

# A NATIONAL ASSET



The FMIC Impact Study

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The French Medical Institute for Mothers and Children (FMIC) in Kabul is a hospital like no other in Afghanistan. This is the first hospital in the country to train female specialists in pathology, radiology and paediatric surgery. This is where Afghanistan's first open-heart surgery was performed and its first telemedicine programme was established. Here, Afghans can access skilled specialists and advanced technologies without leaving the country. Here, families that struggle to afford basic necessities can obtain major surgeries at little or no cost.

For its patients, FMIC is a place of miracles. It is the hospital that saved tiny Neha, who was born weighing less than a kilogram. That brought 7-year-old Modasir back from the brink of death after he suffered a traumatic brain injury. That made it possible for 5-year-old Abdul Rahman, from rural Ghor Province, to walk again – and charged his family nothing for his surgery.

This document summarizes key findings of the FMIC Impact Study, which was conducted by the Afghanistan Research and Evaluation Unit (AREU), a well-respected Kabul-based think tank.

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**In AREU's words, FMIC has "a significant positive impact on the economy, health and social development of Afghanistan." Moreover, it is "an innovator, a role model and a source of knowledge that raises the standard of care and professionalism within other health facilities." Finally, AREU reports, "FMIC's services to the poorest of the poor might be its most significant contribution."**

This is FMIC. This is its impact.

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# ABOUT US



**1.5 million**  
patients served since 2006



Serves patients from all  
**34** provinces



**970**  
employees



**169**  
beds



**1<sup>st</sup>** hospital in Afghanistan  
to receive ISO:9001 certification

**168,849**

patients served in 2018\*  
(160,407 outpatients + 8,442 inpatients)

\* AREU's analysis of FMIC's impact focused on 2018, a typical year, and the most recent completed year at the time it began its study.

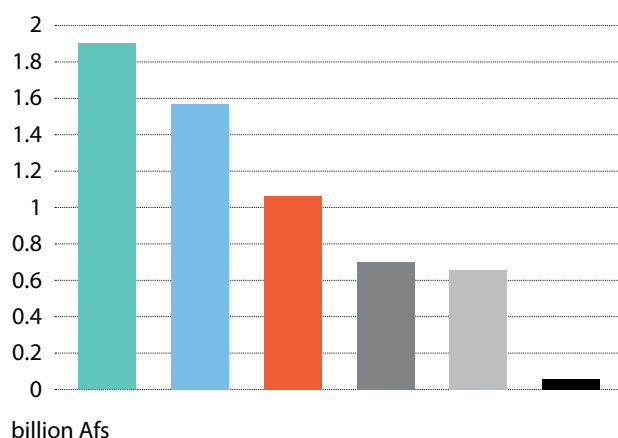
\$ = U.S. dollars throughout this document.

## Serving Afghanistan

FMIC's income and property are used only for its mission of providing health care and educating health professionals for Afghanistan. No dividends or distributions are paid to any individual or institution. No funds are sent out of the country. At present, FMIC operates at a financial loss; it is able to sustain operations thanks to the financial support of its partners.

# Afs 6 billion (\$104 million)

has been invested in FMIC by its founding partners and their supporters since 2006



- **His Highness the Aga Khan and the Aga Khan Development Network** – Afs 1.91 billion (\$34 million)
- **Government of France** – Afs 1.57 billion (\$27 million)
- **La Chaîne de l'Espoir** – Afs 1.08 billion (\$19 million)
- **Government of Afghanistan** – Afs 704 million (\$13 million)\*
- **Global Affairs Canada** – Afs 659 million (\$10 million)
- **Other Donors** – Afs 43 million (\$1 million)

\* The Government of Afghanistan also leased 20 acres to FMIC: three acres for the existing hospital complex and 17 acres for its planned expansion.

## An International Partnership

Founded in 2006, FMIC is a partnership between the Government of Afghanistan, the Government of France, the Aga Khan Development Network (AKDN) and La Chaîne de l'Espoir (Chain of Hope). It is governed by the FMIC Board, which consists of five members from AKDN, two from La Chaîne de l'Espoir and one from the Government of Afghanistan. A representative of the Government of France attends Board meetings as an ex-officio participant. All partners engage actively in FMIC discussions and decision-making.

