“AT ITS BEST, THE UNIVERSITY IS LINKED TO THE WELFARE OF THE SOCIETY IN WHICH IT IS BASED.”
The Economic Impact of the Aga Khan University in Pakistan
INTRODUCTION

In 2016, AKU commissioned Washington, DC-based Centennial Group International to carry out the first-ever study of the University’s economic impact in Pakistan. Led by former World Bank senior staffers, the study found that in 2015 the University had an economic impact in Pakistan of more than Rs 103 billion ($1 billion) and supported nearly 42,000 jobs. Even more important, according to Centennial, are the public benefits AKU’s leadership generates for the people of Pakistan.

ECONOMIC IMPACT
Rs 145 Billion ($1.2 Billion)
41% increase from 2015 to 2018

JOBS SUPPORTED
54,041
29% increase from 2015 to 2018

PUBLIC BENEFITS
AKU’s biggest impact is the public benefits it creates, which improve quality of life for the people of Pakistan. The University innovates and serves as a role model, partners with government, educates leaders, generates problem-solving knowledge and promotes gender equity. It also plays a crucial role in responding to crises like the COVID-19 pandemic. AKU’s leadership influences change and quality improvement in other institutions and in multiple professions.

In 2019, AKU commissioned California-based Economic & Planning Systems (EPS) to update Centennial’s economic analysis using Centennial’s methodology. EPS focused on 2018, a typical year and the most recent completed year at the time it began its study. EPS found that AKU’s economic impact in 2018 was Rs 145 billion ($1.2 billion). This represents a 41% increase from 2015 in rupee terms and an 18% increase in dollar terms (the difference between the increase in dollars versus rupees is due to the rupee’s devaluation). In addition, the number of jobs AKU supports directly and indirectly grew 29% to 54,041.
The Aga Khan University’s impact is felt across Pakistan. With two campuses, three professional development centres, five hospitals and 290 phlebotomy and medical centres, the University has facilities in 126 cities and all four provinces, as well as Gilgit-Baltistan.

12,942
Employees

1,969
Students

12,771
Degrees & Diplomas Awarded

1.54 Million
Patients/Year

13.7 Million
Lab Tests/Year*
How does AKU produce an economic impact of Rs 145 billion ($1.2 billion) in one year? By providing high-quality education that increases alumni incomes, by providing international-quality health care that keeps people healthy and productive, and through its spending on staff, supplies, services and capital projects.

### Alumni
- **Rs 12.2 Billion ($101 million)**
- **6,683 Jobs**

12,771 students have graduated from AKU in Pakistan, and an estimated 60% live in Pakistan. Alumni earn more over their careers because of the knowledge and skills they develop at AKU. They also create jobs as entrepreneurs and send money home from abroad. In calculating alumni income gains, only alumni living in Pakistan were counted.

- **Alumni Income Gains:** Rs 7 billion ($58 million)
- **Alumni Remittances:** Rs 2.7 billion ($22 million)
- **Alumni Startups:** Rs 2.5 billion ($21 million)

### Operations
- **Rs 42.7 Billion ($350 million)**
- **47,358 Jobs**

The University spends money on salaries and benefits for its nearly 13,000 employees, invests in capital projects and purchases services and supplies from businesses across the country. The result is economic activity and jobs for Pakistan, as AKU’s employees, vendors and partners take the funds they receive and engage in further spending.

- **Expenditures on Employees:** Rs 20.8 billion ($171 million)
- **Purchasing:** Rs 11 billion ($90 million)
- **Spending by Employees:** Rs 7.9 billion ($65 million)
- **Capital Spending:** Rs 2.6 billion ($21 million)
- **Research Partner Spending:** Rs 412 million ($3.4 million)

### Hospital Care
- **Rs 90.5 Billion ($744 million)**

By providing international-quality health care, the Aga Khan University Hospital enables its inpatients to overcome illness, get back to work and stay economically productive for longer. In 2018, the Hospital created estimated lifetime income gains of Rs 90.5 billion ($744 million) for its inpatients.

