



"I have long felt the enhancement of the nursing profession to be absolutely critical to the improvement of health care in the developing world."

> His Highness the Aga Khan Chancellor, The Aga Khan University



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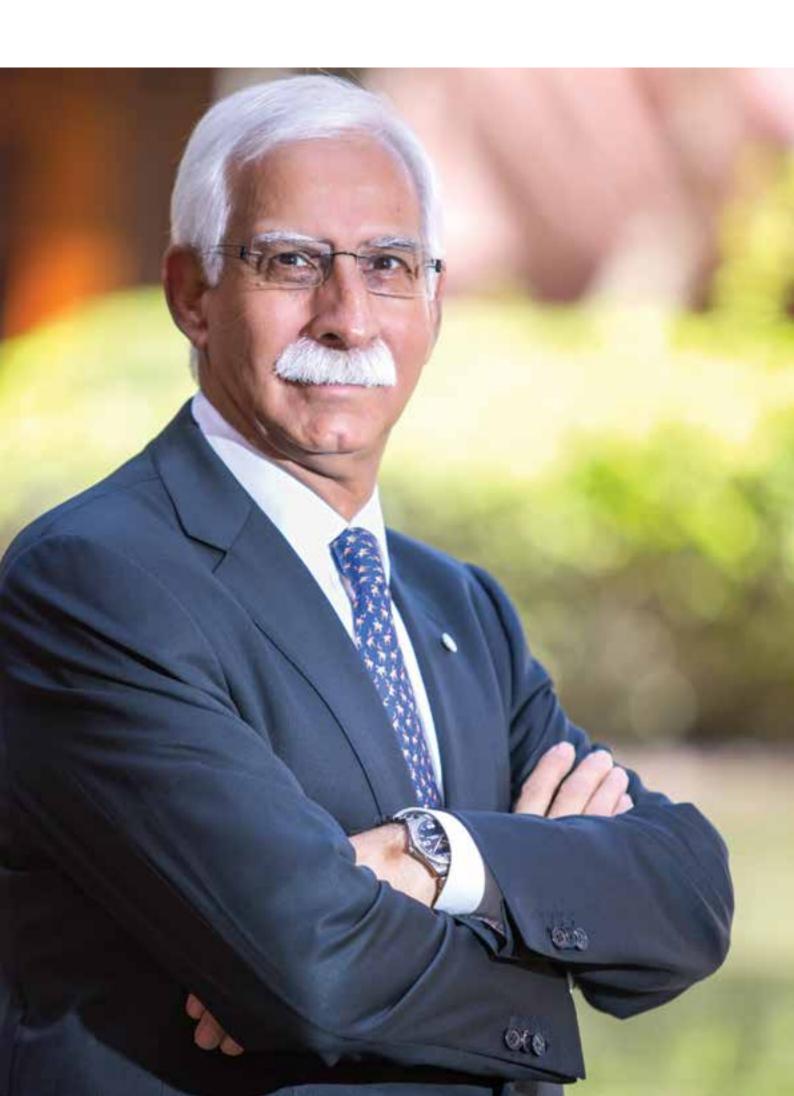
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President's Foreword

Nurses and midwives are the backbone of East Africa's health systems. They are on the front lines of the fight to overcome all the major global health challenges, including the growth of non-communicable diseases such as diabetes and cardiovascular disease; infectious diseases such as HIV/AIDS, malaria and tuberculosis; and persistently high levels of maternal and child deaths. Given the dire shortage of health workers in the region, they perform tasks that normally would be handled by physicians. Given the absence of equipment and resources considered standard in other contexts, they must innovate and improvise to address novel cases and situations. Because the people they serve often lack basic health knowledge or are alienated from the health system, their role combines that of the clinician, community organizer, advocate and educator. Lives depend on their abilities.

In such a situation, highly skilled and motivated nurses and midwives have a remarkably large impact. With the Johnson & Johnson Corporate Citizenship Trust's support, Aga Khan University's School of Nursing and Midwifery has produced more than 2,100 such leaders in East Africa over the last 15 years. As this report shows, our alumni are making a mark in clinical, administrative, educational, community and policy settings. They are providing outstanding care, improving the effectiveness of existing institutions as managers, founding new institutions that meet critical needs, expanding the health workforce as much-needed nurse educators, serving disadvantaged communities and acting as role models who inspire their colleagues. Together, they are helping to transform the nursing profession - and graduates of our new midwifery programme will surely play a similarly important role within their field.

On behalf of the University's faculty, staff, alumni and students, I am pleased to take this opportunity to thank the Johnson & Johnson Corporate Citizenship Trust for its long commitment to the Aga Khan University and to the cause of advancing nursing and midwifery in East Africa. There are a great many East Africans whose lives would be very different were it not for its support. Our graduates have been transformed and empowered, and have used their new capabilities to engage with their communities. They have acquired new knowledge, built new skills, broadened their horizons, gained confidence, deepened their passion for helping others

and enhanced their earning power. Throughout the alumni review project, our alumni have expressed gratitude to the Johnson & Johnson Corporate Citizenship Trust for the opportunities and support it has provided. No one has benefitted more than the nearly 1,760 women who have attended the School of Nursing and Midwifery. As our Founder and Chancellor, His Highness the Aga Khan, has said, nursing "empowers women and improves their status in their communities. It provides positive role models for other women, strengthens their decision-making and problem-solving capabilities in the eyes of others, and promotes their personal, professional and financial autonomy."

Yet our alumni constitute just a fraction of those whose lives have been changed through the Trust's generosity. Because of our graduates, mothers in remote areas are giving birth safely, patients are achieving full recoveries thanks to improved attention to safety and children are living free of HIV. Further, because of their work as educators, more nurses are entering the workforce ready to make a difference. On behalf of all these beneficiaries as well, I wish to thank the Johnson & Johnson Corporate Citizenship Trust. It has been a privilege to partner with it for so many years. Ours is a partnership we hope will endure for years to come.

FIROZ RASUL

President The Aga Khan University

Johnson & Johnson Corporate Citizenship Trust Foreword

A partnership that has lasted for more than 15 years is something to celebrate. Not only because of its duration, but more importantly because of how it has evolved, developed and to some extent also reinvented itself over these years. Such partnerships are explored, developed and ultimately shaped by pioneering individuals. By the nurses and midwives whom this partnership seeks to support through scholarships and training; by the communities they serve upon graduation; by the tireless efforts of the faculty and support staff across Aga Khan University in East Africa; and, by those who represent the Aga Khan Development Network and the Johnson & Johnson Corporate Citizenship Trust (Trust).

For the last three years, I have had the pleasure of managing this relationship from the Trust's position and view this responsibility as being the custodian of the ethos and objectives of the 'joining together' of shared values that brought two very different, yet also similar organizations into a powerful alliance that is striving every day to improve the quality of life and human health in the communities in which we both operate.

As you read through this report, I hope you will be inspired not only by the numbers and statistics, which are truly impressive, but also by the real-life stories of nurses and midwives who have gone on to challenge both themselves and the health care systems in which they work. Pushing boundaries, be they individual, institutional or societal is what ultimately makes a difference and leaves a lasting legacy. As the Trust, we believe that by empowering individuals we can affect sustainable change to support, strengthen and, in some cases, even transform health systems.

The relationship between the Trust and AKU in East Africa was the start of a long-term relationship that expanded both geographically and programmatically in the ensuing years. Today, the partnership spans not only East Africa but also Egypt, Portugal,



Tajikistan and Kyrgyzstan, where in addition to nursing and midwifery training, we partner on strengthening Early Childhood Development and Community Health programmes. It is rewarding to see how our partnership has matured and how multiple interventions help shape an even greater impact. None more so than with nursing in East Africa, where, in addition to the scholarship grants, Johnson & Johnson employees have transferred their knowledge and expertise to help strengthen nursing and midwifery professional support organisations in the region, through long-term secondments with the Trust Secondment Strategy Programme. This is an important area of work that we will continue to support in the years to come, both through funding and knowledge transfer.

These are exciting times in an evolving and deepening partnership. I hope you enjoy reading what we have achieved together so far, and that you will join and partner with us on our ongoing journey of making a difference to the quality of life and human health in communities across the world.

BENJAMIN DAVIES

Partnership Director Johnson & Johnson Corporate Citizenship Trust

Dean's Introduction

Nurses are universally recognized as the heartbeat and lifeblood of global health systems, and this report focuses on the impact of graduates of our nursing programmes in East Africa. Specifically, the report analyzes and celebrates the impact of the 15-year partnership between the Aga Khan University and the Johnson & Johnson Corporate Citizenship Trust focused on improving the health of East Africans by developing nursing leaders in Kenya, Uganda and Tanzania.

It is, therefore, very much a celebration of the nursing profession and the immense contribution it makes to the well-being of individuals, communities and countries. Nursing's role within the health system has often been defined by its focus on the patient, in all his or her human complexity and embeddedness in a given environment. Typically the first point of contact with the health system, nurses receive people at their most pained, uncertain and fragile. Nurses provide counsel and comfort, seeking to reassure and empower individuals and their families as they endure pain and confront difficult decisions and complex information in unfamiliar environments.

The importance of this role in the context of East Africa can hardly be overstated. In societies where health services are frequently overloaded and can be forbiddingly impersonal or unresponsive, a warm welcome, competent assessment, clear and steady guidance and the ability to understand and sympathetically address cultural differences and constraints are as important for improving health as any medicine.

Of course, nurses' roles go far beyond the above description. Nurses assess, diagnose and coordinate care. They advocate for patients' interests. They are leaders and managers who transform systems to produce better patient outcomes. Rather than waiting for the ill to come to them, they venture into communities to share knowledge and change behavior so that people can avoid becoming sick in



the first place. In countries where they constitute as much as 85 percent of the health workforce, their job descriptions are as various as the extraordinarily diverse populations they serve. Yet whether they are helping to safely bring a baby into the world or to ease the pain of the dying, they leave an enduring mark.

It is to the great credit of the Johnson & Johnson Corporate Citizenship Trust that it has seen fit to invest so much in nursing and the development of nursing leadership in East Africa, and over so long a period. In reading this report, I hope that you will gain insight into the impact of this investment, which has supported the graduation of 2,138 nurses, of whom 93.1 percent were employed at the time of our survey, and more than 100 of whom now hold high-impact leadership positions. On behalf of our School of Nursing and Midwifery faculty, I take this opportunity to join with our University President in thanking the Trust for its generosity and support in this longstanding and enduring partnership.

PROFESSOR SHARON BROWNIE

Dear

School of Nursing and Midwifery, East Africa

Programme Leaders

Many have contributed to the success of the AKU Nursing Programmes in East Africa over the past 15 years. Acknowledgement is given to all teaching faculty, administrative staff and supporting parties, particularly those who have provided clinical placement experience for our students and the employers who released their nurses for further education. However, none of this would have been possible without the leadership of the academic nurse educators, whom we acknowledge for their leading contributions.



Professor Laeticia King

Appointed as the initial academic leader and Associate Dean of the Advanced Nursing Studies Programme East Africa (2003-2007), Professor King established the EN-RN programme. Additionally, she commenced the HIV management training programme by securing funding through the African Regional Capacity Building Network for HIV/AIDS Prevention, Treatment and Care. She is also remembered for the capacity building partnerships she established with the Universities of South Africa and Nottingham, supporting faculty upgrading to the Master's and PhD level.



Professor Yasmin Amarsi

Served as the founding Dean of the School of Nursing and Midwifery, East Africa. Yasmin initially oversaw the school and the commencement of programmes from the University base in Karachi. She transitioned to East Africa in 2007 and was based in Nairobi until her retirement in 2015. Professor Amarsi was instrumental in initiating the BScN programme in East Africa. Additionally, she took the lead in commencing the harmonisation of nursing education across East Africa.



Connie Mureithi

Served as Academic Head in Kenya (2004-2010) and Uganda (2010-2012). Connie helped establish the EN-RN distance learning programme and was the external liaison link with various government organizations such as the Nursing Council of Kenya and the Ministry of Health. She was very active in enhancing clinical collaboration with various public and private hospitals.



Jemimah Mutabaazi

Appointed in in August 2002, Jemimah was a founding faculty member for the AKU campus in Uganda. She quickly transitioned to programme coordinator and finally the Academic Head role before she left in 2006. In parallel, she was the longest serving nursing council chairperson and was instrumental in leading the accreditation of the AKU nursing programmes in Uganda – the first campus to achieve this status in East Africa. Her active marketing and recruitment of students established a strong and enduring foundation.



Joseph Mwizerwa

Has served as the Academic Head in Uganda since January 2011. During this period, Joseph has been very active in building positive relationships with government and regulatory bodies. Under his lead, the Bachelor of Science in Midwifery programme was accredited and implemented in Uganda. In recognition, he was awarded the "50th Uganda Independence Medal" by the President of the Republic of Uganda. The award recognizes civilian individuals for their outstanding service and loyalty to the country.



Khairunnisa Dhamani

Appointed in 2002 as one of the founding members of the faculty in Tanzania, where she served for for 14 years. Coming from AKU Karachi, Khairunnisa was instrumental in the initial implementation of the AKU programme in East Africa. One of the longest-serving Academic Heads in Tanzania, she took up a broader leadership role as Associate Dean, East Africa, in 2015-2016.

Executive Summary

This impact evaluation study was designed on the basis of quality and accountability. It focused on sourcing evidence regarding the impact and achievements of a 15-year investment in nursing education and workforce capacity building. The study was also designed to enhance alumni connection and establish sustainable models for monitoring and evaluation.

A mixed method research methodology sourced data to inform this study. First, a review of international practices in alumni monitoring and evaluation was completed, with information drawn from a range of top nursing schools. Second, quantitative data was drawn from health and workforce statistics, AKU graduate registrars and an online alumni survey that yielded an 80 percent response from available contacts. Finally, qualitative data was drawn via 49 focus group and semi-structured interviews with key stakeholders, followed by 12 case study interviews.

Quantitative findings provide evidence of a good geographic spread of graduates and that alumni are very positive about their SONAM-EA experience, commenting particularly on the quality of faculty and information resources along with the relevance of programmes. Many graduates achieve promotion within two years of graduation and more than 100 are currently employed in senior leadership positions within the East African nursing and health professional workforce.

More than 90 percent of students benefitted from Johnson & Johnson Corporate Citizenship Trust support during their education. Alumni interviewed expressed a high level of desire to contribute back to the Aga Khan University in some capacity, whether it be via research collaborations, guest lectures or financial contribution.

Qualitative findings provide positive stakeholder feedback regarding SONAM-EA, particularly the impact of graduates in clinical, educational and leadership roles. AKU-SONAM emerges as a valued brand. High demand exists for more graduates at both

the diploma and degree levels (BScN and BScM), along with a strong interest in access to higher qualifications at the Master's and PhD level. Access (both geographical and financial) remains an issue, with rural and remote access being of particular concern. A useful range of solutions are suggested.

The findings provide a strong foundation to celebrate the positive impact of the 15-year partnership between Aga Khan University and the Johnson & Johnson Corporate Citizenship Trust. Graduates have and are continuing to transition to key leadership roles. They also impact many patients by improving clinical practices of other nurses: the ripple effect. Further, as a result of the study, alumni connections have been enhanced and clear direction exists regarding ongoing graduate engagement, monitoring and evaluation.

Unarguably, the model of University/Trust partnership emerges as a proven mechanism for nursing workforce capacity building and an effective contributor to *healthy futures* for the people of East Africa.



Programme Outputs

The partnership has produced 2,138 graduates, with over 100 in leadership positions across East Africa.

2,138	Graduates since 2002	
1,095	Diplomas	
997	Bachelor of Science in Nursing	
36	Dip. Accident and Emergency	
10	Dip. Critical Care	

Over 100
graduates are
now in leadership
positions across 3
countries



Making a Difference

Over the 15-year partnership, SONAM-EA improved clinical nursing by enhancing nursing skills, and strengthened the health system, through alumni in leadership advancing nursing regulation, health services policy, health services delivery, nurse education and clinical practice.







WINNIE SHENA '10

National Chairperson, National Nurses Association of Kenya

Winnie first put the skills she learned at AKU to use upon returning to her native Kajiado County, home to much of Kenya's Maasai community. There, she focused her efforts on reducing early pregnancies, sexually transmitted diseases, female genital mutilation and high dropout rates among girls. For four years, she travelled the county, teaching classes on sexual and reproductive health that involved girls, boys and parents, training fellow nurses in the subject and working with teachers and school administrators to try to keep girls in school. In her current position at the helm of the National Nurses Association, one of her main goals is to instill in her fellow nurses a deeper sense of confidence, professionalism, agency and responsibility. "For me, the starting point was to realize that nursing is not just the skills you use by the bedside, it's responding to the needs of the community," she says. "You can influence policies, you can contribute to economic development. And that I learned at AKU."



RAHEEMA PANGA 13

Nursing Officer, Reproductive & Child Health Services, Mbezi Health Centre, Tanzania

Raheema found the community nursing modules at AKU very useful in responding to a number of challenges, including a low level of male partner testing for HIV/AIDs and limited male involvement in prevention of mother-to-child transmission services. She started with health education and sensitization about couple testing. Priority was given to those who came with their partners/spouses. Sensitization was done through community meetings, and display posters in different locations at the facility and in the community. During the sessions, the experience of males who had done couple testing was shared. There has been an increased number of men accompanying their spouses to clinic, increased use of antiretroviral treatment by mothers with HIV, followed by good adherence to antiretrovirals and breast feeding method adoption. "Our centre was identified as a Centre of Excellence in male involvement," Raheema says.