## Managed by AKU

FMIC is managed by the Aga Khan University (AKU), an agency of the Aga Khan Development Network. AKU's teaching hospitals in Nairobi and Karachi are accredited by the U.S.-based Joint Commission International and the U.S.-based College of American Pathologists. In 2019, AKU was named one of the top 100 universities in clinical medicine worldwide by Shanghai Ranking Consultancy.

### SERVING THE DISADVANTAGED

Every year, FMIC provides free and reduced-cost care to tens of thousands of poor and marginalized patients from across Afghanistan's 34 provinces.

### EMPOWERING WOMEN

FMIC employs 260 women (27% of the workforce), including 60 in management positions (22% of managers). It is working to increase the number of women throughout the institution.

### SAVING LIVES

FMIC saves lives by providing international-quality care and complex tertiary care that is largely or entirely unavailable elsewhere in Afghanistan.

### BUILDING NATIONAL CAPACITY

FMIC strengthens Afghanistan's health system by educating health care professionals, advising policymakers and sharing knowledge.



# SERVING THE DISADVANTAGED





FMIC makes it possible for economically disadvantaged Afghans to obtain international-quality health care, including major surgeries and other complex care. The poorest patients pay nothing for their treatment.

### The Patient Welfare Programme

When patients cannot afford the cost of care, FMIC's Patient Welfare Programme pays some or all of their fees. One-third of inpatient welfare recipients come from outside Kabul Province.

### The Women's and Children's House

Low-income patients who live outside Kabul receive free travel to Kabul and free accommodation at La Chaîne de l'Espoir's Women's and Children's House – and 100% free care at FMIC. In total, **1,150 inpatients received 100% free care** in 2018, for everything from cleft palate repairs to open-heart surgery. The House is pictured at right.



## 33%

of inpatients **earn less than Afs 144 (\$2) per day**



## 36%

of all inpatients come from **outside Kabul Province**



## 51%

of inpatients **receive free or subsidized care** through the Patient Welfare Programme

## 547,000

**patients have received patient welfare** since 2006, including 45,840 patients in 2018

Data is for 2018, except where indicated.

## Afs 2.1 billion

**(\$38.9 million) in patient welfare** has been provided since 2006, including Afs 197 million (\$2.7 million) in 2018

# OUR PATIENTS

Meet some of the thousands of patients who receive free or reduced-cost care at FMIC every year. Their care is made possible by donations to the hospital's Patient Welfare Programme and its Women's and Children's House. Funding comes from FMIC's founding partners, the hospital's own revenues and other institutional and individual supporters.



## **Kamila, Ghazni Province**

Received surgery for tetralogy of Fallot, a congenital heart condition that can lead to disability or death. Kamila's care was provided at no cost to her family.



## **Farzana, Helmand Province**

FMIC surgeons repaired her ventricular septal defect – a potentially life-threatening hole in her heart. Her care was provided at no cost to her family.

## **Bibi Amina, Kabul Province**

Received emergency surgery for gunshot wounds suffered in a terrorist attack on the hospital where she was born. Bibi Amina's care was provided at no cost to her family.



## **Shazia, Ghazni Province**

Received surgery for developmental dislocation of the hip. Her care was provided at no cost to her family.







**Arezo, Ghor Province**

Received surgery for a post-burn contracture of the leg – a tightening of the skin that can impair movement. Her care was provided at no cost to her family.



**Somia, Logar Province**

Received surgery for a congenital heart condition. Somia's care was provided at no cost to her family.



**Zakia, Laghman Province**

Received surgery for patent ductus arteriosus, a congenital heart defect that can lead to heart failure.

Zakia's care was provided at no cost to her family.



**Abdul Zahid, Baghlan Province**

Received surgery for a kidney stone, a painful condition, at no cost to his family.

**Khan Mohammad, Badakhshan Province**

Received a skin graft after he was struck by a car. His care was provided at no cost to his family.





# EMPOWERING WOMEN





FMIC strives to make the hospital a place where women can build successful careers and obtain the high-quality, compassionate health care they need.

