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A Transformative Decade: An Evaluation of the Francophone African Group of Pediatric Oncology's Training Program (2014–2024)

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Abstract
Childhood cancer in Africa faces significant challenges due to workforce shortages and limited training opportunities. The French African Group for Pediatric Oncology (GFAOP) established the African School of Pediatric Oncology and introduced a pediatric oncology teaching called the "Diplome Universitaire de Cancérologie Pédiatrique" (DUCP) training program. This report evaluates the contributions of the DUCP program to pediatric oncology in Africa and discusses the sustainability of the program. The DUCP program trained six cohorts of healthcare professionals from French-speaking African countries since 2014. An evaluation was done on the participant demographics and regional contributions. Data were collected from trainee records and DUCP records. The DUCP program was evaluated based on the domains developed by the Education Program Assessment Tool (EPAT). Over the 10-year period, the DUCP program trained 107 healthcare professionals from 20 Francophone countries of which 99% were retained in Africa. Of the 83 graduates, 55 (66%) actively practice in pediatric oncology. Of the 18 francophone countries, 17 countries increased the number of pediatric oncologists and 16 improved the ratio of pediatric oncologists to children under 15 years. Nine new pediatric oncology services were established by the graduates thus far. Despite challenges, such as the COVID−19 pandemic, the program remains sustainable because of continued financial support, collaborations with the international pediatric oncology community, and adapting the program content to participant and local setting needs. Retention of graduates in childhood cancer services remains a challenge that necessitates governmental involvement. The DUCP program is impactful and sustainable and improves access for children to cancer services in Africa. By fostering continued collaboration with governments, addressing the needs of an increasing African population, and expanding support for similar initiatives, the program's longevity and positive impact can be further ensured.

Keywords Pediatric oncology · Africa · Workforce shortages · Training programs · EPAT assessment · Sustainability

Introduction

Unlike adult cancer, childhood cancer has not been given priority in African cancer control plans, nor has it received sufficient attention in terms of teaching and advocacy in the field of pediatric oncology. Formal training programs for pediatric oncologists, pediatric surgeons, and radiotherapy specialists are limited to specific countries, further exacerbating the challenges in addressing pediatric cancer effectively across the continent [1]. In most sub-Saharan African (SSA) pediatric oncology units, a glaring staffing deficit exists, significantly falling below the recommended minimum of one pediatric oncologist for every 15–30 new oncology patients per year advocated by North American and European guidelines for optimal pediatric oncology care [2].

In many African Nations, there is a lack of trained pediatric oncologists. Additionally, training received abroad may not suit the specific needs of the African context, and many trained professionals chose not to return back to Africa, which further exacerbates the shortage of expertise in the region.

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Recognizing this critical gap, the French African Group of Pediatric Oncology (GFAOP) embarked on an ambitious initiative to address this shortage and elevate the standards of pediatric oncology care across Africa [3]. The establishment of the African School of Pediatric Oncology (EAOP) was a monumental step in this endeavor, with primary support stemming from the My Child Matters program of Foundation S (formerly known as Sanofi Espoir Foundation). The pivotal component of this initiative, introduced in 2014, is the "Diplome Universitaire d'Oncologie Pédiatrique" (DUCP).

This formal training program in pediatric oncology, accredited by both Mohamed V University of Rabat, Morocco, and Paris Saclay University, France, was designed to equip physicians with specialized knowledge and skills tailored to the unique challenges of pediatric oncology in the Africa, with sessions held in Rabat, Morocco. The "DUCP" program has emerged as a cornerstone in bridging the expertise gap, contributing significantly to the overall enhancement of healthcare in pediatric oncology on the African continent. This initiative underscores the unwavering commitment of GFAOP and Foundation S in addressing the critical need for well-trained professionals in pediatric oncology, crucial for the improvement of patient outcomes and the overall landscape of cancer care in the region [4].

