

## Building on Current Successes

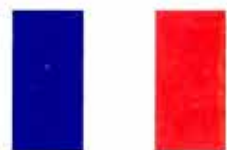
**A PARTNERSHIP BETWEEN:**

The Government of Afghanistan

The Government of France

La Chaîne de l'Espoir

The Aga Khan University, Aga Khan Development Network



*The French Medical Institute for Children (FMIC) was founded in 2006 in a unique public-private partnership between the Governments of Afghanistan & France, a French NGO – La Chaine de L'Espoir/Enfants Afghans and the Aga Khan Development Network through the Aga Khan University. The Institute has risen to the challenge of charting a course towards sustainable health solutions for Afghanistan. Advances have been made in both immediate service delivery and long-term policy planning.*

*In 2010, more than 75,000 outpatients were treated and more than 4,500 children admitted.*

*In 2011, FMIC expects more than 2,100 surgeries including 580 orthopedic, 298 cardiac and 874 general surgeries*

*FMIC is the only health care institution that offers open-heart surgery in Afghanistan.*

*To ensure that health services are accessible to all Afghans, the FMIC has instituted a Welfare Support Program that subsidizes health services for poorer patients. All its partners contribute to this service.*

## **FRENCH MEDICAL INSTITUTE FOR CHILDREN**

Well before FMIC was formally inaugurated in 2006, capacity building of health professionals in Afghanistan had modestly begun. In 2004, a general surgeon, an orthopedic surgeon, a pediatrician and cardiologist were sent to France for 3-month training in their respective specialties.

***Only two years later, the vision for FMIC was achieved*** when it opened its doors to offer health care of the highest standard in the country and at par with the best medical institutions in the region. In its initial phase it provided pediatric surgical care including general and orthopedic surgery. It now also provides pediatric medicine, cardiology, neurosurgery, cardiac surgery, pediatric plastic surgery and anesthesia. Its 85 beds include 15 intensive care beds. The hospital is equipped with state-of-the art CT scanning facilities, general radiology and ultrasound. It houses a pharmacy, a well-equipped laboratory and operating theatres. FMIC also has tele-medicine links with the Aga Khan University in Karachi and the Bamyan Provincial Hospital.



## • SIGNIFICANT MILESTONES SINCE INCEPTION

- FMIC is the first hospital in Afghanistan which has achieved the ISO 9001:2008 certification.
- FMIC is the first hospital in Afghanistan to perform open heart surgeries and the first to perform closed heart surgeries by a local cardiac surgeon without the help of a foreign surgeon.
- For the 1<sup>st</sup> time in Afghanistan, surgery for '*esophageal atresia*' (a disorder of the digestive system in which the esophagus does not develop properly) was performed. The case was presented at the Annual Congress of the French Society of Pediatrics held in Nantes in June 2008 and subsequently published in the *Archives de Pediatrie*.
- Independent diagnosis and treatment of '*sequential co-existence of esophageal atresia and hypertrophic pyloric stenosis*' – a rare medical condition, the occurrence of which is only reported in medical literature in a handful of instances.
- Performing for the 1<sup>st</sup> time in Afghanistan a radiological reduction of '*intussusception*' (where a small part of the small intestine retreats into another section of the intestine) avoiding the need for complicated surgery.
- Independently treating '*congenital lobar emphysema*' (a respiratory disease that occurs in infants where air enters the lungs but cannot leave easily)
- Successful system migration of Hospital and Financial Information Systems, identical to Aga Khan University, Karachi.
- Introduction of eHealth initiatives in Afghanistan.
- Independent diagnosis and treatment of more than twenty diseases which were never possible before.
- Establish FMIC's name as a quality health care brand in Afghanistan
- Significant improvement in programmatic and financial sustainability
- Introduction of neonatal surgeries.
- Establishment of first state of the art intensive care services (ICU) in Afghanistan.
- State of the Art imaging services - CT, MRI, etc.
- Establishment of Professional Hospital Management.
- Successful capacity building planning and its implementation.



## **GOVERNANCE AND MANAGEMENT**

Governance in an organization is accountable to ensure quality of its services safeguarding high standards of care and ensuring financial sustainability. FMIC's 4 party partnership is indeed a professional model of Public-Private collaboration in Afghanistan. Its governance is dealt by the Provisional Operating Committee (POC). The governance has clear roles and defined responsibilities to ensure and evaluate the performance of the hospital in line with their set missions. This has been achieved over the last 5 years and is ready for replication in the other programs as well.