GITA DEBORAH '08

Divine Day Care Centre and Nursery, Uganda

Milday sponsored Gita for a BScN course at the Aga Khan University. At her graduation, Gita received the academic excellence award for 2005-2008. In the course of her work, Gita realized that working mothers and staff at Milday faced many challenges providing care for their children in their homes. Gita is the founder, administrator, school nurse, programme builder and education manager at Divine Daycare, where she also handles medical issues, record keeping, communication with parents, nutrition and mental health – drawing on a number of skills she acquired at AKU.



Programme Achievements

Access

Most East African students cannot afford the full fees of SONAM-EA programmes and would not have been able to attend without sponsorship. Students are extremely grateful for the assistance they received.

The SONAM-EA work-study programme was a major attraction, permitting nurses to continue working to support their families. The programme permits students to study on their own time, when their workplace does not support students leaving the workplace to study.

Given the difficulties of distance and travel times, SONAM-EA has achieved good coverage of each country, as demonstrated by the location of graduates at convocation. If it had not been for the donation from our great funders, we would not reach the community where we are reaching now! So I would advise them that the investment they are doing is very valuable, and not to just one person, but to the community at large. Employer, Private Hospital NGO, Tanzania

I chose Aga Khan because of the flexibility of time. It was only 2 days/week, and at that time I had a young family, so it was easy to balance between work, family and education. Alumni, Kenya

Thanks be to Johnson & Johnson. Otherwise, I think some of us would not have completed. Alumni, Uganda

Relevance

The work-study approach ensures graduates are employed (93 percent) and are in jobs that are very related (90 percent) to their study. Over 60 percent had received promotions or pay raises within two years of graduating. The qualitative survey found that our graduates are being recognized with additional responsibilities and awards.

Respondents also said that SONAM-EA alumni are skilled at applying theory to practice. In particular, their application of the nursing process in clinical situations is well received.

Over 85 percent of alumni strongly agreed that the education and training they received was relevant to their career goals, and that the programme provided the right level of learning and challenge.

AKU graduates are considered by employers to be competent and up-to-date with current nursing knowledge.

Our AKU nurses can manage the first line of malaria treatment with glucose, (because that is what malaria diminishes – the blood glucose) in the health centre and without referring them to the major hospital. They manage them there, and they go home.

Employer, rural hospital, Kenya

Quality

About 98 percent of alumni agreed or strongly agreed that faculty were excellent at imparting knowledge, and that they guided and stimulated professional development.

The quality of the programmes is evidenced by the foundation they provide for further education. The Alumni survey indicated that completion of a SONAM-EA programme is often a step in ongoing professional development for many graduates. Since their graduation from SONAM-EA, 34 percent of respondents have completed studies at other institutions, with over a quarter of these having completed more than one qualification.

The quality of graduates was positively commented upon.

They are patient oriented, which I really like. They are capable, and they are doing it right. We trust them. They have never disappointed us. Every person that has come from Aga Khan, they do wonders! I am proud of them, and that is why I do not hesitate to employ them. They are very good team players. The graduates are professional in their manner. Private Hospital Employer, Tanzania

The quality of the faculty teaching the students (is high). They are well committed – and this is why we are knowledgeable, because they were following us in practical areas compared with other universities. I think Aga Khan is the best. Alumni, Tanzania

Sustainable Impact

I think AKU nursing impact is durable. And you have nursing education services! The BScN nurses will teach us, educate us, and as a consequence, we will also change the (leadership) structure. We have now moved to Programme Administrators, who are nurses. We have programme administrators of medicine, surgery and maternity. Private Hospital Employer, Tanzania



Future Challenges

Access

Improving access to education for rural and remote areas and areas with low socioeconomic status remains a challenge.

Alumni expressed the need for additional support for rural students in terms of improved access to programmes through accommodation and transport assistance, as well as innovative delivery approaches, such as online learning and different modes of attendance, with suggested options including weekly and monthly release. They also sought enhanced student support services including liaison between SONAM-EA and employers, nursing rooms for mothers and family engagement, such as open days and family counselling.

Alumni Engagement

The consultation revealed widespread interest in stronger alumni engagement. Alumni expressed pride in being a graduate of SONAM-EA and an interest in professional development through alumni events. They were pleased that SONAM-EA was connecting with them. Alumni and other stakeholder groups emphasised the potential benefits of greater engagement of alumni in research by SONAM-EA.

As a result of this project, an engagement strategy has been developed. The challenge will be to apply sufficient resources to sustain the engagement at a beneficial level.

Programme Development

Employers and regulators expressed the need for further development of nursing programmes to the Master's level and beyond. This would require development of SONAM-EA faculty capacity. While upgrading of faculty is currently occurring, additional qualified faculty may be needed to supplement them in the short term.

Because of the perceived quality and relevance of the SONAM-EA programmes, there is also demand for more graduates at both the diploma and bachelor's levels. This would require additional faculty members and student support.

Contribution to Development of Nursing Services, Regulations and Licensure

Regulators and employers valued the work currently being done by SONAM-EA to assist harmonisation of curricula across East Africa and support ongoing collaboration. Regulators also recognise the valuable contribution of SONAM-EA in promoting the development of schemes of service (official titles and ranks of the profession) and seek ongoing support in this area. While SONAM-EA is keen to support the development of the profession, allocating limited resources to this is an ongoing challenge.

Monitoring and Evaluation

This project will deliver a new strategy for monitoring the ongoing performance of SONAM-EA. While the approach leverages existing data gathering, it will also require additional collections and analysis. The development of an integrated database with dashboard will demand IT expertise to implement and capability within SONAM-EA to maintain.





CHAPTER 1

OUR PARTNERSHIP

Success Begins with a 15-Year Partnership

The partnership between Johnson & Johnson Corporate Citizenship Trust and the Aga Khan Development Network has supported the Aga Khan University School of Nursing and Midwifery, East Africa from inception. For 15 years, the partnership has supported experienced nurses who wished to upgrade their nursing qualifications, from Nursing Certificate to Nursing Diploma, and from Diploma to Bachelor of Science in Nursing.

Without the partnership, East African nurses would not have access to high-quality nursing programmes. With access addressed, SONAM-EA has delivered programmes of quality and relevance, producing nursing leaders.

Partnership between Johnson & Johnson Corporate Citizenship Trust and AKDN

In 2001, Johnson & Johnson Corporate Citizenship Trust (Trust) and SONAM-EA, through AKDN, committed to a partnership which aimed to improve the quality of healthcare in East Africa by producing more skilled nurses and midwives.

The collaborative programme started with strengthening the SONAM-EA programme and provision of scholarships to nursing students in need of support in Kenya, Tanzania and Uganda. In addition, considerable efforts were put into

developing a strong SONAM-EA alumni network across the region.

The Trust has also supported SONAM-EA alumni activities, transport to clinical sessions and clinical placement fees, a regional alumni conference in 2013 and the East African regional scientific conference in July 2015, where SONAM-EA alumni shared their experience through scientific papers and posters. In 2016, a project to enhance monitoring was also funded by the Trust (Figure 1).



Timeline of 15-Year Partnership

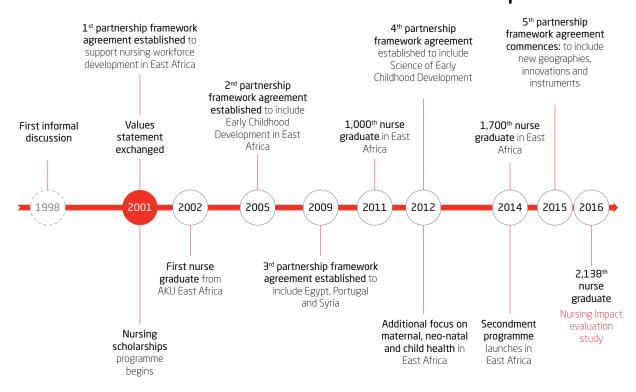


Figure 1: Johnson & Johnson Corporate Citizenship Trust/AKDN Partnership Timeline

Johnson & Johnson Corporate Citizenship Trust Strategic Priorities

Johnson & Johnson is the world's largest healthcare company. For 130 years, Johnson & Johnson has been committed to improving the health of individuals, families and communities around the world. It is guided by its credo, created 75 years ago, which outlines the company engagement to people, places and communities.

The commitment to make the world a healthier place is part of the Johnson & Johnson mission. In order to fulfill its mission, Johnson & Johnson develops partnerships focusing in three strategic areas:

- Saving and improving the lives of women and children;
- Preventing disease among the most vulnerable;
 and
- Strengthening the healthcare workforce.

Through these strategic partnerships and by investing in innovative solutions, Johnson & Johnson aims to make sustainable, long-term differences to human health.

The Johnson & Johnson Corporate Citizenship Trust (Trust), founded in 2007, is responsible for managing the company's Corporate Social Responsibility programmes across Europe, the Middle East and Africa (Figure 2). Its mission is to make sustainable, long-term differences in human health by investing in strategic partnerships and innovative solutions that add value to society and impact people's lives. It focuses on six strategic priorities:

- Improve maternal and infant health;
- Promote the health and development of children and youth;
- Prevent HIV transmission and improve care and supportive services;
- Increase access to integrated solutions that prevent onset of chronic conditions and support those coping with them;
- Improve the skills of health workers and community members who care for the underserved; and
- Improve leadership and management in healthcare systems.

J&J Worldwide Corporate Contributions Strategy

The Trust focuses on six strategies*

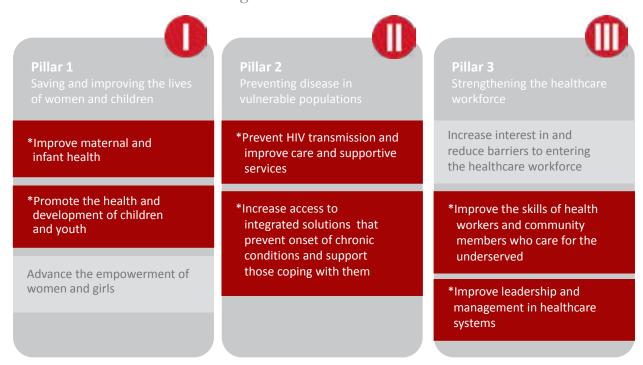


Figure 2: Johnson & Johnson Worldwide Corporate Contributions Strategy

AKDN Goals and Mission

The AKDN brings together development agencies and institutions in the poorest parts of Asia and Africa to design and implement strategies to help those in need achieve self-reliance and improve the quality of their lives.

As part of the AKDN, Aga Khan University is guided by the principles of quality, access, relevance and impact. AKU aims to build nursing capacity in East Africa, enable and empower people in the developing world to solve problems affecting their societies, build bridges across communities, embrace diversity and pluralism, and improve the quality of their lives (Figure 3).

AKU is committed to the development of human capacities through the discovery, dissemination and application of knowledge.

It seeks to prepare individuals for leadership roles, and to shape public and private policies, through strength in research and excellence in education, all with the goal of making meaningful contributions to society.

To advance its goals and mission, AKU

- Offers programmes of international quality
- Responds to identified needs in the countries and regions it serves
- Prioritizes teaching and research which will inform and underpin intellectual innovation and change
- Provides service to advance its educational and research mandate
- Fosters and develops leadership capacity through its education and research programmes
- Assesses its impact and effectiveness
- Promotes access and equity by taking positive measures to make the University inclusive of all socio-economic groups, addressing the particular needs and circumstances of the disadvantaged, and promoting the welfare and advancement of women
- Engages in knowledge networking and with emerging technologies
- Adds value by promoting partnership and networking across the AKDN, and with other national and international institutions

UGANDA

Kampala

- School of Nursing & Midwifery
- Aga Khan University Hospital (planning stages)

TANZANIA

Dar es Salaam

- Institute for Educational Development
- · Postgraduate Medical Education
- School of Nursing & Midwifery

Arusha

- Medical Centre
- Faculty of Arts & Sciences (planning stages)
- Aga Khan University Hospital (future)
- Graduate Schools (future)



KENYA

Nairohi

- Aga Khan University Hospital
- 30+ Medical Centres (Kenya)
- Faculty of Health Sciences
 - Medical College
 - School of Nursing & Midwifery
- East African Institute
- Institute for Human Development
- Graduate Professional Schools
 - Media & Communications
 - Leisure & Tourism (future)
- Management & Leadership (future)

Figure 3: AKU Programmes in East Africa

SONAM-EA Goals and Mission

SONAM-EA is responsible for managing AKU's nursing and midwifery programmes across East Africa. It is integrated within a global, autonomous, not-for-profit university focused on increasing human resource and leadership capacity in the developing world.



SONAM-EA aims at making a major contribution to enhancing the quality of nursing education in East Africa by ensuring that current and future programmes:

- Facilitate curriculum reforms to transform nursing education to meet the health care challenges of the 21st century;
- Promote student-centred pedagogies through practice and faculty professional development opportunities;
- Follow clinical best practices; and
- Employ a variety of learning resources, including modern technologies such as e-learning.

Within East Africa, SONAM-EA is active in Kenya, Tanzania and Uganda (Figure 4).

Our mission is to provide nurses and midwives with internationally benchmarked quality education that is relevant, innovative, accessible, affordable and needs-based.

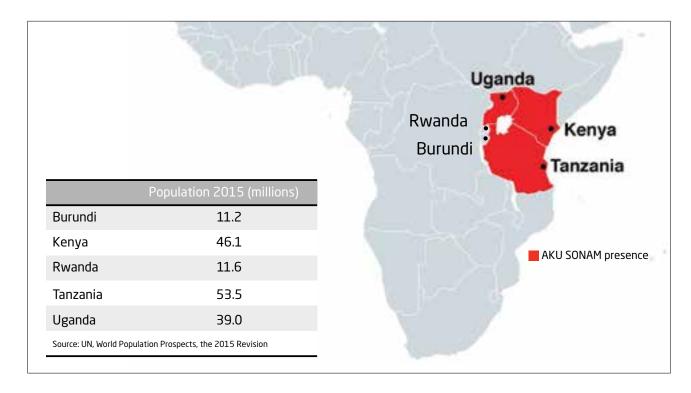


Figure 4: SONAM-EA Presence in East Africa

The Nursing Workforce in East Africa

Nurses and midwives form the backbone of the healthcare system in East Africa. They account for approximately 85 percent of the total healthcare force in the region.1

As per the Nurses Act of Uganda,² a nurse is a person who is trained and qualified in the promotion of health, the prevention of disease and the care of the sick and who is registered or enrolled; and a midwife is trained and qualified in the care of women in relation to childbirth and in the care of infants and who is registered or enrolled. Tanzania Nursing and Midwifery Council includes care of newborns in midwifery.

As professionals devoted to people-centred care, and as key figures for promoting equitable access to primary healthcare in both rural and urban centres, nurses are essential for the advancement of developing health systems. Based on an estimate from a rural project in Kaloleni, a single nurse can come into contact with approximately 4,000 patients in a year. This abundant potential for community contact, leading to impacts in primary and acute

care, as well as in the dissemination of community health education, makes nurses figures of vital influence in East Africa. As the primary health contact for many people, nurses are key influencers. The role of a typical East African nurse, due to limitations in resources (both material and human), often expands past its formal designation, especially in rural locations, where referral hospitals may be few and far between, and nurses may be required to act beyond the scope of their practice, engaging in prescribing, referrals, minor surgery and difficult and obstetric emergencies.3

Responsibilities may be even further intensified by the need to fill management roles at the dispensary/ clinic level, where nurses are often the most qualified individuals.

In East Africa, women dominate both the nursing and the midwifery profession, with men constituting 10-20 percent of nurses/midwives in most countries.4,5

While the number of nurses continues to grow, so

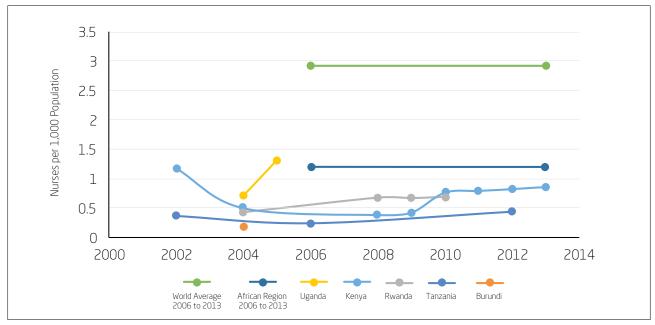


Figure 5: Nurse Density in East Africa Source: WHO Global Health Observatory

Africa Health Workforce Observatory available on http://www.hrh-observatory.afro.who.int/en/country-monitoring.html

There is no clear definition in the Tanzania and Kenva Acts.

The nursing workforce in Sub-Saharan Africa – Issue 7. International Nursing Council - 2005

Human Resources for Health Country Profile - Uganda. Africa Health Workforce Observatory. October 2009

WHO Global Health Observatory

does the population. There is a clear shortage of nurses based on international averages. East Africa has approximately 0.94 nurses and midwives per 1,000 inhabitants. This can be compared with the African region average of 1.2 per 1,000 and the global average of 2.92 nurses per 1,000 (Figure 5).

There are a number of factors which contribute to this shortage. Migration of nurses and midwives to developed countries, limited supply worsened by inefficient public sector health systems in recruitment, and limited career and professional opportunities are some of the reasons.

Low salaries impede attracting candidates and the development of the profession. For example, in Kenya base salaries range from KES 16,700 (about USD 165) per month for an Enrolled Nurse to KES 45,880 (about USD 455) per month for a Senior Nursing Officer.