### Multiplier Effect
AKU’s spending has a multiplier effect. Every rupee the University spends generates 7 rupees in economic benefits.
Even the poorest patients are able to access surgical care and other complex care at the Aga Khan University Hospital, thanks to the support provided by the Hospital’s Patient Welfare Programme. One in 10 inpatients at the Hospital earns less than Rs 300 ($2) per day.
Numbers cannot capture AKU’s biggest contribution to Pakistan: the public benefits it creates. Whether as a result of its pursuit of excellence, innovation, research, partnerships with government or promotion of gender equity, the University has an impact that goes far beyond its students, patients, employees and vendors. These impacts are what economists call public benefits: benefits that one party creates – in this case, AKU – and other parties enjoy at no cost to themselves. The following pages detail some of the many ways the University has created public benefits since the completion of the first study of its economic impact.

**AKU**
- Innovates
- Generates Knowledge
- Achieves International Standards
- Acts as a Role Model
- Empowers Women

**Other Institutions**
- Adopt AKU Innovations
- Implement Findings
- Aim Higher

**Society Benefits**
- Students at other universities, patients at other hospitals and people served by government institutions enjoy improved services
AKU has been leading change throughout its nearly four-decade history. For example, it has repeatedly introduced academic programmes that were the first of their kind in Pakistan, in order to train much-needed professionals for the country. As the graduates of these programmes have taken up leadership positions and other institutions have launched similar programmes, the country’s supply of skilled health workers and educators has grown.
His Highness the Aga Khan founds AKU, Pakistan’s 1st private university.

1997
1st to offer a four-year Bachelor of Science in Nursing.

2000
1st organized Emergency Medicine residency training programme.

2006
1st hospital in Pakistan accredited by the U.S.-based Joint Commission International.

2013
1st to offer a Post-RM Bachelor of Science in Midwifery.

2020
1st centre accredited by the U.S.-based Society for Simulation in Healthcare.

2021
1st Postgraduate Medical Education programme accredited by ACGME-I.
Responding to an HIV/AIDS Outbreak
When an outbreak of HIV/AIDS occurred among children in Larkana district, AKU collaborated with the Sindh AIDS Control Programme and other organizations to screen the population, train local health workers and investigate the causes of the outbreak. It has also provided free and discounted clinical care to dozens of infected children. AKU faculty published the most detailed study of the outbreak to date in *The Lancet Infectious Diseases*. In addition, AKU faculty have trained physicians working for Provincial AIDS Control Programmes in Punjab, Balochistan and Khyber Pakhtunkhwa. They also wrote Pakistan’s National AIDS Control Programme prevention and treatment guidelines.

New Typhoid Vaccine
After AKU researchers detected an outbreak of extensively drug-resistant typhoid in Hyderabad, the University sprang into action. It partnered with the Government of Sindh to immunize more than 200,000 children and delivered evidence that played a key role in Pakistan’s decision to add the typhoid conjugate vaccine to its routine immunization programme. It is now studying the vaccine’s impact with $6 million from Gavi, The Vaccine Alliance.

Advising Government
Two AKU faculty members serve on the Board of Governors of Pakistan’s top public health body, the National Health Institute. One serves as chairman. An AKU alumnus also serves on the Board.
Supporting Public Education
AKU’s Institute for Educational Development (IED) has repeatedly partnered with the federal and provincial governments to improve teaching and learning in public schools and support policy development. A significant number of IED alumni serve at senior levels in government institutions, NGOs and school systems.

IED has:
- Conducted large-scale interventions to improve teaching and learning in government schools in underprivileged and remote areas of Sindh and Gilgit-Baltistan with the support of UNESCO, the Aga Khan Foundation and the development agencies of Canada, Australia and South Korea.
- Helped develop Sindh’s curriculum for children ages 3-5 and trained 1,600 teachers to deliver it.
- Actively engaged in writing Sindh’s non-formal basic education policy to create learning opportunities for out-of-school children.
- Worked extensively with the Government of Gilgit Baltistan to develop its educational policy.
- Won the competitive bid to review Pakistan’s first-ever single national curriculum and develop its teacher education modules.

Preparing 10 Million Lifesavers
AKU’s new Centre of Excellence in Trauma and Emergencies is leading an ambitious collaborative effort to reduce deaths from injuries and cardiac arrest by training as many as 10 million Pakistanis in cardiopulmonary resuscitation (CPR) and bleeding control over 10 years. The University’s partners include the Government of Sindh, which will conduct training in schools.

