

THE AFRICAN PAEDIATRIC FELLOWSHIP PROGRAMME



Strategic workforce development

to strengthen paediatric health care for Africa, in Africa



UNIVERSITY OF CAPE TOWN
IYUNIVESITHI YASEKAPA • UNIVERSITEIT VAN KAAPSTAD

Department of Paediatrics and Child Health

ANNUAL REPORT 2022

ABOUT THE APFP



Africa has 24% of the global disease burden, but
only 3% of the world's health workers.

The African Paediatric Fellowship Programme (APFP) at the University of Cape Town (UCT) aims to transform Africa's capacity for child health care by reducing its gap in human resources for paediatric health. We do so by training and providing ongoing support to a growing continent-wide network of highly-skilled, strategically-selected paediatric clinician-leaders who are able to optimize paediatric health systems, shape policy, lead on clinical service developments, build an evidence base for paediatric care in low-resource settings, and critically, increase the continent's capacity to train more paediatric health professionals.

Long-term strategic collaborations with tertiary teaching hospitals and universities across Africa are at the centre of our approach. These partnerships ensure that we do not just boost individuals, but rather build paediatric departments and professional associations, transforming paediatric service provision and supporting the development of independent in-country clinical service, health systems and training capacity.

Partnerships to train healthcare professionals are not new. But limited in-country capacity sees delivery often led by high-income countries, disease burdens and education models. By leveraging African skills, expertise and insights, the APFP bridges a critical gap – one that is aligned to local priorities and resources, and that is designed to retain African skills here, in Africa.



APFP GROWS THE PAEDIATRIC HEALTH WORKFORCE

Since 2007, the APFP @ UCT has trained **169** specialist and sub-specialist paediatricians and allied health workers from Africa, with a further **31** mid-training at the end of 2022.



APFP TRAINS FOR AFRICA

90% of APFP graduates are working to strengthen child health care and training in 16 sub-Saharan African countries. **94%** of these are in teaching hospitals and other non-profit facilities.



APFP TRAINS MULTIDISCIPLINARY CLINICAL TEAMS

47 fellows enrolled for training in **23** diverse specialty areas in **2022**.



APFP FILLS CRUCIAL HEALTH WORKFORCE GAPS

Growing the list of firsts for child health in Africa, 2022's **16** APFP graduates include the **1st** Paediatric dermatologist and palliative care specialists for Ghana, the **1st** Tanzanian Paediatric Allergologist, and the **1st** Paediatric Intensivist for Enugu State, Nigeria.



APFP TRAINS CHILD HEALTH LEADERS

70% of alumni who completed their training 1 or more years ago hold leadership positions in their institution, many of these as Heads of Department.



APFP TRAINS CLINICIAN EDUCATORS

Over **80%** of alumni are involved in undergraduate & **75%** in postgraduate medical teaching, improving the paediatric skills of future clinicians.