In East Africa there is an important disparity in the availability of nurses and midwives in rural versus urban areas. For example, in Uganda 64 percent of the nurses and midwives are concentrated in the central urban area, even though this region only accounts for 27 percent of the country population. A similar reality can be found in Kenya, where nurse density between counties can range from 1.4 per 10,000 to 13.1 per 10,000 – rural counties

experiencing the lowest of this range. This lack of human resources in remote areas of the country is further exacerbated by a lack of health institutions, poor access conditions and higher levels of workforce attrition.⁸

A study in Kenya reports that, at current rates of growth, large gaps in available nurses will remain for many years. Enrolments in graduate nurse programmes need to be increased to meet demand (Figure 6).

Training of nurses and midwives in East Africa is relatively new. Most formal training programmes started in the late 20th century and those offering university degrees in nursing are much more recent. The different countries have made efforts to define the career progression for nurses and midwives. Currently, their career can start with a certificate of nursing/midwifery, then progress to a diploma, followed by a degree and, ultimately, a master's degree. We can see in Figure 7 an example of career progression in Uganda. Kenya and Tanzania follow similar educational schemes and provide both diploma and degree level programmes for midwifery, but neither formally acknowledges the midwife designation, which is instead included under the nursing umbrella. Though the overall number of health workers in training has seen little growth in the past eight years, the number of

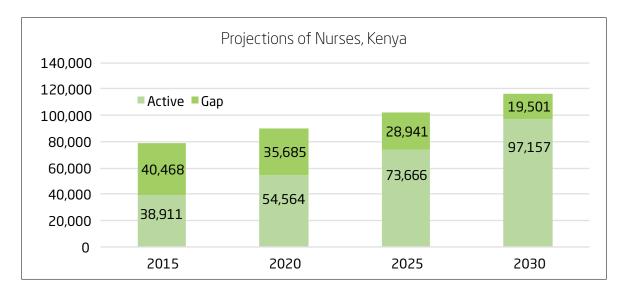


Figure 6: Gap between Supply and Demand for Nurses, Kenya

⁸ Wakaba, M., Mbindgo, P., Ochieng, J., Kiriinga, R., Todd, J., Waudo, A., Noor, A., Rakuom, C., Rogers, M., and English M. (2014). The public sector nursing work-force in Kenya: A county level analysis. Human Resources for Health 12:6

⁹ Health Sector Human Resource Strategy 2014-2018, Ministry of Health, 2014

nursing students is an exception. Between 2008 and 2012 Kenya saw an increase in BScN students of nearly 130 percent.⁹

The spread of nursing programmes across East Africa has yet to translate to a representative nursing presence in policy and leadership roles. Even though the importance of nurses' contributions to all levels of the health system has been widely acknowledged, nurses have yet to find an equitable voice in decision-making. The 49th World Health Assembly (WHA 49) recognized the potential of nursing to make a major contribution to the quality and effectiveness of health services. It is, in part, the hope of new nursing programmes to promote and emphasize the involvement of nurses within policy development and management.

The need for investment in the nursing and midwifery workforce has been a common feature at the World Health Assembly (WHA 49, WHA 56/19 and WHA 64.7). Such an investment, in part, requires the implementation of sustainable evaluative and monitoring systems that present insights regarding the impact and needs of nurses across East Africa.

Currently, regulation of the nursing and midwifery professions in East Africa is done by the Nursing and Midwifery Councils, which are statutory bodies governed by Acts of Parliament. They are placed under the control of Ministries of Health, which limits their independence. To date, many nursing and midwifery policies and guidelines/position papers/frameworks are quite recent or still in draft form.

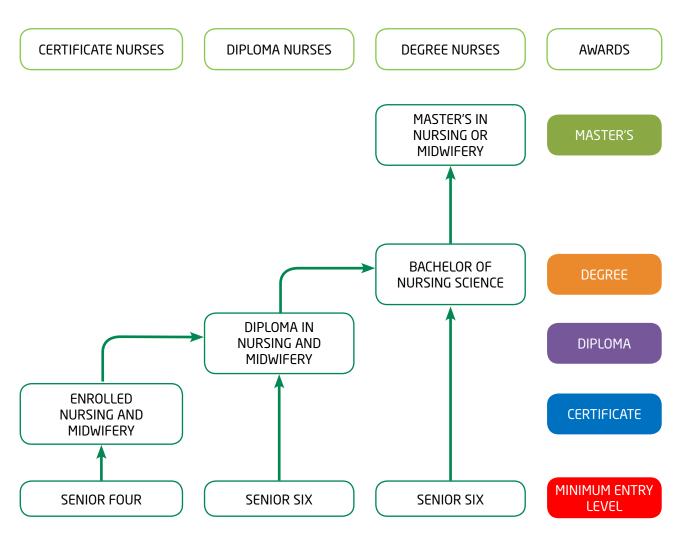


Figure 7: Career Progression for Nurses and Midwives in Uganda

¹⁰ Shariff, N., and Potgieter, E. (2012). Extent of East-African Nurse Leaders' Participation in Health Policy Development. Nursing and Research Practice.



Programmes

At the invitation of nursing leaders of the governments of East Africa, SONAM-EA was established to enhance the skills of working nurses throughout the East African region.

In 2000, AKU's first SONAM programme in East Africa began in Uganda, followed by Kenya and Tanzania in 2002. Currently, there are about 375 nurses enrolled in SONAM-EA programmes throughout East Africa, and we have graduated 2,138 students.

SONAM-EA aims to enhance the overall health status of the people of East Africa by preparing a critical mass of qualified nursing professionals. Its programmes are unique in their needs-based design for working nurses. We specifically aim to prepare nursing professionals to meet the healthcare needs of the East African region.

The SONAM-EA programmes in East Africa are aimed at providing well-trained nurse graduates who can improve clinical outcomes in all health settings, by local practice improvements and through leadership in the development of the profession. If we achieve this aim, we will improve healthcare outcomes.

SONAM-EA offers four programmes across three East African countries. These programmes include: Post-RN Bachelor of Science in Nursing (BScN), Post-RM Bachelor of Science in Midwifery (BScM), Diploma in Oncology Nursing, the first of its kind in the region, and a Diploma in General Nursing.

Programmes include clinical education, critical thinking and leadership skills.

The programmes are all focused on upgrading the skills of working nurses. Through consultation with employers, nurses and other stakeholders, we developed the work-study approach wherein working nurses attend full-time studies scheduled over two days. They are available to their workplace for three to five days per week, depending upon the degree of employer support.

Post-RN Bachelor of Science in Nursing

The programme is designed to give experienced registered nurses an opportunity to acquire in-depth knowledge, skills and attitudes necessary to provide holistic nursing care. The programme enables the graduates to use the existing theories and research findings in the provision of health promotion, illness prevention and management of patients/clients in a variety of settings. It further enables the graduates to develop and integrate critical thinking and problem-solving skills into the practice of nursing. The graduates are able to provide leadership at the institutional and national level, and influence policy in public and private sectors.

Post-RN Bachelor of Science in Midwiferv

The midwifery education honours the normalcy of women's lifecycle events and appropriate use

of interventions and technology for current or potential health problems. Midwifery includes consultation, collaboration and referral with other members of the healthcare team to provide optimal healthcare for women and their families. This programme will prepare midwives to provide safe, competent, culturally responsive and high-quality care at all levels of the healthcare system, with a focus on reproductive, maternal, newborn and child health for families and communities by integrating knowledge, skills and attitudes from humanistic, behavioural and natural sciences.

Diploma in Oncology Nursing

AKU is the first university to offer a specialty Diploma in Oncology Nursing in the region. This 18-month work-study programme, fully approved by the Nursing Council of Kenya, is a work-study programme. Classes and clinical experiences are scheduled for two days per week so that students can continue working while taking classes. The programme is offered at the Nairobi Campus and is open to any nurse who meets the minimum requirements. Nurses enrolled in the programme must be able to travel to the Nairobi campus for

two days per week to attend classes and clinical placements. Opportunities for graduates may include: working as generalist nurses in a general ward or as specialist nurses in an oncology ward, outpatient oncology clinic, chemotherapy suite, radiotherapy unit, paediatric ward or palliative care unit.

Diploma in General Nursing (EN-RN)

This programme is designed to give experienced enrolled nurses an opportunity to develop in-depth knowledge, skills and attitudes necessary to provide holistic nursing care. The programme will enable the nurses to use the existing theories and research findings in the provision of health promotion, illness prevention and management of patients/clients in a variety of settings.

The following Table 1 shows the first year of graduating classes of programmes, the last year of study for discontinued programmes and the total number of graduates to date. The first graduates were in 2002 in Uganda. These were from the Enrolled Nurse to Registered Nurse (EN-RN) programme.

Campus	Programme	Year of First Graduating Class	Last Year of Study for Discontinued Programmes	Total Graduates to Date
Uganda	EN-RN	2002		317
	Post-RN BScN	2004		276
	Post-RM BScM	2017		0
Tanzania	EN-RN	2005	2009	295
	Post-RN BScN	2005		311
Kenya (Nairobi)	EN-RN	2004	2009	405
	Post-RN BScN	2005		410
	Specialist Diploma in Acdt/ Emrg & Disaster Mgmt	2004	2009	36
	Specialist Diploma in Critical Care Nursing	2007	2007	10
Kenya (Kaloleni)	EN-RN	2013	2014	78
All Campuses	EN-RN			1095
	Post-RN BScN			997
	Post-RM BScM			0

Table 1: SONAM-EA Programmes and Graduates Source: AKU Registrar's Office

Students Supported

The Johnson & Johnson Financial Assistance Programme "is aimed to assist genuinely needy students who are unable to meet their educations expenditure." Students who were already benefiting from another scholarship, and students who were being supported for more than 25 percent by their employer were not eligible to apply.

As AKU contributions and endowments cover 70 percent of the costs of SONAM-EA, the Johnson & Johnson Corporate Citizenship Trust assistance is used to assist the neediest students, representing about 18 percent of total SONAM-EA programme costs.

The selection of students to benefit from the scholarships is managed by the Financial Assistance Committee, composed of representatives of the Aga Khan University, Aga Khan Foundation, alumni, NGOs and the Nursing Council/Ministry of Health. The Committee reviews income, justification for assistance, student's fee payment history and student performance to determine who will benefit and the amount of benefit. Nearly 90 percent of the 2,138 students who graduated from the programmes were supported to some degree by the Trust through scholarships. They received support of between 30 percent and 80 percent of fees.

	Country			
	Kenya	Uganda	Tanzania	Total
Number of Students	803	540	553	1,896
Percent of Students	85%	91%	91%	89%

Table 2: Number of Students Supported by Country, 2003 to 2015

Application of Funds

Through the Johnson & Johnson Corporate Citizenship Trust/AKDN partnership, SONAM-EA has received USD 2.6 million from 2003 to 2015. Analysis of the application of these funds from 2012 to 2015 indicates that over 60 percent has been applied to direct student scholarships and another 13 percent to other student costs, such as convocation. Other benefits to be obtained from the application of the funds include alumni events (9.4 percent), faculty development (13.9 percent) and capacity building studies (3.2 percent).

Future of the Partnership

Why a Partnership is Necessary

Strategic partnerships which include scholarships for nursing and midwifery are essential to address issues of inequality and access to higher education.

Nurses provide essential health services with significant requirements and benefits for ongoing capacity building. They are often poorly paid. Their employer organisations are usually lacking adequate resources to fund their qualification upgrades, hence the need to support these professionals through these corporate partnerships.

What Makes a Successful Partnership

The success of this partnership has been based on shared values, mission and common purpose, trust and mutual respect, continuous communication, accountability and delivery, and measurable benefits.

 $^{11\ \} AKU, "Advanced \ Nursing \ Studies \ Programme, Johnson \ \& \ Johnson \ Financial \ Assistance \ Guide"$

Healthy Futures Project

In November 2014, Johnson & Johnson Corporate Citizenship Trust initiated the Healthy Futures project, which aims at enhancing outcome monitoring and impact evaluation (M&E) and transparency of the Trust's grantees. The project was scoped with AKU SONAM-EA and a final draft proposal submitted 24 April 2015. The Trust supported the Healthy Futures project to assist AKU SONAM-EA in improving its alumni survey;

create cost-effective and standardized survey tools that track the nursing and midwifery alumni; and measure their competence, skills and performance through employer and client/patient satisfaction surveys. The project is expected to effectively link the data and information collected through the surveys with the University's quality assurance and monitoring and evaluation systems.

Objectives

The objectives of the Healthy Futures project were to assist in developing standard monitoring surveys that allow the University to:

- Determine the relevance of SONAM-EA's education programmes in relation to knowledge, skills and attitudes needed to carry out the nursing-midwifery job;
- Measure employer and client/patient satisfaction in relation to competence and level of performance of nurses/midwives trained by SONAM-EA; and
- Link the survey data and information with the University's quality assurance and M&E systems.

The project was proposed to support SONAM-EA through technical assistance and a pilot to:

- 1. Advance the specific M&E survey instruments of the current SONAM-EA education programme, including the alumni tracking and the employer and client/patient satisfaction tools; and
- 2. Create a wider framework for the University's M&E system under which the survey tools can be adopted/replicated for M&E of other AKU higher education and training programmes.

The proposed duration of the project was one year.







CHAPTER 2

OUR SUCCESS STORY

This chapter focuses on the SONAM-EA success story. It presents:

- Demographic and programme findings of the quantitative analysis and survey
- Rich personal and anonymous alumni testimony from the qualitative survey
- Case studies and alumni stories

2.1 Products of AKU SONAM-EA

Alumni are often described by themselves, as well as employers and senior officers, as "a product of the Aga Khan University." AKU SONAM-EA is a strong brand.

Since 2002, graduates have been produced in all years except 2003 and 2008. Students who completed their programme in 2008 graduated with the class of 2009. Demand for programmes has been influenced by policy. In 2005, the Nursing Council of Kenya announced they would no longer support enrolled nurses (ENs), and required that ENs upgrade to

registered nurse via the diploma programmes. This led to the rapid increase in demand for diploma programmes. This led to a "rush" on the SONAM-EA work-study programme because it allowed nurses already in leadership positions to retain the position with the better qualification.

The numbers of graduates of diploma level programmes from SONAM-EA have declined as the BScN programmes have been established. Numbers of BScN graduates have been maintained at consistent levels over the last four to six years.



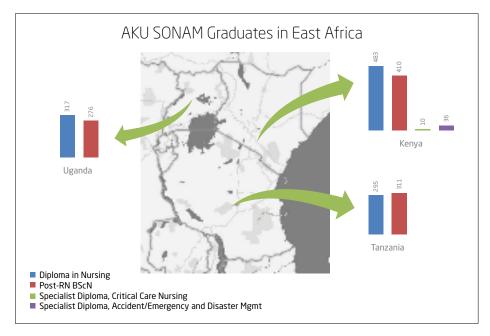


Figure 8: Total Number of SONAM-EA Graduates by Country, 2002 to 2016 Source: AKU Alumni Office, 2016

The diploma level programme in Tanzania was put on hiatus pending some clarifications with the Tanzania Nursing Council regarding entry criteria and if resolved will commence again. The Nairobibased programme was discontinued from 2010 with reference to the WHO guidelines for entry to the profession by degree. However, the level of demand continues for the EN to Diploma Programme to continue as a pathway to degree.

Therefore, exploration for re-establishment in Nairobi is currently occurring. In Kenya, a rural programme of the diploma programme was undertaken in Kaloleni from 2012-2014. This was highly successful, but to the dismay of this rural and remote county, it has been discontinued, as it is currently unsponsored. The community has offered facilities if it were to continue.

Country	Year of Graduation															
Programme	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	Total
Kenya			46	62	117	164		179	70	76	29	60	38	66	32	939
Diploma in Nursing, Kenya			41	42	97	97		76	24	38	0	30	11	27	0	483
Post-RN BScN, Kenya			0	20	20	44		85	46	38	29	30	27	39	32	410
Specialist Diploma in Acdt/Emrg & Disaster Mgmt, Kenya			5	0	0	13		18	0	0	0	0	0	0	0	36
Specialist Diploma in Critical Care Nursing, Kenya			0	0	0	10		0	0	0	0	0	0	0	0	10
Tanzania				66	57	65		151	82	104	8	20	13	18	22	606
Diploma in Nursing, Tanzania				48	37	30		75	40	57	8	0	0	0	0	295
Post-RN BScN, Tanzania				18	20	35		76	42	47	0	20	13	18	22	311
Uganda	3		27	36	40	52		113	47	49	16	54	53	49	54	593
Diploma in Nursing, Uganda	3		20	23	23	33		58	22	20	0	28	29	27	31	317
Post-RN BScN, Uganda	0		7	13	17	19		55	25	29	16	26	24	22	23	276
All Programmes	3		73	164	214	281		443	199	229	53	134	104	133	108	2,138

Table 3: Graduates by Country, Programme and Year of Graduation Source: AKU Alumni Office

Our Stories

To illustrate the achievements of our alumni, we captured a number of case studies to demonstrate the many ways in which they are making a significant impact.



George, the Nursing Services Manager at Pumwani Maternity Hospital, attended Kenya Medical Training College Kisumu for a Diploma in Health Nursing. When he graduated in 1997, he was posted by the Ministry of Health to the National Spinal Injury Hospital in Nairobi. Then he studied for a Diploma in Advanced Nursing at Kenyatta University and took classes in leadership, management, governance, hospital operations and other subjects in institutions in Kenya and South Korea. From 2012 to 2014, he studied for a Master of Science degree in Health Economics and Policy at the University of Nairobi while he worked at the Nairobi Remand Prison's health centre, where he partnered with Maltesa International in renovating and constructing new buildings – one for the general public and one for the prisoners.

He enrolled at AKU for a Bachelor of Science in Nursing (BScN) in 2007. In 2008 George was posted to Pumwani Maternity in the position of lecturer (nursing and midwifery). After seven years, in 2015, he was appointed to his current position.