# 1st



hospital in Afghanistan to **train women specialists** in paediatric surgery, pathology and radiology



# 260 → 60

**women employees**  
(27% of all employees)

**hold management positions**  
(22% of all managers)

# 28%



**of trainees** in the Postgraduate Medical Education programme are women, including 40% of the latest cohort

## Promoting Gender Equity

FMIC has created a gender-equity coordinator position, adopted a gender-equity policy, held gender awareness sessions and offers childcare services for employees with young children.



**“I am grateful to FMIC for providing me the opportunity to attain specialization in a rare field for women in Afghanistan.”**

Dr Sahar Maroof, **Class of 2018**  
1st Female Radiologist Trained in Afghanistan



Three FMIC nurses – **Shabana Halyen, Shukria Musafirzada and Marufa Muradi** – were named to the global 2020 List of 100 Outstanding Women Nurses and Midwives by the World Health Organization and its partners.

# LIFE-SAVING CARE







The inpatients treated at FMIC in 2018 are expected to enjoy an extra

**30,569**

**years of healthy life** in total, thanks to the care they received

## FMIC has:



- Afghanistan's first state-of-the-art neonatal intensive care unit, and its only 1.5 Tesla MRI scanner and digital fluoroscopy machine



- One of Afghanistan's only 128-slice CT scanners and one of its only mammography machines



- Some of the country's only physicians with advanced training in anaesthesiology, pathology, radiology, neurology, cardiology and cardiovascular surgery

FMIC is the only hope for many of its patients. It offers advanced care that is largely or entirely unavailable elsewhere in Afghanistan.

### Excellence in Heart Surgery

A pioneer in cardiac care and surgery in Afghanistan, FMIC is one of the few centres in the country equipped to address complex heart conditions. Outcomes for congenital heart surgery patients at the hospital demonstrate its ability to provide high-quality care. The 30-day mortality rate for such patients at FMIC was 3.9% in 2019. That was significantly lower than the rate of 5.7% among 42 hospitals in low- and middle-income countries participating in the International Quality Improvement Collaborative for Congenital Heart Disease, led by Boston Children's Hospital. FMIC has performed 3,800 heart surgeries to date. Cardiac surgeries are performed by an all-Afghan team.

### Saving Newborn Lives

The neonatal intensive care unit (NICU) at FMIC has saved the lives of premature babies weighing as little as 0.85 kg (1.9 lbs). If the NICU did not exist, many of the children it cares for would have nowhere else to access equivalent care, and a significant number would die. The NICU has cared for 1,800 newborns since opening in 2016.

### Fighting Leading Killers

FMIC is making a difference in the fight against some of the top sources of death and disability in Afghanistan, including serious neonatal disorders requiring intensive care, ischemic heart disease, congenital birth defects and meningitis. FMIC treated 2,655 inpatient cases of these four diseases and conditions in 2018.

## Continuous Improvement

FMIC continuously builds its capacity to provide high-quality care and perform complex surgeries with the support of La Chaîne de l'Espoir and Aga Khan University. Both organizations regularly send health professionals to FMIC to train staff and treat patients. In 2019, La Chaîne and AKU organized 48 missions to FMIC comprising almost 1,000 person days. Professionals came mainly from France and other European countries, as well as the Aga Khan University Hospital, Karachi.

## Beyond Maternal and Child Health

Due to the vast need for high-quality health care for adults in Afghanistan, FMIC offers adult services in cardiology, general surgery, orthopaedics, internal medicine and other specialties. Adults were 14% of all inpatients in 2018 (not including women receiving obstetric and gynaecological care, who were 18% of inpatients).

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**Multiple study participants identified FMIC as an exemplar for the private sector. They noted its adherence to best practices related to medical expertise, facilities, equipment and attitude towards patients.**

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Hundreds of children who were born prematurely are alive today because of the care they received at FMIC's neonatal intensive care unit.





# LEADING THE WAY

FMIC has repeatedly brought new procedures, technologies and facilities to Afghanistan.



