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Quality Indicators for Primary Care

Trip to Kazakstan and Kyrgyzstan
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TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 2

2.0 INTRODUCTION 4

3.0 BACKGROUND 6
- 3.1 The Present Form of Quality Assurance 6
- 3.2 The Health Information System Support of QA 7
- 3.3 Patient Satisfaction Surveys 8
- 3.4 The CDD/ARI Programs 8
- 3.5 Family Planning 9

4.0 SCOPE OF WORK 10

5.0 ACTIVITIES 11

6 FINDINGS 12
- 6.1 Observations on FGPs in Karakol, Zhezkazgan, and Karaganda 12
- 6.2 Quality Assurance/Quality Improvement Seminars 12
- 6.3 Choice of Indicators for Quality of Care 13
- 6.4 Matrix for Indicators in Clinical Quality of Care 14
- 6.5 Possible Indicators for Quality of Care 14
- *6.5.1 General QI Indicators* 16
- *6.5.2 Health Prevention/Promotion QI Indicators* 19
- *6.5.3 Illness-specific Indicators* 20
- *6.5.4 Family Planning Indicators* 22

7.0 RECOMMENDATIONS 25
- 7.1 Quality Assurance/Quality Improvement 25
- *7.1.1 Transition from Quality Control to Quality Assurance/Quality Improvement* 25
- *7.1.2 Other Training Needs* 26
- *7.1.3 Guideline and Indicator Development* 26
- 7.2 Health Information Systems 26
- 7.3 Family Medicine Training Support 27
- 7.4 Miscellaneous 27

APPENDIX 1: TRIP ACTIVITIES 29
APPENDIX 2: REFERENCES 31
APPENDIX 3: PERSONS CONTACTED: 32
APPENDIX 4: LIST OF ACRONYMS: 35

1.0 EXECUTIVE SUMMARY

The scope of work for the consultancy focused on the development of a portfolio of possible quality assurance (QA) indicators for three primary care activities: family planning (FP), control of diarrheal diseases (CDD) and management of acute respiratory infections (ACI). The family group practices (FGP) served as models, while the health information system (HIS) served as the vehicle for measurement. The challenge was to keep the measurement choices simple, doable, and valuable to end-users, namely, the practitioners themselves and insurance fund staff. The hope was that some indicators would ultimately be the means for demonstrating that FGPs could deliver better care than the previous polyclinic system. No doubt, this demonstration will occur over time as systems become more sophisticated, but such proof is critical to the sustainability of the model of FGPs introduced so far in Kazakstan and the Kyrgyz Republic.

Quality of clinical care is not easily measured, and definitions of good quality do not always fit neatly into an HIS or the needs of a Mandatory Health Insurance Fund (MHIF). Nevertheless, appropriate, acceptable, and timely care can be demonstrated where stakeholders are keen to show that patients are well served and that their health needs are addressed in a manner that is both pleasing and cost-effective. When payment systems serve as a modifier or motivator, the QA system is more likely to have a real, rather than theoretical, interest. This seems the immediate scenario among the Kazak and Kyrgyz FGPs, which soon will be subject to fundholding.

Unfortunately, the existing Medical Economic Standards (MES) and *prekazes*, accompanied by a strong orientation toward quality control (QC) with fee sanctions are major, but not insurmountable, barriers. Several lively discussions following seminars on the fundamentals of quality improvement (QI) would suggest that some staff are challenged by the idea of looking for and rewarding best practices rather than seeking out and punishing the "bad apples." Moreover, most staff acquiesces to the observation that the latter is no guarantee that improvement will follow detection of defects. However, the actual paradigm shift will require at least three elements: (1) leadership fully committed to QI; (2) actual experimentation with QI and willingness to experience some failures along with some successes; (3) linkage with positive economic incentives (that is, replacement, at least in part, of the present punitive system). Although this is not readily achievable, with a little more training in QI, there may be a critical mass of proponents or "risk-takers" to catalyze the change.

Probably an important component of the success of QA/QI measures is their marketability; when QI rather than QC becomes the means to increase market share and patient enrollment, then the public value of the measures will soar. The consultant highlighted the value of these measures at every interaction with staff in both republics, and the exercise of identifying multiple customers, included in the seminars and discussions she conducted, facilitated this conceptual transfer to the setting of each participant. Some staff seemed to grasp the concept, but it will take marketing and information sharing to fuel the movement to a higher stage of thinking about health delivery systems. Information sharing can first take places as a simple provider profile for either facilities or, where possible, at the practitioner level. Most staff was quite interested to know where they stood in relation to their peers. Once the HIS system can generate results for some of the QA

indicators, practitioners may look for ways to maintain that standing or to outdo themselves or their peers next time. Again, market share (patient enrollment) will be the key motivator. Beyond the numbers of panel size, if those practitioners can keep their patient population healthy, they will gain in economic savings too.

The advent of patient satisfaction surveys is a good sign that perceived quality of health care might be the first step for competitive marketing of FGPs. In addition, though labor intensive and somewhat subjective in nature, surveys will supplement the more objective QI indicators. Anecdotally, surveys do not usually include health status, a key modifier of perception of quality.

Actual QA indicators were generated by discussion of what practitioners did as well as by observation of many FGP sessions. The groups tried to develop consensus for a portfolio of indicators that could conform to the HIS. Those indicators are detailed in the body of the report. There are 12 general QA indicators, four in health prevention/promotion, four for several specific illnesses, and four for family planning. The groups attempted to keep these indicators based on the following characteristics: common medical event, high cost events, defined standards, clear measurability, objectiveness of the measure, close association in time, and consensus-based. Each indicator is accompanied by text on the rationale, methodology, and constraints of measurement. Not all of them will work, however, but a mix of preventive and curative, and process and outcome measures is offered for FP, CDD, and ARI, as well as some common diseases and conditions. At each discussion the local Zdrav*Reform* (ZRP) consultant Yuriy Lisitsyn was present to explain what the coding system and HIS could achieve in its present form. The impression is that the QC staff in Zhezkazgan are most capable of sprouting the seeds of ideas about QA measurement; and a seconded staff person (Sara Wu) from the Peace Corps there has enough on the ground experience to assist in that process.

Lastly, the status of the family medicine specialist training in Karakol, Bishkek, and Zhezkazgan deserves mention. These groups are the pioneers and the testing ground for the QA indicators. The Center of Excellence is much in need of directorship where leadership by example occurs; without this, the program may founder. Placement of family practice residents from the United States, as is being done in L'viv, Ukraine, may be an interim, low-budget measure. It is well worth the effort to contact the ZRP staff in L'viv as well as to strengthen the links with the Bishkek program, as detailed in the recommendations.

2.0 INTRODUCTION

In the largest sense, the goal of the Zdrav*Reform* Program in the Central Asian Republics (CAR) is to provide cost-effective health care to the intensive demonstration sites where the Program has been working. This cost-effectiveness is manifested in two ways: a reform of the health financing systems and a reform of the delivery of clinical medicine, largely in the setting of family group practices (FGP). The goal of this consultancy is to suggest preliminary steps and measures that may bring closer into apposition the cost and quality components of health care reform, emphasizing the ambulatory care side (primary care) of the delivery system.

Reform is not simply about change; it is also about improvement. The quality of health care is defined and, to some extent, restrained by the resources available to it within the community. These resources, although largely economic ones, also include human and intellectual resources—as well as the will to change, to experiment, and to take risks, with the attendant successes and failures along the way. The interrelatedness of cost and quality cannot be overlooked, although one may seem to outweigh the other at various stages of reform. Changes that demand large expenditures of human and financial resources are naturally untenable, but no change at all is ultimately the most costly decision.

