Y 6 becoming fully clinical in clinical sites?	Effectiveness Efficiency Relevance	MoH, KSMA, Osh University, Hospital association, regional hospitals, FMCs
• How is the pre-graduate reformed program sending students to practice in clinical facilities in the regions during all the 6 years to promote practice in the regions?	Effectiveness Efficiency Relevance	MoH, KSMA, Osh University, Hospital association, regional hospitals, FMCs
• How is the remuneration system of professors and teachers being replaced moving from a teaching hour base to a time dedicated activities base?	Effectiveness Efficiency Relevance	Mo Education, KSMA, Osh University

[9] The questions are sorted per outcome, but cross-checking with the other outcomes may be necessary.

Outcome 2 - Post-graduate reform (PGME)	Review Criteria (DAC)	Stakeholders involved
• What are the main achievements under this outcome within the current phase?	Effectiveness Efficiency	All involved stakeholders
• How to overcome the difficulties in implementing the PGME and CME strategy designed according to WFME? Role of the Naryn pilot project and decentralized clinical training	Effectiveness Efficiency	MoH, KSMA, Med. Association rep., clinical sites Naryn
• What are the lessons learnt in the development of the new catalogue of competencies and PGME standards?	Effectiveness Efficiency	MoH, KSMA, Med. Association rep., clinical sites Naryn
• How to promote GP/FM through the implementation of the mandatory two-year residency *ordinatura* in GP/FM in the regions with residents being in charge of patients in hospitals and FMCs and being paid? What are the lessons learnt: resistances, legal, financial, organizational, training, supervision, decentralization aspects?	Effectiveness Efficiency Relevance	MoH, KSMA, Med. Association rep., clinical sites Naryn, Health Insurance Fund
• How can regulating narrow specialties with a minimum of 4 years of residency promote GP/FM? What are the steps to implementation?	Effectiveness Efficiency Relevance	MoH, KSMA, Med Association, clinical sites rep.
• How can strengthening the role of medical associations in PGME (defining curriculum, competencies, and certification) improve the quality of training? What are the challenges met and results so far?	Effectiveness Efficiency Relevance	MoH, KSMA,Kyrgyz Medical Association,
• Who should be in charge of the specialty certification at the end of the post-graduate training? Towards an independent commission? What are the lessons learnt?	Effectiveness Efficiency Relevance	MoH, KSMA, Kyrgyz Medical Association, clinical sites rep.

Outcome 3 – Continuous Medical Education (CME)	Review Criteria (DAC)	Stakeholders involved
• Review decentralized CME activities underway (e-learning, workshops, ToT, Peer groups, clinical seminars), results achieved and lessons learnt • How decentralized CME activities supported by MER contribute to the change in the CME framework? • What is the potential of the developed system for being **scaled-up** (and what kind of scale-up, geographical or vertical?)	Effectiveness Efficiency Relevance Effectiveness Efficiency Relevance	KSMIRCME, Naryn partners, MoH, KSMIRCME, Naryn partners, associations
• How can the CME reform strengthen the partnership between KSMIRCME and the medical associations? • Provide guidance for defining the role of medical associations in CME credit delivery and certification of physicians	Effectiveness Efficiency Relevance	MoH, KSMIRCME, Naryn partners, associations
• What are the lessons learnt from the development of protocols and nurses' standards for NCDs? • What are the challenges in introducing closer partnership between nurses and doctors in FMCs? • Building on MER reviews of nurses' training what should be the next steps to strengthen basic and specialty training opportunities? • Provide guidance towards the design of a development strategy for defining and implementing the nurses' role and activities in NCD management.	Effectiveness Efficiency Relevance	MoH, KSMA, KSMIRCME, Medical colleges, nurses association, FM association, Naryn partners

General	Review Criteria (DAC)
• Has a mechanism for a **regular dialogue** across key actors and institutions involved in medical education and human resource development, been set-up by the project and how is it functioning?	Efficiency
• Have the **roles, tasks and responsibilities** between KSMA, MoH, KSMIRCME been clarified? What are the main **difficulties**/ **resistances**/oppositions encountered and is the project able to address these challenges? • Does KSMA still demonstrate a strong **leadership** and a strategic vision (commitment of the rector and other key persons)?	Efficiency Effectiveness
• In which way strategic communication and capitalization feed the policy dialogue?	Efficiency
• Is there sufficient **political willingness** to address structurally the critical issue of available and qualified health staff at the PHC level? • What is the influence of the project, the SDC health programme, the Swiss Cooperation Office and the other donors, in their respective roles in **advocacy and policy dialogue**, on the implementation of the medical education reform? • Is there potential for improving the leverage of implementation partners and donors on the health reforms?	Relevance Effectiveness
• Are the implementing approach and the management arrangements appropriate for ensuring cost-efficiency, as well as for ensuring ownership of local partners and sustainability?	Efficiency Effectiveness
• **Assess** gaps between planned and actual expenditures to understand the gaps (if any) and reasons if they are related to economy (right methodology, human resources), governance or delivery issue?	Efficiency Effectiveness

V. Composition of the Peer Review Team

- Prof.Dr.med. Renato L. Galeazzi, Consutlant SwissTPH for Med.Education;
- Dr Judith Oulton, senior nurse consultant, Halifax Canada;
- Ms Erica Placella, Health Advisor Eastern Europe and Central Asia, SDC Bern;
- Mrs Mouazamma Djamalova, Senior Program Manager, SCO Dushanbe;

Resource persons for the review team:

- Mrs Elvira Muratalieva, Senior Program Officer, Embassy of Switzerland in the Kyrgyzstan;
- Dr Louis Loutan, MER Project director, HUG Geneva ;
- Dr David Beran, MER senior consultant, HUG Geneva.

Prof.Dr.med.Renato L. Galeazzi will facilitate and coordinate the peer review and as team leader will be responsible:

- To comment the ToRs of the review in view of establishing a final version;
- To develop a detailed methodology and a tool to analyse causal relationships in answering the key review questions. The chosen methodology shall foster the knowledge sharing among the review team. The methodology is to be validated by SDC/SE;
- To organize the review process among the review team (roles, responsibilities and tasks). The peer reviewers will be supported by resource persons (specified above);
- To review the mission schedule with the assistance of the MER project;
- To collect the review report's contributions of the review team and to write the review report.