The POC has created a vibrant vision and developed a road map for sustained programmatic achievement. The management is responsible in ensuring that the vision is carried further. The management has developed the models to manage the hospital with evidence based best practices of other international hospitals. The management is also aligning the individuals, sections, departments, division and hospital's overall objectives with the vision of the institution. Further, there are clear defined boundaries between governance and management, so both can perform their roles adequately. Since 2006 when the POC was established, all partners have fulfilled their responsibilities which has built a trust and understanding among themselves where the partners feel respect for each other and are able to drive the vision forward.

## **LESSON LEARNED:**

- How to run public private partnerships along with their dynamics and principle
- Ensuring governance in partnerships
- How to work with multi partners and achieve objectives
- How to choose partners and work on fulfilling their agreed contributions
- Developing good relations with government and ensuring commitments are met
- Working successfully with different government bodies
- Ensuring good hospital management
- Making tangible contributions in improving health systems
- the fmic experience can be and replicated for success elsewhere

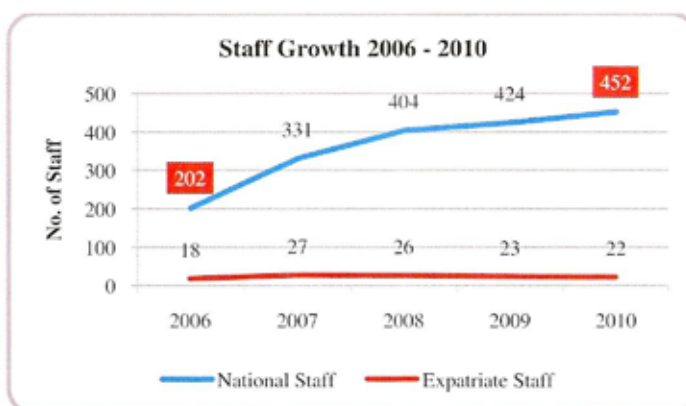
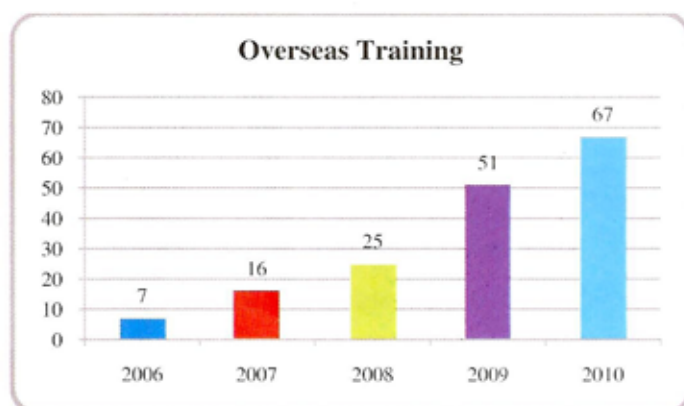
## **BUILDING LOCAL CAPACITY**

FMIC's over-arching human resources mission is to develop national staff thereby ensuring a pool of qualified health professionals in all areas of health care delivery, leadership and

administration to carry out the operations of FMIC. This is being done with a medium to long term vision of requiring minimal support from long-term expatriate staff. Through the help of AFD and AKDN funding, a capacity building plan is currently being implemented.

In a short period of time, FMIC has conducted a remarkable amount of training. Most training takes place onsite and is complemented by long and short-term missions to France and Pakistan. Since 2007, 166 national staff received overseas training including for pediatric and cardiac surgery in France (at Necker Hospital), anesthesiology in India, ICU care in Germany and training in nursing and quality improvement in Pakistan (Aga Khan University Hospital, Karachi). Offsite training in Kabul has also taken place through partnerships with the Institute for Health Sciences, Roshan and NGOs Focus Humanitarian Assistance and Handicap International. Onsite training in cardiac, orthopedic, general and plastic surgery has taken place through various short-term missions from 2006 to 2010. Noteworthy, is the accreditation of one of FMIC's Afghan surgeons to perform closed-heart surgeries in March 2008.

In 2011, more than 100 national staff (nurses, laboratory technicians, radiology technicians, pharmacists, bio-medical engineers and doctors) will go for training.