Clinical quality measures come in a variety of forms, but generally fall into three categories: those which evaluate structures that support the delivery system (for example, physical plant, supplies, equipment); those which focus on patient care processes; and those which measure clinical outcomes. Technical quality may be demonstrated,, for example, in assessment of a practitioner's skills and knowledge base, the accuracy and reliability of diagnostic equipment, or the validity of laboratory results. Some of these technical quality measures do not, however, automatically ensure that clinical quality of care is applied to the patient. This is why clinical outcomes are often used as the choice of indicator for quality of care. Unfortunately, not all delivery systems are evolved enough or well equipped enough, nor do they have a critical mass of trained staff to allow for a fair assessment on outcomes alone. Moreover, patient participation in the outcome is integral to a good outcome, as non-compliance precludes optimal results of clinical care.

Often in the early stages of quality monitoring, quality control (QC) is predominant. This phenomenon is retrospective in approach and looks for defects in performance. It tends to be the "bad apple" method, can lead to punitive actions, and does nothing to prevent further occurrences except where sanctions motivate a change. Not only is there is no guarantee that the right change will occur; usually a cycle of fear accompanied by data filtration and micromanagement comes into play. These phenomena block the real investigation needed to discover root causes and intervene from that point forward.

Quality improvement (QI), on the other hand, seeks out best practices and attempts to move the mean performance toward that benchmark and to narrow the variation in practice for the whole group. Punitive measures are not a part of QI, nor is the singling out of people as causes of failures. As system and process failures are the root cause, teams of those involved in those systems are most capable of analysis and intervention.

Quality measurement requires some fundamental pieces before it can take place: problem identification, tools, baseline data, functional teams, and willingness to investigate without jumping to solutions, to name a few. As the provider payment systems matures, FGP and Mandatory Health Insurance Fund (MHIF) staff may be motivated to explore QI processes. They will need to be guided along the way so that early limitations or failures do not dissuade them from the QI process altogether.

In the former Soviet Union, these ideas are new and variably welcomed. The existence of Medical Economic Standards (MES), written in the 1970s and updated in the 1990s, have formed the basis for retrospective case (chart) review by internal and external experts, with payment by the insurance organization to the extent that strict adherence to the MES is observed. Fee sanctions are levied for infractions and deviations from these standards. Licensing and accreditation are linked to the adherence to the MES protocols.

3.0 BACKGROUND

3.1 The Present Form of Quality Assurance

Within Central Asia, medical economic standards and *prekazes* have largely directed the efforts of monitoring for clinical care quality. Based on former Soviet standards of hospital care, they are closely linked with payment systems and methods of sanctions where the performance review indicates deviation from the norm. Commonly teams of experts select hospital charts and review them point-by-point for correspondence to set standards and then assign the case points for a total that is used in the calculation of payment, with 1.0 being the maximum score awarded. Fee sanctions are imposed for less than standard care. The method is retrospective and punitive, and it is applied only to hospital-based care. No apparent standards are used for ambulatory services.

The fee sanction system and adherence to MES still lingers within the recent (July 1997) interim regulations for quality control proposed in Bishkek and, by report, in the same kind of regulations in Almay's MHIF quality control efforts. Sentinel events, such as deaths in the hospital, nosocomial infections, recurrent surgical procedures, post-operative infections, admissions to the intensive care unit, and discrepancies in polyclinic diagnosis and final diagnosis, form a part of the standards. Medical experts with specific qualifications and rights to carry out their job do the bulk of the work, in a system that purports to discourage dishonest assessment or reporting. Apart from reviewing the sentinel cases, somewhat random samples (10 percent for hospital cases and 5 percent of polyclinic cases) are also reviewed. Although the actual fees are not stated in the interim regulations, the amount of penalty imposed is expressed at a percentage. The method of weighting the various deviations from the standards is not elucidated; apparently a panel of specialists convened to determine the seriousness of the various clinical performance flaws. An appeals mechanism exists for the facility or a patient who disagrees with a conclusion. Appeal must be made to the MHIF within 10 days.

Although some quality control is always necessary, the overwhelming emphasis is placed on a retrospective system that is labor intensive and holds no guarantees for sustainable correction. If one were to do a rough estimate of cost-effectiveness of these activities, it could be argued that reinvestment of human and financial resources towards quality improvement might be a far better choice. Speaking of this paradigm shift in only theoretical terms is unlikely to convince the stakeholders to change the system from QC to QI; however, presentation of the estimates for costs (which are enormous) may go further in catalyzing that change.

In modern terms, this method would be considered a form of quality control, or retrospective quality assurance (QA). Quality improvement activities are not incorporated routinely into medical practice, nor are quality measurements that would allow comparison of group practices or individual practitioners. The methods used thus far could be classified as the "bad apple" approach, as opposed to the best practice method used in modern QI, where the best performance is identified, replicated, and ultimately narrows practice variation and raises the overall mean performance closer to a benchmark (either internal or external).

With the development of fundholding and capitation, family group practices (FGPs) are given incentive to provide cost-effective and efficient care to their population. This shifts the emphasis from over-hospitalization and the low threshold for specialty referrals to a clinical approach that aims to maintain and even maximize the health of its population. Preventive care and primary health care become paramount to a financially viable clinical practice, where savings can be plowed back into the practice for continuous improvement and possibly market expansion. The ultimate challenge for FGPs is to demonstrate quantitatively their performance and competitive edge to increasingly sophisticated consumers. These consumers may at first be purchasers of care, small and large employer groups, but ultimately the individual patient himself. The information about quality performance is best conveyed in the form of measurement of processes and outcomes that are of interest to such consumers and that can be understood, where feasible, by the non-health professional.

3.2 The Health Information System Support of QA

The most advanced aspects of the health information systems (HIS) within Zdrav*Reform* are to be found under the purview of the QC staff at the MHIF in Zhezkazgan City. The main tasks of the QC staff are database formation and comparative analysis of the FGPs. The database tracks primarily the distribution of funds, average length of stay (ALOS), change in hospitalization rates, and increases in morbidity and mortality. Thirty parameters form the basis for most of the data collection and analysis. The ambulatory data collection largely consists of a profile of the basic categories of patients (children, teens, employed class, pensioners), their diagnosis, procedures, reason for hospitalization, reasons for calls for ambulances, referrals (by provider or by self), maternal (and other cause-specific) mortality, abortion rates, and contraception rates.

Performance for a FGP can be detailed to the practitioner level. Number of visits (OPDs, home visits, urgent care), hospitalization rates, referral rates, deaths (within a hospital setting only), number of pregnancies followed, number of deliveries and abortions, number of Intrauterine Devices (IUDs) placed, are common fields within the database. Practice managers, in theory, submit monthly reports that indicate type of patient, type of encounter, outbreaks, chronic disease follow-up, no-shows, and incomplete treatments. Actual lack of computers at practice sites limits the monthly reporting possible for each of the nine FGPs in Zhezkazgan and the eight in near-by Satpaev. Four computers are available at the MHIF offices for the ten PMs.

At the hospital level, the type of admission within 30 broad categories is tracked on a monthly basis, but drill-down allows more detail about the categories, including whether or not death occurred and the duration of treatment for those cases. Data as to whether the case was a self-referral, an urgent admission, a transfer from another facility, or a hospitalization without a clear indication, complement the date set.