- 1<sup>st</sup> to perform open-heart surgery (2006)



- 1<sup>st</sup> successful esophageal atresia repair (2006)



- 1<sup>st</sup> to launch a telemedicine programme (2007)



- 1<sup>st</sup> Afghan cardiac surgeons to perform closed-heart surgery (2008)



- 1<sup>st</sup> hospital awarded ISO 9001:2008 certification (2009)



- 1<sup>st</sup> Afghan cardiac surgeons to perform open-heart surgery (2010)



- 1<sup>st</sup> to conduct residency training in anaesthesiology, cardiology, pathology and radiology (2013)



- 1<sup>st</sup> 128-slice CT scanner (2013)



- 1<sup>st</sup> to successfully separate conjoined twins (2015)



- 1<sup>st</sup> state-of-the-art neonatal intensive care unit (2016)



- 1<sup>st</sup> successful surgical closure of a patent ductus arteriosus on a baby weighing less than 1 kg (2.2 lbs) (2017)



- 1<sup>st</sup> thoracoscopic repair of a congenital diaphragmatic hernia (2018)



- 1<sup>st</sup> to conduct residency training in cardiovascular surgery (2019)

# BUILDING NATIONAL CAPACITY





FMIC expands access to high-quality care across Afghanistan by training skilled health professionals, providing underserved populations with specialist care, advising policymakers and sharing knowledge.

### Educating Specialists

Launched in 2012, FMIC's highly regarded Postgraduate Medical Education (PGME) programme provides Afghanistan with much-needed specialists. The programme trains physicians in eight disciplines: paediatric medicine, paediatric surgery, cardiology, cardiovascular surgery, pathology, radiology, anaesthesiology and orthopaedics. FMIC is the only institution in Afghanistan offering training in five of these fields. 57 residents have completed their training, which lasts either four or five years, and 25 are currently enrolled.

### Training Health Professionals

Health professionals across Afghanistan gain new knowledge and skills through FMIC's short courses and seminars. In total, 8,108 professionals from FMIC and other public and private health facilities have attended the hospital's Continuing Medical Education seminars. In addition, FMIC enables doctors and nurses at provincial hospitals to easily access learning opportunities through its online sessions. A total of 9,076 staffers at Mirwais Regional Hospital in Kandahar, Bamyan Provincial Hospital, Faizabad Provincial Hospital, Baharak District Hospital and Khorog Oblast Hospital in Tajikistan have attended online learning sessions run by FMIC.

# 17,184

**health professionals** have completed FMIC training sessions since 2006



# 57

**much-needed specialist physicians** educated through the PGME programme, with 25 more currently in training



### Disseminating Knowledge

FMIC's conferences help Afghan health professionals to stay abreast of the latest research in their fields, connect with fellow health professionals and improve quality of care. Since 2011, the hospital has held nine international conferences on subjects such as non-communicable diseases in developing countries. It has also held nine Quality Improvement and Patient Safety Conventions. A total of 550 people attended the hospital's two conferences in 2019. FMIC staff recently published Afghanistan's first study of female breast lesions. Their article in *BMJ Open*, a British Medical Journal publication, reports that the average age at which women are diagnosed with breast cancer at the hospital is 43.

FMIC is the only institution in Afghanistan training specialists in cardiology, cardiac surgery, pathology, radiology and anaesthesiology.



### Assisting Policymakers

FMIC staff help the Government of Afghanistan to address important health challenges. For example, they have advised policymakers on improving hospital services nationally and on revising the country's nursing and midwifery curricula. Staff have served on Ministry of Public Health committees and subcommittees covering immunization, reproductive health, nutrition, mental health, COVID-19 and other issues.

### Fighting COVID-19

FMIC has collaborated with the Ministry of Public Health and the World Health Organization (WHO) to combat the COVID-19 pandemic. As of December 31, 2020, it has conducted 5,580 tests for SARS-CoV-2 and treated 80 patients for COVID-19. The hospital has also provided COVID-related training to 115 health care workers at seven public hospitals with the financial support of the WHO. FMIC trained nearly 240 staffers at the Afghan-Japan Hospital in infection prevention and control.



FMIC offers both online and in-person training sessions for health professionals at other hospitals.



## Serving Remote Rural Populations

FMIC's telemedicine programme provides convenient access to the hospital's specialists for patients in remote, rural and underserved areas. To date, FMIC has provided 25,248 online consultations, medical imaging reviews and pathology services to Bamyan Provincial Hospital, Faizabad Provincial Hospital and Khorog Oblast Hospital in Tajikistan (services to Khorog Oblast Hospital ceased in 2018 and were relaunched at the Aga Khan Medical Centre, Khorog in 2019). Roshan Telecom and Cisco Systems were crucial to the initial establishment of FMIC's telemedicine linkages.