### **CONTINUING MEDICAL EDUCATION**

Along with clinical development, Continuing Medical Education (CME) is also provided at FMIC to enable physicians and nurses working elsewhere in Kabul to update skills in their area of specialization. Most CME is conducted by FMIC's local physicians and is complemented with some training from expatriate missions. Areas of training include for lab diagnosis of infections, orthopedics, radiology, medicine, plastic surgery, cardiology and cardiac surgery. In 2008, 12 trainings took place with a total of 287 physicians trained, 216 of



which were non-FMIC staff. In 2007, 145 physicians attended trainings, 125 of which were external. In 2009, 6 CMEs were held where as in 2010 14 CMEs were held in which 515 physicians attended trainings, 317 of which were external.

### **DEVELOPING NURSING CAPACITY**

Nursing Division at FMIC was initiated with 20 nurses in 2005 trained by mission staff from France. The division expanded along with services and patients at FMIC and today 116 nurses are working in the nursing division. In 2008 division has initiated Nursing Education Services (NES) to conduct on job training and nursing credentialing at FMIC. From 2008 to 2010, NES has conducted 562 sessions on different nursing care related subjects. Besides, nurses have been going to AKUH Karachi for clinical attachment in different pediatric wards to gain the experience of nursing care of international standards and have hands on practice for skills under supervision. Today 107 nurses at FMIC are certified on international standards for Intravenous cannulation, 94 nurses for Basic Life Support (BLS), and 101 nurses for Medication. In addition, nurses are now approaching towards advanced and specialized care provision to the patients and six national nurses have completed their certification in Pediatric Advanced Life Support (PALS). In 2009, one national nurse has become assistant instructor and in 2010 was promoted to Instructor NES. She is now certified as Instructor of BLS and is certifying nurses and physicians of FMIC for BLS at FMIC.

On the completion of fifth year of FMIC, nurses are on the way of training towards leadership roles such as shift supervisors, assistant head nurse, head nurse and nursing instructors. Besides, division is preparing two nurses for leadership role in nursing from Central Asia (Tajikistan). Standard of care has been maintained through continuous development, implementation and monitoring of nursing policies; first one was developed in 2006 and today the division owns 41 Policies and maintains a quality index of 94% for its compliance. Infection Control program for hospital is another area the nursing division has initiated in 2008 and expanded over the last three years.

International Infection Control (IC) nurse was inducted in 2008 and was responsible for implementing universal guidelines of Centre for Disease Control (CDC), today FMIC has a trained national IC nurse who is also responsible for surveillance of infectious diseases at the hospital. Moreover, nursing division collaborates with neighbor institutions and provides training support to the Ghazanfer Institute for Health Sciences and Kabul Medical University in

providing clinical placement and mentorship for nurses graduating from their program. From 2010, the division provides training through tele link to the sister institutions such as Bamyan provincial hospital and planning the same for Faizabad hospital in the future.

### **QUALITY ASSURANCE**

FMIC has started the journey of Quality by pursuing ISO 9001:2008 certification in 2007 and has enhanced its Quality Management Systems by putting in place processes for achieving annual quality goals. In March 2009, FMIC has completed its certification of compliance for the quality management system (QMS) by the international accreditation body. In May 2010, FMIC went through successfully with the First Surveillance of ISO 9001:2008 and is now planning for the Second Surveillance in May 2011.

Each passing year has raised the bar and expectation of the quality standards for FMIC with the vision of becoming the **Center of Excellence in Central Asia**. After putting Quality Management Systems in place, FMIC has begun its journey towards improving the clinical quality standards. Quality Assurance department of FMIC is taking steps to introduce standards of Joint Commission International (JCI) in order to continue improving towards patient safety and clinical effectiveness. A Task Force has been formalized with all the 14 chapter leads and FMIC is planning to go for a formal base line assessment for JCIA by an expert surveyor from AKUH in 2011 which will provide a realistic road map in the journey towards JCIA accreditation.

### **eHEALTH (TELE-RADIOLOGY)**

FMIC is advancing in its use of e-health technology through the use of a tele-link for tele-radiology, tele-management and quality assurance in radiology, tele pathology and tele consultation services. This is being supported by Roshan and CISCO. Since the tele-radiology service has been established, 627 CTs and 478 MRIs were sent to the Aga Khan University Hospital, Karachi for a second opinion in diagnosing patients. FMIC has also recently entered into an agreement with a provincial hospital in Bamyan managed by Aga Khan Health Services, Afghanistan to provide support for Continuing Medical Education, departmental training and bio-medical facilitation using a tele-link. An e-health strategy is currently being developed to enable additional training and transfer of expertise in the region. Further, efforts have being made to connect the Faizabad Hospital through a tele link.