New Hope for Mothers and Children
Funded by a $25 million grant from the Bill & Melinda Gates Foundation, the Umeed-e-Nau (New Hope) project aims to improve health for almost 15 million women and children in 14 high-poverty districts of Sindh, Balochistan and Punjab. The project’s main focus is on improving the effectiveness of public health programmes and facilities and reducing newborn mortality. Analyses after two years of implementation indicate that the project interventions led to a 23% reduction in neonatal mortality and a 15% reduction in post-neonatal child mortality, far greater than secular trends or findings in other parts of the country.

Fighting Polio
With the support of $14.1 million from the Bill & Melinda Gates Foundation, AKU has shown that holding health camps, rather than conducting door-to-door campaigns, can significantly increase rates of vaccination against polio and other diseases in insecure areas. This model has been widely implemented, helping to increase the full immunization rate in high-risk areas of Khyber Pakhtunkhwa, Balochistan and Karachi from 35% to 65%, from 22% to 64% and from 57% to 67%, respectively. AKU has also demonstrated the acceptability of the WHO-recommended Inactivated Polio Vaccine in hard-to-reach areas, and assisted in establishing the Regional Reference Laboratory for Polio at the National Institute of Health in Islamabad.

A Model Examination Board
The AKU Examination Board’s school-leaving exams help to prepare university-ready critical thinkers in both public and private schools. 90% of students at AKU-EB schools are admitted to university. At the request of the federal Ministry of Education, AKU-EB developed evidence-based guidelines for student promotion after the COVID-19 pandemic forced the nationwide cancellation of exams used for admissions to higher secondary schools and universities. AKU-EB’s guidelines were unanimously adopted and used to promote millions of students across the country. In 2020, AKU-EB’s director was appointed chairman of the federal Inter Board Committee of Chairmen, which ensures coordination among Pakistan’s 33 examination boards.
Fighting the Novel Coronavirus

AKU has been at the forefront of the fight against the novel coronavirus in Pakistan since it treated the country’s first COVID-19 patient in February 2020. As of August 1, 2021 AKU has:

**Cared for**

4,500 severely ill COVID-19 patients

Patients with COVID-19 are cared for in a separate, specially designed wing of the Aga Khan University Hospital (AKUH). This has enabled the Hospital to continue to provide safe, high-quality care to hundreds of thousands of patients with other conditions.

**Tested**

379,000 individuals for COVID-19

Testing for the novel coronavirus is conducted in AKUH’s state-of-the-art COVID-19 Screening and Testing Zone. In early February 2020, AKUH became the first private hospital in Pakistan to develop a test for the novel coronavirus. At the request of the Sindh Health Department, it conducted genetic sequencing to identify the first cases of the alpha variant in Pakistan.

**Shared its expertise with government policymakers**

AKU experts have advised top provincial and federal officials as members of key committees and task forces, including:

- The National Institute of Health
- The WHO advisory committee on COVID for Pakistan
- The Registration Board for COVID-19 vaccines, which advises the Drug Regulatory Authority of Pakistan on authorizing vaccines
- The National Adverse Effects Following Immunization Committee
- The Vaccine Advisory Sub-Committee of the National Command and Operations Centre
- Sindh’s COVID-19 Research Committee and its COVID-19 Testing Capacity Enhancement Committee
- The Prime Minister’s Health Task Force

**Vaccinated**

59,000 individuals against COVID-19
Trained thousands of health professionals at government hospitals

- The University has provided online training to 22,000 staff at public and private hospitals, under agreements with the federal government, the Government of Sindh and the Government of Khyber Pakhtunkhwa.
- Training sessions have focused on critical care and emergency care for COVID-19 patients and the proper use of personal protective equipment.
- AKU is providing free teleconsultations to staff at government intensive care units to help them care for severely ill COVID patients. More than 2,200 teleconsultations have been provided.
- Faculty played a leading role in designing the isolation centre at the Karachi Expo Centre, which has a 1,200-bed capacity, and in developing Pakistan’s national guidelines for treating COVID-19.