Afghans also benefit from FMIC's telemedicine connections to specialists at the Aga Khan University Hospital, Karachi, and to French and European specialists through La Chaîne de l'Espoir. To date, these specialists have provided 1,500 teleconsultations and reviewed 8,700 MRI and CT scans and mammograms sent by FMIC (these figures are in addition to the 25,248 teleconsultations and imaging reviews provided by FMIC to provincial hospitals and to Khorog).



# 25,248



**telemedicine consultations  
and imaging reviews provided  
to provincial hospitals since 2006**



# SERVING THE NATION

FMIC's impact extends across Afghanistan. Patients come to the hospital from every province in the country. FMIC's extensive telehealth programme provides patients at provincial hospitals with access to FMIC specialists, while also enabling Afghans to benefit from the expertise of specialists outside the country.



**FMIC:** French Medical Institute for Mothers and Children



**BPH:** Bamyan Provincial Hospital



**FPH:** Faizabad Provincial Hospital



**BDH:** Baharak District Hospital



**AKMC, K:** Aga Khan Medical Centre, Khorog



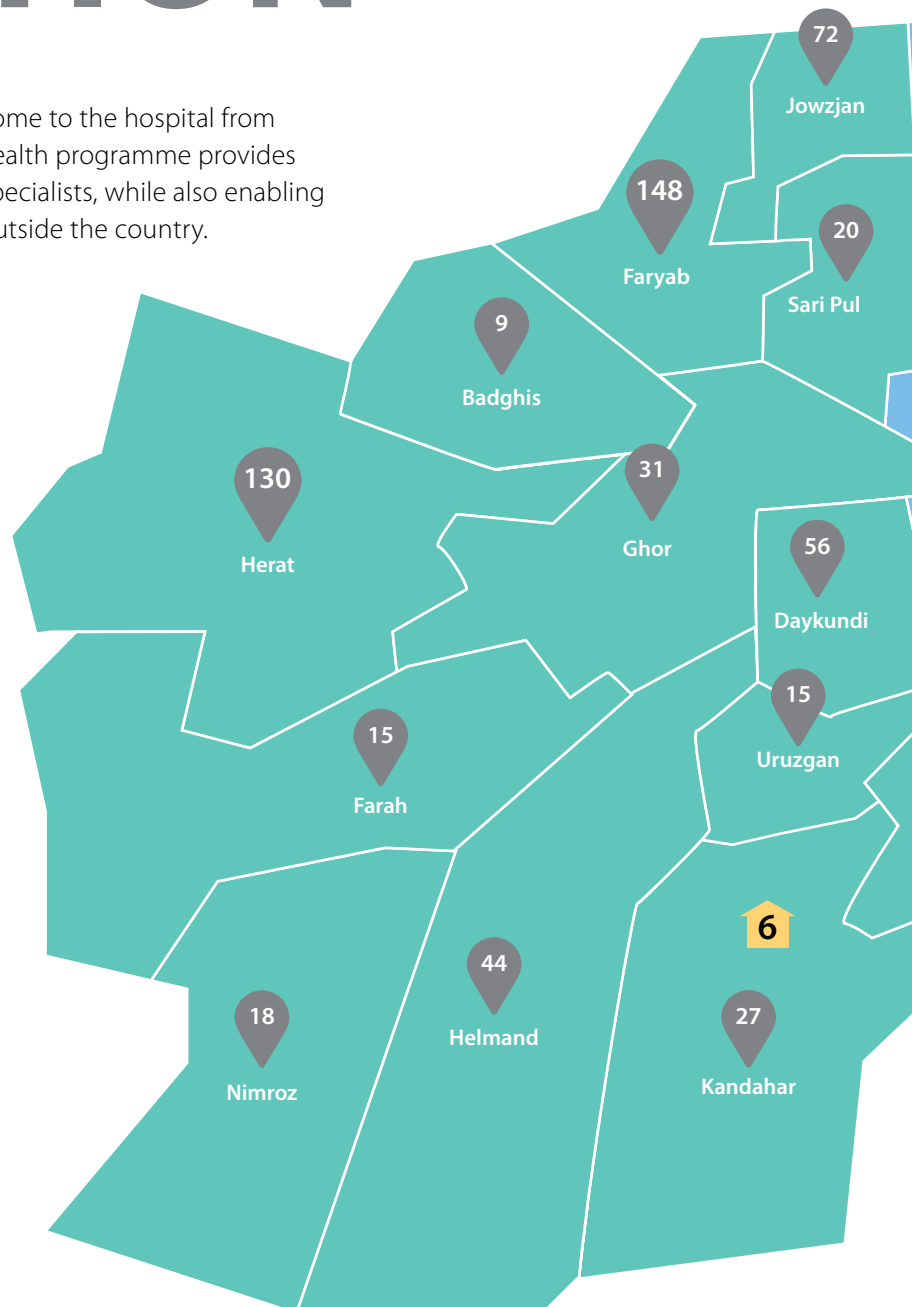
**MRH:** Mirwais Regional Hospital, Kandahar