"When I took up this position, it was after the 2015 strike that had 60 nurses sacked. The 'paralyzed environment' and press stories dented the hospital's

image. My appointment was viewed as part of the management solution to the difficulties," George explains.

George says he was well prepared by AKU for the task. "The first thing I did was study the environment and carry out a skills audit of the hospital, after which I reshuffled departmental managers, rotated nurses and changed the admission process in wards. I also focused on transforming the working environment by increasing inter-departmental communication and faculty feedback. The impact of the changes is reflected in the work output. Before I took over, deliveries per month were at 900. Now they are at 1,800, and newborn extended stays fell from 90 to 40. This is because now when mothers arrive, they are taken in immediately and assisted. This move has also reduced the neonatal mortality in the hospital. Maternal mortality has gone down from two per month to two in the past seven months."

According to George, it was not easy because initially, nurses were suspicious about his motives – rotating nurses, coming in early and looking at all reports. But now the working environment has been transformed and the improvements recognized by the county government. "The AKU unit called 'clinical practice'

prepared me to bring the public sector to a higher level," George says.

Pumwani Maternity offers myriad services, including training and development (nurses), midwifery and obstetrics, maternal/child health and family planning. The Comprehensive Care Centres (for HIV and AIDS) handle counseling, testing, treatment and prevention of mother-to-baby transmission. An adolescent clinic offers reproductive health services and counseling on HIV and AIDS, and is staffed by young health workers. Pumwani Maternity's main population is pregnant mothers from Kajiado, Kiambu, Naivasha and Nairobi, especially the mostly low income Eastlands area. There are 265 beds, 150 cots and two theatres. Nurses handle around 200 outpatients daily.

"My day starts at 6:00 a.m., when I start my rounds in the labour ward – the epicentre of the hospital," George says. "I get reports, patients' status and challenges. After discussions with nurses, I go to my office and address pending work. At 7:30 a.m. I look at night reports and catch up with my studies. I head to the labour ward at 8:00 a.m. and listen to handover reports and make decisions if there are problems. I work until 5:00 pm. I do some more private studies before I go home."

During his final year at AKU, George took an elective unit in problem solving that had him seconded to Mbagathi Hospital. "It made me grow," he says. "The 170 nurses and all the patients have different personalities and backgrounds and I have to work with them all."

Married and with three children, George owes much to AKU, the only university in the region that offered a nursing degree in his time. Like other students with families to support, he could not afford to pay his fees with his meager earnings. AKU's payment plan allowed him to pay in installments, giving him time to concentrate on academics.

At AKU, one of the things that stood out for George was the conducive learning environment. AKU lecturers, he says, were always available for face-to-face consultations – including heads of departments – unlike in other learning institutions. Meeting nurses in a variety of jobs changed his mindset and motivated him because he realized he could advance his career.

His main challenge at the moment is human resources. The hospital's 170 nurses are not enough for the busy facility. Three hundred would be a more realistic figure, he says.



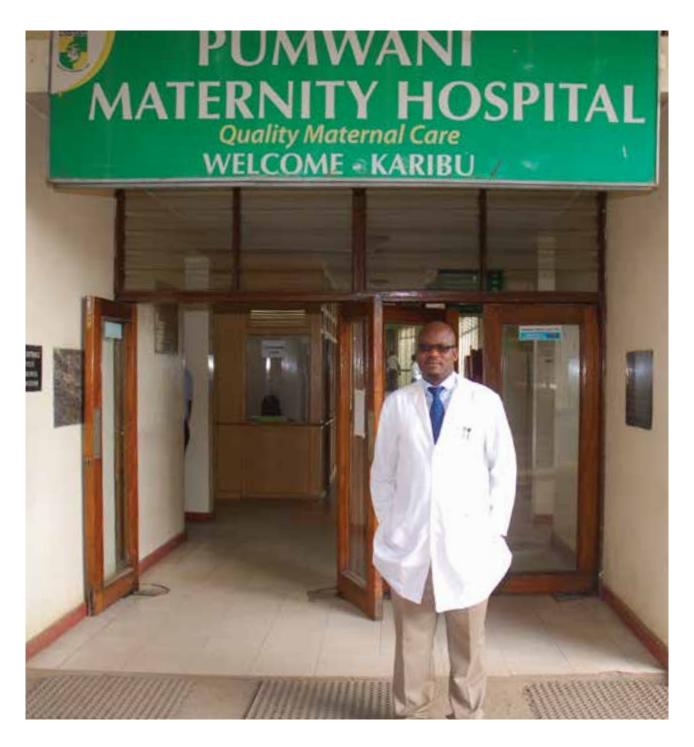
Currently, when a nurse misses work, there is a crisis because someone has to do their work. Pumwani depends on funds from the county government, and George says the hospital needs more funds.

Apart from his administration job at Pumwani, George is a researcher, author, consultant and part -time lecturer in health economics, health financing and maternal health at the Jaramogi Oginga Odinga University of Science and Technology in Kisumu.

His personal goal is to complete his PhD on the *Economic Evaluation of Health Care Programmes in*

the Region. His goal for Pumwani Maternity is to take it to another level – to make it the maternity hospital of choice for all mothers, not just mothers from low -income areas.

When George picked the nursing option after high school, fellow villagers could not understand how a man can study nursing, a predominantly female profession. His success has inspired young men in his community to take up nursing as a career and he has encouraged many Pumwani Maternity nurses to enroll at AKU. So far, four have done so. New nurses at Pumwani Maternity call him "role model."





Mary Musoke has been a health professional most of her life. She is popularly known as "Maama Maria," a nickname coined by colleagues. Before opening Maama Maria's Domiciliary Clinic, she served as a nurse and midwife in a public hospital in Mulago and in a one-room clinic she had opened in her community.

Although she enjoyed her work at Mulago, Mary realized at some point that, "women in the community needed me more," because the average Ugandan woman found the charges, overcrowding and distance to public hospitals daunting. She was also aware that distrust and cultural expectations were other reasons why women shied away from public hospitals.

Mary recalls how expectant mothers used to go to her home for advice and to be examined. When a mother delivered in her living room on one of these visits, Mary decided to resign from Mulago Hospital to start a private clinic in the heart of her community.

In 2006, she enrolled in the BScN programme at AKU, a move she describes as transformative and empowering, as it gave her, among other things, the confidence to move her clinic from a single room to the large facility that she works in and heads today. Her work at the clinic played a major role in her being appointed president of the Private Midwives Association of Uganda (PWAU), which has representatives from most of the 111 districts in the country.

The bright blue and yellow of Maama Maria's Domiciliary Clinic – a stark contrast to the dull, earthen hues of the other neighboring buildings – are the colours of the only private clinic in Kagoma that specializes in maternal care. The clinic has four beds for post-delivery admission and one delivery bed. The health centre has three midwives, a lab technician, a clinical officer and a part-time radiologist, and also functions as an immunization, educational and adolescent health space. The clinic also offers syphilis, malaria and cancer screening services, as well as post-abortion care for a population that is often marginalized by other institutions.

The main purpose of the clinic, according to Mary, is to educate those who seek their services, and to fill the gap between the services provided by traditional birthing assistants (in rural settings) and those offered by public hospitals.

At Maama Maria's Domiciliary Clinic, she has introduced a documentation system, an infection control programme, and new birthing strategies that ease the delivery process.

Mary has faced many challenges on her journey: raising a family, joining AKU when she was older than the typical student, getting funds to finance her various goals and educational pursuits and leaving a secure job to pursue a passion. Lack of funds was the biggest challenge for Mary when she started out, especially after her loan applications were rejected. In her current role, finding qualified human resources remains a problem, and she needs



a permanent radiographer. Also, power outages are frequent and her generator is unreliable.

AKU showed me how the midwife's role can extend beyond its often narrow designation... You don't just have to be one thing. You can be a leader, manager, mentor, educator, spokeswoman, and advocate... Not just one thing!

Mary offers her staff continuous professional development opportunities, but states she would prefer to have more well-trained individuals. She reveals that while most of the challenges are getting resolved, the pace is slow. Fundraising contributed funds for continuous education and the growth of the clinic, which has prompted the hiring of new staff and the acquisition of more equipment. Her next goal is to expand the clinic further so she can serve more people in her community.

As president of the PWAU, Mary is the spokeswoman, guide to new areas of growth, overseer, chief planner, proposal writer and chief lobbyist for support from the government. PWAU

a 780-member organization, holds monthly meetings that focus on the continuous professional development of members. Agendas are set based on current issues such as effective infection control.

Her biggest challenge when she was appointed PWAU leader was lack of knowledge about the advocacy process. But now she feels comfortable advocating at high levels – in the Ministry of Health and in parliament.

Mary has focused on advocating for midwives and on empowering individual members of PWAU by encouraging them to take on more responsibilities. Mary has also directed her efforts at enhancing the quality of continuous professional development in the organization, which includes a leadership mentoring programme in which past presidents will work with new presidents to transfer valuable knowledge. She has also reworked the entire electoral process by introducing a feedback system that has so far increased transparency in the organization. Her most recent achievement has been successfully lobbying for a large chunk of land – the site of a planned mentorship and model training institution.

Mary explains that the thinking behind establishing a mentorship and model training institute is that

new midwives often do not receive the assistance they need to successfully perform their duties after graduation. The training school will therefore focus on mentoring students and giving them on-the-job training so they can understand what is expected of them after their studies.

At AKU, Mary gained writing, leadership, documentation and administration skills. "The expertise I received at AKU has helped me stand out as a leader in the community and in my clinic and as president of PWAU," she says. Mary believes she was appointed to the presidential position at PWAU

based on the skills she acquired at AKU, and she adds that the superior education she received distinguishes her in her field. She says she has transferred with ease the competencies she acquired at AKU to her practice and management positions and that the skills also helped her implement many new techniques, strategies and programmes at her clinic.

So far, Mary has encouraged 13 nurses to enrol at AKU and has invited alumni to speak to midwives at PWAU. Such is her confidence in the training offered at her alma mater.

2.2 Access

The generous support of our partner Johnson & Johnson Corporate Citizenship Trust provides financial access to nursing education.

Awareness

Many nurses and midwives discover AKU by observing the skills of a colleague who has attended the University. Word-of-mouth is powerful. The strongest reason for choosing to study at AKU is

the positive reputation AKU SONAM-EA holds for producing superior quality graduates with strong career prospects.



Affordability

Most East African students cannot afford the full fees of SONAM-EA programmes and would not have been able to attend without the assistance of sponsors.

Students are very grateful for the support they have received:

"Thanks be to Johnson & Johnson. Otherwise, I think some of us would not have completed."

Alumni, Uganda

There is always a social and financial cost to the student and their family. Across East Africa, nurses' families (and friends) support nurses as best they can.

There is no gain without pain! I mean that for a short while, it was very painful. I was anxious.

Alumni, rural Uganda

My family was positive towards my education and they helped to support me in a number of ways through paying tuition. The few animals they had, they sold until they remained with nothing! Even the land that they had, they sold – but still they could not pay all the tuition. They supported me while I was away from home. My wife would run the family. I managed to go through the course successfully. Alumni, rural Uganda

This situation is so commonplace, we are told, that most nurses forget to mention it.

Geographical Access

To indicate student access to the programmes, we analyzed the location of students' employment at the time of graduation for the 2011 to 2015 cohorts. The following maps (Figure 9) show where our graduates were at graduation. While there are substantial numbers near the campuses, there are some from dispersed areas.

Location of a student's employment affects access, as the qualitative survey reveals that the majority

of graduates are loyal to and return to their place of work, especially if the workplace facilitated their study with sympathetic staff scheduling.

In Kenya, we had two locations where programmes were run, Nairobi and Kaloleni, a rural settlement about 50 kilometres from Mombasa. While many students were employed near the campuses, some undertook long journeys to access the programmes.



Rural Access

While access to a campus is difficult for regional, rural and remote students, some students are so committed to furthering their nursing education that they find a way to attend.

Nurses said:

Alumni, rural, Uganda

I had a very hard experience. It was either go back, or come to attend lectures. It was a very hard experience, staying in the car, sleeping on the streets. Alumni, rural, Uganda

I became a member of Uganda Bus Company, because the best time for me to travel was at night. I would leave Lira at midnight so that by 5:30, 6:00 a.m., I am here. Then I come and rest in the lounge waiting for 8 a.m. to come for class. It was not easy to keep myself alert throughout lectures.

Many alumni tell stories of classmates who struggled to surmount the distance, poor roads, lack of public transport, lack of accommodation, lack of electricity, and conflicting priorities with work and family to achieve their professional development goals. Many alumni advocate for subsidised student accommodation, and transport for students.

Rural employers stress that only the Diploma programme had been accessible, and some indicate that there is anger concerning the poor quality and lack of health care in rural communities.

We have nurses but they are not adequate. We have poor nurse/patient ratios. Some units or departments have very few nurses compared with the standard that is necessary. Therefore, that support is very, very necessary. Employer, rural county, Kenya

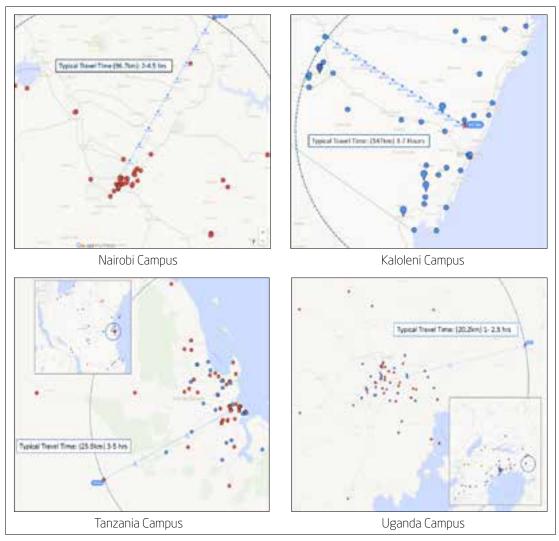


Figure 9: Location of Graduates at Time of Graduating by Campus

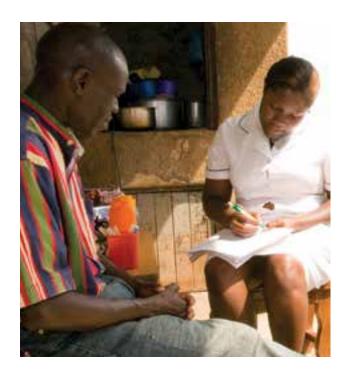
Access to University Services

From the AKU alumni survey question on access to University resources, services and student life satisfaction, we find that the majority of alumni rated their student life experience at AKU as very good/excellent (Figure 10). This was very evident in the focus groups and interviews as well. Alumni frequently recall enjoying the opportunity to study at a University of such high standing, despite the great difficulties of accessing the campus, and the insufficiency of skills labs.

The Financial Assistance Office was relevant for 90 percent of alumni and over 55 percent said it was very good or excellent. This is also supported by the qualitative survey, where alumni made clear their dependence upon financial support from AKU, Johnson & Johnson Corporate Citizenship Trust, family and friends, and government higher education loan facilities.

Given the structure of the SONAM-EA programmes, athletics facilities, housing assistance and student societies were not applicable for many nursing students in East Africa, while others said they did not use or participate in these services.

While there was limited interest in the availability of athletics venues and opportunities to socialize and work together as students, there was one call for inter-varsity sports days in the qualitative survey. However, there was considerable interest among alumni in accessing housing assistance and/or student hostel accommodation, transport assistance or access to a University minibus, and access to mothers' rooms with cots for nursing mothers. One alumna recalled her dependence on the student lounge, which had a daybed where she could recover from the six-hour journey to campus by bus, before starting her two-day programme.



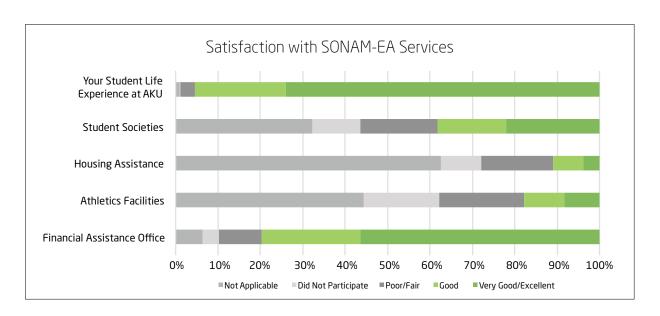


Figure 10: Satisfaction with SONAM-EA Services



Work-friendly Programme

The SONAM-EA work-study programme was a major attraction, friendly to experienced, mature nurses, and permitting nurses to continue working to support their families. Nurses attend lectures even when they are not approved to do so. By juggling their work schedules with colleagues, this programme allows nurses to attend campus on their days off in time which would otherwise be spent relaxing and with family.

Although most alumni regarded most facilities as good (free internet access, good library, good classrooms), they invariably commented on the limited space in the Skills Labs and IT Rooms. Skills labs were recently upgraded across all SONAM-EA campuses.

Alumni discussed alternatives to the current work-study programme to improve access to study from remote areas, and from unsupportive or under-staffed workplaces. There was some interest in e-learning alternatives, but a purely online programme would not allow for hands-on learning or clinical experience.

I chose Aga Khan because of the flexibility of time. It was only two days/week, and at that time I had a young family, so it was easy to balance between work, family, and education. Alumni, Kenva

The blended learning approach, currently a feature of the SONAM-AE training programmes, is considered useful. It uses Moodle software to create a "virtual classroom" so that students can access lecture notes and work together in groups online. However, it fails in situations where the student's access to the internet is poor, which applies to much of rural East Africa.