Since 2018, the World Health Organization (WHO) has introduced the Global Initiative for Childhood Cancer (GICC), with the Cure ALL program being a pillar of this initiative. Training is identified as a key component, aligning with the objectives of the "DUCP" program. This synergistic relationship not only reinforces the global initiative's emphasis on training but also presents an opportunity for the "DUCP" program to expand further through the support and framework provided by the GICC [5].

In this comprehensive report, we investigated the follow-up of physicians who underwent training from October 2014 to March 2024 under the "DUCP" program. The analysis aims to evaluate the program's contribution to the African pediatric oncology landscape and the effectiveness in sustaining and advancing the capabilities of healthcare providers in the African context to manage childhood cancer.

Methods

The establishment of a training committee marked a significant milestone in the initiative. The primary objective of the committee was to devise a pilot curriculum tailored to the specific needs of pediatric oncology (PO) training in French-speaking African countries. Following a meticulous development process, the committee opted for the Diplome Inter-Universitaire d'Oncologie Pédiatrique (DIUOP) French model, which proved to be particularly suitable for the region [6]. This curriculum received accreditation from two universities, namely the University Mohammed V in Rabat, Morocco, and Paris Saclay in France, solidifying its status as a formal and recognized training program in pediatric oncology.

The training program, known as the "Diplome Universitaire d'Oncologie Pédiatrique" (DUCP), began admitting 15 to 25 new fellows annually, starting with the first cohort in October 2014. The committee's careful planning and collaboration with accredited universities ensured a robust and comprehensive training experience for the participants. A dedicated e-learning platform www.e-gfaop.org was established to facilitate online training, offering participants access to a wealth of resources, virtual classrooms, and collaborative tools. Regularly updated and enriched, this e-learning platform became an integral component of the training program.

As DUCP graduates join the GFAOP for ongoing clinical support, the DUCP administration continuously updates their career development records. These data are analyzed to assess the impact of the graduates. The total number of oncologists is estimated, taking into account personnel changes such as retirements.

Throughout the ensuing years, the progress and outcomes of the training program were meticulously monitored. Regular communication channels, including emails and social media exchanges, were established to facilitate continuous engagement with the participants. This ongoing dialogue allowed for the assessment of the program's effectiveness, the participants' experiences, and the identification of areas for potential improvement, ensuring a dynamic and responsive training environment. Evaluations were also based on the Education Program Assessment Tool (EPAT), which is a comprehensive, validated tool to evaluate the elements of pediatric hematology and oncology fellowship programs [7].

Results

Candidate Characteristics

Over the course of 10 years of training, we have enrolled seven cohorts totaling 132 candidates from 2014 to 2024. To date, 107 individuals have been trained and the seventh cohort, comprising 25 candidates, is being trained (Fig. 1). These candidates represent 20 Francophone countries, with 18 of them being members of the GFAOP (Table 1). Notably, two participants are from countries where pediatric oncology facilities are not yet available. There is a female predominance in the gender distribution, with a male-to-female ratio of 0.6. The age range of participants spans from 25 to 53 years, with a mean age of 36 years.

Participants come from various specialties, including 84 (78.5%) pediatricians, 16 (15.0%) pediatric surgeons, and