VI. Methodology and reporting

It is expected that the Peer Review will be carried out in conformity with requirements to formative assessment and will be then a participatory and learning exercise.

The Peer Review will use qualitative methods and draw both primary (consultations with SDC HQ, SE KGZ, project's core team; key stakeholders; key informant interviews, field visits, focus group discussions) and secondary (desk/literature reviews of relevant documents) data collection methods.

The mission in Kyrgyzstan is scheduled for June 23- July 1, 2016.

It is anticipated that at the end of the mission, a half a day debriefing workshop will be organized in Bishkek. The review team will present its preliminary findings, conclusions, and recommendations to SE Bishkek, implementing partners and key stakeholders and collect their first general impressions and feedback. The presentation and minutes of the debriefing are to be handed over to SE before the mission's departure.

The Peer Review Report should be submitted in English and cover all the elements mentioned in chapter IV in a maximum of 20 pages (excluding annexes). The report is to be introduced by an executive summary. Its main body starts with a description of the method used and is structured in accordance with the present ToRs.

Based on the peer review assessment and findings, the review team shall draw conclusions and lessons learnt, as well as make recommendations and present them in order of priority.

The first draft of the Peer Review Report should be submitted no later than one month (August 1st 2016) after the end of the Peer Review Mission. The consultant will receive consolidated comments from SDC and project partners, which will be used to finalize the Peer Review Report final version (end of August 2016).

VII. Tasks of the MER Office in Kyrgyzstan, hereafter MER Office

The MER Office is responsible for:

a. Preparing the first draft of the Review Schedule and sharing it with the Team leader and Review Team;
b. Arranging relevant meetings with all stakeholders according to the final review Schedule;
c. Providing all relevant documents to the Review Team;
d. Reviewing and providing feedback on the draft review report and, once finalised, distributing the final report to relevant stakeholders;
e. Organise and arrange all logistics for the Review Team;
f. Organise a workshop to present findings of the review.

VIII. Review Timetable

Working days for the Team Leader and Judith Oulton:
3 days: Preparation / desk study, including interactions by telephone with the representatives of the HUG and University of Geneva/UDREM consultants.
2 days: Travel Switzerland-Kyrgyzstan-Switzerland
8 days: Field mission in Bishkek and project sites
5 days: Elaboration of report
TOTAL working days: 18
Note: The mission's working week will count at 8 working days if the mission is more than 10 days in total.

IX. Logistics

SDC HQ shall support the travel arrangements of the team from Tajikistan and Switzerland, if required (visa, tickets, travel advance, information for SDC consultants travelling to CA/KG, etc.).
SCO and MER Office shall organize the field mission of the review team and provide logistic support.
Translation into Russian both during the mission and of the report will be arranged by MER Office.

X. Available Documentation

The review team members will be provided with all of the documentation on the project implementation necessary for the proper review, including:

- Swiss Cooperation Strategy for Central Asia (2012-2016);
- Results framework for the health care sector in Kyrgyzstan;
- Kyrgyz National Health strategy, Action Plan, and other related policy documents;
- Relevant Medical Education Reform Project's documents (Credit Proposal, project document);
- National strategy on PGME and CME in KR;
- Annual progress reports;
- Relevant consultant mission reports;
- Relevant documents generated by the project such as study reports, HPAC surveys.

Annex 2: Detailed answers to the questions in the ToR

Outcome 1 - Pre-graduate reform	Answers
• To what extent is the new curriculum implemented and showing positive results on students' knowledge and practices?	• Curricula for year 1 to 4 are implemented; for year 5, design is completed and will be implemented starting with the new academic year in September 2016. Design of Curriculum for year six has been done, but it does not correspond to the plans. It will have to be restructured. According to one interview Peer Review team has had with two students at a "Summer Practicum" site, teaching is quite general and subjects are taught "integrated". Students think they have more practical skills.
• Does the working group in charge of overseeing the revision of the curriculum at KSMA function well, in a participative process, and what are the main challenges faced?	• WG seems to function well. Work is done and curricula are designed. Main challenge is the attitude of the faculty members of KSMA towards the more practical teaching.
• Is there any institutional resistance to change and how it is being overcome?	• This reluctance can be regarded as institutional; it touches at the basis of the financing system remunerating university teachers. To reduce this attitude against the changes, MoE together with KSMA, has to implement a new remuneration system based on courses rather than on teaching hours.
• How much collaboration is being implemented between institutions (KSMA, Osh University) in implementing the reform?	• Collaboration is not very tight. KSMA seems to consider OshSU as a competitor. Regarding the exchange of curricula, KSMA was absolutely reluctant and called their curricula "intellectual property".
• What mechanisms are being put in place at pre-graduate level to promote GP/FM?	• According to students interviewed, GP/FM has been regularly mentioned during the years 1 - 4. They consider that they received comprehensive information about this specialty. However, when it comes to the students aiming for a GP/FM residency, very few are choosing this specialty. This (and some information the Review team got at peripheral sites) shows that in the higher years, there seems to be active actions against GP/FM. • MER project has produced a video together with residents sent to Naryn oblast in the pilot phase of decentralised PGME. This video shows great enthusiasm and satisfaction with the new system. This video will be shown to KSMA students in the future. • MoH will send all students on budget to the two-year residency, starting in September 2016 and is hoping that experience with the new system will promote GP/FM.