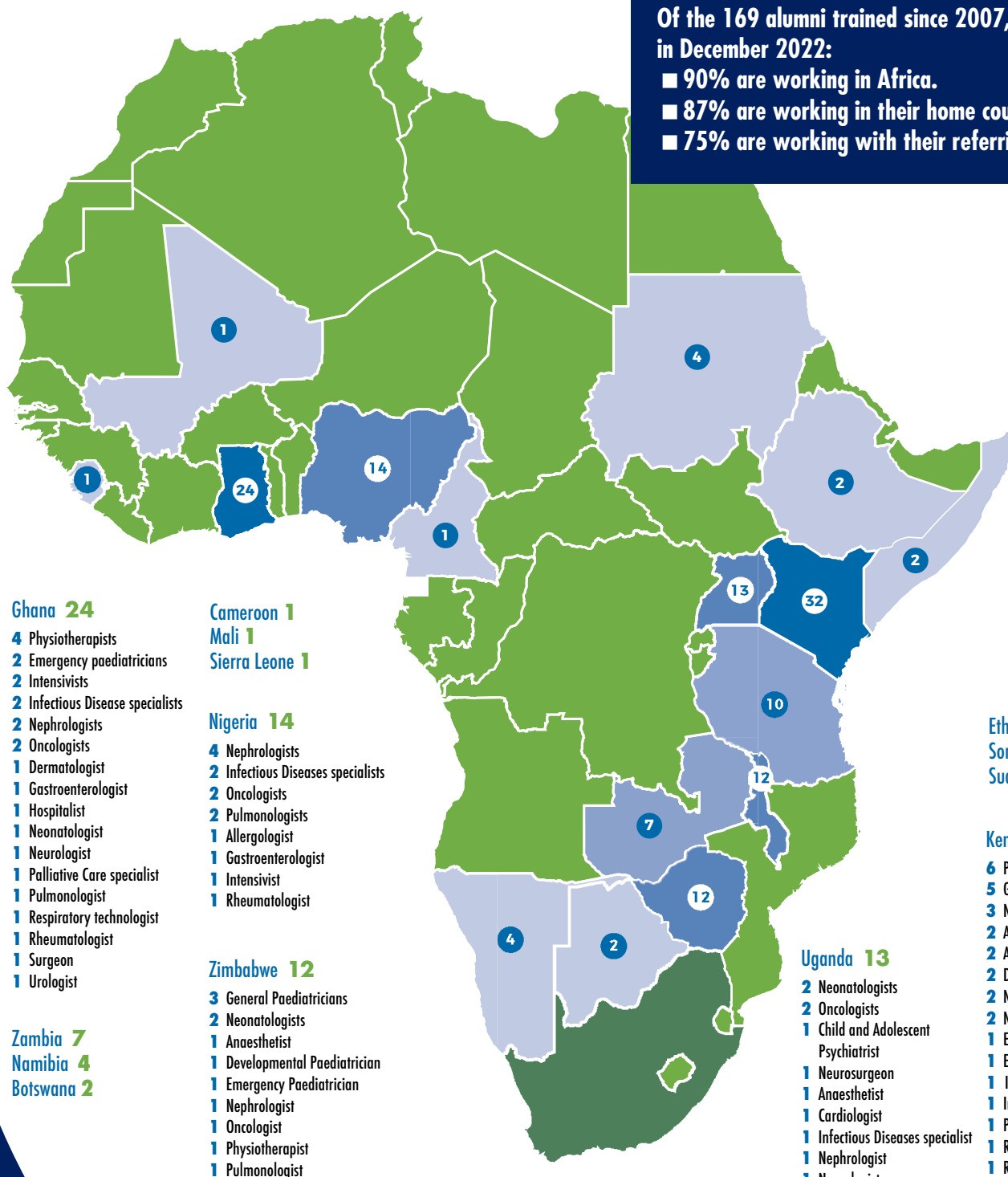
APFP TRAINS LEADING AFRICAN CLINICAL SCHOLARS

Over **450** scientific articles have been published in the medical literature by fellows and alumni, adding crucial African evidence to clinical science.

EXPANDING PAEDIATRIC CARE | WHERE ARE APFP ALUMNI NOW?

Of the 169 alumni trained since 2007,
in December 2022:

- 90% are working in Africa.
- 87% are working in their home country.
- 75% are working with their referring employer.



SPOTLIGHT | ON FOCAL INITIATIVES 2022



WEST AFRICA

KOMFO ANOKYE TEACHING HOSPITAL, GHANA

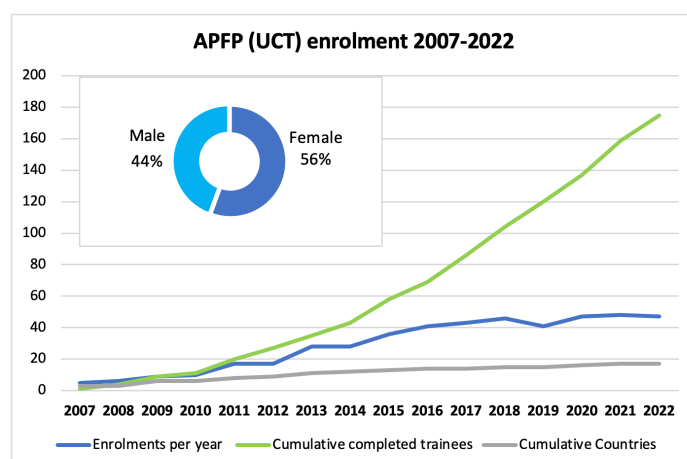
The majority of the 24 paediatric professionals trained for Ghana are based at Komfo Anokye Teaching Hospital (KATH), which constitutes one of our longest partnerships and is an inspiring example of what can be achieved with strategic vision and leadership. As a result, KATH today offers the largest range of paediatric subspecialty services in Ghana and is set to be a training centre for the Ghana College of Physicians & Surgeons (GCPS), and the West African College of Physicians. In 2022, an agreement was finalised with the GCPS for APFP to provide short-term 3-6 month fellowships to trainees in Ghanaian subspecialty training programmes to address aspects of training not yet fully established in the country.