Contributed to the global effort to identify safe and effective COVID-19 vaccines, treatments and diagnostic tests

- AKU is one of the few centres in Pakistan equipped to participate in international clinical trials related to COVID-19.
- The University has participated in numerous clinical trials, including of the CanSino vaccine and Abbott’s Panbio rapid antigen test. The CanSino vaccine is now being manufactured and widely used in Pakistan, and the Panbio test is being used in Europe. As of mid-2021, other COVID-related clinical trials are underway.
- AKU has begun manufacturing 3D-printed nasal swabs for COVID testing, following a successful clinical trial.

Educated the public on the pandemic

Faculty and staff have been quoted in more than 500 media stories on the pandemic and have published more than 130 opinion pieces related to COVID-19. AKU’s online videos on COVID-related subjects have been viewed more than 1 million times.

Ensured continuity of education for its students

AKU successfully navigated the transition to online learning and back to in-person instruction, enabling its students to continue their education despite the pandemic.
AKU continues to raise standards in higher education and health care. When other universities and hospitals learn from its example, their students and patients benefit. To cite one of many examples, the Aga Khan University Hospital was the first in Pakistan to meet the quality and patient safety standards necessary to earn accreditation by the U.S.-based Joint Commission International. Since then, three other hospitals have followed its lead and earned accreditation.
Ranked Among the World’s Best

In 2020, AKU was named one of the world’s top 100 universities in public health by Shanghai Ranking Consultancy, which is well known for its annual Academic Ranking of World Universities. Only 13 universities in Asia and Africa were ranked in the top 100 in public health. AKU was also ranked in the top 200 in clinical medicine. The rankings are largely based on the volume and quality of universities’ research output.

Promoting Effective Teaching

AKU’s programme to encourage teaching excellence within the University is now accredited by AdvanceHE in the United Kingdom. AKU is the first university in Asia to earn such accreditation. AKU’s Postgraduate Medical Education programme recently became the first programme in Asia to be accredited by the U.S.-based Accreditation Council for Graduate Medical Education International. Accreditation by reputable independent bodies confirms that AKU is meeting international quality standards.

Excellence in Simulation-Based Education

Virtual-reality simulators enable health professionals to hone their clinical skills and prepare for a range of complex scenarios before they encounter them in the real world. AKU’s Centre for Innovation in Medical Education is Pakistan’s first state-of-the-art centre for simulation education. In 2020 it became the first in South Asia to earn accreditation by the U.S.-based Society for Simulation in Healthcare. Since 2017, the Centre has held 145 simulation-based workshops for non-AKU health care workers, attracting 5,900 participants.
Public Benefits

EMPOWERING WOMEN
8,300 women have graduated from AKU in Pakistan (approximately 49% are nurses or midwives, 42% are doctors and 9% are educators). Among the ways the University has empowered women is through its School of Nursing and Midwifery. AKU’s first academic programme was its nursing programme. This was a highly unusual choice in Pakistan, but one that was carefully considered. At the time, nursing was a low-prestige occupation. AKU aimed to transform nursing’s reputation and create a women-friendly profession by establishing Pakistan’s first university-based nursing school, engaging in advocacy and knowledge-sharing, and acting as a role model that would lead to the creation of other nursing schools. This is precisely what it has done, creating professional opportunities for numerous women. Today, 80% of nursing schools with degree programmes recognized by the Pakistan Nursing Council are led by AKU alumni.

66% OF STUDENTS AND ALUMNI ARE WOMEN
51% OF FACULTY ARE WOMEN
39% OF EMPLOYEES ARE WOMEN
35% OF MANAGERS ARE WOMEN
29% OF SENIOR LEADERS* ARE WOMEN

In 2020, five AKU faculty members (all of whom are AKU alumni) were named to the global 2020 List of 100 Outstanding Women Nurses and Midwives by the World Health Organization and its partners. In addition, three AKU alumni working at other organizations were named to the list.