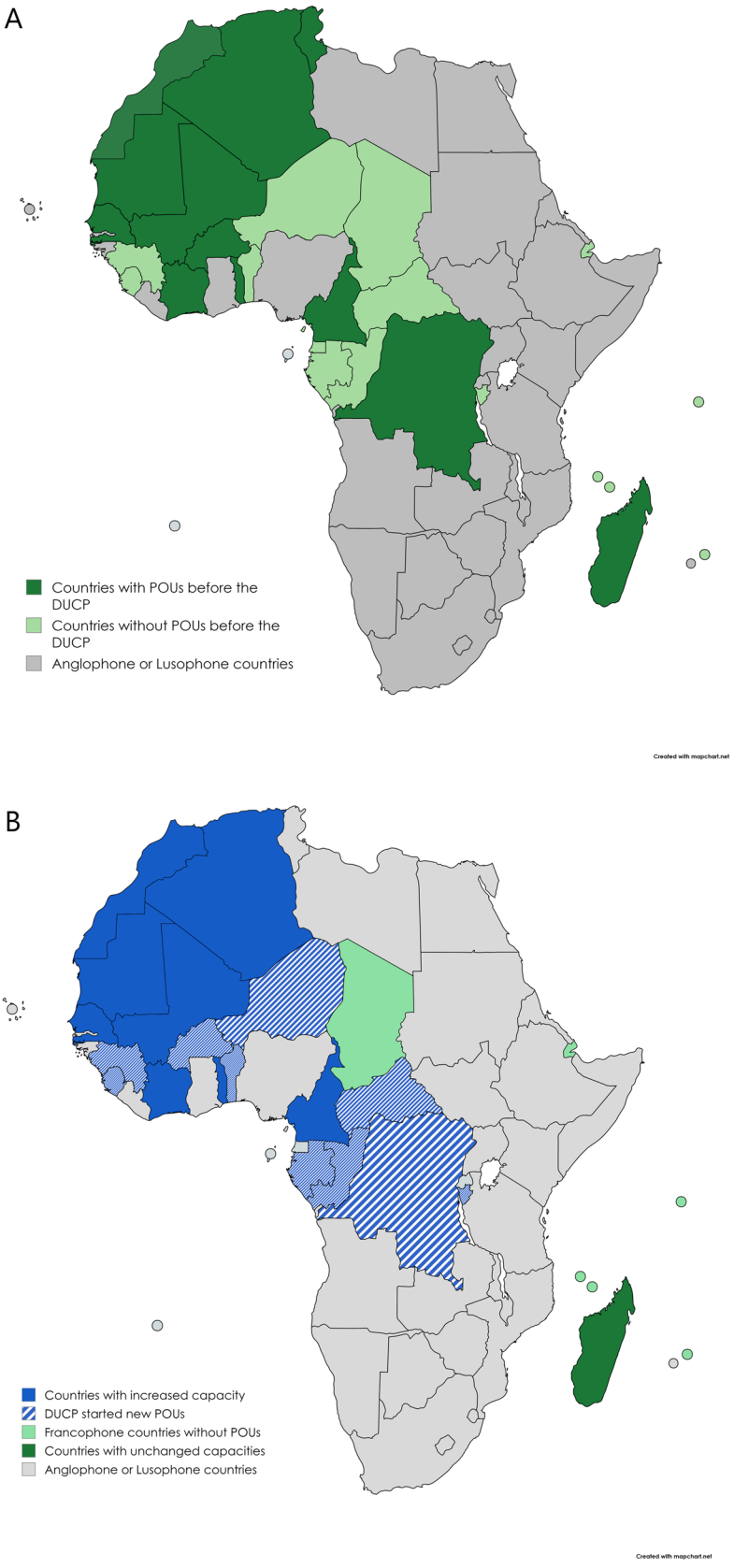

Fig. 1 **A** Distribution of PO facilities in Francophone Africa before 2014. **B** Distribution of PO facilities in Francophone Africa in 2024

Table 1 Participant demographics

	Total
Age of participants (year)	
25–30	17
31–35	43
> 35	72
Gender	
Male	50
Female	82
Specialties	
Pediatrician	84
Pediatric surgeon	16
Biologist	1
Hematologist	11
Radiotherapist	6
General doctors	8
Pathologist	1
Adult oncologist	5
Countries of origin	
Algeria	3
Benin	4
Burkina Faso	6
Burundi	2
Cameroon	4
Central African Republic	2
Republic of Congo	2
Guinea	3
Gabon	2
Ivory Coast	9
Madagascar	2
Mali	9
Morocco	55
Mauritania	5
Niger	5
Democratic Republic of Congo	7
Senegal	7
Tchad	1
Togo	3
Tunisia	1
Evaluation of participants	
Passed	83
Failed	24
Ongoing	25
Total	132

11 (10.3%) clinical hematologists. Additionally, there were eight practicing general practitioners in pediatric oncology services, along with six radiotherapists and five adult oncologists (Table 1). Out of the 107 candidates from the first six cohorts, 83 (77.5%) successfully completed the program.