• How to address the issue of regulating the number of students to improve the quality of pre-graduate education/training? (reduction of number of students and increase in tuition fees; competitive selection mechanisms; coordination between universities) • Are effective mechanisms, rules, programs, in place to select students coming from the regions to increase the chances of residents to practice in the regions?	• This is the most urgent problem to be solved. MoE Is responsible for undergraduate medical education and is about to allow the opening of a new Medical University in Bishkek. Undergraduate teaching is regarded as an economic undertaking generating funds for the universities. MoH should become co-responsible with MoE and a professional and effecient HR-management department should be set up. Out of statistical data (which have to be collected and sorted), it should start to regulate the access to undergraduate medical institutions and to different specialties at PGME. • A quota system for students from the rayons is in place. It is, however, not applied. MER project should try to convince the stakeholders to apply it. This should be part of the policy dialogue (see report).
• How does the reform contribute to significantly increase exposure and experience for students in clinical skills development by working with patients in Y 4 – Y6 with a Y 6 becoming fully clinical in clinical sites?	• According to the Head of Clinical Skills and Assessment Department of KSMA and some students interviewed in Naryn Oblast, the Clinical Skills Lab and the new curriculum years 1 to 4, significantly contribute to improving the clinical skills of students.
• How is the pre-graduate reformed program sending students to practice in clinical facilities in the regions during all the 6 years to promote practice in the regions?	• According to the plan presented during the Peer Review, there is no real scheme to send the 6th year students to rayon hospitals. The current plan mainly consists in theoretical teaching and visiting Hospitals in Bishkek. There is no plan stating thatstudents will work clinically together with hospital staff. As mentioned in the report, MER project should use more leverage and pressure to clearly state that the last year of undergraduate education has to be strictly clinical. and only about 15 to 20% of the time theoretical.
• How is the remuneration system of professors and teachers being replaced moving from a teaching hour base to a time dedicated activities base?	• There is up to now no such remuneration scheme in place, nor in planning. This is actually a great obstacle to the implementation of more clinical training.
Outcome 2 - Post-graduate reform (PGME)	**Answers**
• What are the main achievements under this outcome within the current phase?	The main achievements: - The Strategy on PGME reform (Ordinatura), cancelling the one-year Internatura, has been developed - A pilot of *decentralized* PGME is well on track in Naryn oblast. (Kochkor, Naryn and At-Bashy). The success of decentralised Ordinatura in the Naryn Oblast is however not yet properly recognized by KSMA and MoH/MoE. - A catalogue of competencies for GP/FD has been developed, approved and being currently implemented. - In clinical sites in the pilot rayon (Naryn Oblast), an enabling environment for decentralized PGME has been created (high commitment of chief-doctors and other medical personnel, residents, and supervisors).
• How to overcome the difficulties in implementing the PGME and CME strategy designed according to WFME? Role of the Naryn	• I will be important to implement the strategy on GP/FM ordinatura starting in September 2016, best in the whole country. It will be crucial not to support KSMA plans for ther PGME program as they are not clinical practice oriented. KSMA employs mostly teachers with no cinical practice in peripheral

pilot project and decentralized clinical training	hospitals. Their programs are therefore mainly theoretical, a sort of continuation of undergraduate teaching. Should implementation not be possible as planned, then a full blown pilot in Naryn oblast (maybe together with another rayon or oblast, e.g. Talas) should be started. This should be done together with CMEInst.
• What are the lessons learnt in the development of the new catalogue of competencies and PGME standards?	• Not discussed.
• How to promote GP/FM through the implementation of the mandatory two-year residency ordinatura in GP/FM in the regions with residents being in charge of patients in hospitals and FMCs and being paid? • What are the lessons learnt: resistances, legal, financial, organizational, training, supervision, decentralization aspects?	• The new two-year residency ordinatura program will induce the following positive changes: broader knowledge of GP/FD, more satisfaction among the residents, more doctors staying in the rayons, better collaboration between GP/FD and narrow specialists, etc. • There is currently no local resistance towards decentralized PGME, on the contrary! Obviously, there are many problems left awaiting solutions, e.g. remuneration of residents and supervisors, training of supervisors, social package for residents etc. However, even the representative of the mandatory health insurance fund in the Naryn oblast stated that solutions in this regard can be easily fund. Legal aspects are put forward mainly by KSMA staff.
• How can regulating narrow specialties with a minimum of 4 years of residency promote GP/FM? What are the steps to implementation?	• PGME of narrow specialists has also to be reformed and regulated. The same applies for the excessive number of medical students..
• How can strengthening the role of medical associations in PGME (defining curriculum, competencies, certification) improve the quality of training? • What are the challenges met and results so far?	• If KMA could be involved in PGME and CME, training would become more clinical, as KMA members are mostly practicing physicians. • The main challenge is the not yet fully established compositions of KMA, as not all specialty organisations are members of KMA. Additionally, neither the political institutions nor the educational institutions have much experience working together with these associations. MER project should foster the develpment of KMA and stimulate the stakeholders to cooperate and to involve KMA for all educational issues.
• Who should be in charge of the specialty certification at the end of the post-graduate training? Towards an independent commission? What are the lessons learnt?	• There is a clear need to set up an independent agency organizing, monitoring and accrediting PGME curricula and teaching institutions. This agency should involve all stakeholders, including (and with an important role) KMA. The providers of PGME, like KSMA and CMEInst or the clinical teaching sites should not be entitled to assess the residents, nor the teaching sites, nor the curricula.

Outcome 3 – Continuous Medical Education (CME)	**Answers**
• Review decentralized CME activities underway (e-learning, workshops, ToT, Peer groups, clinical seminars), results achieved and lessons learnt.	• E-learning and PR/QC have been evaluated. The e-learning system, its hard- and software and the demonstrated cases, have been considered as exceptional for Kyrgyzstan. In order to be expanded to other rayons and to other institution, the website and the content will have to be streamlined and expanded. With the experience gained through the current pilot,

	this should not be too difficult. PR/QC, although they started only lately, are already functioning well. The support by MEP (Dushanbe) should continue.
• How decentralized CME activities supported by MER contribute to the change in the CME framework?	• MER support and its collaboration with the CMEInst is the basis for a new thinking about decentralized CME in the Kyrgyz medical community. Consulted hospital-administrators and chief-doctors are very pleased with the new CME approach and organisation. This model is more cost-effective, as doctors can stay in the rayons they work in, and because much is done by local doctors.
• What is the potential of the developed system for being scaled-up (and what kind of scale-up, geographical or vertical?)	• Building upon this piloted system, it would be easy to give the CMEInst (KSMIRCME) a new direction and new tasks, as a central agency should be constituted which would govern CME in the country. If CMEInst and KMA could cooperate under the auspices of MoH, a true progression could be made for a countrywide unified CME system.
• How can the CME reform strengthen the partnership between KSMIRCME and the medical associations?	• See above.
• Provide guidance for defining the role of medical associations in CME credit delivery and certification of physicians	• This is mentioned in detail in the report under chapter 4.3.3.
• What are the lessons learnt from the development of protocols and nurses' standards for NCDs?	• The nursing protocols are 10 years old and little progress has been made in their updating. Little use is made of any protocols or standards at present. Lessons learned are as follows: 1. There is a need for a champion within the MoH and also externally (e.g. through the Association of Family Doctors and Family Nurses). 2. Nurses need training to understand what could be their contribution. 3. Doctors need training to understand what nurses can accomplish and how this would benefit both them and patients. 4. Protocols need to be user friendly and available. 5. Analysis of how to use a streamlined version of PEN protocols versus elaborating new ones needs to be done. 6. Nurse leaders, physicians, trainers and policy-makers need to understand what nursing standards are and how they can be useful
• What are the challenges in introducing closer partnership between nurses and doctors in FMCs?	• Nurses need to accept their role and feel confident in it • Doctors need to understand the benefits of partnership – examples of others would help • There is no content on nursing in undergraduate medical education nor much exposure to nurses – new clinical internships may help • There is no opportunity for students to take classes together as there is in many countries • There are limited case reviews which include nurses' input • Doctors' attitudes affect medical students' perceptions • Too few role models • No mixed peer review meetings
• Building on MER reviews of nurses' training what should be the next steps to strengthen basic and	• See recommendations in the report.