Variations of "Blocks of Learning," where the student attends campus for a week or a month at a time, were considered to be possibly friendlier to the workplace, and are being considered by the Nursing Council in Tanzania. However, the support for the work-study programme is strong from all stakeholder groups.

Workplace

Employers' and Senior Officers' responses vary greatly when nurses ask to study at SONAM-EA. Some are aware of the nature of the SONAM-EA programme, are encouraging and provide support in scheduling shifts, days off for study, extra days for exams (and sometimes assignments) and even transport.

Some employers have sponsored the entire cost of study, though this high level of support is unusual. Many employers are only able to help with scheduling shifts and cannot provide any days off nor other incentives. Some supervisors are reported as openly hostile, scheduling shifts to conflict with exams and university study days, threatening students with dismissal or bad reports if not available for work, and finding the students "distracted and unreliable" at work. Some supervisors are threatened by the students' aspirations and qualifications. There are "old guard" versus "new guard" issues in many students' workplaces.

Mostly, peer colleagues are supportive, and help students juggle their competing priorities.

When nurses are refused access to a SONAM-EA programme by their employer, many alumni have enrolled anyway, and attended AKU on their days off, changing shifts with colleagues. Eventually they are "discovered," and this increases any existing hostility or resistance to advancement from supervising nurses, who can make work life very difficult. Nurses may be allocated unpleasant and unrelated duties, "quick shifts" and shifts which clash



with school and exams. Nurses may be taken off the roll if they miss a shift.

Some SONAM-EA alumni work five days, study two days and, thus, have no time for their family or themselves. They may be distracted at work, and sleepy at school. If the employer is not supportive, the nurse feels less loyalty to the existing employer after graduation.

Workforce Aspects

In the context of a shortage of nurses across East Africa, especially of well-trained and capable nurses, workplaces put ceilings on the numbers of nurses permitted to study at one time. This is often a Ministry of Health strategy. The cap may be only one or two students studying at a time per workplace.

Some nurses miss out being able to attend SONAM-EA because they are considered too valuable at work. This applies to both BScN and Diploma applicants. For any rural or regional nurse to access SONAM-

EA campuses requires the support and sacrifice of a whole community. Where nurses get this support, they are overwhelmingly loyal to the workplace and the community.

The qualitative data collection revealed that some private employers believed that their nurses were not eligible for support. More communication of eligibility may clear up this misunderstanding.

2.3 Relevance

Our programmes are relevant for clinical and leadership enhancement.

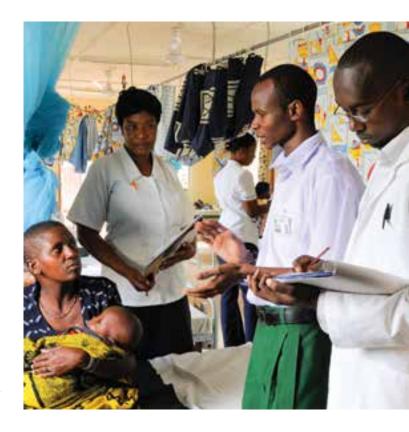
Aga Khan is like a mother or a godmother to many nurses who were low in their education.

Diploma alumni, Tanzania

Employment

Most respondents (93.1 percent) to the alumni survey were employed at the time of survey, with 88.7 percent in full-time employment and 4.4 percent in part-time employment. Some 2.6 percent were in training or further studies, 2 percent were not currently employed, and another 2.4 percent said they were doing other things. Qualitative data did not give any indication of any unemployed, underemployed or unemployable AKU graduates.

A large percentage of respondents said their main job was "very related" to their AKU programme (Figure 11). The lowest was 82 percent for the diploma programme in Tanzania, and the highest was 95 percent for the BScN programme in Tanzania. Those who said the job was "somewhat related" to the programme were working in a range of health-related businesses including medical insurance, pharmacy, education, screening and specimen collection, development partner and research. There was no significant difference between males and females.



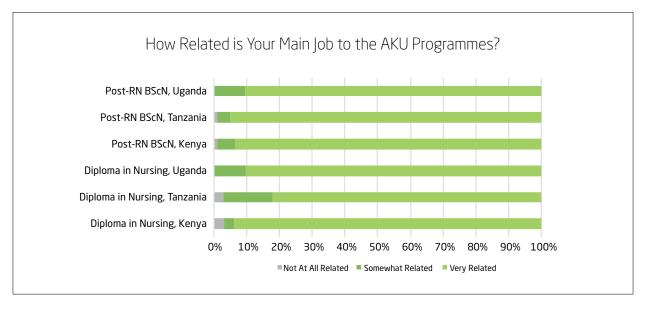


Figure 11: How Related is Your Main Job to the AKU Programmes You Completed?



Career Improvement

Within two years of graduating, 37 percent of respondents said they had achieved a promotion within the same job, 15 percent had a pay raise in the same job, and 10 percent had a promotion to another organization. Around a quarter of respondents did not have a change to their employment within that two-year period. There was a significant difference between men and women: only 16 percent of men did not have an improvement in conditions, compared with 28 percent for women.

Promotion Seeking

There is an attitude among some stakeholders that these experienced, mature and highly capable nurses are "maybe" overly interested in promotion or may be "escapees from the bedside," who will escape an unsatisfactory workplace to obtain a promotion elsewhere. While it is true that AKU alumni are readily identified for promotion, and do achieve this, we have no direct data to support that they are "always looking" or that they have the inordinate degree of self-interest sometimes attributed to them.

Employer Organizations

Whilst government is the main employer of our graduates, there is a range of relevant employment places, including private hospitals and health facilities, universities and schools (Figure 12).

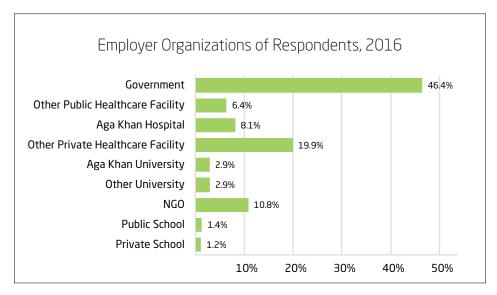


Figure 12: Employer Organizations of Respondents, 2016

Relevance to Career

Over 85 percent of alumni strongly agreed that the education and training they received was relevant to their career goals, and over 70 percent strongly agreed that the programme provided the right level of learning and challenge (Figure 13).

The qualitative survey strongly supports this finding. It found ample evidence of nurses being recognized, awarded, given additional responsibilities and promoted. It found many nurses with increased work satisfaction and renewed dedication to patient care. Many graduates had expanded horizons, which included further study, and exciting new career opportunities and challenges.

However, we also found evidence of career goals thwarted by pay-scales that do not differentiate

among qualifications. We found qualitative evidence of the resistance to change, denial of opportunity and even hostility of direct supervisors. This was noted by both graduates and other stakeholder groups. There is widespread demand for fairer remuneration, promotion and clarity about pay rates and conditions of service.

While Nursing Council curricula mean that all universities in a country offer the same curriculum, the actual content of the subjects can vary. SONAM-EA is known to have international connections, so East African nurses may be exposed to international lecturers, seminars and workshops. Library resources are also up to date, with the latest textbooks and journal access.

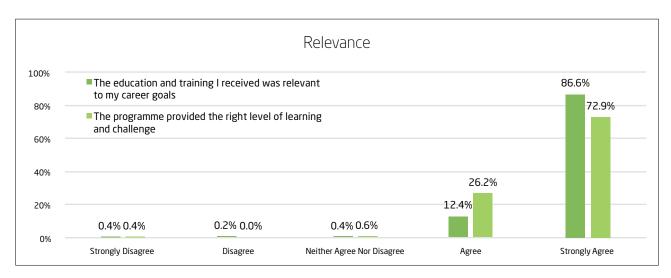


Figure 13: Relevance of SONAM-EA Programmes



Relevant Skills

Both alumni cadres, diploma and BScN, say the SONAM-EA programme is highly relevant to their employment, and regard their skill levels as having been greatly improved by attending SONAM-EA. Both cadres cite improvement in a similar range of skills, which include nursing process, critical thinking, problem solving, computer skills, informatics, research and presentations.

AKU graduates are widely considered: ...competent and up-to-date with current nursing knowledge. Employer, Uganda

The main difference is that diploma alumni generally attest that they are comparatively better in the practical nursing and bedside tasks, and more dedicated, professional and efficient than other nurses at the bedside. The BScN alumni generally attest to their leadership, management and administration skills.

All stakeholder groups regard both alumni cadres highly. Most extol the BScN alumni, and defend the value of diploma nurses to the nursing workforce. While all AKU nurses are experienced in bedside nursing, compared to alumni of all other universities, our stakeholders say the AKU graduate is more likely to be seen in leadership positions.

Employers said:

We have the nurses with the right skills. And knowledge! The only bit (missing) is the numbers of nurses needed. Employer, rural hospital Kenya

I am a malaria-focused person. When a patient comes with signs and symptoms of severe malaria we are supposed to refer to a major hospital where much of the lab acumen is. Our AKU nurses can manage the first line of malaria treatment with glucose, (because that is what malaria diminishes - the blood glucose) in the health centre and without referring them to the major hospital. They manage them there, and they go home. Rural county employer, Kenya

One employer/regulator/alumni in Uganda said: The Nursing Process, this is what (AKU) nurses really have! That helps (AKU) nurses to identify the priority area for the patient's nursing care. That (skill) also has been very helpful. We met (one AKU nurse) in a Regional Referral Hospital. She is really trying very hard to implement the Nursing Process.



The others don't know it! The Principal Nursing Officer said, "In Continuing Medical Education, we should really try to make all nurses understand (the Nursing Process); so that we know how to nurse our patients well!" That (nurse) is good because (others) just get discouraged and put it aside, and say "After all, the others are not doing it. Why should I continue?" Uganda

AKU alumni generally are able to apply theory to practice. They are frequently observed by colleagues and superiors reflecting back to the steps of a methodology as they work, e.g. concept mapping, critical thinking and problem solving. Being noticed in this way creates a ripple effect where other nurses want the same knowledge and skill base as AKU nurses have.

Relevant Attitudes

A BScN alumni said:

I think the commitment and the kiu (thirst). We had kiu of learning. We need this. It was something which was very important to me and even to other nurses who went to Aga Khan. Tanzania

Employers comment on the confidence, assertiveness and caring attitudes of SONAM-EA alumni. *AKU alumni can adjust to any challenging environment. Any environment!* Uganda

Relevant Qualifications

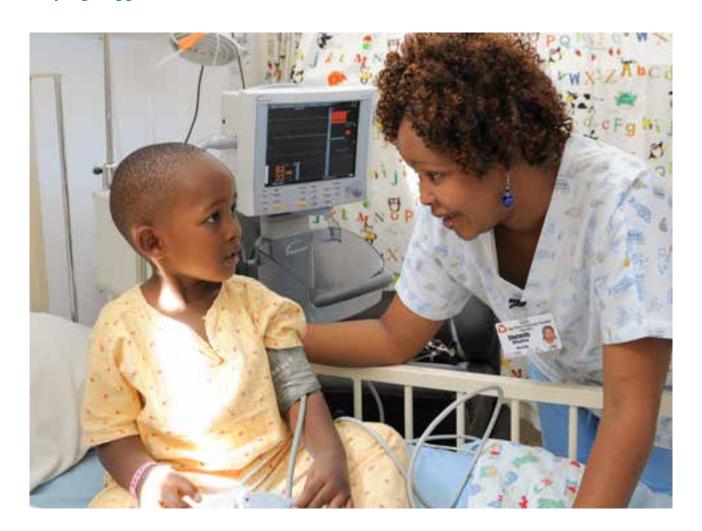
A diploma alumni said:

We have to consider that the nursing profession is dynamic. The more we do, the more it is updated and developing. The more we upgrade (and respond to) the needs, the more they are going to demand somebody at higher level; a holder of Master's degree to be in the ward! It is not a problem. That a patient is cared for by someone with a Master or a Degree it is not a problem! Patients may feel satisfied getting good care. We have to see that more

people are developed in education, because we are in a new world. Tanzania

BScN alumni said:

I am able to identify health needs (and priorities) from the news. I apply this in the class, to help the students think critically about an issue that may be happening in the country at the moment. Kenya



Relevance to the Workplace

In Uganda, both the diploma programme and the BScN programme produce Registered Nurses, whereas in Kenya and Tanzania the diploma programme has been discontinued.

Diploma Programme

The phasing out of the AKU diploma programme has been met with dismay in the workplace, because the quality of the AKU diploma nurse is considered to be very good. Also, the flexibility of the AKU diploma is not on offer by other diploma institutions. While they are often promoted to in-charge positions, diploma nurses generally remain close to bedside nursing.

The diploma nurse, along with existing certificate nurses, is now seen as the "workhorse" of the East African health system by some, and AKU diploma nurses are particularly considered to be highly employable, capable and professional nurses.



BScN Programme

There are many employers who would (if they could) only employ BScN nurses; and it seems most AKU diploma nurses would upgrade, given the opportunity. The requirement for the diploma nurse to first work for two years, before continuing to the BScN, also acts to slow down the transition to BScN. The demand for AKU BScN nurses is high, and they are rapidly taken up into management and leadership positions.

A private hospital employer said:

Our challenge is that a large number of Registered Nurses are available, but AKU BScN graduates are basically unavailable to us. AKU do not do "fresh" intake, people are not coming out of school and going straight into the AKU. 60% of nurses will come from the public sector, where they are already wanted by,

and committed to the institutions they serve! There are only around 50 nurses graduating every year that we could possibly attract to come to work here! And they are not in the market for you to select! (The BScN programme) is of benefit to the country, but it's of no direct benefit to this institution. For us, it is not the question of finance, is the question of free nurses! In the Private Sector there are very few nurses available from which you can recruit. We cannot recruit from the public sector. Tanzania

There is a tension among employers concerning the proper deployment of the highly trained, highly skilled AKU trained nurse that exists across East Africa. Many argue passionately that these nurses should be deployed at the bedside, as they are the most clinically skilled nurses available.

I want the BScN to be down at the bedside, providing nursing care. The (prevailing) attitude is that by the time they get out of the university, graduates feel they will be the leaders, and others will provide the clinical services! This is something that we need to change as a country. If you train 20 graduates, not all 20 can be leaders! You will get two as leaders and the 18 will remain in the clinical area. That's the attitude that we need to put in our trainees and graduates. Employer, Uganda

Some others point out that AKU nurses (who all have many years of experience at the bedside) are better suited to positions of influence, leadership and management. Some employers stress the need for a proper balance in the workplace.

Direct patient contact, bedside nursing, is not the most important thing for AKU graduates to be engaged in. I want a balance! Both areas are important, leadership and clinical. Most of the nurses from Aga Khan are very good at sharing knowledge, so having AKU nurses in the clinical team, and sharing their knowledge at the bedside improves the quality of nursing. We have another group in leadership, who help drive the organization. So is the matter of balance, I will say 30/70 or 40/60 – a few in leadership, and many in clinical. Employer alumni, Tanzania

Relevance to the Workforce

Maturation of the Workforce

Many of the workplace issues for AKU alumni and their employers are related to the shortage of nurses and budgetary problems in hiring highly qualified nurses. When the workforce matures and the average nurse has a BScN, instead of a diploma or certificate; there will be many more AKU alumni involved in direct patient care. Already, employers for regional and rural areas are telling us "we've got leadership opportunities for AKU BScN alumni if you come to work with us." This will not happen rapidly because the system of employers releasing nurses for a couple of days a week to study ensures most nurses return from whence they came. If the employer or in-charge is kind and flexible, AKU nurses are overwhelmingly loyal to the workplace they came from.

Currently, with AKU alumni being encouraged to take positions of greater responsibility, it appears that alumni are under-represented in bedside nursing. Efforts by supervisors and influential nurses to keep alumni in bedside nursing, without recognition, promotion or reward, are demoralizing to some alumni.

Releasing Nurses

The desire to upgrade nursing qualifications is strong, and yet releasing nurses to study has been a problem for workplaces. When too many apply to study at AKU, it presents a problem to hospital hierarchies. The Ministry of Health has intervened and requested hospitals to plan for and cap numbers of students upgrading through the AKU work-study programme, so that workplaces are adequately covered by these capable nurses.

Shortage of Nurses

East African health services often claim not to be in the financial position to address nursing shortages. Qualitative evidence suggests that, because of budgetary reasons, smaller urban as well as regional and rural East African health facilities can often only afford certificate and diploma nurses, with perhaps a few BScN nurses. When AKU alumni are employed by regional and rural health services, they are often nurses who have remained loyal to their employer, or who have strong local ties. Their remuneration is often at the original pay level.

An employer/regulator in Kenya said: In Kenya, because of our level of economic growth, we have a shortage of nurses, and we maximally utilize what we have. In most areas, there are not enough nurses, and, despite a nurse's higher qualifications, they may be asked by the ward administrator to do the lower job. NOT because they do not have the skills for a higher operation level, but because of the nursing shortage. Because AKU nurses have grown through the system, they can be utilized at any level. At times the nurses complain, but if the patient has a need, that is the priority. It doesn't matter whether you are a BScN or a PhD holder, when you are in that ward, you have to give service to the patient.

Schemes of Service

Stakeholders repeatedly said that the pay scales for nurses, the "Schemes of Service," do not differentiate between nursing cadres. There is a Scheme of Service in Kenya, but employers are not always implementing it, so nurses are forced to take jobs below their qualifications. There are BScN nurses still receiving certificate wages. AKU alumni may seek employment where their qualifications are appreciated. Many AKU alumni are recognized and rewarded with additional responsibilities only. Sometimes, that is enough.