## **HOSPITAL PERFORMANCE**

In year 2010, FMIC continued to experience sustained growth in almost all inpatient and outpatient activities of the hospital, as volumes exceeded budgeted targets in almost all areas. Consulting clinic visits showed a growth of 19% over the same period in 2009, Radiology volumes 22%, Admissions 15%, Laboratory volumes 8% and total surgeries 21%.

S#	Description	2005	2006	2007	2008	2009	2010	Total
1	Admissions	36	1,280	2,237	2,936	4,009	4,596	15,094
2	Clinic visits	224	23,440	35,264	55,684	64,375	76,850	255,837
3	Surgical procedures							0
	a) - General surgeries	29	345	456	612	805	956	3,203
	b) - Orthopedic surgeries	-	110	252	351	505	634	1,852
	c) - Plastic surgeries	-	-	30	27	98	118	273
	d) - Cardiac surgeries	-	97	155	162	207	285	906
	e) - Neuro surgeries			5	7	19	22	53
	f) - ENT surgeries			-	38	101	89	228
	<b>Total surgeries</b>	<b>29</b>	<b>552</b>	<b>898</b>	<b>1,197</b>	<b>1,735</b>	<b>2,104</b>	<b>6,515</b>
4	Radiology	658	19,511	29,816	37,365	45,678	55,842	188,870
5	Laboratory	207	62,711	154,976	203,863	273,174	293,918	988,849

## **PATIENT WELFARE SERVICES**

One of the core missions of FMIC is to provide accessible quality health care to the local population without any discrimination. Various public and private entities contribute to the Patient Welfare Program including Roshan, GoF, and GoA. The tables below describe the details of Patient Welfare Program at FMIC since inception.

In 2010 \$2.9M was spent on the Patient Welfare Program. Out of this \$2.1M was spent in assisting 3,708 admissions (82% of total admissions) through FMIC welfare program and 401 surgeries through LaChaine de l'Espoir's Kate Project. Additionally outpatient welfare of \$0.8M was provided to 40,148 outpatient visits/diagnostic procedures (21% of total visits/diagnostic procedures). Patient Welfare spending represents 36% of overall gross revenue of the hospital whereas inpatient patient welfare represents 59% of inpatient gross revenues and outpatient patient welfare represents 19% of outpatient gross revenues. During the year the hospital received patients from all 34 provinces of Afghanistan.