The HIS can give reports on common ("top ten") diagnoses, although no actual reports were seen at this visit. By verbal report, renal stones and renal inflammation lead the list of disorders in adults in Zhezkazgan, followed by pulmonary illnesses in children. As for hospitalizations, surgery is by far the most common reason for admission (40 percent are urgent cases), with normal deliveries a second. ALOS for vaginal deliveries is four days; for C-sections, nine days.

C-section rates are said to be one percent, but neonatal outcomes are not known, a justification for future linkage of data within the hospital database. Since U.S. rates for C-sections are between 15 and 25 percent, these Zhezkazgan rates may suggest under-utilization. Vaginal births after C-section are not a known practice.

The HIS has the potential to track prescribing practices of individual practitioners but does not yet do so. This feature would be especially useful for monitoring antibiotic usage for acute respiratory infection (ARI) and control of diarrheal diseases (CDD). In terms of the CDD program, the HIS cannot distinguish the stage of dehydration (it has no codes for this), but a weak proxy is the facility to which the child is admitted as an indicator of severity. Deaths at home are not trackable by the system, but case-fatalities in the hospital are recorded. Readmissions within 30 days for the same diagnosis are also recorded.

At present, the main limitation of the HIS for QA purposes is the lack of linkage between ambulatory and hospital care. This is especially crucial for obstetrical data such as deliveries, where a hospitalization is the normal outcome of prenatal care by the FGP. A relational database should be possible, as both Excel and Access are used in the HIS. It may be a matter of programming for such linkage. Apart from the level of interest by the QA staff in tracking such an indicator, this indicator would be a good test case because it is clearly defined and easy to track manually. Whether unique identifiers for patients are being fully used is unclear at this time.

3.3 Patient Satisfaction Surveys

As one indicator of quality of care, patient satisfaction surveys add a different dimension of measurement. Although the measurement is subjective and qualitative, it still provides valuable information on the perception by the patient (or consumer) of the quality of caring. In Zhezkazgan, three forms of surveys have been used: One is distributed to teachers and thence to students and their parents. A second method is the house-to-house distribution of a written questionnaire. The third is the distribution of a questionnaire at the health facility itself. The latter was distributed to three or four departments at the oblast hospital and to two or three FGPs. The questions asked for patient perception of the provider, and what they like or dislike about the practitioner, hsi/her bedside manner, the waiting time in the office, the payment system, what they would like to change, and the level of trust in the practitioner. The results of these surveys have been partly analyzed by a previous consultant, but are not completed. The feedback to the practitioners has allowed for change in behavior, but this is not clearly quantified. A telephone hotline was established in addition to the surveys and has allowed for immediate feedback by patients. The QC staff rightly believes that face-to-face interviews inhibit honest answers and modify the assessment of a patient encounter.

3.4 The CDD/ARI Programs

BASICS and UNICEF have paved the way for establishment of these two programs and their subsequent quality indicators. The Karaganda staff have a master-trainer who has just completed her clinical training; the Karakol groups have just sent their master trainer for her first two weeks

course and then both trainers will select four trainees for the next step in the implementation of the programs. Both programs have some quality indicators built into the system, but until the programs are well underway, these indicators may be a bit premature. Most facilities have an oral rehydration therapy (ORT) corner and the impression is that patients get oral rehydration solution (ORS) packets from providers and understand how to make up the solution. It would appear that both practitioners and patients are unclear about the amount and frequency of ORS to use based on a child's age and weight.

3.5 Family Planning

Anecdotally, local birth rates in FGP catchment areas of have been falling because of increasingly difficult economic times in both Kyrgyzstan and Kazakstan. Abortion is still a method of family planning but recent FP efforts through IPPF and SOMARC have broadened the access to IUDs, oral contraceptive pills (OCPs), condoms, and, rarely, tubal ligations. Some health facilities have an pediatric specialist for adolescents for counseling about FP, and local schools have had programs to introduce the concept; details are not known at the time of this writing. Unofficially, women have not had resistance from male heads of households for family planning and contraception but surveys are needed to substantiate such statements.

In some rayons of northern Kazakstan, nurse specialists perform mini-abortions (by vacuum aspiration). A mini-abortion can be done up to three weeks past a missed period. Maikodok rayon performs about 20 mini-abortions per week; 47 percent of all abortions (20,000 abortions annually in the oblast) are mini-abortions. The MHIF does not reimburse the mini-abortions, which may range in cost from 500 to 1200 tenge; those women not able to pay are reportedly denied a mini-abortion. Women are given contraception at the time of the mini-abortion; very few repeat abortions are said to happen. Nurses say that post-abortion depression is not a phenomenon, as families these days have other concerns far more depressing and are usually relieved to have the mini-abortion. Some teens may have mini-abortions; although they require parental consent that is generally not denied.

4.0 SCOPE OF WORK

The scope of work for this consutancy was somewhat modified (and clarified) while the consultant was in the field. Its geographic focus was Kazakstan (Zhezkazgan, Karaganda, and Almaty) and the Kyrgyz Republic (Karakol and Bishkek). The terms of reference essentially focused on the following:

- Review of the QC systems within the Mandatory Health Insurance Fund and Ministry of Health and recommendations for revisions (moving away from the MES to an indicator-based system);

- Identification of QA indicators for the ambulatory setting, with an emphasis on family planning, ARI/CDD, and primary care; and

- Review of the HIS for primary care and recommendations for QA reporting; and

- Presentation of a seminar on modern methods of QA/QI, with training of a local Zdrav*Reform* consultant (Dr. Yuriy Lisitsyn) to give this seminar.

5.0 ACTIVITIES

See description of daily activities in Annex 1.

6 FINDINGS

6.1 Observations on FGPs in Karakol, Zhezkazgan, and Karaganda

In Karakol, some practitioners have had the benefit of training from the Center of Excellence over the past year. Some equipment has been provided and space allocated for teaching and for the practice of clinical skills. Most FGPs have three to four physicians, each representing her specialty, a few nurses, and a practice manager that may work with more than one FGP. Some practice settings are still within a polyclinic building; others are physically independent. Equipment is largely limited to a stethoscope and blood pressure cuff, although some may have an otoscope. It is not clear how often or how skillfully that instrument is used, as no visits to FGPs during patient encounters gave opportunity to observe this first-hand. The majority of patients seen by practitioners fall into their specialty, but some "substitution " happens when colleagues are away on holiday or other call. The sense is that these practitioners are not yet fully functioning as family practitioners. The reasons given are lack of sufficient clinical exposure to the other specialty or lack of equipment, such as a pelvic exam table. Colleagues reportedly help consult on cases outside their referring colleagues specialty, so some informal cross training may occur. Patient load may vary from five to 15-20 cases a day, with home visits numbering a few to as many as six to eight.

Home visits are limited because of transport, i.e., doctors walk from home to home throughout the city. A non-random sample of home visits with the home visit specialist and with two of the Kyrgyz physicians would suggest that for the elderly and pensioners, a home visit is indicated; for the pediatric visits, these encounters could have easily taken place at the health center. The assessments of the patients' illnesses were reasonable; the interactions between practitioner and patient or parent were cordial. Some health education took place at each visit. No documentation was made during the visit, but may take place later as a verbal report to the primary care physician of the patient visited.

The critical factor in tracking FGP activity is the completion of the HIS encounter form. Although practitioners have been instructed in the forms and coding sheets, only when the fundholding experiment occurs will they be more motivated to document accurately the diagnosis, treatments, and referrals at the encounter. Fundholding is planned for four FGPs in Karakol in the fall of 1997. At present, completion of the form may not occur until the end of the practice session.