Devolution

In Kenya, the recent devolution of health care services to the counties complicates workforce issues. Some counties have a preference (even requirement) for local nurses, who may be certificate and untrained nurses, but who are cheaper and familiar with the county's cultural and social context.



2.4 Quality

Quality is our key to success.

Faculty Expertise

Over 90 percent of respondents from all campuses agreed or strongly agreed that:

- The faculty were experts in their professional fields and knew the subjects they taught intimately;
- The faculty were excellent at imparting knowledge and they guided and stimulated alumni professional development;
- The instructional facilities at AKU, including classrooms, labs, clinics, wards, etc., met or exceeded their expectations; and
- The availability and collection of information resources such as the library, computer access, etc., met or exceeded their expectations (Figure 14).

The qualitative evidence supports the finding that AKU faculty and facilities are highly regarded by alumni.

BScN alumni said:

The faculty teaching the students are well committed! This is why we are knowledgeable. Compared with other universities, they follow us in practical areas. I think Aga Khan is the best! Tanzania

Academic Experience

About 90 percent of respondents said their AKU experience was very good or excellent (Figure 15).

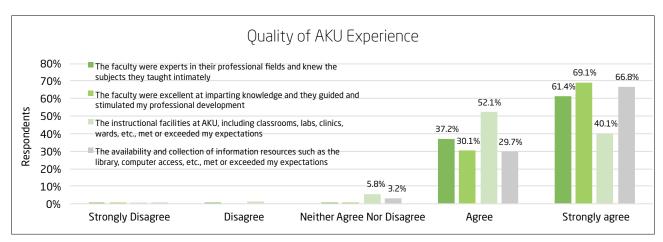


Figure 14: Quality of Experience

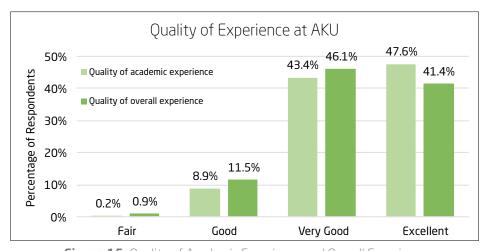


Figure 15: Quality of Academic Experience and Overall Experience



Diploma alumni said:

When you study at Aga Khan University you are different from other professional nurses. When we studied the diploma course, we studied from advanced international books in the library. We got quality knowledge (yaani). Other nurses don't know how to get quality knowledge independently. They wait to be fed. We are different because we can find it out for ourselves. Tanzania

The lecturers were so open and always willing. The teachers taught us to understand exactly what a patient is, and what we should do for the patient. Uganda

We did mathematics with Mama Sande. This helped us do (dose calculations) in the labour ward. We have magnesium sulphate containing 50%. I was able to calculate and change from 50% to 20% to give it intravenously. Some other nurses from other schools couldn't manage how to change this. Tanzania

We learnt how to give CPR to the non-responsive patient. It really helped us. We saved one pregnant mother last week who came from far away with shock. We saved her before the doctor arrived. We did CPR, we introduced oxytocin fluid, and sent investigation. The woman was sent for an emergency caesarean section, but unfortunately placental abruption had already occurred. We found the baby's heartbeats; we worked as a team. The baby and the woman were saved. Tanzania

A private school of nursing employer (alumni) said: We had a professor that used to treasure his nurses! The way he treated us made us to be confident and assertive, and in a position to communicate with the doctors. He used to tell doctors that as far as the surgery is concerned, here the nurses are the king. And that made us to be more confident.

A large private hospital employer (BScN alumni) said:

I had you (as teacher), Mama Sande, I say asante sana, Mama Sande! You made me what I have become today. If I look at myself before I did my degree at Aga Khan and after, I am now a completely different person! I learnt a lot at Aga Khan, in terms of leadership and management. Mama Sande taught us about community, which was very crucial in my daily work, dealing with people. I wasn't so confident, but after the training I really have the confidence. I feel proud, and am happy that the teachers at Aga Khan made me what I am today. Even the position I am sitting today is because of the knowledge and skills that I got from Aga Khan. Thank you Mama Sande! I take this opportunity to thank you from the bottom of my heart, that you have taken the time for us, and you have shared your reflection. It's very impressive, and we wish you all the best whatever you are doing for your organization. We are really very proud of you. Tanzania

Likelihood of Recommending AKU

A significant percentage of respondents from each programme strongly agreed that they would recommend the AKU programme. Tanzanian Diploma alumni (at 69 percent) are the least likely, and Kenyan Diploma graduates (at 94 percent) are the most likely to do so (Figure 16).

Many Tanzanian diploma alumni would like to upgrade to BScN but are unable to. Some employers believe that a diploma qualification, especially from AKU, is sufficient and will not approve attendance for work-study. Tanzanian diploma alumni are concerned about admission criteria which require credits in pre-requisite high school subjects physics, chemistry and biology (PCB).

These mature and experienced nurses often did not do or pass basic sciences, and they find it impossible to go back to secondary school as mature students. Often, they are in remote locations. Diploma alumni plead for a Foundation Course which would act as a bridging programme to the BScN.

They said:

To get a chance to study in this university, one should have a nurse and midwifery diploma, certificates and transcript. If you don't have PCB you cannot get a BScN degree. So you are telling me that I should go in secondary school to study in order to get credits for science courses such as physics, chemistry, and biology, and English. That becomes difficult! Tanzania

Age affects the education venue (options) of an individual. Going to class to study chemistry and all that, at my age! It will be a hard trial. Tanzania

Please tell them we would also like to be candidates of AKU, but we are missing the science subjects and the chance to study. Tanzania

Some alumni express a deep concern that AKU no longer offers the highly regarded diploma programme.

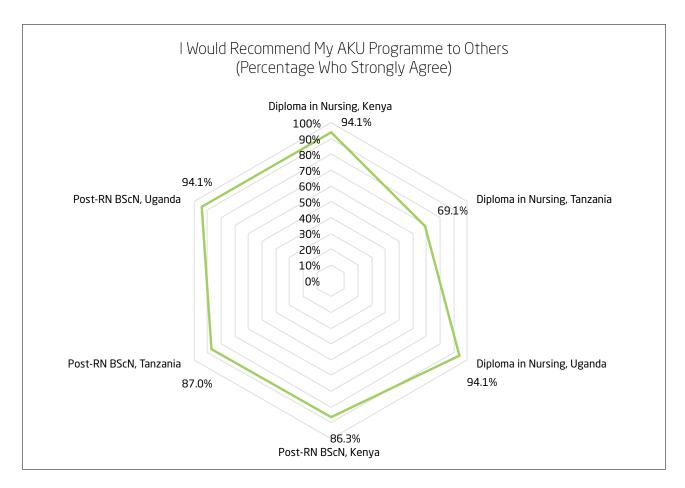


Figure 16: Likelihood of Recommending AKU by Programme

Basis for Further Education

Further Studies

There was strong interest in a continuum of qualifications which stretched from diploma to doctorates. All stakeholder groups were interested in developing a highly trained nursing workforce.

The alumni survey indicated that completion of an SONAM-EA programme is often a step in ongoing professional development for many graduates. Since their graduation from SONAM-EA, 34 percent of respondents have completed studies at other institutions, with over a quarter of these having completed more than one qualification (Figure 17).

The qualitative survey indicated widespread and strong demand for a master's in nursing. Some fear that doing a master's in other fields will mean a nurse lost to the profession, so there is a call for master's degrees in Nursing Education, Nursing Informatics, and Nursing Administration amongst others.

When I was doing my master's, the base that I had from Aga Khan University really helped me.

Alumni, Kenya

Of SONAM-EA alumni not currently undertaking study, 85 percent of respondents with BScN or specialized diplomas thought they may do some study in the future. Most of these intend to undertake a master's in nursing or another master's. Some are considering a PhD in nursing (8 percent) or Other PhD (6 percent). Of respondents with



a Diploma in Nursing, 90 percent thought they may do some study in the future, of which 60 percent thought they might undertake the BScN. These figures indicate demand for postgraduate qualifications (Figure 18).

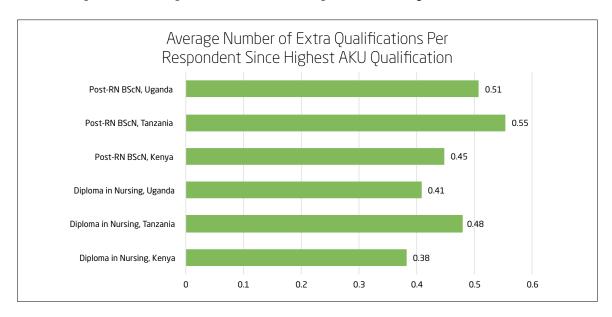


Figure 17: Additional Qualifications Done Since Highest AKU Qualification

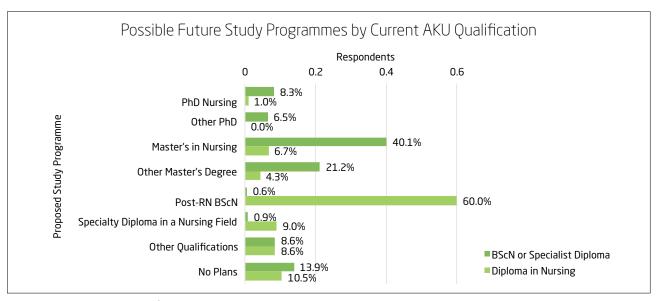


Figure 18: Alumni Who May Do Other Qualifications in the Future

Quality Curriculum

SONAM-EA offers compulsory and elective subjects. Some topics are delivered by seminar and workshop. All stakeholder groups praised some subjects repeatedly. These included Research, Academic Writing, Advanced Nursing Concepts, including the Nursing Process, Concept Mapping, Critical Thinking and Problem Solving, Leadership, Management, Mentorship, Supervision, Teaching and Learning. Many students worked on computers for the first time, and became experts in their use on return to the workplace. Informatics was highly valued. Skills in documentation have been well received.

An employer, in a private hospital said: Excellent with documentation skills! AKU graduates are some of my focal people in the wards that spread this skill. They are the leading and addressing issues about documentation. Tanzania

BScN alumni said:

AKU SONAM-EA made me a better nurse and taught me to think critically. Kenya

By the time I was in Clinical, I was able to diagnose and manage the patient according to the nursing diagnosis I had developed. Advanced Nursing Process helped me take care of the emergency patients from road traffic accidents. I was able to make the nursing diagnosis according to the injuries they had, and treat them, and categorize patients according to their severity by using the knowledge from Aga Khan. Uganda

Some alumni said that the organization of community clinical sessions had been problematic at times, with the work unrelated to their skill set, and much time wasted, sitting around. Even so, in every country it is considered relevant, even vital.

Rural alumni said:

The course was relevant because it was integrated. It involved almost all aspects of health, psychiatry, gynecological aspects. It was well utilized. You could integrate all other things. Uganda

When I first joined the university, I did not understand what I was coming for. But when I got exposed and started learning, I discovered that there was a lot I was missing, which I needed to apply in my place of work. The course content was very useful in my workplace, and I really appreciated every subject, or every course unit that was offered. Uganda

SONAM-EA's work-study strategy, which recognizes prior learning, was well received by those canvassed in the qualitative survey.

AKU appreciated the earlier competences that we had. That's a very important point for upgrading – to appreciate prior learning. Not to think they are incompetent! You know they are adults and they are building in experience. The experience that they have is very important, and the nurses of the country appreciate that avenue. Employer Alumni, Uganda

Quality of Graduates

All stakeholders extolled the comparative quality of BScN alumni. There were no reported instances of unethical or poor behavior, and many reports of superior knowledge, skills, attitudes and behaviours. Widespread agreement exists that BScN alumni are more confident, assertive and independent, have more influence, and are more inquisitive and innovative than alumni from other universities. They are excellent planners, leaders, managers, administrators, supervisors, mentors, coaches and teachers. They freely share their knowledge and skills with colleagues who were trained in other learning institutions, regardless of their colleagues' qualifications or remuneration. They can debate the merits of medical intervention "as equals" with doctors and senior staff, and do not wait to be told (or ordered) what to do. Their professionalism saves lives, and raises the quality of nursing in East Africa, both directly and indirectly. They are team workers,

work for the ultimate benefit of the patient and work very hard. They are driven by a deep commitment to nursing and patient care, and tend to be very resilient. Almost all of them have a story of personal sacrifice in obtaining their degree.

Alumni know they are the "cream of the crop" because they always have to impart their knowledge and skills to non-AKU nurses. Almost all stakeholders would agree. AKU Alumni are generally admired, emulated and respected, and are sometimes feared by their superiors.

A BScN alumni said:

I have been supervising internship of nurses with [AKU] bachelor's degrees. All in all, from what I have seen in the places I have visited, and the places where I supervise internship, you cannot compare them with other nurses! Uganda



2.5 Impact

SONAM-EA alumni have an impact on clinical, educational and leadership outcomes.

A Regional Nursing Officer in a rural, coastal region said:

I can't see any area where AKU BScN graduates are not useful! They are doing good work in all areas. They are doing a lot to sustain the institution and to promote the institution and improve the quality of life of people. Tanzania

SONAM-EA Impact on Graduates

From the alumni survey, most respondents strongly agreed that:

- They developed a greater sense of community service and had opportunities for engagement and outreach;
- Their leadership abilities were further groomed and sharpened;
- They developed a greater sense of self-esteem and self-confidence; and
- They developed their abilities for interpersonal communications and relationship building (Figure 19).

Many alumni refer to attending AKU SONAM-EA as "life-changing", even "life-saving." Alumni frequently report becoming "a better person", more assertive, confident, organized, resilient and patient.

I thank AKU because it is part of my family. I wedded from this place. I got friends, was introduced and had a baby. I was pregnant reading the books! They nursed my baby when I had an exam. I passed without doing a retake. So Aga Khan became a family. It saved me! Alumni, rural Uganda

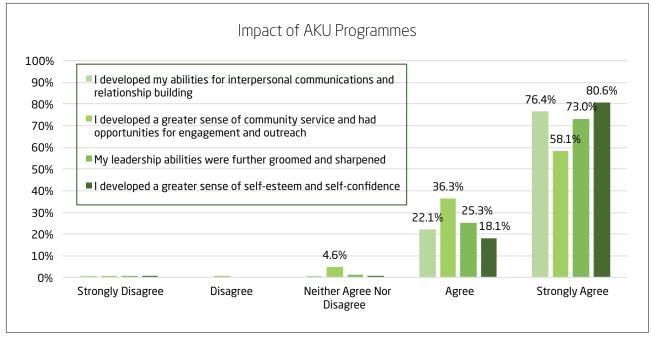


Figure 19: Impact of AKU Programmes on Students

Rewards and Recognition

Some 251 respondents (46 percent) gave information about rewards and recognition. The main forms of recognition were awards, promotions and certificates of appreciation. The most common were workplace awards for "Best Employee." Some alumni received awards for innovation, entrepreneurship and "Woman of the Year". Some received promotions

to very senior positions. An analysis of job titles indicates that 5.6 percent of SONAM-EA graduates are in senior management positions, 21.1 percent are managers, particularly in clinical situations; 9.8 percent are engaged in education or research. For the majority, the main improvement was in their professional competence.

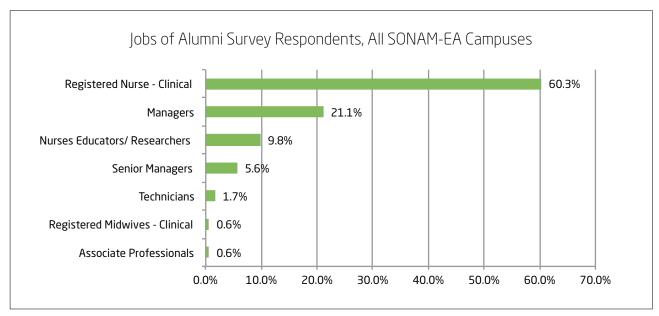


Figure 20: Jobs of Alumni Survey Respondents, 2016

Clinical Impact

A substantial percentage of our alumni are in clinical settings, with 60.3 percent of respondents registered nurses in clinical jobs, and another 21.1 percent are managers, many of whom are in clinical management jobs (Figure 20). Our graduates' clinical impacts occur directly through the care they give, and also through the skills transfer that they implement in the workplace to improve the capability of those around them. Given that a clinical nurse may come into contact with up to 4,000 patients a year, the impact of our graduates on patient outcomes is magnified by this "ripple effect" (Figure 21).



Figure 21: Ripple Effect Magnifies Impact of Nurses

An employer in a major urban public teaching hospital says:

AKU programmes have improved the work skills of the working nurses in our teaching hospital. From the AKU programmes, their students have training in the practical things that happen daily in the clinical area. Kenya

Another employer in a major urban public teaching hospital says:

AKU graduates are best in the clinical area! That added knowledge can only help every last client. If AKU graduates can implement evidence-based patient care to the "common client," that allows the maximum benefit to the client. Kenya

An employer/regulator says: When you go to health facilities, they say "Oh, I

think that nurse trained from Aga Khan!" I think that's really a great impact when (other nurses) say "she trained from AKU, and that's why the things are happening the way they are happening!" Uganda

AKU alumni are regarded as willing and able to share their knowledge, among nurses, interns and junior doctors. Their supervisory, mentorship and coaching skills are well honed. They will be found delivering practical presentations to other staff.

A private hospital employer said:

Aga Khan University cannot meet the education needs of the country. But we can produce leaders who will be catalysts in improving quality, safety and so forth. However, the impact is there for everyone see, and I say it is tremendous impact.