specialty training opportunities? • Provide guidance towards the design of a development strategy for defining and implementing the nurses' role and activities in NCD management.	• See recommendation in the report and especially Annex 5

Annex 3: Mission program

Mission agenda of the Peer Review of the Medical Education Reforms project in Kyrgyz Republic, 23.06 – 1.07.2016

Time	Activities and meetings		Notes
23 June, Thursday			
morning	Arrival of the team		
11.00 - 14.00	Joint lunch with the team – briefing with Elvira Muratalieva		SE to organize Ambassador H
14.30 – 18.00	Short introduction of the MoH: vision and expectations from the review and the following phase of the project (Ibraeva, Ismailov, Nurida) Presentation of the MER project by the project team: briefing by MER project team, manager and director on project achievements and challenges (film, presentations, discussion). KSMA		Touristan Hotel
24 June, Friday			
8.20	Pick up at the Hotel		
9.00 – 11.00	Meetings on pre-graduate medical education: Rector and vice-rectors of Kyrgyz State Medical Academy: pre-graduate reform achievements and challenges; KSMA working group on pre-graduate reform with representatives from Osh university; KSMA. Nolan Brinkolav	Meeting HPAC OSKI Center	KSMA, Arrival of Osh Team Pedro form Ukraine
11.00 – 12.00	Meeting with medical students; visit of facility, simulation and clinical skill centers;	Meeting Nurida (MoH)	
12.30 - 13.30	Lunch		
14.00 - 16.00	Meeting with Osh Medical Faculty Members	Meeting w Medical College	?
16.30 – 18.00	Meeting with professional association representatives	Nurses Association	?
25 June, Saturday			
8.30	Pick up from the hotel		
9.00 – 12.00	Meetings on **post-graduat**e: reform **working groups** and stakeholders on (MoH representatives, faculty members, practitioners: new strategy on PGME and CME, catalogue of competencies, training standards, PGME legislation reform; clinical training in regions; discussion on achievements and challenges,	Nurses CME – Elmira… (standards, nurses files)	Touristan Hotel Representatives of regions?
12.30 – 13.30	Lunch		
14.00 – 17.00	Meeting **on CME:** Rector and faculty members of the Kyrgyz State Medical Institute for Continuing Medical Education on CME reform, visiting the e-learning centre; discussion on CME training and decentralization		Chubakov T.C. Mukeeva S.T. All team together

	Family Medicine Association (Mukeeva); Discussion on nurses-doctors partnership, standards, NCD management, palliative care.		
26 June, Sunday			
8.00	Departure to Naryn		
10.00 – 12.30	Meeting with **Kochkor Rayon** Hospital Faculty members on post-graduate medical education and CME (peer review groups – meet doctors); Head nurse meeting with Judith? Nargis. Head doctors and Residents.		
12.30 - 13.30	Lunch in Kochkor		
14.00 - 16.00	Travel to Naryn city and overnight (Optional: to visit the hospital and FMC)		Khan-Tengri hotel
27 June, Monday			
8.30	Pick up from hotel		
9.00 – 12.00	Meeting with Naryn stakeholders on post-graduate ME (to discuss results and lessons learned of decentralized PGME): Oblast hospital, family medicine center directors; visit of facilities and meeting local staff and residents; How to accept residents. Interaction with KSMA	Meeting with medical college director and faculty (Elmira? – who is her counterpart in Naryn and Naryn Chief Nurse join the meeting); visit FMC nurses.	Team of Kochkor and At-Bashy to join the discussion
12.30 – 13.30	Lunch		
14.00 – 17.30	Continue meetings in Naryn: Discussion on **nurses-doctor's** partnership, standards, NCD management; Discussion on post-graduate and decentralized CME reform: e-learning and telemedicine; NCD management and doctors-nurse's partnership strengthening. Family medical centre.		All team together
28 June, Tuesday			
8.00 – 9.00	Travel from Naryn to At-Bashy		
9.00 – 11.00	Meeting at the At-Bashy Rayon Hospital: director of hospital and FMC; visit to the dormitory; meeting with faculty members.	Meeting with FMC nurses in AT-Bashy	
11.00 – 14.00	Visit to Tash-Rabbat with lunch		
14.00 – 18.00	Travel from At-Bashy to Issyk-Kul (overnight)		???
29 June, Wednesday			
	Review team work – collecting findings and formulation of main recommendations for the following phase		
30 June, Thursday			
8-12.00 14.00-16.00	Departure from Issyk-Kul to Bishkek Final debriefing with National Stakeholders (KSMA, KSMIRCME, MoH)		
1 July, Friday			
	Departure of the team		