6.2 Quality Assurance/Quality Improvement Seminars

Two 90-minute seminars on QA/QI basics were presented, one to the MHIF staff in Bishkek and the other two in Almaty. Seminar materials were left in the hands of Dr Yuriy Lisitsyn, who had attended the Bishkek presentation, and in the Almaty ZRP office. Fundamentals of quality management were presented with an emphasis on the transition of QC to QI, the rationale for the change, and accompanied by actual examples of cost-effective results from U.S. facilities. A section of the presentation also addressed clinical guidelines, again with examples and cost-effectiveness analysis.

The QI seminar in Bishkek generated much lively discussion, genuine interest, and the impression that next steps would be possible. As the Almaty MHIF staff seemed more interested in the process of quality accreditation of health plans in the United States, the discussion followed a different path. The Almaty MHIF staff may benefit from further information on the National Committee for Quality Assurance (NCQA), a non-profit, nongovernmental agency responsible for review of health plan quality activities.

Seminar activities in Karaganda took a different course. To some degree, QA was discussed in Karaganda at the Oblast Health Department. However, their interest was higher in matters of FGP formation, with specific examples given about this consultant's own experience. Participants asked insightful questions over the space of two hours. The group listened to the topic of quality measures, using the preliminary ones developed in the Karakol discussion the week before; nevertheless, until the fundholding systems are in place, the interest in quality measures may lag somewhat.

6.3 Choice of Indicators for Quality of Care

Although the selection of quality measures is wrought with challenges, well-conceived indicators that mesh with computerized information systems and take into account the limitations or biases within the data are likely to be the most successful. A clear definition and easy search for numerators and denominators diminish the risk of ambiguity and increase the confidence that the measurement is accurate and validly reflects an actual process or outcome of clinical care. The following six key criteria for the choice of indicator can guide the QA staff within a FGP or the MHIF. Disregard of any of the six may result in a sub-optimal choice of indicator.

1. Common medical event: It makes most sense to choose an indicator that reflects a common event, such as hypertension, immunization, or obstetrical care. Large absolute numbers assure that outliers are minimized and that the measurement corresponds to actual practice.

2. High cost for a medical-surgical event: Although some procedures or encounters may not be high volume, if they represent considerable expense to the practice, their indicators have a financial impact that should be tracked.

3. Defined standard of care: Where practice variation is wide, the standard may not exist, or practitioners may not acknowledge clear advantages to one practice over another. Occasionally a defined standard of care is based on common community practices, which may or may not be scientifically valid. The quality measurement must be firmly rooted in evidence-based medicine, where literature reviews, expert panels, and epidemiological analysis demonstrate that a particular clinical practice benefits the patient and improves the health status. These standards may be expressed as clinical guidelines, scientifically based protocols, or widely accepted treatment pathways. Local groups do not need to develop these guidelines themselves, as this is often a labor-intensive task; however, they need to buy into the guidelines at an early stage, be allowed to dispute or explore the rationale behind the guidelines, and then to adopt or adapt the

guidelines as the final step. Experimental protocols or alternative therapies do not fall into this category.

4. Clearly measurable event: The use of an algorithm or a flow chart is the first step in identifying the specific mode for measurement, either as a process or as an outcome. Often the practice itself of flow charting the steps that lead to an intermediate or final outcome of care clarifies the choice of indicator. Clear definition of the event is crucial so that enumerators will not contaminate the count by similar but not equivalent events. When necessary, a time interval, range of dates, age, gender, or preceding event helps to include or exclude these events.

5. Objective measure, preferably numeric or dichotomous (e.g., yes/no): Where little is left to the discrimination of the enumerator, there is less chance of confusing which data should be included or excluded. This criterion is linked with the one above.

6. Closely related in time to the intervention that would purport to improve or affect a process or outcome: It would be unreliable to select an indicator that measured an event that took place long after the primary intervention, where intervening variables and confounds affected the outcome. For example, if stroke is used as an outcome for quality of hypertension control, non-cardiovascular processes (diet, exercise, smoking, alcohol consumption) would be contributors; it would be better to choose the sustained return to normotension as the intermediate outcome of the intervention.

7. Consensus-derived indicator: For acceptability and implementation, clinical experts should agree on the choice of the indicator. More likely to be aware of the potentials and the constraints of such a measurement, they can either be advocates or obstructionists to the application of the measurement. If the measure is not fully acceptable to them, they may later object when results are presented, discounting the validity of the analysis. If indicators are ultimately aimed at the improvement of practitioner performance, they must be ones that practitioners welcome and trust.

6.4 Matrix for Indicators in Clinical Quality of Care

Ideally, the set of indicators should be a balanced portfolio of process and outcome indicators in both preventive and curative care. Most encounters within pediatrics lend themselves to health promotion or preventive care (anticipatory guidance). Immunization is a key example. On the other hand, internal medical practice in the family group practices observed are directed towards curative care, where prevention plays a smaller role, unfortunately. Often preventive measures are less complex (for example), screening activities, whereas curative or palliative activities may be controversial or optional decision modes.

6.5 Possible Indicators for Quality of Care

The following indicators are suggested for consideration by FGPs, the MHIF, or QA committees. They are derived from many discussions with staff and practitioners, have taken into

consideration the existing HIS computer capabilities, and generally were met with interest or approval from those for whom these might be the choice of measurement.

6.5.1 General QI Indicators

1. Referral rates

Rationale: These rates should decrease with increasing assumption of responsibility by family practitioners for primary care. Nevertheless, lack of equipment, clinical capability, and prekazes discourage the management of simple problems by the primary care practitioner and thereby may increase the number of referrals. Under-utilization should also be tracked.

Methodology: These data should be directly obtainable from present HIS, as the encounter form requests primary care provider (PCP) name and referral by specialty.

Constraints or limitations: Without some degree of case-mix adjustment, practitioners with sicker panels of patients will be seen to have higher referral rates than those do with relatively healthy or younger patients. This indicator does not take into consideration the appropriateness of the referral. A practitioner could appear to have lower rates of referrals on the basis of unwillingness to refer or lack of clinical competency in distinguishing the need for referral. Beware of under-utilization of referrals just to keep the count within the expected rate range. Benchmarks may be useful to monitor appropriateness.

2. Patient satisfaction

Rationale: Although a qualitative measure, this indicates level of comfort with a new vehicle of health care delivery (i.e., family practitioner). It reflects public ("consumer") *perception* of quality of care, although may be mistaken in its judgment of *actual* quality. Patient satisfaction is a standard QI indicator, although survey efforts to measure it can be labor intensive.

Methodology: A marketing division may be best positioned to carry out interviews. Exit interviews may be the most immediate access to patients, easily linking that encounter with the practitioner. On the other hand, written questionnaires allow for confidentiality and may provide more honest appraisal. Response rates tend to be low for written questionnaires that are not completed at the time of distribution.

Constraints: (1) Public perception of quality of care may not be correct. (2) The public may hold misconceptions of proper care, e.g., expectation of antibiotic treatment for viral illness. (3) Exit interviews select a biased sample of patients, excluding the unencountered population. An encounter in which the practitioner has delivered difficult news or in which the patient's chronic illness is not seen to be improving may negatively color the patient's perception about that particular practitioner. Consequently, satisfaction surveys need to inquire about patient's overall health status when asking about satisfaction with care by a particular practitioner or with an FGP.

3. Disenrollment rates

Rationale: Another measure of patient (dis)satisfaction

Methodology: Enrollment can be tracked on the HIS; disenrollment is not.