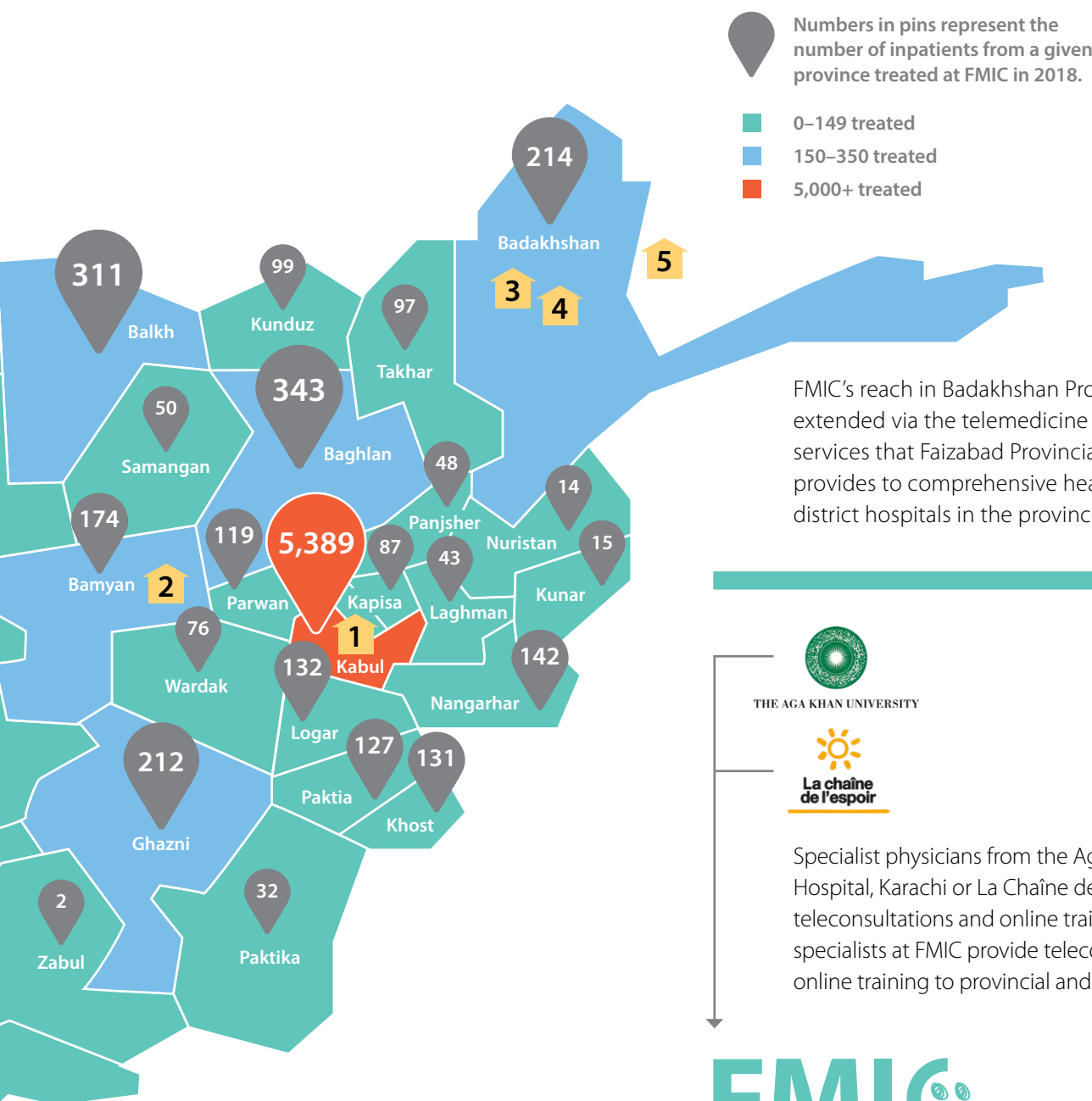
**CDE:** La Chaîne de l'Espoir, Paris



**AKUH, K:** Aga Khan University Hospital, Karachi







THE AGA KHAN UNIVERSITY



La chaîne de l'espoir

Specialist physicians from the Aga Khan University Hospital, Karachi or La Chaîne de l'Espoir provide teleconsultations and online training to FMIC. In turn, specialists at FMIC provide teleconsultations and/or online training to provincial and district hospitals.

# FMIC

## Inpatients by Region (2018)

Kabul Province.....5,389 (64%)

Other Provinces .....3,053 (36%)

**Total ..... 8,442**→ Teleconsultations/E-Learning to **BPH**→ Teleconsultations/E-Learning to **FPH**→ E-Learning to **MRH**→ E-Learning to **BDH**→ Teleconsultations/E-Learning to **AKMC, K**

# ECONOMIC IMPACT

As a major employer and a provider of international-quality health care, FMIC makes an important contribution to Afghanistan's economy.



**Afs 1.9 billion**

**economic impact** in 2018  
(\$26.3 million)\*

\* Calculated by adding Economic Impact of Operations (Afs 1.4 billion/\$19.2 million) and Economic Impact of Health Services (Afs 514.7 million/\$7.1 million).



**4,718 jobs**  
supported directly and indirectly in 2018



**Afs 648.4 million**

**in cost savings** for patients  
in 2018 (\$9 million)

Figures represent FMIC's impact in 2018, a typical year. Afs/USD figures represent gross value added (GVA), a standard measure of the value of goods and services produced in an area, industry or sector.

## **Economic Impact of Operations**

FMIC purchases goods and services from Afghan companies, directly employs nearly 1,000 people who spend their salaries in the local economy, and undertakes capital spending. In 2018, this economic activity supported 4,718 jobs directly and indirectly and had a total value of Afs 1.4 billion (\$19.2 million).