Program Characteristics

Based on the domains of the EPAT tool, the following strengths, opportunities, and possible further developments for the DUCP program were identified (Table 2).

The fifth and sixth cohorts experienced delays due to the COVID-19 pandemic, resulting in a 12-month postponement in the training of the fifth cohort. Consequently, it was necessary to combine the fifth and sixth cohorts for in-person courses and graduation ceremonies. As of today, out of the 83 participants, 55 (66%) remain actively involved in the care of children with cancer in their home countries. Nine participants have established new pediatric oncology services in Benin, Gabon, Central African Republic, Niger, the Democratic Republic of Congo, Republic of Congo, Guinea Conakry, Burundi, and Burkina Faso (Bobo Dioulasso), effectively doubling the number of physicians caring for children with cancer in Francophone African pediatric oncology units. This has resulted in an approximately 60% increase in the number of pediatric oncologists in GFAOP pediatric oncology services. Additionally, 25 participants are engaged in medical student training and research, while others have assumed roles as mentors and internship supervisors for new candidates.

Twenty-eight graduates were unable to integrate into pediatric oncology services. The primary reason for not remaining in pediatric oncology facility was the lack of opportunities for government recruitment ($n = 7/28$; 25%) or reassignment to other non-pediatric oncology departments ($n = 7/28$; 25%). Six ($n = 6/28$; 21.4%) joined private hospitals without pediatric oncology services and one graduate died during the COVID-19 pandemic. The reasons for the remaining seven are unknown. However, there was notable variability between countries, with some reporting a 100% retention rate in pediatric oncology units while others reported rates of less than 20%.

Graduate Impact

The most important impact is establishing a service that did not exist previously. Before 2014 and DUCP training, there were 12/25 (48%) African Francophone countries with pediatric oncology services (Fig. 1A). Since the initiation of the DUCP (Fig. 1B), only six countries (24%) lack pediatric oncology services. In contrast, seven countries (28%) have established new pediatric oncology services, and nine countries (36%) have increased the capacity of their existing units to manage childhood cancer. Additionally, two countries, Burkina Faso and the Democratic Republic of Congo, have both expanded their existing units and created new ones (8%), while in one country (4%), the status of the pediatric oncology unit remained unchanged.

Table 2 The strengths, opportunities, and current developments of the DUCP program based on the EPAT domains

	Strengths	Opportunities	Current developments
Theory	• Multidisciplinary approach Integration pediatric oncology, pediatric surgery, neurosurgery, pathology radiology • Comprehensive scientific foundation Theoretical framework developed by international experts Teaches up to date developments in pediatric oncology • Adapted program Theoretical content is specifically tailored to address the challenges of pediatric oncology in developing countries, with a particular focus on Africa • Double accreditation By the University Mohamed V of Rabat and University of Paris Saclay • Language Learning and understanding in the first language	• Ongoing evolution of theories Continuous incorporation of recent discoveries and new theories • Development of specific modules Create specific courses that address the unique epidemiological, cultural, and healthcare challenges in Africa and other developing regions • Partnerships with African institutions Establish collaborations with universities and healthcare centers in Africa	Reaccreditation by Mohamed V university in process Adding new content about target therapies, GICC, etc Collaboration with WHO AFRO, SIOP Africa, and other international global oncology partners
Hospital infrastructure	Partnerships with leading hospitals in Morocco for practical training in accredited Moroccan pediatric oncology units	Collaboration with internationally accredited pediatric cancer treatment centers in France (Trousseau Hospital and Kremlin Bicetre Hospital) for additional rotations for diverse clinical experience	Initiation of allogenic stem cell transplant rotations in Rabat for stem cell transplant training Setting up practical rotations in accredited African hospital with regional partnerships
Patient care	Setting appropriate patient-centered care approach Training focused on holistic care that addresses the medical, psycho-social, nutritional, and rehabilitation needs of patients Family support programs Rotations with local Moroccan NGOs that provide family support	Integrating of personalized care innovations and complementary therapies Create interaction with parent groups such as Childhood Cancer International (CCI)	GFAOP is in the process of becoming a CCI member Introduction of trainees to NGOs in their local settings through CCI
Educational infrastructure	Hybrid teaching Using the Rabat Medical School classrooms developed infrastructure for an e-learning platform www.e-gfaop.org	Partnership with international pediatric oncology education platforms (SIOP, St Jude Cure4Kids) Duplication and translation of established training programs	Further development of virtual partnerships to research and teach local setting appropriate topics
Program basics	Includes fundamental theoretical courses, practical training, and research projects The program basics include multidiscipline teaching for comprehensive pediatric oncology treatment and care	Addition of the research theory module in the curriculum (University of Antwerp and University of Luxembourg)	The 9-week research module was conducted during May–June 2024 Recording of the supportive care module ongoing and will be available online Development of a leadership training program
Clinical exposure	Students rotate in different clinical units: in patient care, outpatient care, and auxiliary care Exposed to procedures such as performing lumbar punctures and bone marrow aspirates Attend and lead weekly multidisciplinary tumor board meeting	Online cases discussion with international experts such as the Global Neuroblastoma Network, Leukemia Working Groups, and the Sub-Saharan Africa Clinical meeting	