Constraints: The present inability to link enrollment with disenrollment is a major limitation. Overall panel size may in part reflect this, but if an equal number of patients enroll while an equal number disenroll, the panel size will appear stable—and be misleading. A key process is to differentiate between voluntary and involuntary disenrollment. In order to transfer care to another practitioner, the patient must request his/her medical chart from the current physician in order to hand carry it to the prospective practitioner. Until panel size becomes a competitive feature to practices, this may be a weak indicator.

4. Appropriateness of home visits

Rationale: As practices become busier, the time available for practitioners to make house calls may be limited. As patients become more educated about the indications for house calls, the overall rates may diminish with the rate of appropriateness increasing. Home visits should not be entirely eliminated, as some patients are unable (non-ambulatory, elderly) to come to the health center.

Methodology: No HIS indicator for this presently exists. Practitioners will have to develop their own method to justify a home visit.

Constraints: Although this could be a useful indicator, the lack of anautomated way to track it and the requirement of some judgment of appropriateness by practitioner or an objective reviewer are major *Constraints*. Labor intensive.

5. Continuity of care

Rationale: One fundamental aspect of family group practice that has gone unaddressed is continuity of care. This characteristic is easier to measure once guidelines have been established indicating the appropriate frequency of follow-up for either well care or chronic illness. Already in place, however, is the routine visit for immunizations and growth parameters. No practices are using growth charts; instead, they refer to rather cumbersome tables of many pages of multiple numbers, without any review of measurements from a previous visit. Apart from errors in locating the proper number in such vast table, this means that a child may be crossing percentiles without any notice or intervention by the practitioner. Such review and continuity of care is essential.

Methodology: This indicator would be most easily tracked by a random selection of pediatric charts for the presence of growth charts, followed by a quick count of the number of visits plotted on the chart. Where growth percentiles are crossed, a review of the later encounter notes would be necessary to see assessment the practitioner did.

Constraints: Growth charts are not presently used, although they have been in the past. To introduce this may require substantial promotion from the Ministry of Health (MOH) or at least by local physicians. It is unclear why these charts, which are fully supported by UNICEF and WHO in many other countries around the world, are not used in CAR. One Kyrgyz nurse reported that they had been used in the past, but the reason for discontinuance is unclear.

6. Number or rate of emergency room visits

Rationale: Patients whose illnesses are better managed should have fewer visits for urgent care. This might be best tracked for a specific disease type, such as asthma or hypertension.

Methodology: Unclear how this indicator is tracked.

Constraints: Until practitioners are confident to manage common clinical illnesses themselves, any concerns on the part of the patient may motivate them to make an emergency room (ER) visit. The disincentives for self-referral to ERs may discourage the visit, however. If practitioners lack the basic tools and training for clinical management, they cannot be faulted if patients appear at ERs.

7. Phone triage

Rationale: Improved management of cases over the telephone by nurses or by physicians should reflect better outpatient management, and may be reflected in fewer house calls or visits to the emergency room. As practices get busier, the volume of calls may increase and nurses who handle these calls will need better training for judgment in their triage skills.

Methodology: Requires manual tracking of calls, as HIS does not record these over-the-telephone encounters.

Constraints: At present is just an enumerator but may reflect patients' and practitioners' discernment of which cases need to be seen and which can be managed by telephone. Not case-mix adjusted.

8. Polypharmacy; appropriate selection of antibiotics

Rationale: At present, the lack of evidence-based guidelines or standards of care coupled with the lack of good laboratory support incline the practitioner to a shotgun approach to treatment: the more drugs more likelihood of a "cure." With drugs often representing a major expenditure for hospitals or patients, the rational use of pharmaceuticals becomes paramount.

Methodology: HIS encounter form can record pharmaceutical prescribing by practitioners.

Constraints: The HIS is set up for drug monitoring in that the patient encounter form has space allocated for recording these data; however, no coding system is in place and no baseline data are

being collected yet for prescribing profiles. Moreover, just because a practitioner has listed a drug on the encounter form does not mean that the drug was bought or appropriately used (if at all) by the patient.

6.5.2 Health Prevention/Promotion QI Indicators

1. Immunization rates

Rationale: This preventive, primary care activity is the most common occurrence within the pediatric setting. The indicator reflects teamwork of nurses and pediatricians to ensure up-to-date immunization status among their patients. Although some immunization data are already collected manually, data retrieval from the computerized database will include the universe of pediatric patients, i.e., the unencountered population, as well as the encountered population. Theoretically, the computerized data base results should be closer to the actual immunization coverage rates.

Methodology: The specific vaccine is recorded on the HIS form, thus allowing data extraction specific to age and practitioner. The rate of coverage for a monovalent vaccine, which is administered only one time at a set age, should be determined first, for simplicity sake. The measles vaccine, which is given at age 12 months, is the model here. If the computer program can retrieve such data, then a more complicated determination should be tried, e.g., the trivalent DPT vaccine which is administered at two months, three-and-a half months, five months, and twelve months. Specifically, the universe of eligible patients is defined as all enrolled children aged 13 months; a one-month grace period is suggested, as children may not be vaccinated exactly at age one year. If the coverage rates for measles are very high, the coverage rates for the DTP may be a better indicator, in that the status of up-to-date will include four vaccination events rather than just one as in the case of measles.

Constraints: In some instances, the recording of these data does not mean that the vaccine was given, only that the need for the vaccine was identified. As more and more practitioners give vaccinations in their own offices, this factor will diminish in importance.

2. Prenatal care in first trimester

Rationale: The percentage of pregnant women who have had at least one visit within the first trimester is considered a standard of care. Scientific literature supports the fact that pregnant women, especially those at high risk for complications, have better outcomes in terms of maternal morbidity and mortality when they have received prenatal care within the first trimester. Neonatal outcomes parallel this experience.

Methodology: Existing HIS forms do indicate this classification of care, but data recorders are not presently indicating the trimester of care. A code exists for such and will require provider education to indicate trimester at the time of the first prenatal visit. A code for the first visit should also be used.

Constraints: Once the coding is established, this parameter should be readily tracked. Preliminary re-coding was being explored in Karakol during this consultancy, as the indicator was of great interest and well supported.

3. Number of prenatal visits during pregnancy

Rationale: Frequency of prenatal care, on a pre-determined schedule, allows closer monitoring of the progress of the pregnancy, and, thereby, earlier detection of problems. This indicator would be an easy one to count, but requires a denominator of all pregnancies within the practice.

Methodology: Prenatal visits are already codable on the forms and are an existing practice. Whether they conform to good standards of care will have to be matched against consensus-based guidelines.

Constraints: The indicator calls for clarification of standards for prenatal care frequency, and this may be a centrally driven (MOH) schedule.

4. Incidence of births at 2500 grams or greater

Rationale: Births at 2500 grams or more are considered full-term. This can be a proxy for a normal birth.

Methodology: Records are available in maternity hospitals but not recorded in the HIS other than as a normal delivery.

Constraints: At present chart review would be necessary to track this indicator; HIS staff may be persuaded to develop a simple form for deliveries and link these data with ambulatory data about the mother, including past obstetrical and pregnancy history. A birth weight of 2.5 kg is not necessarily a healthy outcome, as it could be a baby with a low Apgar, or even a stillborn. Although the combination of birth weight and Apgar would be better, Apgars are not included on the basic data collection instrument. Moreover, Apgars tend to be overscored by obstetricians and are higher than the score awarded to the same baby by the pediatrician in attendance at the delivery. The Kyrgyz internal QA expert (and pediatrician) agrees with this observation on the subjectivity of Apgars.