Impact on Health Systems

Geographical Impact

To gauge the geographical impact of alumni, we mapped the locations where alumni were working in March 2016 (Figure 22). The first map shows how graduates can be found across East Africa. The second map shows concentrations in the major population centres of Kenya and dispersion across 17 of 47 counties. A similar dispersion is evident in Tanzania and Uganda. Lack of responses from the more remote areas may be partly explained by loss of contact with alumni or lack of access to email.

An employer/regulator said:

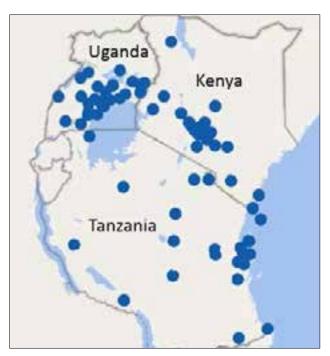
AKU nurses are (found) in all levels of our health facilities, from national right down to our health centre floors. They are scattered all over. The majority is (located) in towns, but even in rural areas. There are some in regional referral (hospitals). The Districts they have taken them. District hospitals are under local government. But even local government is under Ministry of Health. Uganda

The AKU work-study programme is viewed by some employers and graduates as a bonding arrangement, and acts to reduce nurse migration. To achieve an increase of nurses in rural and remote locations, some communities have helped sponsor their own nurses for upgrading. These communities make a short term sacrifice for a long-term gain. Remote communities may be deeply distrustful of hospitals,

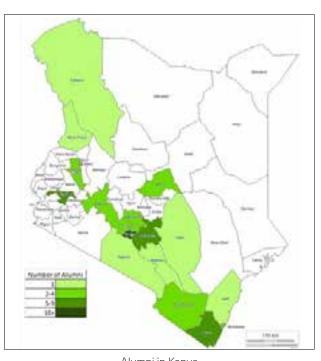
modern medicine and immunizations, and trust their own nurses more than outsiders.

An employer in a rural region says:

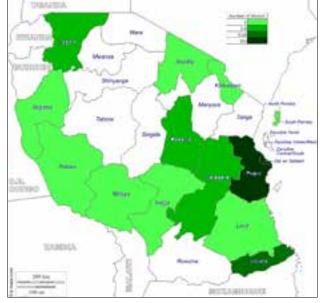
Many diploma graduates go to the health centres
and I do not meet them very frequently. They are
there in faraway communities in health centres,
providing the direct care to the community. Tanzania



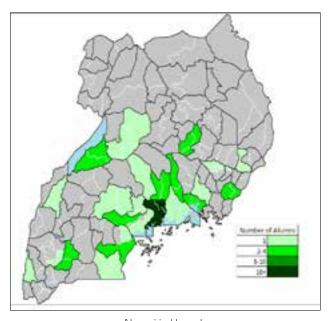
Distribution of Alumni Across East Africa



Alumni in Kenya



Alumni in Tanzania



Alumni in Uganda

Figure 22: Successful Dispersion of Alumni Across East Africa

Leadership Impacts: Health Services and Systems

Alumni are in strategic leadership positions at national, county and institutional levels (Table 4).

Country	Position				
Tanzania	Academic Head, Masana College of Nursing				
Tanzania	District Nursing Officer, Kibaha District Council				
Tanzania	Deputy Chairman, Nursing Council				
Tanzania	Director, Nursing and Midwifery Services				
Kenya	Chief Nursing Officer, Aga Khan University Hospital				
Kenya	County Cabinet Secretary, Kajiado County				
Kenya	Head of Examination Department, Nursing Council				
Kenya	CEO, Pumwani Maternity Hospital				
Uganda	Ag. Assistant Commissioner, Ministry of Health				
Uganda	National Supervisor, National Immunization Programme & Senior Principal Nursing Office Lira Hospital				
Uganda	Principal, Mulago School of Nursing and Midwifery				
Uganda	President, Uganda Nurses and Midwives Union				

Table 4: Graduates in Strategic Leadership Positions – a Selection

An employer in a large teaching hospital says: The impact of AKU graduates on the outcomes of our organization! They always add quality, and commitment, to the organization. Kenya

An employer in a major urban public teaching hospital says:

I have many AKU alumni in managerial positions. They are having a lot of impact through their positive contributions: knowing how to work with the other clinical nurses in a harmonious way, and how to implement policies in a more structured way so that implementation can be achieved easily. Kenya

AKU faculty and alumni were instrumental across East Africa in drawing attention to the lack of specific job descriptions and for formulating nursing "Schemes of Service." Stakeholders say that at a health system level, specific job descriptions for all nurses at every level are yet to be developed. An officer in a professional association said that without clarity of job descriptions:

You will find all nurses do the same job, regardless of qualification. Tanzania

Improved Documentation

A county employer of both diploma and BScN alumni said:

Most of our nurses could not document well, especially in hospitals, where nursing diagnosis was a big issue initially. Now that the level of skill has improved in most nurses, it is now easy for them to grasp ideas. There is an improvement in documentation. We are slowly getting out of the traditional way of documenting, i.e. "Had a calm night. Slept well!" We are not doing that. We are documenting each and every intervention we have done to our client, even at dispensary level. For every single patient that comes to the dispensary for delivery, there is partograph chart. You can trace a file and the care that a health worker did. There is improved documentation at all levels, whether you go to dispensary, or the hospital. Kenya

Impacts on Profession

A regulator said:

The AKU programme itself has big impact in the nursing profession. The nursing profession will remain stagnant in the diploma level. Since AKU establishments have taken mature entry, there has been an increase in the number of BScN programmes. AKU influences change in the Scheme of Service, where nurses lagged behind for not being represented. With the increased number of BScN nurses, (we) struggled to have a nursing officer (classification) in the Scheme of Service. It created a lot of questions to why nurses have many categories; yet it increased the opportunity for nurses. AKU influenced other universities to establish BScN programmes (e.g. St John, KCMC, and Hubert Kairuki). We hope that if you establish a master's programme, then other universities will also establish one. Tanzania

An officer in a professional association said: I have known AKU nurses who are (involved); but very few nurses are. Most AKU nurses are in association leadership (positions), which means you are actively participating! Our leadership, currently and (several) former chairmen, and probably first vice, and second vice, are all graduates from AKU. Kenya

Impact on Health Outcomes

A county employer said:

AKU trained nurses reduce mortality by knowing who to send to major hospitals. All our people that you have trained in AKU are all in the rural areas. And wherever they are, there has not been mortality. I am proud that in 2014 we had no casualties due to malaria! All the malaria casualties took place in the big hospitals – not in rural facilities. This could be a signal that all these people are working well, and this includes the profession



trained in AKU SONAM-EA. In the rural set up, efficiency is created by timely referral, assessing that this patient is going to be bad, and having an effective management response. Kenya

Another county employer of both Diploma and BScN alumni said:

We have many who have come in who lack the skill that the AKU trained nurses have, who were trained in different areas in the country. We have so many gaps in the nurses that we have out there.

Before we improved our health care workers (with AKU), we were struggling with our indicators. I had so many fresh stillbirths, in our health facilities. This is data by Demographic Health Survey. Of late, I have very few fresh stillbirths. Why? Because the skill level has improved! Now, we can strengthen our partnership with AKU, because chances are there we can train even more.

In May, I only had two fresh stillbirths in the entire sub-county, and they were all here in the hospital. They were referrals, and they were all inevitable! By the time we brought the client here and we went to theatre, we lost the child. Coming from 32 fresh stillbirths per month, to just two – this is great news. Because now, I have nurses who know when a patient needs to have a referral.

For a long time we were at 22 percent hospital delivery. Now we are at 64 percent! Most of our clients now deliver in hospital. Initially many mothers delivered in the hands of traditional birth attendants. Since skill upgrading, the relationship between the nurse and the client has improved. Now, our mothers are coming in!

The contraceptive prevalence rate is now up to about 70 percent. Now I have people who are (able to relate to the patient). Kenya

An employer in a rural coastal region said:
Our organization's goals are to improve the lives of the community, making sure that they are healthier, and if they get diseases they are cured and they get good care from the nurses. Nurses coming from Aga Khan meet our goals. They are saving life, they can rehabilitate. They give health education, they can prevent diseases, and that means that they are promoting health to the community. AKU graduates are most useful in the nursing care of patients. They are useful in administration, and as managers. They know how to solve situations! Tanzania





CHAPTER 3

THE EVIDENCE BASE

Context

Existing Data

The AKU alumni database, admission, enrolment and graduation registers provided a basis for the collection and provided summary information on graduates. Statistics from WHO, UN and a country's official statistics provided a context of key outcome measures historically and since the programme started, such as infant mortality, maternal mortality and workforce numbers.

Rather than create a separate alumni survey, we worked in partnership with the AKU Alumni Affairs Office to update questions in the core alumni survey and to add specific questions about the impact of the SONAM-EA programmes the alumni completed.



Existing AKU Alumni Survey

To track its graduates and assess the results and achievements of its education programmes, SONAM-EA carries out a regular (three-year) alumni survey across the three countries in East Africa where it operates. Because it was scheduled for 2016, the Dean decided to use it as the nursing alumni survey tool. Recommendations for later years would be based on learning from this experience. It was decided to obtain graduate feedback and some impact information from the alumni survey.

Supplementing the Data with Qualitative Methods

As is usual for the development of quantitative surveys, focus groups provide ideas for the questions and response categories in the future. The Dean decided that the best initial approach to gain valuable insights from employers was to undertake, in parallel with the alumni survey, semi-structured interviews and focus groups targeting alumni and relevant stakeholders to provide data on the access, relevance, quality and impact of the AKU programmes.

Alumni Survey Information

A review of published material on alumni surveys showed that there are four types in use:

- 1. Student satisfaction surveys usually done during courses and at exit.
- 2. Graduate destination surveys usually within one year, focusing on job or further study. Output reports may include the following:
 - a. Graduate destinations
 - b. Graduate salaries
 - c. Postgraduate destinations
 - d. Graduate course experience
 - e. Postgraduate research experience

- 3. Employer satisfaction surveys
 - a. For graduates to assess the value of University programmes usually one to three years after graduation, depending on the time that graduates would have spent in employment and the desired size of the population to be sampled.
 - For alumni to assess career progression and longer term value of graduates – after three years.
- 4. Graduate impact surveys most often measuring economic or financial impacts.

Alumni Benefits

A review of alumni benefits revealed that the leading universities with schools of nursing in America, Europe, Asia and Oceania all are beginning to harness the potential of alumni, and providing benefits such as account login, lifetime email, library access, access to continuing practice development in the form of conferences and guest lectures, as well as facilitating alumni chapters and social get-togethers.

From their web sites, we benchmarked the Aga Khan Alumni Association for benefits offered against the alumni associations of the leading nursing schools around the world. These included the University of Sydney's Nursing School, the National University of Singapore's Alice Lee Centre of Nursing Studies, the University of Toronto's Lawrence S. Bloomberg Faculty of Nursing, Kings College London's Florence Nightingale Faculty of Nursing, and the University of Pennsylvania's School of Nursing.

We found that leading universities are increasingly interested in identifying and harnessing their alumni, for sponsorship and mentorship primarily. They all offer degree verification, and a university alumni magazine. Most leading universities have moved from an "update your details" page, and now offer a unique alumni ID, account login, online personal profile and a lifetime email which will reroute to private email as necessary. This allows the university and the alumni to benefit from each other's reputation. Leading universities have ongoing alumni services with administrative support, chapter groups and have established links to alumni social media, particularly LinkedIn, Facebook and Twitter.



Some leading nursing schools additionally offer their own alumni newsletter, and own website linked to the main university site, which may be interactive and require registration and login. Where nursing schools are active in liaising with alumni, administrative support and/or a separate alumni support officer is deployed.

All leading universities offer ongoing benefits and opportunities to alumni, which include access to facilities, reunions, networking events, fundraisers and recognition awards. At least one leading university offers campus room-booking for meetings. It has become usual to provide some sort of ongoing professional development in the form of

conferences, guest lectures and short courses, and to ask for alumni assistance in mentoring students. All universities offer limited library access, usually for a fee. We found no instance where full library resources (as are available to currently enrolled students) were made available to alumni. Online access to electronic resources for alumni is not offered.

University ranking is based in part on the impact it makes through research publications. It seems leading universities cannot yet benefit from the impact of the research of their alumni – unless alumni are also faculty or associates. Research partnership with alumni "in-the-field" has not been harnessed. The connection of any research publications done by alumni is not necessarily gathered under the wing of the University.

This is interesting in light of the strongly expressed interest in East African employers for AKU alumni to engage in, publish and present their research. One private hospital employer (Tanzania) said that they would be prepared to sponsor AKU alumni research to help get it established, and an employer in a large public hospital Kenya said that they would be interested in a research partnership.

In summary, creating a research community among alumni is worth further investigation. Establishing a separate SONAM-EA alumni web presence which includes lifetime email account, and social media connection is urgent. Maintaining a separate East Africa nursing alumni secretariat function is necessary to achieve anticipated engagement.

Working the Alumni Connection: Quantitative Methodology

Overall Framework

The overall management of the quantitative survey was implemented using the Generic Statistical Business Process Model (GSBPM, Version 5.0, December 2013).

Questionnaire Development

The AKU alumni survey provides an online survey form. It clearly introduces the purpose of the survey and the use to which the data will be put. It is clear that the AKU confidentiality policy applies to the data.

The questionnaire has the following main sections: personal information; education, training and employment; achievements; satisfaction with the AKU educational experience; and connection with AKU.

SONAM-EA worked with the Alumni Affairs Office to refine the questions and accepted an invitation to add a small number of questions specific to our reporting needs. We advised on the benefits of using international statistical classifications amended as necessary to suit local conditions, including the list of countries for country of birth and nationality. We also indicated a preference for drop down lists where possible, because these remove errors of typing in

free text fields and result in standardized responses that are more suitable for statistical analysis. Suggestions were also made to the sequence of questions and the standard ways of collecting certain data such as employment status. To the extent that was feasible in the timeline, our suggestions were generally implemented.

In other surveys that have been developed and implemented over many years, well developed sets of scales are in place to measure the educational experience. For example, to assess course experience, there are a number of scales including the good teaching scale; overall satisfaction scale; learning resources scale; and appropriate workload scale. These scales include a number of items that are aggregated to provide an overall score for the scale.

The AKU alumni survey that was undertaken in 2016 had the following groups of questions to obtain feedback on the AKU programmes:

- 1. Experience as a student at AKU 11 items;
- 2. University resources and student life five items;
- 3. General assessment two items; and
- 4. Level of connection with AKU one overall item, followed by five yes/no questions for specific means of connection.

SONAM-EA proposed four additional questions:

- Current specialty within nursing we proposed a classification which was implemented as a drop down list;
- 2. Change of employment after graduating we prepared a response list including pay rise and promotion options;
- 3. Intention for further study with a response list related to higher nursing degrees; and
- 4. Improvements in nursing practices, patient outcomes and/or professional competence planned to be able to tick as many as apply.

Collection: Alumni Affairs Office Process and SONAM-EA Assistance

The Alumni Affairs Office started with introductory emails in early March, including a request to "like" on Facebook. They released the survey on 17 March by emailing prospective respondents to access the online survey tool and providing a short deadline, as is appropriate for email-based survey requests. There were several follow up emails and two extensions to the timeline with the final date being 13 May 2016. A thank you email was sent to respondents on 24 May 2016.

SONAM-EA assisted in driving up response numbers using innovative methods including:

- Use of mobile technologies;
- Support to access Wi-Fi connection in remote areas; and
- Social media links among alumni.

Response Rates and Representativeness

The alumni survey is not a census of all alumni because contact emails, phone numbers or addresses are not available for many of the alumni. Also, some of the contact details that are held by AKU are not current, so these alumni could not be contacted. This would particularly include alumni from earlier programmes who did not have email addresses. As a result, only an estimated 30 percent of all alumni were contactable.

The definition of "response rate" used in this study is:

= The number of alumni who responded
The number of alumni who were asked to respond and received the questionnaire

This is substantially different from the "percentage of all alumni who responded."



Early advice from the Alumni Affairs Office was that the number of respondents was low, so a concerted effort was made by each of the SONAM-EA campuses to extend the reach of the connection to alumni using networks and social media. The purpose was to ensure we had sufficient numbers and distributions to support robust analysis.

In the end, we achieved 549 responses. This represents 25.7 percent of our 2,138 graduates. Given that only approximately 30 percent of alumni could be contacted, this represents an overall response rate for SONAM-EA alumni of about 80 percent of those contacted.

To interpret the survey results, it is essential to know the extent of likely bias in the respondent group. A source of potential bias includes the absence of groups who may have a different view such as:

- Earlier graduates who may not have up-to-date contact information;
- Rural and remote graduates who do not have access to online systems to undertake the survey; and
- Older graduates who may not have internet or email accounts.

The following table indicates that respondents spanned all years of graduation and all programmes. Noticeably, there are fewer Diploma in Nursing respondents than BScN graduates. This could be explained in part by the likelihood that diploma graduates are in more isolated locations and may not have access to email facilities.

Country	Year of Graduation													
Programme	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Kenya	1	4	2	10	5	6	12	21	8	8	24	11	22	134
Diploma in Nursing, Kenya		4	1	3		1	3	6	2	3	8	1	2	34
Post-RN BScN, Kenya	1		1	6	3	4	9	15	6	5	16	10	20	96
Specialist Diploma, Accident/Emergency and Disaster Mgmt, Kenya					1									1
Specialist Diploma, Critical Care Nursing, Kenya				1	1	1								3
Tanzania		3	9	9	13	15	22	43	17	6	11	9	17	174
Diploma in Nursing, Tanzania		3	5	5	5	8	5	22	15	2	1			71
Post-RN BScN, Tanzania			4	4	8	7	17	21	2	4	10	9	17	103
Uganda	3	5	11	9	8	15	18	22	20	27	25	34	44	241
Diploma in Nursing, Uganda	2	3	7	3	2	6	5	3	10	12	13	17	22	105
Post-RN BScN, Uganda	1	2	4	6	6	9	13	19	10	15	12	17	22	136
All Programmes	4	12	22	28	26	36	52	86	45	41	60	54	83	549

Table 5: Respondents by Country, Programme and Year of Graduation

Figure 23 provides the age-sex distribution of the respondents. Whilst we do not have the ages of all alumni, we believe the respondents adequately span the range of ages.