Table 2 (continued)

	Strengths	Opportunities	Current developments
Research	All the participants must conduct a research project to fulfill the DUCP criteria Practical application of online research teaching	Participation in GFAOP multicentric study based on adapted treatment regimens in the WHO index cancers	Evaluation of the GFAOP RedCap® data to evaluate the general impact: • Quality of data • Number of patients recruited • Stage • Follow-up etc
Evaluation	Candidate evaluation • Continuous participant feed back • Exam after the end of theoretical training • Validation of the practical training • Presentation of a thesis Program evaluation Feedback survey	Use digital platforms for interactive evaluations and exam simulations	Local mentorship program development
Educational culture	Alumni of the DUCP become members of the GFAOP for continuous clinical and research mentorship and development support Candidates are encouraged to became trainers and teach at local hospitals and universities DUCP graduates become mentors for new DUCP candidates	Workshops to develop leadership skills in future PO leaders	Leadership workshop organized in 2023 by the GFAOP where 5 DUCP graduates participated
Graduate impact	Graduates are trained to respond to local African PO needs Graduates become local teachers Graduates participate in local hospital administration structures	Encourage graduates to explore roles in research, teaching, administration, and clinical care	Develop national cancer control plans, establish childhood cancer registries, and advocate for government policies governing childhood cancer

Abbreviations: *GICC*, Global Initiative for Childhood Cancer; *WHO*, World Health Organization; *SIOP*, International Organization for Paediatric Oncology; *GFAOP*, The African Francophone Group for Paediatric Oncology; *NGO*, nongovernmental organization; *CCI*, Childhood Cancer International; *PO*, pediatric oncology

In the countries that have pediatric oncology services since 2014, the ratio of trained pediatric oncologists to population under 15 years of age has improved (Table 3). The exception is Madagascar, where despite training two additional pediatric oncologists, the ratio has decreased from 0.01 to 0.009 per 100,000 children because none of the newly trained pediatric oncologists was assigned to the pediatric oncology unit.

Of the 107 graduates, nine (8.4%) established a new pediatric oncology service, 10 (9.3%) have become head of department, and 23 (21.5%) university lecturers. Of all the graduates, 99% ($n = 106/107$) were retained in Africa, with only one graduate relocating to a high-income setting outside Africa.

Discussion

In this study, we present an analysis of 10 years of activity within the Francophone African Pediatric Oncology Training Program or DUCP. The program has improved access to pediatric oncology services in Francophone Africa, increased the quality of training for pediatric oncologists in these countries, and developed leaders in the medical field. The constant development of the program ensures sustainability, as well as its contribution to the development of pediatric oncology management and advocacy in Africa.

When viewing the ratios of pediatric oncologists to the children in each population, it is evident that a continued increase in medical staff proportional to the population growth is paramount. With the increase in population over the 10-year period, the single pediatric oncologist in Madagascar is now responsible for an increased ratio of children.