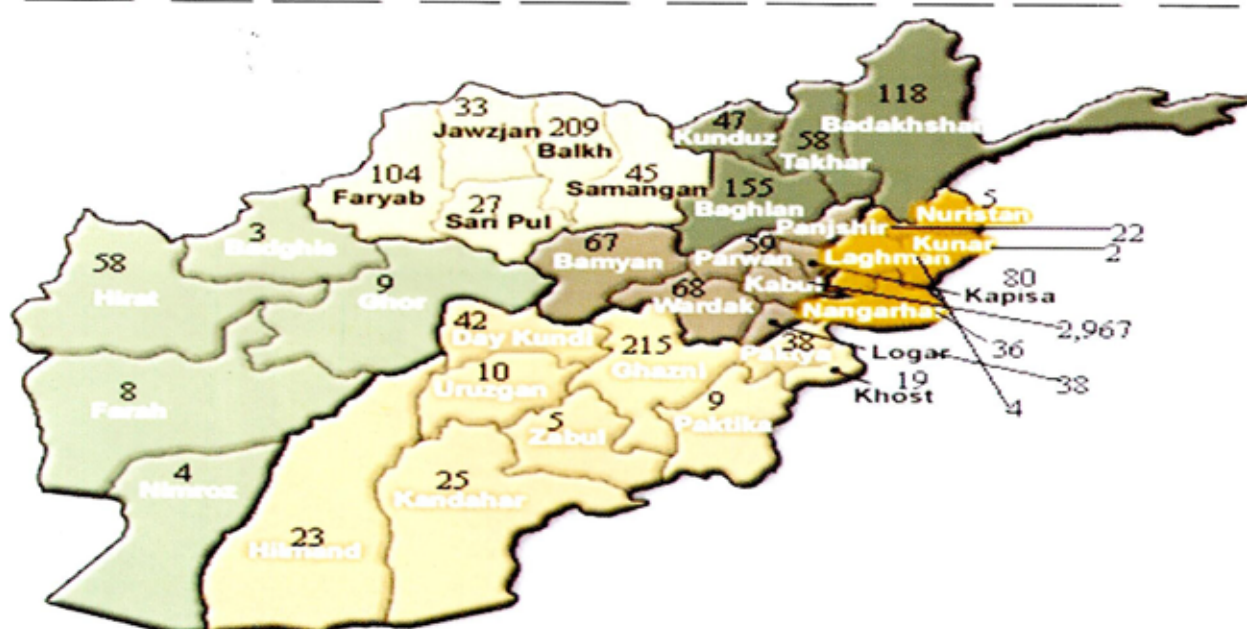
**TABLE A: PATIENT WELFARE STATISTICS**

	Description	2006	2007	2008	2009	2010	Total
1	Inpatient Welfare Volumes	1,085	2,285	2,658	3,283	4,109	13,420
2	Outpatient Welfare						
	a) - Lab Welfare Volumes	742	5,177	7,680	13,071	17,770	13,599
	b) - Rad Welfare Volumes	2,578	5,565	9,483	14,212	21,390	17,626
	c) - CC & Other Welfare	163	609	693	927	988	1,465
	Total Outpatient Welfare	3,483	11,351	17,856	28,210	40,148	32,690

**TABLE B: PATIENT WELFARE SPENDING, US \$ '000'**

	Description	2006	2007	2008	2009	2010	Total
1	Inpatient Welfare	468	1,256	1,334	1,696	2,088	6,842
2	Outpatient Welfare	44	182	278	464	850	1,818
	<b>Total Welfare</b>	<b>512</b>	<b>1,438</b>	<b>1,612</b>	<b>2,160</b>	<b>2,939</b>	<b>8,660</b>

**GRAPH A: PATIENT STATISTICS BY PROVINCES**



#### **LA CHAINE ENFANTS AFGHANS (KATE'S PROJECT)**

Initiated in February 2008, and operated by La Chaîne de L'Espoir, Enfants Afghans (Kate's Project) enables children from under-privileged provinces (currently Gohar, Faryab and Badakhshan) to access high quality medical treatment at FMIC. These children are provided with accommodation and receive a 20% discount on cost of their care (excluding pharmacy

and consulting clinic charges). So far 706 patients have availed admission facilities and 4,346 outpatient visits.

### **FUTURE EXPANSIONS – SHORT TERM- PHASE II**

The FMIC (an 85 bed pediatric hospital) was originally envisioned as a mother and child hospital to be built in two phases. The first phase, the children's hospital was inaugurated in 2006 and has been operating very successfully. Planning for the expansion of the children's hospital was already ongoing when French Foreign Minister Bernard Kouchner visited Kabul in April 2008 and expressed the French Government's interest in supporting the expansion. The subsequent Afghanistan Donor's Conference in Paris solidified funding of a 9 million loan from the French Government through AFD that will be matched with an additional 9 million from His Highness the Aga Khan. The 18 M Euros will partly finance the expansion to include the maternal facility and the balance to be made available for Phase 3.

*The maternal facility could be envisaged to provide superior obstetric and gynecological care, and also contribute to the training and qualification of health care professionals. It would function as part of an integrated health delivery system interconnected with health services within Afghanistan and the region. In line with national priorities, the hospital would contribute to health promotion and disease prevention and play a leadership role in developing women's health services in the region.*





### *IN THE MEDIUM AND LONG-TERM...*

Plans are already underway to create an expanded health complex with an academic health sciences centre on additional land which has been committed by the Government of Afghanistan. This centre would be a tertiary medical center of excellence and provide both health services and education. This is part of a vision for an integrated health delivery system which would entail the Aga Khan Development Network's participation and support of provincial population-based community, primary and secondary care. In this context, the Kabul-based entity would serve as an intellectual and tertiary service hub of an integrated system in Afghanistan and potentially other parts of the region.

The foundation for a strong partnership with the Government of Afghanistan in health science and health sector development is already in place.