6.5.3 Illness-specific Indicators

1. Return to normotension

Rationale: As the majority of patients seen by internists have hypertension, the percentage of those patients diagnosed with hypertension, on treatment, and followed for compliance and return to normotension should increase.

Methodology: The initial cohort of patients can be identified through the existing HIS and linked with specific practitioners. Return to normotension, however, will require a chart review.

Constraints: Patient drug compliance and lifestyle changes may be the rate-limiting steps, in spite of proper care, treatment, and counsel by the practitioner. Lifestyle changes are hard to enforce and also hard to document. Drug availability to properly treat hypertension may also limit the fairness of this indicator.

2. Management of diarrheal diseases (several process and outcome indicators)

Rationale: As the number and effectiveness of oral rehydration centers increase, the incidence of mild, moderate, and severe diarrhea will change.

Methodology: Process and outcome indicators will be necessary as the program develops. For example, the number of established ORT corners in practitioners' settings may be an early process indicator, followed by the number of patient visits or referrals to the centers. Distribution of ORS packets, or requests by patients for such packets, may indicate acceptance by practitioners and by patients, respectively, of the appropriateness of this form of ambulatory management. Decrease in the overall incidence of dehydration (not decrease in incidence of diarrhea) or shift from severe to less severe stages of diarrhea are outcome indicators that reflect improving quality of care primarily through patient education.

Constraints: Requires a separate tracking system within the ORT corners or centers. The anticipated program for CDD may support this system in terms of data collection, but specific analysis will require oversight. Once patient education has reached a critical level, mild and possible moderate cases of diarrhea may not even been seen in the practitioner's office, thus leaving the severe cases for contact with the health care delivery system.

3. Management of acute respiratory infection (several indicators)

Rationale: Common reason for patient encounters, especially among children under five years of age, and according to some surveys, a leading cause of death. Programmatic support soon to be in place.

Methodology: Process and outcome indicators will be necessary as the program develops. Indicators are not as easily defined as they are for diarrheal diseases. Basic indicators may be the development and dissemination of patient education materials, the percentage of encounters for ARI where patient education occurred. Intermediate indicators may be appropriateness of chest radiographs, or appropriateness of prescribing practices, based on clinical findings. These, in fact, may be the best choice for indicators. Outcome measures that follow up hospitalizations for complicated ARI may indicate sophistication of practitioner's assessment of the patient at an earlier stage of illness.

Constraints: Nothing in existing HIS to track this, although once prescriptions are recorded on encounter forms, this may serve as a means of linking antibiotic use with the diagnosis of ARI; at that time it may be possible to use the HIS to follow appropriateness of care. Intermediate indicators will require some chart review, which is labor intensive. There are no good outcome

indicators, other than those data that link hospitalization with appropriateness of ambulatory management.

4. Outpatient management of anemia, asthma, ulcers (gastric, duodenal), diabetes, hypertension

Rationale: These are disorders which, if well managed, should rarely, if at all, require hospitalization. The low rate of hospitalization reflects appropriate and early interventions for avoidance of potential clinical complications.

Methodology: Tracking of hospitalizations for the above disorders. In some instances, for example, anemia, an appropriate differential diagnostic dichotomy (microcytic vs. macrocytic anemia) with different treatment pathways may be amenable to tracking and analysis.

Constraints: Patient compliance is the limiting factor here and may impact outcome in spite of good quality of care by the practitioner.

6.5.4 Family Planning Indicators

Introduction: Since 1989 the Kyrgyz Ministry of Health has officially approved programmatic planning and interventions for family planning. This official stance has been folded into the "Health of the Nation" program, the Female Child Project (Project Kyz Ballah), and local nongovernmental organizations which have broadly promoted health of women through legal rights, socio-economic issues, ecological and environmental concerns, all with an eye to the impact on the health of women and children.

Statistics on the status of women in the Kyrgyz Republic indicate the clear need for a proactive approach to women's reproductive heath. Abortion is a common means of “family planning,” with the rate estimated at 10 to 12 percent. This rate has been on the rise among teens. While official statistics point out that 10 percent of all births in the country are to teen mothers, unofficial estimates place this rate at 20 percent, twice the level. Five percent of those Kyrgyz teen mothers are unmarried at the time of delivery.

Multiparity is another outstanding statistic with its own serious consequences. Forty-six to forty-eight percent of Kyrgyz women have at least four children. Thirty-five percent have deliveries more often than every two years. Every two of three women has anemia, which is largely related to the demands of frequent pregnancy and relative undernutrition. These women also suffer more complications of the genito-urinary tract.

As in the Kyrgyz Republic, most women in urban areas of Kazakstan know about contraception, but they may not have access to methods or the means to pay for them. The IUD is by far the most popular form, and vague perceptions about the harm of OCPs discourage most users. Mini-abortions are frequently done in Karaganda, and perhaps in other locales if information were forthcoming. No ethical or psychosocial stigmas are apparently attached.

1. Contraceptive prevalence rates

Rationale: High levels of abortion in lieu of contraceptive practices should decrease with increasing patient education about alternative methods.

Methodology: The existing HIS form specifies method used by the patient before and after an encounter with the practitioner. Using the number of women of childbearing age (15-45 years of age) as the denominator allows a rate determination with contraception acceptance as the numerator.

Constraints: The form does not indicate sustainability of the form of contraception by the patient. Identification of pregnant patients among contraceptive users might be a way to determine failure rates, but pregnancy may have been a desirable event at some point in the patient's course.

2. Abortion rate

Rationale: As FP methods increase, the rate of abortions should decrease. Some decrease in the rate is already reported, so a sustained decrease would need to be observed.

Methodology: As long as the HIS tracks abortions, this should be available.

Constraints: The Karaganda staff reported that the MHIF does not pay for mini-abortions, so there may be some data that go unrecorded. Some abortions are performed in the maternity hospitals; mini-abortions are done in the ambulatory setting.

3. Use of contraception by teens

Rationale: The frequency of sexual activity and resulting pregnancy in teens are said to account for one-fifth of all births in the Kyrgyz Republic. A physician specializing in adolescent health issues is the practitioner responsible for family planning and contraception counseling for teens, although some gynecologists counsel young women and men in addition to the adult population. Schools also present sexual health classes and some organizations have distributed condoms to teens and university students.
Methodology: The present HIS forms contain entry lines for contraception choice. Along with the birth date on the form, this indicator can be measured.

4. Birth spacing interval

Rationale: This indicator would be the most direct measure of success of a family planning program, as choices made by women for spacing their pregnancies would be the direct result of contraceptive use.

Methodology: Would require linking individual data sets for women which included the date of delivery and the use of contraceptive, and any subsequent pregnancies.

Constraints: Non-existing linkage of continuous data (ambulatory and maternity) is the major constraint. This could be addressed with relational databases and specific programming.

Indirect rate-based indicators for family planning impact: Indirect indicators may reflect the degree of success of an intervention but are also affected by other factors and confounds. For example, birthrate may be affected by FP interventions but may also be influenced by socio-economic and environmental factors. The following are offered for consideration for tracking purposes only.

- Rate of premature deliveries, low birth weight, and small for gestational age
- Birth rate
- Maternal morbidity and mortality rates

Next steps for family planning indicators: The development of FP indicators will occur as the project evolves in sophistication. In the interim, some preliminary information about the population for whom the project is targeted may give clues to directions that QI indicators should take. Such information may be derived from surveys (medical anthropologic) that would clarify the following:

- Contraception-seeking behavior, including misconceptions about contraception on the part of men as well as women, the role of men in decision-making about desirability of contraception or family planning, understanding by patients and practitioners of side effects of various contraception methods
- Teen sexuality, pregnancy, contraception seeking behavior, and sustainability of methods for teens.
- Level of comfort and technical expertise on the part of practitioners regarding counseling to both women and to families about sexuality and family planning
- Patient perception of advantages and disadvantages of various methods of contraception, including usual sources (both informal and formal) of knowledge of contraception.