* Includes Chairs, Directors, Service Line Chiefs, Deans, Vice Provosts and Vice Presidents
GENERATING KNOWLEDGE

AKU’s research generates knowledge that can be accessed by anyone and used to address major problems. The University’s findings have led government officials to introduce life-saving vaccines and new approaches to fighting diseases that afflict women, children and the poor. Six of Pakistan’s 10 most productive health researchers are AKU faculty members, according to the Pakistan Council for Science and Technology.
Fighting Maternal and Child Undernutrition

AKU led Pakistan’s largest-ever National Nutrition Survey in 2018, working with UNICEF and the federal government to collect data from 115,000 households with district-level specificity. The government has used the study’s findings to develop a National Action Plan on Nutrition to reduce Pakistan’s huge burden of stunting, wasting and micronutrient deficiencies. Officials can also benefit from AKU’s five-year study of the success of the Sindh Stunting Prevention Programme. The findings from AKU’s nutrition studies informed the technical content of the Prime Minister’s flagship Ehsas programme. In addition, AKU researchers are using artificial intelligence to investigate environmental enteric dysfunction, which is thought to be a major contributor to stunting in low-income countries such as Pakistan. Their work has received $10 million in external funding.

Newborn Infections Study Wins Award

Infections are a leading killer of newborn babies in Pakistan. Yet little was known about the causes of deadly infections, making it difficult to design effective prevention and treatment programmes. That changed with the publication of a new collaborative study involving AKU and 11 other institutions. The Aetiology of Neonatal Infections in South Asia Study (ANISA) received the Charles C. Shepard Science Award from the U.S.-based Centers for Disease Control and Prevention.

Pneumonia Study Published in NEJM

Nine AKU faculty members – including five AKU alumni – published an important study of the use of antibiotics to treat childhood pneumonia in *The New England Journal of Medicine*, arguably the world’s most prestigious medical journal. Their findings will help in formulating guidelines for the diagnosis and treatment of childhood pneumonia, one of the leading killers of children under the age of 5.

Using Artificial Intelligence to Help Pregnant Women

In a study of pregnant women in a low-income community of Karachi, AKU researchers along with their international collaborators are using artificial intelligence to analyse ultrasound results in order to identify at-risk foetuses. The results so far are promising: the researchers’ algorithm has significantly outperformed expert physicians. If at-risk pregnancies can be reliably identified before complications occur, a significant number of perinatal deaths could be prevented.

Cutting-Edge Gene-Editing Research

Scientists at AKU’s Centre for Regenerative Medicine and Stem Cell Research are working to develop cures for beta thalassemia and sickle cell anaemia. They aim to use gene-editing techniques to fix the defective gene responsible for these potentially debilitating and deadly blood disorders. The project was awarded a $1 million grant from the World Bank-supported HEC Grand Challenge Fund. Only five out of 700 applicants were awarded funding.

New Research Centres

AKU has launched three new research centres in Karachi to develop innovative solutions to pressing problems facing Pakistan and other low-income countries. The Institute for Global Health and Development will seek to contribute to the achievement of health-related Sustainable Development Goals. The Centre for Global Surgery will work to expand access to high-quality surgery, including in rural areas. The Centre of Excellence in Trauma and Emergencies aims to build Pakistan’s capacity to deliver rapid, life-saving care, including in times of crisis.
ACCESS FOR ALL

AKU believes that everyone should have access to high-quality education and health care, regardless of their socioeconomic status. The University accepts students based on merit, not ability to pay, and provides scholarships, loans and other arrangements to enable qualified students to attend. When patients cannot afford the cost of care at AKU health facilities, AKU’s Patient Welfare Programme and/or the Patients’ Behbud Society for the Aga Khan University Hospital (which provides zakat) helps them to pay their bills.
1 in 5 hospital inpatients received patient welfare or zakat in 2019

1 in 10 hospital inpatients earned less than Rs 300 ($2) per day in 2019

Rs 3 Billion in patient welfare and zakat was provided in 2019 ($20 million)

70% of AKU students receive financial assistance from the University or pay no tuition in exchange for working at AKU at market salaries after graduation*

AKU sets tuition fees at 54% of its actual cost to educate students on average.

This means that, on average, students benefit from a 46% tuition fee subsidy.

In 2018-2019, the total tuition fee subsidy was Rs 1.25 billion ($10.3 million)

Rs 484 million ($4 million) in financial assistance was provided by AKU to students in the form of loans, sponsorships, scholarships and grants in academic year 2018-2019.