Since 2002, Aga Khan University (AKU) has been engaged with public institutions for their capacity building, through planning of nursing and midwifery educational programs, faculty development, nursing policy formulation, preparation of standards, accreditation process and curriculum development. Its first engagement was as a key partner to the Ministry of Public Health to develop national diploma nursing curriculum, through Ghazanfar Institute of Health Sciences in 2002. Later AKU-PA began its support to the midwifery training program at GIHS. The course comprises of two years of extensive theoretical and practical courses approved by the Afghanistan National Accreditation Board (ANAB) and the Ministry of Public Health.

To date, 448 midwives have graduated from the midwifery program with AKU-PA technical and HSSP Jhpiego financial support. Of the 448 graduates 363 have been deployed to various clinical sites by MoPH, its implementing partners and private institutions. Moreover, AKU-PA has build strong linkages with other stakeholders for the effective and smooth operation of midwifery education program including Afghan Midwives Association, Reproductive Health Department of MoPH, *Afghan* Family Guidance Association (AFGA) and Afghanistan Midwifery and Nursing Accreditation Board.

In September 2008, AKU began our support to the B.Sc. Nursing Program at Kabul Medical University; which is the only program in Afghanistan. This support has been in curriculum implementation, faculty development, nursing policies formulation and setting clinical practice facilities in tow hospitals. Last April, the first batch of 26 students including 14 males and 12 females graduated from the program.

AKU's Institute for Educational Development has also worked to build the capacity of the government's Teacher Training Colleges. So far AKU has trained or supported training of over 2000 Afghan health and education professionals in Afghanistan and Pakistan.

The impact of these initiatives can be seen in the contribution of AKU alumni at all levels of government programmes, professional bodies and private institutions in Afghanistan. AKU alumni are working for the Afghan Institute of Public Health (MoPH), Health Service Support System, Afghan Midwifery and Nursing Council and National Manager Malaria and Leishmaniasis Control Programme, and are recognized for making a difference in clinical and public health practice.

The AKU Medical College is assisting the Kabul Medical University with developing postgraduate medical education programs in pediatrics, internal medicine, and general surgery. It is also helping Mental Health Department of Ministry of Public Health to enhance its capacity. AKU has also instituted scholarships for MSc in Health Policy and Management with special track in mental health and also for 2 year neurology training program at AKUH.

In addition, the Aga Khan Health Services (AKHS) is currently in a unique public-private partnership with the MoPH whereby AKHS is the designated NGO manager of a vertically integrated public health system in the provinces of Bamyan, Baghlan and Badakhshan. It implements the Afghan Government's Basic Package Health Services (BPHS) and Essential Hospital Services Package (EHSP) which currently connects a network of 440 Community Health Workers, with 19 Basic Health Centers and 5 Comprehensive Health Centers. This is complemented by 3 midwifery schools. AKHS is also operating and managing a provincial hospital in Bamyan, a provincial hospital in Faizabad and has plans to take on the management of another provincial hospital in Baghlan.

#### **THE EXPANDED HEALTH COMPLEX WOULD:**

- Provide complete medico-surgical services and a multi-purpose diagnosis centre;
- Aspire to achieve the highest level of economic sustainability while providing high quality and accessible healthcare;
- Play an important role in training and qualification of health sector professionals who will lead and work in the reconstruction of the country's health system;
- Be a real player in the evolution of the Afghan health system by providing leadership, capacity building and research;
- Contribute to re-establishing links between its provinces and neighboring States;



- Offer care in selected specialties and sub-specialties with potential expanded partners in the form of *Institutes* (following the model of the French Medical Institute for Children).

### **THE HEALTH SERVICES ENVISIONED**

1. **Inpatient and outpatient specialty care** in medicine, surgery, obstetrics, gynecology, pediatrics and psychiatry - as well as selected sub-specialties; offering minimal and micro-invasive surgery and potentially interventional radiology and capable of serving as a regional referral centre;
2. **24 hour emergency services;**
3. **Comprehensive diagnostic services** including a referral laboratory, state of the art imaging (standard and specialized radiology, ultrasound, mammography, CT scan, MRI, nuclear medicine), neurophysiology, cardiopulmonary, physiotherapy and rehabilitation facilities and a pharmacy capable of in-house compounding;
4. **Resources to provide other selected technical and support services** to provincial hospitals operated by AKDN (including through telemedicine);
5. **A professional and Continuing Education School utilizing e-learning technologies** is being explored;
6. **Conduct relevant research in community and population based research.**

### **EDUCATIONAL PROGRAMS**

The Aga Khan University is currently working with the Government of Afghanistan to establish policies and standards to commence **Post-Graduate Medical Education (PGME)** in Afghanistan. The first trained specialties will be in medicine, surgery, pediatrics, ob/gyn, family medicine, anesthesia, pathology/microbiology and radiology. Eventually all specialties and some sub-specialties will receive PGME in Afghanistan.