IBADAN UNIVERSITY COLLEGE, NIGERIA

Work with Ibadan's University College Hospital has progressed from training two of their paediatricians as Infectious Diseases (ID) subspecialists to today hosting paediatric infectious diseases trainees from the new sub-specialty programme established by these two APFP alumni. The first of the Ibadan University trainees undertook a three-month rotation through the laboratory and ID services at UCT in 2022, and a second fellow will follow in 2023.

UNIVERSITY OF NIGERIA TEACHING HOSPITAL, ENUGU

At the University of Nigeria Teaching Hospital (UNTH), which services a population of 4 million in South-Eastern Nigeria, the APFP is supporting the training of multidisciplinary teams for pulmonology and critical care services as part of the University's strategic plan to establish a much-needed hub for paediatric intensive care and emergency medicine. In 2022, a multidisciplinary team of APFP Faculty together with current UNTH pulmonology fellow and the first UNTH PICU alumnus travelled to Enugu to review the context and its resources in order to appropriately shape the training of incoming fellows, and to lead a set of interactive lectures, practical training workshops and ward rounds focussed on critical and emergency paediatric care.





EAST AFRICA

AGA KHAN UNIVERSITY, KENYA

With over 30 Kenyan paediatric sub-specialists trained by APFP and a large & active paediatric community in the country, the last few years have seen the Kenyan Paediatric Association (KPA) move into a role of coordinating the development of an East African paediatric training hub. In planning with our colleagues since 2014, the new child neurology training programme launched at the Aga Khan University in 2020 with an APFP alumnus as its program director, and our first electrophysiology alumnus responsible for the EEG content of the curriculum. 2022 saw the graduation of its first two trainees, with a further five in the pipeline. These include trainees from Ethiopia, who have benefited from being able to complete their training close to home and in a similar environment. With each graduate absorbed back into key roles in public health services across the region, the possibilities of improved outcomes for children with epilepsy and other neurological disorders increase.

MUHIMBILI UNIVERSITY OF HEALTH & ALLIED SCIENCES (MUHAS) & MUHIMBILI NATIONAL HOSPITAL (MNH), TANZANIA

Here, the need for APFP support lies primarily in building sub-specialty capacity:

- **Neonatology:** The first of three strategically identified neonatologists completed training with APFP in 2022, with others due to complete in early 2023 & 2024. This team will form the core faculty responsible for implementing a neonatology training programme for Tanzania. Its first intake of four trainees included individuals who previously applied to train in South Africa but are now able to train at home with much less disruption to their lives and at lower cost.
- **Paediatric Critical Care:** Tanzania's Ministry of Health has identified Paediatric Critical Care as a priority and allocated substantial funds towards establishing PICUs across the country – the first of which is at MNH. With an APFP PICU graduate recently returned to MNH, together with a PICU specialist trained in Kenya, APFP's next step is to support the development of the MNH service and staff.
- **Paediatric Allergology:** Key to child health, but its importance often under-recognised, a committed Tanzanian allergy advocate sub-specialised in paediatric allergology with APFP in 2021-22, setting up the Allergy Society of Tanzania (ASOT) while still in training. In 2022, APFP partnered with ASOT for its inaugural congress, which brought together over 50 practitioners from across Tanzania, and included keynote presentations from all our East African paediatric allergology graduates. Work to build a multidisciplinary paediatric allergy service will continue.

SPOTLIGHT | ON FOCAL INITIATIVES 2022



SOUTHERN AFRICA

KAMUZU UNIVERSITY OF HEALTH SCIENCES (KUHS), MALAWI

Focussed efforts with our partner university KUHS and its affiliated training hospital, the Queen Elizabeth Central Hospital (QECH) have significantly increased the country's paediatric capacity. 13 of its General Paediatrics trainees have rotated for a period at UCT to obtain exposure in key sub-specialties. Today, the QECH paediatrics department is headed by an APFP alumnus, and alumni are the resident paediatricians in both tertiary & district hospitals in the country. Increasing the number of subspecialists at KUHS/QECH is key to ultimately being able to run the full general paediatrics degree in-country. There are also critical areas of need related to disease burden. Four Malawian general paediatricians returned to UCT in 2022 as part of this initiative to expand sub-specialists, with more to follow.