7.0 RECOMMENDATIONS

7.1 Quality Assurance/Quality Improvement

7.1.1 Transition from Quality Control to Quality Assurance/Quality Improvement

1. Continue dialogue with QA staff at MHIF and FGPs in Zhezkazgan, Bishkek, and Karakol on the implementation, through a pilot test, of the QA indicators to demonstrate the practicality and utility of the indicators. Once FGPs are clearly underway, and if timing is acceptable for Karaganda staff, resume dialog with QA staff there.

2. Consider a study tour for more progressive leaders (physicians and managers) with a focus on QI. Likely sites for this would be the Institute for Health Care Improvement (IHI, Don Berwick, Boston); Intermountain Health Care (IHC, Brent James, Salt Lake City, Utah); or Dartmouth University Center (Eugene Nielson, Dartmouth, NH). Harvard Pilgrim Health Plan (HPHC, Boston) has links with Beer-Shiva University (Tel- Aviv, Israel) and that may be a closer link, geographically. HPHC used to teach a good four-day QI course at Babson College (James Cooley, Wellesley, MA) but it is uncertain if that course is still running. IHI and IHC are by far the best to contact. IHC in Utah has an excellent short course in QI; IHC is actually doing QI. In contrast, IHI in Boston coordinates QI projects around the United States, but they are an institute and not a health facility like the extensive health network of IHC in Utah. In the past USAID has sponsored physicians from the former Soviet Union for courses at Management Sciences for Health (MSH) in Boston; MSH has a course on financing for health care executives, but local staff here may be further along in understanding concepts beyond what the course may offer; the MSH course is not focused on QI, though in the past it has had a few sessions addressing the topic.

3. Encourage the learning and application of QI tools and teams, once a critical mass of individuals is trained and willing to experiment (and take risks of success or failure). This "rolling up the sleeves" is the best way for staff to understand QI in practice; seminars have a theoretical advantage only.

4. Begin some simple QI by flow charting some clinical processes to generate discussion and identify areas for improvement; this may result in development of critical pathways or approaches to make a hospital stay more cost-efficient (e.g., decrease ALOS).

5. Short of study tours, develop a seminar on QI examples from U.S.-based FGPs and hospitals; these examples should either be replicable here or at least serve as clear examples for CAR FGPs.

6. Consider introducing some of the standards developed by the National Committee for Quality Assurance. Used for quality accreditation by U.S. health plans, these standards were discussed in general with the MHIF staff in Almaty.

7. Consider doing a rough estimate of cost-effective analysis of the labor of QC according to MES. See Becker's convincing numeric example in the Ukraine Trip Report of October 1995.

7.1.2 Other Training Needs

1. Design and conduct a workshop to train QA staff on the graphical (vs. tabular) representation of data, its advantages in communication to decision-makers, and the limitations of data displays.

2. Consider training QA staff in the use of PowerPoint to complement the workshop on graphical representation of data.

3. Facilitate thought processes that are more analytical (than enumerational) in nature. QC staff is doing well with the counting process but are thin in analytical skills.

7.1.3 Guideline and Indicator Development

1. Facilitate the development of clinical guidelines by having practitioners identify common medical practices where practice variation may exist. The "top ten" list is essential here.

2. Collaborate with FGPs to develop a balance of preventive and curative indicators for primary health care based on the guidelines. STLI's Family Medicine Specialist Training Program may provide reality checks on selection of clinical QI indicators.

3. Facilitate the link-up between physicians interested in development of clinical guidelines with the Resource Library of the Family Physician Specialist Training Program in Bishkek. They have a reasonable written resources, a CD-ROM, and some practical experience with U.S.-based standards of care. Dr Tom Chew is the contact person.

7.2 Health Information Systems

1. Attempt to establish links, in the form of relational databases, for ambulatory and inpatient indicators such as prenatal care and maternal/neonatal outcome. Data exist independently but are not presently linked via computer-based HIS.

2. Continue to work alongside the HIS staff on the encounter form with emphasis on the integration of QA indicators.

3. Clarify list of top ten ambulatory and inpatient diagnoses. These have been available as anecdotal, verbal reports but not in written analysis at the time of this consultancy. This information forms the foundation of good QI planning (prioritization) and measurement.

4. Include a coding for level of complexity of the patient encounter. Not only will this balance the volume count and more properly indicate how the practitioner is using the office time, it

will avoid rewarding performance on volume alone and take into account the more difficult cases for clinical management.

5. Establish baseline rates for some indicators now so that comparisons can be made when the delivery systems are more sophisticated and have been improved.

7.3 Family Medicine Training Support

1. Consider the use of U.S.-based FP residents (in training) for 2- to 3-month rotations at select FGPs and the Karakol Center for Excellence along with the STLI group in Bishkek.

2. Contact the ZRP staff in L'viv, Ukraine, for suggestions on next steps on FP training in FGPs. Contact the University of Colorado, Department of Family Practice for suggestions in implementation of this recommendation.

3. Assure continuity of the Center for Excellence in Karakol by appointing a full-time director who is a family medicine physician dedicated to teaching and advocating for the trainees. At first an U.S.-trained physician would be preferable, as the cohort of Kyrgyz physicians has not yet been formed.

4. Explore contacts with the University of Kansas Family Medicine Program, as they have a relationship with the Bishkek Program and may be willing to extend or rotate through Karakol.

5. Consider competency-based measurement of trainees within the Family Medicine Specialist Training Program. This suggestion was discussed with Dr Tom Chew.

6. Encourage at least one measure for continuity of care, for example, through the use and review of growth charts for pediatric patients.

7.4 Miscellaneous

1. Explore feasibility of QA indicators for rural health care practice in Fergana, Uzbekistan.

2. Encourage ownership by the Karaganda oblast of their own model of health service delivery and provider payment mechanism. If the Zhezkazgan model is promoted too heavily in Karaganda, the purposes of reform may be stymied simply because the model is seen as an import rather than a locally developed approach.

3. Keep in mind that development of the provider payment system is of primary interest to most providers and insurers. Consequently, it may be the motivator for quality improvement; installing quality measures or monitors before the payment system is in place may lead to tokenism and not genuine commitment to quality improvement.

4. Complete the analysis of the FP survey done by marketing in Karakol.

5. Consider the survey needs for FP indicator development, as detailed under the FP indicator section.

6. Locate the guidelines for functions to be performed by the primary care doctor and functions by the specialist. These were supposedly done but not seen during this consultancy. Such guidelines may be helpful for assessing appropriate referrals.