The aim of these programs would be to produce graduates whose objectives should include patient care medical knowledge, practice-based learning and improvement, interpersonal and communication skills, professionalism and systems-based practice. **Nursing degrees, allied health education and research** would also be included. The teaching facility will also include accommodation. **A proposal is being developed** that defines the current partnerships, the human resource requirements, exit qualifications, hospital facilities and opportunities to rotate in regional and Kabul hospitals.

## VISION FOR AN INTEGRATED HEALTH DELIVERY NETWORK FOR CENTRAL ASIA

The principal Aga Khan Development Network institutions concerned with health - through AKHS and the AKU - have been moving toward integrated health delivery systems in reaction to their strategic priorities, national and regional interests recognizing that an integrated system can offer easier access to quality and appropriate services that optimize efficiency. A shared vision is emerging that calls for:

1. Strengthening linkages with the Aga Khan institutions, and Governmental and Non-Governmental partners for health care delivery, operational research, and public advocacy;
2. Developing a model health care system of coordinated primary and secondary care with centralized tertiary referral;
3. Developing capacity for health information and knowledge dissemination;
4. Increasing access to healthcare to vulnerable groups in society particularly child-bearing women and children; and
5. Building and retaining health human resource capacity that promotes integrated health delivery systems.

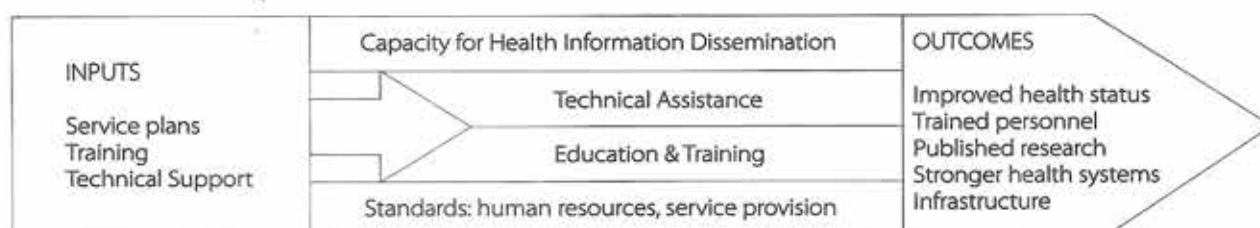
An Integrated Health Delivery Network could be defined as a health care system of coordinated community-based, primary and secondary care with a centralized intellectual and tertiary referral hub. This delivery network would be underpinned by processes for governance and quality assurance, risk management and standard operating procedures. Cross-cutting facilitative elements would include: capacity for health information dissemination, technical assistance, education and training and common standards for quality in human resources and service provision. Collaborations would take place for research and teaching.

Health system development with varying levels of integration is ongoing in Afghanistan, Pakistan, Tajikistan and Kyrgyzstan. Afghanistan has a very clearly articulated Health and Nutrition Sector Strategy which emphasizes coordinated and integrated community health prioritizing mothers and children. Kyrgyzstan and Tajikistan share a legacy of a robust integrated health delivery system inherited from the Soviet system comprising a network of health facilities focused on providing in-patient care. However, this system has deteriorated considerably and there are significant challenges regarding management, technical capacity and access. Since the 1980's AKDN has been very active creating a unique community-based



model in Pakistan and are the national forerunners in the development of secondary and tertiary care.

## DESCRIBING THE SYSTEM



- Improved access to appropriate health services (tertiary, secondary, primary) and cross-sectoral and shared care through a robust referral system;
- Optimization of technical infrastructure and common standard operating process and procedures;
- Addresses the needs of the populations concerned;
- Maximization of expertise across the network;
- Efficiency in quality, cost and communication;
- Joint articulation and systematic planning toward agreed strategic objectives;
- Shared protocols for health delivery;
- Shared standards in health care delivery including for human resources, clinical practice, education and training.