Annex 4: PRELIMINARY FINDINGS AND RECOMMENDATIONS - DOCTORS EDUCATION

	Preliminary Findings	Recommendations
UNDERGRADUATE	**Achievements/Strengths:** • **Reforms implementation** started in line with national health care reforms focusing on GP/FD. • Clear **commitment** of key stakeholders (MoH, MoE, medical organizations, clinical basis). • **Working groups** created (curricula 1 to 4 year finalized, 5-6 years under way). • New standards and new **catalogue of competencies** developed. • **Cooperation** and **exchanges** between medical universities improved (KSMA/OshSU). • **Internal organization and processes** at KSMA has improved. • Capacity of faculty members improved (trainings). To be pursued. • Fundamentals for **M&E** built (to be continued). • **Methodological support provided** (manuals, 2 centres opened, textbooks, e-library, equipment) • Improved **governance** of teaching processes (integrated versus modular) • Osh well under way **Weaknesses** **Structural issues** • High number of students (around 1500) yearly enrolled at TSMA and related consequences (insufficient number of classrooms, limited access to patients), selection of students from rural vs urban areas (quota), dysfunctional medical education institutions financing system. • Rationalization of the entire health sector (downsizing hospital, introducing performance based financing, etc.) still to be carried out	• Maintain a high level of **policy dialogue** (including through SWAp) to address structural issues (see policy dialogue section). • **Fine-tuning** of the **pre-graduate curricula** (1 to 6, including practice at clinical sites), revision of year 1 and 2, **6th year to be restructured** • **Advocate for the selection (quota) of more students from the regions** (order to be issued by MoH and Ministry of Education). • Raising awareness and promoting **governance**, **strengthening organizational capacities** of Universities: strengthening leadership, organizational integrity/governance, clear definition of roles and responsibilities (those who teach should be those who practice clinic, reduction of teaching hours, shifting from teaching hours to responsibility for whole courses), rationalization and optimization (reducing/merging chairs). These issues can be raised through a policy platform. This dialogue and negotiations have to be carried out jointly by MoH and MoE. • Increase **contacts and collaboration between MoH and MoE**. Strengthen commitment of MoE to health education reform. • Provide support to **drivers of change** (i.e. OshSU), establish practical skills centre in OshSU • Improve the capacity of **MoH** in **HR strategic planning and management** • Develop **criteria for clinical sites** and supervisors • Further **improving faculty's capacities** (M&E, teaching methods)

	Preliminary Findings	Recommendations
	• Educational institutions **organizational capacity** and **governance** is weak and structure of MoH and MoE not optimal and conducive for structural changes • KSMA staff not properly understands the importance of the **6th year** to be practical. KSMA not open for cooperation with hospitals/clinical basis in this regard. • Low **capacities** of **faculty members** (new methods of teaching) • **Limited interaction** between KSMA and OshSu (reluctance) • **Low awareness of reforms** inside KSMA (chairs, students) • Respective **responsibility** between **MoH and MoE** in pre-grad needs to be clarified. • No national unified **exam** **<u>Opportunities</u>** • Momentum for changes is currently optimal • Clear commitment of MoH and MoE • Commitment of Universities • High commitment of clinical basis • New rector at KSMA • Contracts with hospitals • Promote OshSU as a centre of excellence • Use the assessment of current needs in number of family doctors at national level (ratio FD/population). MoH HR strategy and planning is not aligned with the healthcare reform. **<u>Threats/Challenges</u>** • **Structural issues:** quota of students from regions, high number of students, contract/budget students, no coordination between universities, current sources of financing of medical universities can negatively influence the reform. • Resistance of faculty members to the reform • Lack of human resources policy capacity • High competition between training institutions	

	Preliminary Findings	Recommendations
	• Non acceptance of decentralized training by national training institutions. • OshSU could lose the momentum if MoH and MoE will retard • New rector might not support the reform • Corruption issues (including in relation to institutional integrity).	
POSTGRADUATE	**<u>Achievements/Strengths</u>** • An **enabling environment for decentralized PGME has been created in pilot oblasts** (commitment of clinical sites, residents, supervisors, etc,) • A platform for **discussion** between **education institutions and clinical basis** is established • Revision of **legal framework** is ongoing, with involvement of clinical basis (laws, standards, programs) • **Strategy for *ordinatura***, cancelling 1 year *internatura*) has been developed • **Catalogue of competencies** for GP/FD developed, approved and implemented (basis for the development of programs) • MoH **order on allocation of budget places for GPs** is issued, including limitation of narrow specialties • **Naryn pilot** is on track and generating best practices and experiences that can be disseminated • **Training of clinical supervisors** is designed and launched **<u>Weaknesses</u>** • **Lack of common understanding** between institutions about main principles on decentralized training • High **resistance of KSMA** at central level to send residents in the regions (fear that "budget will follow the resident"). Pressure by the faculty on residents when choosing the specialty and place of residency. • **Lack of clear HR policies**/strategy. Post graduate **narrow specialty not regulated yet.** • **Lack of negotiation** between **education institutions and clinical sites**	• **Streamline PGME process** through implementation of PGME/CME strategy • **Design training of residents** in clinical settings (hospital and FMCs), **according to the catalogue of competencies** • Improve **capacities of MoH** and clinical basis to **manage PGME** • **Organize "Board of PGME"** to oversee PGME activities at education institutions and clinical sites (MoH, institutions, health facilities, associations) • Introduce **independent certification and accreditation process** • Further and better **promote FM among undergraduates** • Further **strengthen** the **skills and capacities of supervisors** • Facilitate access to internet and library at residents posted at decentralized clinical basis. • **Regulation of specialties PMGE** is not tackled by the project but still has influence on it. This should be properly monitored and addressed using the existing policy dialogue platforms. • Monitor the **scaling up of the regulation and related sub-regulations** (not yet approved, most probably enforced in September 2016) on residents' salary and supervisors' benefits nationwide (main issue being to enroll the contribution in the budget of the hospital). • Advocate for a **social package** to be allocated to residents in rural areas.