## **Economic Impact of Health Services**

By providing high-quality health care, FMIC enables its inpatients to overcome illness, get back to work and stay economically productive for longer. In 2018, the hospital created lifetime income gains of Afs 514.7 million (\$7.1 million) for its inpatients.

## **Cost Savings for Patients**

If FMIC did not exist, many of its higher-income patients would seek health care abroad, typically in India or Pakistan, where surgeries and procedures cost three times what they cost at FMIC on average. Thus, FMIC saves these patients money. In 2018, the total estimated cost savings for patients was Afs 648.4 million (\$9 million).



# ABOUT THE REPORT



The FMIC Impact Study was conducted over eight months by the Afghanistan Research and Evaluation Unit (AREU), a well-known Kabul-based think tank established in 2002 with the assistance of the international community. AREU has repeatedly been ranked the top think tank in Afghanistan by the University of Pennsylvania's *Global Go To Think Tank Index Report*. In 2020, the report ranked AREU the number three think tank in Central Asia.

AREU's analysis focused on 2018, a typical year, and the most recent completed year when it began its study. In certain cases, key post-2018 events and data have been incorporated into this report (e.g., the COVID-19 pandemic). In addition to analyzing extensive data and documentation, AREU conducted over 100 interviews with staff at the Government of Afghanistan, the Government of France and multilateral organizations; management of other health facilities; staff at FMIC, La Chaîne de l'Espoir and the Aga Khan Development Network (AKDN); FMIC postgraduate trainees; and FMIC patients and patient welfare recipients and their family members. AREU's team was supervised by a Steering Committee of leaders from FMIC, La Chaîne de l'Espoir, AKDN and outside experts.