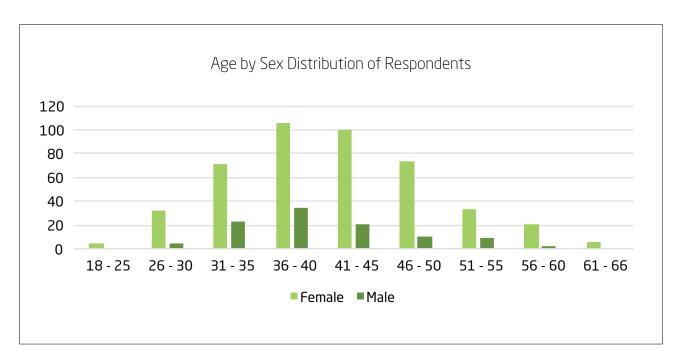


Figure 23: Age/Gender Distribution of Respondents

We can be reasonably confident that our respondents are broadly representative of the wider population of alumni. Even so, we have not attempted to estimate the responses of missing alumni, preferring to show actual responses or percentages.

Data Processing and Validation

The Alumni Affairs Office provided an early output from the survey to assist in the review. We applied a number of validations tests including identification of duplicates; checking of response categories; identification of the need for recoding; and assessment of free text fields.

In preparing for the analysis, a number of questions required detailed inspection, development of classifications and recoding. These were mainly free text fields including:

- AKU programmes respondents selected programmes and years that were not available to them;
- Additional qualifications respondents entered duplicate records;
- Locations free text fields allowed a vast array
 of responses with multiple spellings, multiple
 locations in some fields, mismatching places, and
 rural locations in metropolitan areas;
- Job titles did not match any standards within the profession and included other location details;
- Nursing specialties although a list was provided many more alternatives were given in "Other";
- Business and industry resulted in many different options which had to be recoded; and
- Employer/organization whilst a list was provided, respondents selected many options which were combined into one field and there were a range of text options in "Other."

Lessons Learned

As a result of the above issues, future surveys would benefit from careful consideration of the following:

- Baseline information
 - The alumni database could contain all demographic variables, education, employment and other factual and non-confidential information
 - Alumni could access to update their baseline information
 - Qualifications
 - Clear instructions are essential to ensure entry of additional qualifications does not duplicate
 - Institution should have all currently existing in the alumni database as a drop down list with "Other, please specify" as an option
 - Should have a drop down list for level of qualification (Certificate, Diploma, Bachelor etc.)
 - Also a drop down list for field of study
 - And a list for specialization
- Location standard statistical geography should be available for each country, so that after
 respondents select their country, they only get valid options for the next level of geography
 (province or county) and then only have access to a list of communities/towns/cities within province
 or county
- Job titles and specialties need classifications for drop down lists
- Business and industry needs to be reframed with reference to the International Standard Industrial Classification (ISIC)
- Respondents should be asked to select their "main" employer organization with the explanatory
 note "Select the employer you spend most time for. If 2 equal, select the one with highest level of
 position"
- The question about dual nationality received few legitimate response and is not of great value for East Africa

Undertaking an alumni survey should only be done to obtain information not already in the alumni database, such as opinion and attitudes. These data would then be subject to the usual high standards of confidentiality.

Sustainability

Maintaining Alumni Contact

For a regular and sustainable monitoring and evaluation system, we recommend that SONAM-EA maintains an alumni database that it can update and that alumni can update themselves. The current AKU alumni database has an update page, but does not provide alumni with the information already in the database.

The database should be accessible by alumni through either the web or an app for those with only a mobile phone. The alumni database would contain all of the demographic data that would allow analysis of the continuing impact of all alumni. This would be linked with the AKU alumni database and would retain all historical records, including every time an alumnus updates their profile. SONAM-EA would annually contact all alumni to ask them to update their profile online and offer facilities for them to access the database if they do not already have access.

The database would contain two critical linking fields:

- 1. The original student number as their unique identifier; and
- 2. A perpetual email address, linked to their preferred regular email address, which they can update as necessary.

The data in the database can be fitted with a dashboard, so that at any time the Dean can provide

a summary of the alumni, as well as other key indicators of the School, such as enrolments, faculty qualifications and faculty research outputs.

The AKU alumni survey can be used to supplement the data in the SONAM-EA alumni database. Specific questions about nursing should be in the local database, if not in the whole-of-AKU database.

Monitoring the Graduate Experience

For the collection of data from graduates, it is recommended that SONAM-EA implement an annual survey of graduates within four months of their convocation. This could start as early as convocation, when they are present and they could be asked to complete the survey. The content of it would include aspects of their student experience, using some international scales similar to those identified in the literature. This survey could also capture updates to their employment and further studies.

Understanding the Employer Perspective

A survey of employers should be undertaken annually, using the annual update of the alumni data to survey specific employers and using standard questions from international experience tailored to local conditions.



¹² Tong A, Sainsbury P and Craig J (2007), Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups, International Journal for Quality in Health Care; Volume 19, Number 6: pp. 349–357

Building the Alumni Connection: Qualitative Survey

The qualitative survey was based on the principles in the consolidated criteria for reporting qualitative research (COREQ).¹² Our process model shows the steps applied (Figure 24).

Ethics Clearance

Because the qualitative data collection and case studies were to include human subjects, ethics clearance was obtained from AKU's Health Research Ethics Committee in Nairobi. Legislation governing ethics in Uganda required a separate approval, which was obtained from the Uganda National Council for Science and Technology.

Data Collection

We undertook a qualitative stakeholder survey using:

- Focus groups where groups of stakeholders of similar interests could be convened and for graduates;
- · Semi-structured interviews for senior people who would have a unique view; and
- · Case studies to demonstrate in more detail some of the impacts of SONAM-EA.

Officers from each campus came to a training session. In this session we determined the range of stakeholders to canvass and the different approaches that would be applied to get their input. The number of focus groups and interviews was constrained by the capacity of the team to one day per week for 10 weeks for the data gathering. The following Table 6 shows the stakeholder groups, the approach to be used for each group, the approximate coverage to be achieved and the numbers achieved.

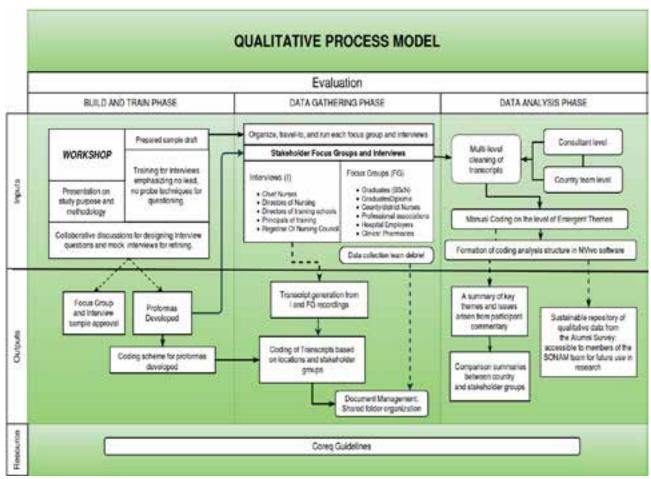


Figure 24: Qualitative Collection Process Model

Category of Stakeholder	Type of Approach to Apply	Transcripts Achieved		
Chief Nurse, Ministries of Health Directors of Nursing Directors of Training School Principals of Training Registrar of Nursing Council	1-1 interviews	4.2		
Nursing Councils incl. Registrar	1 focus group of up to 6 people	12		
County/District Nurse Chiefs	 Focus groups of up to 6 people Nairobi, Kampala, Dar es Salaam, sub-county on the coast Consider urban/rural balance of people present 			
Professional Associations	1 focus group of approx. 6 people	5		
Hospital Employers/Boards	1 private sector group, 1 faith-based, 1 government	11		
Clinics/Pharmacies	1 private sector group, 1 faith-based, 1 government	6		
AKU Diploma Graduates	1 rural, 4 or 5 others, government/private/ faith-based	8		
AKU BScN Graduates		7		
Total: Interviews/Focus Groups	49			

Table 6. Stakeholder Groups and Approaches

Volunteer consultants prepared the initial proformas for focus group and structured interviews, and provided a training session on the use of the tools. During this workshop, the tools were reviewed and updated by the faculty teams. Teams were also instructed on interview techniques and data management to ensure all data were captured appropriately and could be easily accessed. Transcripts were prepared of all sessions.

Thematic Analysis

Because of the flexible nature of the semi-structured interviews and varied forms of data collection (focus groups and interviews), and because the proformas used in the interviewing varied across stakeholder groups, the NVivo software's auto-coding tool could not be used. As a result, a manual approach to coding and thematic analysis was implemented.

Detailed analysis of transcripts was undertaken by one person to establish the key themes and to provide consistency across stakeholder groups. The transcripts provided a rich source of information and were substantial in length, mainly between 50 and 75 pages. Substantial cleaning was needed to enhance the usability of the transcripts. The cleaning focused on removing unusable information, correcting spelling, clarifying "voice" and summarizing circular passages.

In the time available, over 50 percent have been thematically analysed. A prioritization of transcripts resulted in substantial coverage of all stakeholder groups in each of the three countries. Stakeholders often had multiple roles, with one person representing regulator, employer, professional association and alumni views.

These thematically analyzed transcripts will be entered into NVivo for later analysis and research. The remaining transcripts can be summarized into the themes already constructed to add to the wealth of information already produced in the thematic analysis.

Lessons Learned

The semi-structured questionnaires provided a good framework for collecting both breadth and depth of relevant information. Cleaning of transcripts required an extensive effort by an analyst who had not participated in the interviews. In future, interviewers need to be assessed for skill in process interviewing. Then cleaning could be done by those who attended, with reference to the notes they take during the interview. Analysis of the transcripts was also time consuming because the key themes were not clear in advance. In future, those who attend the focus groups/interviews should also summarise the key themes after each interview/focus group.

A workshop of interviewers should then be held to develop an agreed set of themes before the processing of interviewer notes and transcripts.

Sustainability

The semi-structured interview and focus group scripts for each stakeholder group can be reused by SONAM-EA. The thematic analysis has produced a substantial database for further research of a number of issues being faced by nurses in East Africa. Application of Nvivo skills will facilitate access to this rich source of data.

Case Studies

Purpose

The case studies were implemented to:

- Highlight and recognize the impacts and achievements of specific alumni;
- Provide information, often anecdotal, that quantitative and focus group discussions / key individual interviews (FGD/KII) could not capture as well;
- Disseminate the gathered information in various forms (publication, website, conferences, brochures, etc.), and in doing so, promote the sustainability of the project; and
- Further enhance the strength of AKU's alumni relationship through individual connections.

Design of the proforma commenced with an initial set of prompt questions to suit the purposes of the project. This form was updated to include suggestions from other AKU marketing and communications staff.

Selection of Case Studies

Case studies were chosen by local teams in each of the respective countries due to their strong connection with past alumni. A major emphasis was placed on capturing a diverse set of individuals,

especially in terms of specialty, area of work (rural, urban), and institutional environment (hospital, government, faith-based). The case studies were intended to cover the streams of:

- Clinical graduates with clinical successes or applying higher qualifications in specialist fields;
- Education people working in nurse education; and
- Policy graduates generating good impact, including senior officers.

As the interviews were performed on location, they were often restricted by availability and access (cost and time to reach workplace).

An interview template was drafted to focus questioning, but flexible data gathering methodology was encouraged to stimulate broad discussions. The interview template focused on capturing information on personal background, AKU experience, workplace roles, impacts and challenges.

On-site, the interviewing followed a similar scheme to that of the qualitative FGDs and KIIs. One interviewer was tasked with questioning, and the other with scribing. Occasionally, AKU staff familiar with the environment and individual would accompany the primary duo in a supportive role. Following an informal introductory block where the purpose and intent of the visits was established, a consent form (publication, photo and video release) was offered for signing.

Two recorders were used throughout the main discussion, which lasted anywhere between 20-40 minutes. After the interviews, teams were shown around the workplace of the participant, allowing for further informal discussions and photo taking.

Ethics

As stated earlier, ethics clearance was obtained. For case studies and any other activity involving potential release of details or photographs, the AKU consent form was also completed.







CHAPTER 4

SUSTAINING THE ALUMNI CONNECTION

Developing the Alumni Connection

Through this project, we have:

- Extended the centralized alumni database;
- Connected with a wide group of alumni through interviews, focus groups and case studies;
- Improved the existing website alumni pages;
- Identified interest in greater alumni connection; and
- Discovered ways alumni want to connect.

Most respondents rated their level of connectedness with AKU as 4 or 5 on a 5-point scale, where 5 is "very connected" (Figure 25). The qualitative survey points to AKU being a powerful and positive experience in alumni's lives. They are often proud of being "the product of AKU" and express great keenness to be involved with and active in an alumni group.

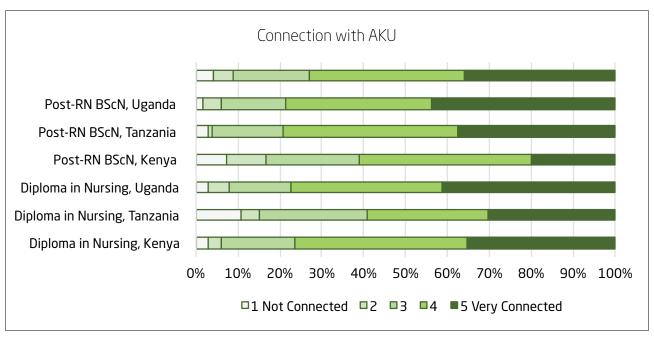


Figure 25: Level of Ongoing Connection with AKU

As a result, we will:

- Improve our website to feature and engage with alumni:
- Work with the Alumni Affairs Office to improve the online database and systems;
- Implement an Alumni Awards programme to reward high achievers in a number of categories;
- Regularly publish cases studies on our web site;
- Implement a system of email for life;
- Send an annual email/SMS to ask alumni to update their records in the alumni database;
- Propose an alumni association to be managed by alumni members with SONAM-EA support, including describing the benefits of membership;
- Distribute an association newsletter; and
- Engage alumni at convocation for some feedback.

Sustainability of Our Monitoring and Evaluation Systems

Throughout this study, we have identified a range of key performance indicators (KPIs) relating to students, graduates and faculty, which can be implemented now. Data can be obtained through leveraging existing registers including:

- Alumni database;
- · Enrolment database; and
- Graduate lists.

Additional data will be collected through:

- Student surveys during study programmes;
- Graduate destination surveys immediately after convocation;
- Employer satisfaction surveys; and
- The periodic AKU alumni survey.

These data will be analyzed and placed into a dashboard of KPIs for use of the Dean (Figure 26).

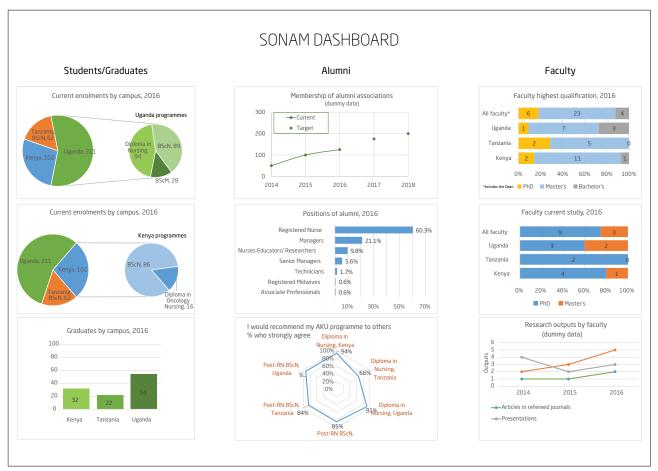


Figure 26: Proposed Dashboard for Monitoring



Disseminating Our Good Work

A range of research outputs will be produced from the data collected:

- Report of statistics from AKU alumni survey;
- Report on qualitative survey with case studies;
- · Donor briefings and reports; and
- Research articles on specific issues identified in the qualitative survey.

Findings will be widely disseminated and will be accessible via:

• Partner websites, SONAM-EA and Johnson & Johnson Corporate Citizenship Trust;

- Peer-reviewed publications;
- Conference papers; and
- Case studies, highlighting graduate leadership roles and contributions.

Action Plan

The following annual schedule indicates activities for both alumni engagement (Table 7) and monitoring and evaluation that are planned for coming years. The plan leverages existing activities.

Table 7: Sustainability Action Plan

Activity	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Alumni												
Update Website	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Case Studies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Newsletter			✓			✓			✓			✓
Alumni Events		1				2			3		4	
Conference (Biannual)						✓						
Request to Update Alumni Details	✓				✓			✓		✓		
Monitoring and Evaluation												
Student Surveys					✓							✓
Graduate Survey	4 weeks after convocation											
Alumni Database Analysis				✓								
Employer Survey		✓										
Dashboard Update	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

^{1.} Continuing Professional Development event; 2. Alumni Awards celebrations during conference; 3. International speaker; 4. Alumni meeting associated with associations conference.



"The SONAM programme prepares nurses better than any other programme I know for the demands in our hospital."

County Chief Nursing Officer, Kenya