	Preliminary Findings	Recommendations
	• **PGME system not unified** between involved institutions • **Current legislation** is **not motivating to decentralize PGME** process • **Lack of trust** of institutions in **training capacities of clinical supervisors** • **Reluctance** of **students** to become **GP** (faculty is not providing sufficient information and awareness) • **Conflict of interest** in assessment and teaching by PGME (the same institution is teaching and assessing) • **Theoretical training prevailing on clinical practice** • **Limited control** of MoH on **PGME processes** **<u>Opportunities</u>** • MoH faces a GP shortage in the regions and thus **supports** PGME **decentralization** • Joint **Decree** issued by MoH and MHIF for oblasts piloting the implementation of PGME strategy (Naryn, Al Bashy, Kochkor): 90% of the salary of a family doctor is allotted to the resident and incentives/top up to supervisors (10% of their salary). • **Rolling out the implementation of the PGME** strategy will be a real challenge as the Decree concerns only the piloted Oblasts • To date, only 4 **residents** on state budget and narrow specialty while the deficiency of FD is high in the regions. For the moment, residents are not considered as staff of the hospital although they generate income for the facility • High **commitment of Clinical basis** part of the pilot agree to receive FD residents. They agree on a 1st year at hospital and 2nd year at FMC level, or in parallel. 10% theory and the rest for practice; combination of education from central level and from clinical basis. In this regard, the negotiation between KSMA and clinical basis should be strengthened. • High level **policy dialogue** possible through **SWAp** • Use **OshSU** as champion of change/**peer pressure** • Ongoing **Naryn pilot experience** opportunity to feed the PGME reform process	• Support **OshSU** in **introducing PGME residency** • **Selection and accreditation of clinical sites and teaching institutions** should be done **according to specified criteria** • **Hospital positions** have to be revised (long-term positions versus short-term positions, work mobility)

	Preliminary Findings	Recommendations
	Threats/Challenges • Theoretical training prevailing on clinical practice • Social package for residents not provided (influence on motivation) • Fighting institutions; absence of umbrella: "board of PGME" • Regulation on financing of PGME not in place • No real strategic HR management in place • Lack of GP specialty "prestige" • Residents who are not on budget state (none to date) still continue to pay **fees** to KSMA	
CME	**Achievements/Strengths** • **Regulations** on CME being revised, credit system is under revision. • **Concept of peer review groups crated and implemented:** progressing fast, already receiving credits • **Umbrella organization** Kyrgyz Medical Association (KMA) created (chart/statutes developed). However, membership fees are very low. • **E-learning** concept and structure is developed and implemented • Seminars are conducted for GPs in Naryn oblast + monitoring by the association of FGPs • Palliative care is given attention (nurses) and leaflet developed. **Weaknesses** • Too much **theory versus practice-based** training. • Quality of training courses is low, **quality assurance system** not introduced yet • **CME plans are chaotic and not demand driven** • **Professional organizations**: lack of trust, not seen as drivers of change by hospital directors but rather considered as competition entities (accreditation related income). • Current offer of **e-learning by CME** institutions is described as quite **chaotic** and **competition** among education institutions high. Better coordination should be ensured (project's responsibility?) • **Financing** of CME is still a challenge	• Further **speed up the decentralization of CME** • **Involving practicing doctors** in the **design and planning of CME** (demand-driven) • **Improve independent CME certification and accreditation system** • **Strengthening organizational capacities** of ICME: strengthening leadership, organizational integrity, supporting them in conducting a mapping of CME offer and to better coordinate the CME offer. Support CME in finding a "niche" and showing and added value • Promote and facilitate **strengthened collaboration** and communication **between region clinical basis** (including for advocacy and lobbying purposes). • **Peer-groups:** Project should supervise the accreditation process, Topics have to be chosen by peer groups member themselves; should be demand-driven, peer groups should be more involved in local CME planning • **Professional associations:** further promote institutional development and active role of KMA (advocacy, promoting family medicine, lobbying towards MoH, etc.), develop a strategy (i.e. to enroll more members) and action plan. Avoid KMA being only in charge of patient's complaints; eventually, through a support by the project (including financial or logistical support); Strengthening

	Preliminary Findings	Recommendations
	• **ToT on PEN protocol** for teachers of KSMA and ICME done **<u>Opportunities</u>** • Telemedicine and e-learning equipment in place and ready to be developed • Commitment to implement credit-based CME • Willingness to introduce decentralized CME; ICME open to explore new decentralized methods (PRG, e-learning) • Existence of CME representations at oblast level • New institutions providing CME (opportunity or risk of overlapping and duplication?) • Specialized associations are conducting certification and accreditation of doctors **<u>Threats/Challenges</u>** • Financing versus collect credits (finances for doctors to attend CME events (courses, seminars, PG/QC) • Academic way of teaching prevailing on practice-oriented teaching • Courses quality and design outdated and not demand-driven	exchange and collaboration between CME institutions, clinical basis and KMA, by building mutual trust and promoting joint advocacy initiatives. • **Give credit points** to local **clinical supervisors** in PGME • CME Institute should put **more emphasis on cross-subjects** (ethics, medical errors, communication) • CME Institute should develop **new specific competences on NCD management** (communication, patient education/health literacy, team work) • **E-learning** and **telemedicine** to be **further strengthened and recognized** • **Financing** mechanism of **CME** should be improved
PROJECT SET UP/INTERVENTION STRATEGY	• For the next phase (as for the current one), all 3 components (Undergraduate, Postgraduate, CME) should continue to be **tackled at the same** time as the approach is systemic. • Keeping the **same set up** seems relevant • **Capacity building of IME** and capacity development of IME staff has been strengthened. More **advocacy work** is carried out than at the beginning, ownership and leadership has increased. • Good exchanges and quick **mobilization of Swiss experts** at HUG level • Quite **cost-effective** program • Good **synergies and complementarities with other SDC supported projects** (Health care waste management and health facility autonomy)	• Strengthen the **nurses component** supervision at IME level • Further **strengthen IME organizational support**, explore the possibility to open a decentralized supervision/monitoring unit in Osh in the next phase. • For the next phase**, use low profile indicators**, systemic changes take time • **Synergies with upcoming SDC new programs** (**NCDs** prevention and control) should be further strengthened (retraining of FD and FN, policy dialogue), avoiding duplication at all levels

	Preliminary Findings	Recommendations
POLICY DIALOUE	• **Policy dialogue activities** are conducted in a rather **unstructured way** (sporadic round tables and bilateral meetings). **Policy messages** should be conveyed in a more structured and participative way • **Power issues** are central (i.e. resistance of KSMU to send residents in the regions) and should be addressed in a more systematic, formal and structured way.	• **As a short term and long term recommendation, better systematize the policy dialogue and increase the policy leverage** by setting up or revitalizing (i.e. Ministry of Education Training of Methodological Union) a formal platform for exchange and policy dialogue on ongoing reforms in medical education with regular meetings. This should be facilitated and conveyed by the project, with the support of the SCO and using as well the leverage offered by the SWAp. Hospital directors in the PGME strategy implementation pilot oblasts have shown a clear commitment to be part of such a platform. They can be considered as drivers of change. The project should dedicate a specific budget to this component. Other stakeholders to be conveyed are MoH, Ministry of Education, medical institutions, practitioners and if possible, medical association representatives (KMA). The regions which are not part of the PGME strategy implementation should also be conveyed in order to increase the pressure (i.e. Talas). This recommendation is short term, as important issues need to be discussed and negotiated now, as regulations will as currently being passed. OshSU Osh already used this platform to address key policy issues. • In the same vein, strengthen the **collaboration and the communication between key stakeholders in PGME** in piloted and non-piloted oblasts, notably, the collaboration between OshSU and Al Bashy territorial hospital. • For the next phase, use the newly developed SDC **policy influencing concept** which is defining the main policy influencing concept and the respective role of SCO and implementing partner.