## AREU Team Members

**Dr Orzala Nemat** – AREU Director. An internationally known leader and scholar who frequently publishes on Afghanistan and is regularly quoted in leading international media outlets, Dr Nemat holds a PhD in Development Studies from the School of Oriental and African Studies and an MSc in Development Planning from University College London.

**Dr Nishank Motwani** – Deputy Director of AREU. The co-editor of *Afghanistan – Challenges and Prospects* (Routledge, 2018), Dr Motwani holds a PhD in Politics and International Relations from the University of New South Wales, master's degrees in Diplomatic Studies and Strategic Affairs from The Australian National University and a Bachelor of Science in Economics from Northeastern University, Boston.

**Dr Maisam Najafizada (co-lead author)** – Assistant Professor in Public Policy, Public Health and Population Health, Faculty of Medicine at Memorial University of Newfoundland, Canada. PhD in Population Health from the University of Ottawa; MD from Balkh University, Afghanistan.

**Dr Ahmad Reshad Osmani (co-lead author)** – Post-Doctoral Research Fellow in Economics at the University of Memphis in Tennessee, USA, where he obtained his Ph.D. in Economics.

**Gulsom Mirzada** – AREU Geographic Information System Researcher. BA in Politics, Philosophy and Economics, with a minor in Development Studies, from Asian University for Women, Bangladesh.

**Ihsanullah Ghafoori** – AREU Research Officer. BBA from the Afghan German Management College, Afghanistan.

**Mujib Azizi** – AREU Research Officer. BA in Education from Baghlan University, Afghanistan.

**Mélissa Cornet** – AREU Publications Officer. Master's in International Relations from Sciences Po, France.

## Steering Committee Members

**Dr Zulfiqar A Bhutta** – Founding Director, AKU Centre of Excellence in Women and Child Health; Founding Director, AKU Institute for Global Health and Development; Co-Director of the Sick Kids Centre for Global Child Health, Toronto; Member, U.S. National Academy of Medicine and Fellow, Royal Society (UK).

**Dr Suraya Dalil** – Senior Adviser to the Minister of Foreign Affairs, Afghanistan; former Minister of Public Health, Afghanistan; former Ambassador to the United Nations for Afghanistan.

**Mr Al-Karim Haji** – Chair of the Steering Committee; Vice President, Finance and Chief Financial Officer, Aga Khan University; FMIC Board Member; former Vice President of Deloitte & Touche Corporate Finance Canada, Inc.

**Mr Lee Hilling** – Chair of the FMIC Board. Former senior executive of university and teaching hospitals in the USA. Former CEO of the Aga Khan University Hospital, Karachi.

**Dr Omar Joya** – Head of Research, The Biruni Institute, Kabul; Assistant Professor of Economics, American University of Afghanistan; former World Bank Country Economist for Afghanistan.

**Mr Nadeem Mustafa Khan** – Senior Advisor to the President, Aga Khan University; FMIC Board Member; former AKU Regional CEO, Health Services for Asia.

**Dr Najmuddin Najm** – Chief Executive Officer, Aga Khan Foundation, Afghanistan; MA in Conflict, Security and Development, University of Bradford (UK).

**Mr Firoz Rasul** – President and Trustee, Aga Khan University; former Chairman and CEO, Ballard Power Systems.

**Mr Jean-Roch Serra** – Vice President of La Chaîne de l'Espoir (formerly CEO); FMIC Board Member; former Medical Manager, Siemens Group.

**Mr Benjamin C. Sigman** – Principal, Economic & Planning Systems (EPS) Inc. MSc in Agricultural and Resource Economics, University of California, Davis.

**Mr Abdul Basit** – Secretary of the Steering Committee; Senior Manager, Office of the Vice President, Finance and Chief Financial Officer, Aga Khan University. MBA, Institute of Business Management, Karachi.

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The Afghanistan Research and Evaluation Unit (AREU) reports that FMIC has “a significant positive impact on the economy, health and social development of Afghanistan.” Moreover, it is “an innovator, a role model and a source of knowledge that raises the standard of care and professionalism within other health facilities.” Finally, AREU reports, “FMIC’s services to the poorest of the poor might be its most significant contribution.”

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