APPENDIX 1: TRIP ACTIVITIES

July 14-20: Trip preparation, seminar materials development, review of documents

July 20/21: Travel from Memphis to Almaty via Amsterdam

July 22: Met with Zdrav*Reform* office staff in Almaty, and the visiting Catherine Cleland, COTR for Zdrav*Reform*, ENI Bureau, USAID/W

July 23: Travel from Almaty to Karakol (Issyk-Kul oblast), Kyrgyz Republic, with brief stopover in Bishkek to discuss SOW with Sheila O'Dougherty. In Karakol met with Grace Hafner to discuss recent Karakol activities for family practices and family planning/ CDD/ARI plans

July 24: Met with Zdrav*Reform* staff in Karakol office to outline approach to quality indicators

July 25: Met with staff of FGPs, the Center of Excellence

July 26: Document review and preliminary report writing

July 28: FGP weekly meeting; discussion re Q indicators; home visits

July 29: Met with staff of FGPs #8 and #14; home visits

July 30: Attended FP seminar; met with MHI staff

July 31: Met with FGP staff in Ak-suu Rayon and Dheti-Oguz Rayon

August 1: Travel from Karakol to Almaty

August 2: Document reviews and report writing

August 4: Travel to Zhezkazgan; met with Kenzhetai Kabykenov, head of Oblast Health Department; met with MHI Fund QA staff

August 5: Met with Family Group Practice Association; MHI QA staff; visit to FGP Kochumbaeva; visited in near-by Satpaev FGP #1 and #4

August 6: Follow-up meeting with Kenzhetai Kabykenov; met with Sara Wu; return to Almaty; travel to Karaganda. In Karaganda, met with Tolebai Rachibekov and Habibulla Bismillin

August 7: Met with Rachibekov, Bismilin, Marat Trimov, Alikov Borisovich; seminar for approx. 20 staff at OHD and MHIF on QA measurement and family group

practices; met with MHIF head and QA staff; brief interview with Vestnik newspaper reporter.

August 8: Seminar on QA measurement and FGP formation; Rachibeckov seminar; visit to Polyclinic, and two FGPs in Maikodok rayon of Karaganda city environs

August 9: Return to Almaty; met with Sheila O'Dougherty and Abt staff re Karaganda trip and briefing for Bishkek

August 11: Travel from Almaty to Bishkek; met with MHIF

August 12: Met with QA staff under Licensing and Accreditation Committee in Bishkek; met with Tom Chew of STLI

August 13: Seminar at MHIF; met with Nayla Kadyzova and staff member of MHIF; return to Almaty

August 14: Met with Michael Borowitz; document review and report writing

August 15: Met with Almaty MHIF staff; seminar on QA measurement to MHIF

August 16: Document review and report writing; submission of draft report; met with Michael Borowitz

August 17: Departure from Almaty via Amsterdam for Memphis, TN, USA

August 18-22: Completion of final report and submission to Zdrav*Reform/*Bethesda, USA

APPENDIX 2: REFERENCES

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Recommendations of a Workshop on the Implementation of Diarrheal Disease and Acute Respiratory Infections Programs in the Central Asia Republics, Feb 1997

APPENDIX 3: PERSONS CONTACTED:

ALMATY:

Zdrav*Reform* Office:

Michael Borowitz, director
Sheila O'Dougherty, deputy Director
Yuriy Lisitsyn, allergist-immunologist
Grace Hafner, CDD/ARI/FP

MHIF:

Karima Akhmetova, head, Foreign Relations Board
Saissa Sisienov, chief of the Division
T R Seidumanova, chief coordinator for Part-time Experts
G N Shamratova, chief specialist, QC Department
R S Shaukhanbaeva, chief specialist, QC Department
A K Berdongarova, chief, Sector for Scientific Research
I N Shuvalov, chief specialist, QC Department
T Z Zimirova, chief specialist, QC Department
Twelve attendees at MHIF QI seminar, representing Almaty Oblast MHIF, Almaty City MHIF, and Federal MHIF Headquarters

KARAKOL:

Zdrav*Reform* Office:

Fatima Kasmahunava, manager
Kauhar Sultanbayeva, obstetrician-gynecologist
Nazar Usubaliev, cardiologist, director, Center for Excellence
Gulnara Cherikova, pediatrician
Shaken Abdraeva, therapist
Gulmira Ashirohmanova, pediatrician
Asel Yusupova, translator

Family Group Practices:

Physicians and staff of FGP #5, FGP #7, FGP #8
Clara Toktorbaeva, FGP #7
Tamara Akmatova, pediatrician (FGP #8)
Gulnara Mambetalieva, pediatrician (all home visits)
Aigul Shatenova, obstetrician-gynecologist

MHIF staff

Kyrgyzbayev, pediatrician, deputy head

Ak-su Rayon:

Practice manager and staff of FGP #4

Physicians of FGP #1 and #2

Elmira..., therapist

Neonatologist...

Bubush Musabayava, obstetrician-gynecologist

Dheti-Oguz Rayon:

Staff of FGP #3 and #1

Head physician

ZHEZKAZGAN:

Miscellaneous:

Alma Makenbaeva, head physician, Family Group Practice

Kenzhetai Kabykenovich Kabykenov, head, Oblast Health Department

Tatiana Zakrgevskaya, MHIF QC head

Eugene Sidorenko, MHIF/Abt computer specialist

Irina Kasimova, pediatrician

Lazzat Muchameolieva, pediatrician

Kulzipa Kochumbaeva, therapist

Saule Turusbekova, therapist

Shaiza Tusupqanova, gynecologist

Zhamal Tazhikenova, ZRP coordinator

Sara Wu, naturopath, Peace Corps

SATPAEV (Zhezkazgan Oblast)

City Health Department

Aitmaganbet Aukashev, head,

FGP #1

Galina Dildibaeva, pediatrician

FGP #4

Kaldygul Tabanova, therapist

Gulzha Mukanova, pediatrician

Roza Zhakupova, pediatrician

Almagul Ankisheva, therapist

Oruntai Lekerova, pediatrician

KARAGANDA:

Miscellaneous:

Tolebai Rachibekov
Habibulla Bismilin
Marat Trimov, First Deputy, OHD
Viktor Borisovich Alikov, Head OHD
Gulya Omarova, head gynecologist
Attendees at QI seminar (approx. 50): Faculty of Karaganda Medical Institute and OHD heads of departments, FGP heads
Valentina Yelizarova, journalist, Karagandinsky "Vestnik" (private newspaper)

MHIF:

Sergei Shmakov, MHIF head
Nadezhda Hye, QC head

Karaganda Oblast Infectious Disease Hospital

Roza Baltynova, Head physician
Natalya Dusenbaeva, CDD/ARI master trainer
Nadeshda Deis, pediatrician

Maikodok Rayon physicians:

Raushan Meiramova
Leakadiya Zaidler
Fatima Telzhanova
Nina Delkach

BISHKEK:

MHIF:

Ninel (Nayla) Kadyzova

QA sub-Committee, L and A Committee:

Asanaly Sadakbaev, head
Abakirov
Tamara Kurmanalieva

Miscellaneous:

Tom Chew, family practitioner, STLI
Eleven attendees at QI seminar representing Bishkek and Chui oblast MHIF
Makenjan Musuraliev, Professor of Obstetrics and Gynecology
Staff assistants

APPENDIX 4: LIST OF ACRONYMS:

ALOS	average length of stay
ARI	acute respiratory infection
CDD	control of diarrheal diseases
CPR	contraceptive prevalence rate
ER	emergency room
FP	family planning
FGP	family group practice
HIS	health information system
LA	licensing and accreditation
LBW	low birth weight
MHIF	Mandatory Health Insurance Fund
MOH	Ministry of Health
NCQA	National Committee on Quality Assurance
OCP	Oral contraceptive pills
ORS	oral rehydration solution
ORT	oral rehydration therapy
PCP	primary care provider
PHC	primary health care
PM	practice manager
QA	quality assurance
QC	quality control
QI	quality improvement
QM	quality management
QP	quality planning
STLI	Scientific Technical and Language Institute
USAID	United States Agency for International Development
VBAC	vaginal birth after Cesarean section
ZRP	Zdrav*Reform* Program