Annex 5: PRELIMINARY FINDINGS AND RECOMMENDATIONS - FAMILY NURSES

	Preliminary Findings	Recommendations
UNDERGRADUATE	**Achievements/Strengths:** • Entry after grade II • Competency based • National curriculum • Nursing process taught • Lesson plans available • Code of Ethics available • Agreements with hospital done • Contracts with clinical sites are concluded • 1 voice, limited fighting between universities, Bishkek medical college develops documents for the whole country As a result, limited competition between nursing education institutions • Nursing schools in rural area are a clear asset • Internet access **Weaknesses** • Quality of clinical site supervision still to be checked • Nursing taught by physicians and not by nurses. As a result, what is taught is disease oriented and theoretical • Faculty lacks knowledge to teach competences-based (knowledge, skills and attitude) • Specialization is at this level: not clear that there is a demand for this • People who teach nursing are not qualified to teach nursing • Lack of Kyrgyz teaching materials • Outdated and limited equipment • Focus on procedures, limited critical thinking • Curriculum disease-oriented • No life span orientation (nothing on community health or healthy lifestyles) • Cleaning counted as practice! • No unified national exam	• **Structural change in nursing education:** move to generalist nurse: rethink + delete specialties at undergraduate level, midwifes? Revamp curriculum • Separate professions (pharmacy and lab technician) • Prepare faculty at baccalaureate level (higher education) • Gradually phase out physician teachers • Equip labs (done within SWAp in the next 2 years) • Increase the number of hours with patient contact with supervision • Pedagogy for teachers (train on how to teach nursing) • Structured study tours to Europe (Switzerland): supervisors, policy makers • Train on PEN, NCDs (included in the curriculum) • Consider community clinics to screening practice (free clinics can be done, i.e. measuring blood pressure in shopping malls) • Introduce external accreditation (not common yet) • Phase out feldsher and change HNE 5 years to 4 years baccalaureate • Put specialization at post-basic level • Monitor nurses employment market

	Preliminary Findings	Recommendations
	• Limited emphasis on patients teaching, communication, team work in the curricula (some content taught twice) • No taught to chart (nurses have no place to wright their own observations) • Student supervision on paper – limited in consolidation, 50% going outside the other areas • No external accreditation of programs • Number of contract students varies urban-rural, costs to contract students 47-302 • Doctors don't trust graduates • No resource materials in wards • Too many hours independent study • Nurses in HNE- really specialization not generalist • High level of out migration • NHE unit at KSMA is not teaching; it exists only on paper **Threats** • Number of students • Low capacity of MoH to forecast the demand for nurses • Impact to credit system unknown • Acceptance of students in clinical sites is low • Patients don't want students to treat them • Funding • No jobs/high unemployment • Limited contact with patients • Hospital staff feel new nurses are poorly prepared (procedures) • Physician attitudes • Increase of private medical colleges licensed by the MoE • Sustainability once donors leave? • No role distribution/differentiation, diplomas+HNE grads • HNE: don't stay in nursing, 400 graduates in 18 years, low practicum hours **Opportunities**	

	Preliminary Findings	Recommendations
	• Momentum for changes is there (costs of unemployment, donors, interest in family nurse • HNE: refocus to family nurse (bac level) • Many opportunities to extent the pilot in hospitals • Use external accreditors; study tours could help to promote FN.	
POSTGRADUATE	**Weaknesses** • Lack of carrier path • No access to universities (i.e. master level) • Formal specialties are in undergraduate and need to be renamed/reorganized • Many fragmented short courses (2, 3, 2.5 months) • An increase in required credit hours might lead to a decrease in continuing education and therefore a decrease in the number of nurses who can achieve/retain the qualification categories	• Project needs to develop a FN component: move to three years generalist, Move specialization to general nurse • Add 1 year to generalist for FN, midwifes, teaching, management • Do other specialties as CME • Long-term consider **masters degree**; once back established could do masters in related field rather than nursing • What to do as regards **feldshers**? • Project needs specific **backstopping** from **HUG** on nursing issues and a person responsible for nursing at IME level.
CME	**Strengths** • CME required for advancement and for the credit system • Staff is trained to provide short courses **Weaknesses** • Not all CME paid for public sector (depends on employer) • Limited computer skills and access • Specialty/CME decided centrally a year and more in advance (limits meeting emerging needs?) • CME staff in nursing are not trained to provide distance education to date **Threats/challenges** • Increased number of credits required **Opportunities**	• Make distance education available (train CME staff on distance education • introduce mixed peer discussions (FD, FN), especially on NCDs • Develop needed competencies for specialty short course trainings in general and then decide the length of the courses

	Preliminary Findings	Recommendations
	• There is a distance learning platform at oblast level • Association of family doctors and family nurses issues the accreditation for nurses	

NCDs and family nursing issues

Findings

physicians utilizing part of the nurses salary budget and therefore the standards are not met, protocols are not approved and therefore not used, heavy workload, high administrative burden (30 to 90 different logs), no access to nursing distance education, no performance annual appraisal system, SOP and other tools that exist are kept with the chief nurse and not available, nursing process is not practiced by all family nurses, nor are nursing care plans routinely used; no data collection to evaluate the evidence regarding the impact of family nursing; PEN is not introduced systematically, task-sharing not used, lack of evidence impact on FN