MINISTRY OF HEALTH, NAMIBIA

While paediatric expertise is rapidly expanding in Windhoek (within the Windhoek Central Hospital Complex), APFP was approached to in addition assist with training of paediatricians for the peripheral regions of the country.

UNIVERSITY OF ZIMBABWE (UZ), HARARE & NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY (NUST), BULAWAYO

Support for Zimbabwean institutions to build their paediatric capacity is a priority for the APFP. Besides training four general paediatricians, 10 sub-specialists and a physiotherapist for the two main centres, we have collaborated with fellows and alumni on various in-country training initiatives. Alumni have implemented many positive changes for children's health services despite very difficult circumstances. However recent political and economic challenges in the country present questions about how best to collaborate with our partners.

UNIVERSITY TEACHING HOSPITALS (UTH), ZAMBIA

Our primary relationship in Zambia is with centres in Lusaka, where we are working to support the development of clusters of paediatric sub-specialty expertise. Cardiac services are slowly gaining momentum, with a cardiologist and anaesthetist already trained, and a paediatric critical care trainee identified and joining APFP in 2023. The burgeoning neonatology service build by alumnus Dr Mutesu-Kapembwa will be bolstered with APFP's training of a second neonatologist, starting 2023. The Department's paediatric neurologists are integrated in our regional bi-monthly online EEG skills training. We have also trained Zambia's first paediatric pulmonologist, and in 2022 the first paediatric infectious diseases specialist began his training, with a second ID trainee to join us in 2024.

IMPACT: FOCUS ON AN APFP ALUMNUS



2020–2021

MEET DR. MOTUNRAYO ADEKUNLE, CONSULTANT PAEDIATRIC ONCOLOGIST

During her general paediatrics training at Lagos State University Teaching Hospital (LASUTH) in Nigeria, Dr Motunrayo Adekunle's heart would sink each time a child was admitted with cancer. She knew this would mean facing yet another death. Delving into the scientific literature in search of solutions, she found survival rates of 75% were widely achievable elsewhere:

"I couldn't fathom why we were doing so badly in Nigeria. That was when I made up my mind that I had to do something about it, that I am needed in this field. I knew there was something wrong that we could change."

And so she set out to become the first formally trained paediatric oncologist for LASUTH. Having observed the dynamism of a colleague who returned from training in nephrology with the APFP a few years prior, she was clear that she too wanted to head to UCT. She says she was not disappointed. Exposure to cutting-edge scientific knowledge and clinical expertise, effective systems for patient management, multidisciplinary teamwork and colleagues from across the continent gave Dr Adekunle just the tools she needed to embark on carrying out her vision.

■ FIRST THINGS FIRST

In 2022, her first year back home after training, she asked herself: what things can I change right away? What can be done with limited additional resources? With the evidence for interventions now at her fingertips, Dr Adekunle was able to motivate for a section of the paediatric ward to be set aside for oncology patients, to reduce the risk of infections from others. She managed to convince the blood services of the urgency of getting platelets to a child with cancer. Today they prioritize her service needs. Adapting those in use during her training at UCT to her local context, she completely revised the

clinical protocols for paediatric oncology care at LASUTH. And introduced a simple 'tick sheet' for better day-to-day patient management in the unit. It took diplomacy and persistence to get all staff to adopt the new approaches.

■ THE VALUE OF TIME

Distressed by long delays in treatment due to a reliance on adult oncologists for key diagnostic tests, upon her return home Dr Adekunle immediately trained all paediatrics residents to conduct bone-marrow testing. This enables immediate diagnosis as well as staging of disease for the first time, with much more timely and targeted treatment opportunities. A new partnership with the National Children's Cancer Society provides free chemotherapy, ensuring no child's survival is compromised by their parents' inability to pay upfront for treatment.

■ PROACTIVE POST-CHEMO MANAGEMENT

Chemotherapy decimates children's immune systems. Post-chemo infections were a primary cause of death at LASUTH prior to Dr Adekunle's return. Here again, her training has been key.