* Students in the School of Nursing and Midwifery have the option of paying no tuition in return for working at AKU after graduation at market salaries for the same length of time as their education. 89% of nursing students take this option.
The newest addition to AKU’s main campus in Karachi is the 17-story, 43,000-square-metre University Centre, built at a cost of more than $40 million. It houses nearly 600 staff and will be home to the University’s new Faculty of Arts and Sciences and Graduate Professional Schools. The Centre was built with the support of the U.S. International Development Finance Corporation (DFC), Agence Française de Développement (AFD), the Aga Khan Foundation USA and donations from individuals.
Institutional Partners & Supporters

- Aga Khan Foundation
- Agence Française de Développement (AFD)
- AJCL
- Ali Murtaza Associates
- American University in Cairo
- Asian Development Bank
- Awali Group
- Bern University
- Bezos Foundation
- Bill & Melinda Gates Foundation
- British Academy
- Brown University
- CanSino Biologics Inc.
- Catholic University of Portugal
- Centers for Disease Control and Prevention, USA
- Chinese Academy of Sciences
- Columbia University
- Conrad N. Hilton Foundation
- DAI
- Dawood Foundation
- Department of Foreign Affairs and Trade, Australia
- Din Leather
- Dubai Cares
- DW Akademie
- English Biscuit Manufacturers
- European Commission
- European Civil Protection and Humanitarian Aid Operations (ECHO)
- Federal Ministry for Economic Cooperation and Development (BMZ), Germany
- Fogarty International Center, USA
- Ford Foundation
- Foreign, Commonwealth and Development Office, UK
- Fred Hutchinson Cancer Research Center
- Fudan University
- Gavi, The Vaccine Alliance
- Ghent University
- Global Affairs Canada
- Government of Afghanistan
- Government of Canada
- Government of France
- Government of Gilgit-Baltistan
- Government of Khyber Pakhtunkhwa
- Government of Pakistan
- Government of Sindh
- Grand Challenges Canada
- Harvard University
- HBL
- Higher Education Commission, Pakistan
- Hospital for Sick Children (SickKids)
- Institute for Health Metrics and Evaluation
- International Development Research Centre
- IQVIA
- Japan International Cooperation Agency
- Johns Hopkins University
- Johnson & Johnson Foundation
- Karolinska Institute
- Korea International Cooperation Agency
- Kreditanstalt für Wiederaufbau (KfW), Germany
- La Chaîne de l’Espoir
- London School of Hygiene and Tropical Medicine
- Lundin Foundation
- Massachusetts Institute of Technology
- Maynooth University
- Medical Research Council, UK
- National Institute of Health, Pakistan
- NOVA University
- OneTrust
- Pakistan Academy of Sciences
- Pakistan Health Research Council
- Pakistan Nursing Council
- Pakistan Science Foundation
- Peking Union Medical College
- Princess Margaret Cancer Centre
- Proparco (Group Agence Française de Développement)
- Roche Pakistan
- Rockefeller Foundation
- Roshan
- Rotary Foundation
- Royal Norwegian Embassy
- RTI International
- Ryerson University
- Sabin Vaccine Institute
- Sanofi
- Simon Fraser University
- Sitka Foundation
- Soneri Bank
- Swedish International Development Cooperation Agency
- Swiss Red Cross
- The ELMA Foundation
- The LEGO Foundation
- Tsinghua University
- U.S. International Development Finance Corporation (DFC)
- U.S. National Institutes of Health
- UK Research and Innovation
- UNAIDS
- UNESCO
- UNICEF
- United Nations Development Programme
- United Nations Population Fund
- University College London
- University of Alabama at Birmingham
- University of Alberta
- University of British Columbia
- University of Calgary
- University of California, Los Angeles
- University of California, San Francisco
- University of the Fraser Valley
- University of Michigan
- University of Toronto
- University of Victoria
- University of Virginia
- University of Washington
- University of Waterloo
- USAID
- Vital Pakistan Trust
- Waverley House Foundation
- Wellcome Trust
- Western University
- Women and Health Alliance International (WAHA)
- World Bank
- World Diabetes Foundation
- World Food Program
- World Health Organization
“While taking knowledge from all quarters, such a university applies that knowledge to the solution of the pressing problems of the world, both at home and abroad.”

His Highness the Aga Khan
AKU Convocation Address, 1994