Recommendations

- Policy momentum: there is a plan within the MoH to address the job profile, curriculum and regulations and workload
- No appointment system
- Poor communication between narrow specialist and nurse
- 2014 Bishkek NCD unit pilot should be rolled out
- Introduce PEN systematically
- Introduce task-sharing system (measuring blood glucose, improving patient health literacy)
- Strengthen nurse-physician partnership (family medicine teams approach)
- Revise and approve nursing protocols.
- Make sure that SOP and other procedures are available to FN
- Retrain as necessary on nurses process and nursing care plans
- Harmonize staffing standards
- Review the workload of the narrow family nurse who works in the FMC
- Introduce distance education for family nurses
- Revise job description of FN
- Establish the criteria to support the evaluation of the impact of FN
- Extent the authority and scope of work of the nurses in home visits
- Review the role of nurses in the FAPs (particularly related to risk assessment and therapy and how to incorporate aspects of this into the role of the FN
- Build on relationships with VHC to improve the public acceptancy of FN
- Investigate incentives for FN
- Find champions to advocate for decreasing the time it takes for nursing protocols to be approved by the MoH

Annex 6: Options in Approaches to Nursing Education

1. **Status Quo**

   Points to Consider:
   - On the positive side, remaining the same is not disruptive for programs or students
   - The current approach is not aligned with international standards
   - The status quo does not fully utilize the potential of nurses, thus is less cost-effective
   - Focus is on quantity rather than quality and on procedures rather than on critical thinking, nursing care, and patient contact
   - Physicians, nurses, and patients are dissatisfied with current graduate competence
   - This approach creates silos of narrow preparation which reduce flexibility and increase costs

2. **Introduce change gradually, beginning with creating a generalist nurse with specialization at the postgraduate level; educating/employing nurse teachers to teach nursing. To accommodate the need for FNs and midwives, these specialties could be added as a 4th year option, meaning students could leave as a generalist after 3 years and as a FN or midwife after 4 years, with other specialties requiring a period of practice before specializing.**

   Points to Consider:
   - Begins to meet international standards
   - Increases the focus on prevention, promotion, care, rehabilitation and palliation, rather than on disease and procedures
   - Allows for affordable, managed change in teaching staff
   - Focuses on quality of teaching and competence of graduates
   - Is easily associated with a new career path
   - Provides a common base on which to build a long term model which includes bachelor, masters and doctoral programs at a pace the country can accommodate
   - May take many years to reach international standards
   - Likely requires nurses to go abroad for higher education for many years and for the import of experts in the shorter term

3. **Move rapidly to embrace the global standard set by WHO which is an undergraduate degree as the entry level to nursing**

   Points to Consider:
   - Aims to meet global standards, putting the country on the same basis as the majority
   - Surplus of nurses can meet the current needs, as the move would undoubtedly entail 1-2 years with no graduate output
   - Nurses have higher mobility
   - Moving too quickly can be costly, comprise quality of teaching and learning
   - There are insufficient qualified staff to move quickly, therefore physicians and less qualified nurses would need to be employed along with some expats/experts
   - Costs are very high, unless beginning only in the private sector which would affect the number of graduates
   - Pay scales would need adjustment as would qualification categories, legislation and other regulations

Annex 7: Options for the second phase of MER project

1. Minimum Investment

- Convene a working group (including heads of Medical Colleges and key nurse leaders) to discuss the recommendations and to develop a vision and strategy for nursing education. The group could also be used to help identifying a potential IME employee to backstop the nursing component. Ideally, this would be a nurse who could, in consultation with stakeholders, develop/design nursing activities for the new phase.

- Focus on the competencies and scope of practice of current FNs, which would mean:
    - Advocating for the training of CME nursing staff to be trained to use the distance education platform to deliver nursing education
    - Providing technical assistance (TA) and funding for development of content beginning with NCDs and PEN protocols, computer and English training, nursing process and care plans
    - Providing TA to assist in reviewing the role of the FN in FAPs and how the skills needed there could be incorporated into the FN role in FMCs (task sharing)
    - Providing expertise to assist with the planned work of the MoH in terms of revising the FNs regulations, job description, protocols and curriculum, as well as reviewing the workloads of the FMC staff (both FNs and narrow specialist nurses). The review should incorporate increasing the autonomy of the FN in making home visits and a development of incentives for the FNs. The use of PEN protocols versus shorter nurse specific ones should be evaluated as there are advantages and disadvantages in both approaches.
    - Utilizing Village Health Committees (VHCs) to assist in improving public acceptance of the FN.

- Assist with convening of peer review meetings for FNs and for mixed peer review meetings involving FNs and physicians. Start in Naryn oblast and spread out as funding permits.

- Organize a study visit of 6-7 persons (e.g. policy-makers, Government Chief Nurse, 1-2 other nurse leaders, including from the association of associations, Directors of Naryn and Bishkek Medical Colleges, etc.) to learn about nursing education in 1-2 European countries.

- Provide funding to the Association of Family Doctors and Family Nurses conference to bring in guest speaking team(s) of FNs and FDs to show the processes and benefits of working as partners.

2. Moderate Investment (minimum investment activities plus the following)

- Provide experts to assist with development and implementation of regulations and curriculum, including phase out/transfer to other faculties of the current nursing specialties and introduction of a 3-year generalist nursing program (including innovative ways to access contact with patients)

- Provide expertise to assist in the development and implementation of pedagogy training for nursing teachers focused first on teaching competency based content and nursing care content (ideally this could be done in the minimal investment category).

- Provide TA to develop a strategy for phasing out physician teachers and introducing qualified nurse teachers. This should include assistance to develop regulations and a strategy for assisting nurses to enter universities for bachelor and master degrees in health-related subjects, since it will take time to develop university-based nursing programs
- Support a working group to develop a career path for nurses.

3. Maximum Investment (minimum and moderate investment activities plus the following)

- Assist with development of standards, policies and processes for nursing program accreditation, including the use of external examiners.
- Provide scholarships for nurses to enter university in Kyrgyzstan if regulations are completed, as well as scholarships for 4-6 nurses to study abroad. This may include English language training and distance education for part of the program.
- Provide technical assistance to review and revamp the process for identifying/planning CNE offerings through the Institute.
- Provide TA to establish a nursing research cell and establish the criteria to support the evaluation of the impact of FN