"Now I know what to expect, and I know how to treat. We don't lose these children anymore. We lose some of them to the disease, but not to the treatment."

Following an entirely new and well-informed protocol, the team can prepare well, and act fast and appropriately when infection sets in. Child mortality from febrile neutropenia (chemo-related infection) has dropped from over 80% to less than 12% in a matter of months, a remarkable achievement.

■ MULTIDISCIPLINARY TEAMWORK

Cancer management requires teams. Oncologists, nurses, surgeons, pathologists, and more. It necessitates a new approach at LASUTH. Dr Adekunle has identified colleagues with interests in child cancer and is gradually inducting them into this model. She is sure, with time, they too will see the value of shared care.

■ THE WAY FORWARD

There is a long road ahead. Dr Adekunle's medium-term plans include accessing vital equipment not yet in place, opening an isolation space for in-patients, and establishing a radiotherapy unit and a PICU. But she is unequivocal: If there is ONE thing that would profoundly shift the future of children's cancer care in Nigeria, it will be to establish local paediatric oncology training. She already has her eye on that goal. The APFP is right behind her.

OUR VISION | A PAN-AFRICAN NETWORK



of paediatric clinician-leaders driving change in child health

WHAT NEXT FOR APFP?

About more than clinical expertise, the APFP is working to build the educational, research, leadership and advocacy skills people need to effect and embed long-term change in child health in Africa.

As time passes, and the number of alumni grows, we observe the bedding down of an active Pan-African network of child health professionals leading change across the continent. Alumni not only lead services and spearhead education and training locally. Consistently we observe alumni collaborating with each other within centres and countries, but also across the region and continent: Alumni call on their colleagues to collaborate in symposia, colloquia and training courses as well as the development of curricula and clinical guidelines; to assist with teaching; to join specialty-specific professional associations and networks; to collaborate on research and advocacy initiatives; and to consult on complex cases via online connections or travelling to assist in focused clinics requiring their expertise.

Going forward, the APFP will:

- Provide specialist training and long-term post-training support for African paediatric clinicians.
- Support the development of East and West African specialist training programmes including through curriculum development support; 3-6-month training attachments at UCT to provide experience in clinical areas not yet fully developed; and online teaching as required.
- Initiate short clinical attachment opportunities for alumni team members to provide exposure to the model of multidisciplinary teamwork.

WITH GRATITUDE TO OUR DONORS IN 2022

Canadian Pediatric Anesthesia Society
Children's Hospital Foundation
Children's Hospital Trust SA
Child Neurology Society
Clement von Pirquet Foundation
German Academic Exchange Service (DAAD)
Global HOPE
Green Leaves Education Foundation
Harry Crossley Family Foundation
International Child Neurology Association International
Society of Nephrology
International Paediatric Nephrology Association
Japanese Society of Child Neurology
Kind Cuts for Kids
Mauerberger Family Foundation
Mordaunt Family Foundation
Peter Gilgan Family Foundation
The ELMA Foundation
World Federation of Paediatric Imaging
Zedra Trust

And the generous individuals who support the programme

THANK YOU!

"I noticed my colleagues returning from training at APFP UCT with a lot of energy, a lot of skill, and a lot of voice!"

Incoming APFP fellow, from Komfo Anokye Teaching Hospital, Ghana.



Expenditure Report, January – December 2022

The primary reasons for underspend against budget include delays in the start dates for some of the fellows scheduled for training (resulting from a combination of unavoidable delays with professional registration required for training and with obtaining visas); the decision on the part of most fellows in their second year of training to postpone their subspecialist examinations until the first semester of 2023; and the postponement of two planned regional trips until 2023.

Budget by Line Item (ZAR)	Approved Budget	Actual Spend	Variance	%Variance
Personnel	R2 364 790	R2 272 419	R92 371	4%
Medical Specialist Fellowships	R10 654 178	R9 645 501	R1 008 677	9%
Child Rehabilitation Therapists Fellowships	R656 505	R568 396	R88 136	13%
African Hospitalist Fellowships	R455 454	R382 348	R73 107	16%
Regional Travel	R466 280	R197 134	R269 146	58%
General Operating Costs	R693 050	R336 459	R356 591	51%
Indirect Costs	R144 099	R129 523	R14 576	10%
Total Project Cost	R15 434 356	R13 531 751	R1 902 605	12%

FOR MORE INFORMATION

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