Table 3 Population demographics in French-speaking Africa and oncologist to population ratios between 2014 and 2024

Country	Children under 15 years in 2014	Estimated number of pediatric oncologists	Ratio oncologist to children	Children under 15 years in 2023	Estimated number of pediatric oncologists	Ratio oncologist to children
Algeria*	11,074,025	15	0.1/100,000	13,886,736	30	0.2/100,000
Benin*	4,588,894	0	0/100,000	5,796,516	2	0.03/100,000
Burkina Faso*	8,293,004	2 (2)**	0.02/100,000	10,073,931	5	0.05/100,000
Burundi*	4,845,016	0	0/100,000	5,977,497	1	0.02/100,000
Francophone Cameroon*	9,691,183	2	0.02/100,000	12,018,356	3	0.03/100,000
Chad*	6,619,790	0	0/100,000	8,655,360	0	0/100,000
Central African Republic*	2,316,269	0	0/100,000	2,746,887	2	0.07/100,000
Congo Brazzaville*	2,006,035	0	0/100,000	2,450,889	1	0.04/100,000
Comoros	287,437	0	0/100,000	321,758	0	0/100,000
Democratic Republic of Congo*	35,143,841	1	0.003/100,000	47,557,364	5	0.01/100,000
Djibouti	340,154	0	0/100,000	341,419	0	0/100,000
Equatorial Guinea	500,435	0	0/100,000	653,676	0	0/100,000
Gabon*	722,544	0	0/100,000	879,338	1	0.1/100,000
Guinea–Conakry*	4,937,371	0	0/100,000	5,848,156	2	0.03/100,000
Ivory Coast*	10,092,219	2	0.02/100,000	11,873,338	8	0.07/100,000
Madagascar*	10,097,639	1	0.01/100,000	11,745,753	1	0.009/100,000
Mali*	8,436,956	2	0.02/100,000	10,941,583	3	0.03/100,000
Mauritius	253,060	0	0/100,000	201,909	0	0/100,000
Morocco*	9,637,704	12 (2)**	0.1/100,000	9,945,929	17	0.2/100,000
Mauritania*	1,687,684	1(1)**	0.06/100,000	1,970,500	3	0.2/100,000
Niger*	9,527,128	0	0/100,000	13,263,428	3	0.02/100,000
Senegal*	6,040,416	2	0.03/100,000	7,307,261	4	0.05/100,000
Seychelles	21,368	0	0/100,000	27,532	0	0/100,000
Togo*	3,030,591	1 (1)**	0.03/100,000	3,589,324	2	0.06/100,000
Tunisia*	2,742,542	6	0.2/100,000	3,074,184	9	0.3/100,000
Francophone Africa	152,933,305	47	0.03/100,000	191,148,624	102	0.05/100,000

*Countries that participated in the DUCP. **Number of physicians without formal pediatric oncology training. Population data, https://data.worldbank.org/indicator/SP.POP.0014.TO

This leads to an increased burden per pediatric oncologist over the 10-year period. Therefore, it is not enough to simply replace pediatric oncologists when they leave a service; it is also crucial to train and recruit additional pediatric oncologists to meet the growing needs.

Sustainability of the Training Program

The sustainability of the pediatric oncology training program is a critical aspect to ensure its long-term impact. While the initial success of the program was evident, this publication illustrates that adapting to the needs of African pediatric oncology or contemporary event such as COVID-19 fosters innate sustainability. The results ensured continued financial support from partners, particularly the Foundation S through the My Child Matters (MCM) program. In 2018, the Sanofi Espoir Foundation published a report detailing the 10 + -year journey of the MCM-program [8]. Over the decade, this initiative supported 55 pediatric cancer projects in low- and middle-income countries, driving advancements in cancer care. It has played a vital role in complementing governmental and civil society efforts to expand healthcare on a national level. Key factors contributing to its success include robust local leadership, community engagement, international cooperation, and government support for capacity building [8].

Further partnering with other African pediatric oncology services and governing bodies ensures clinical and research sustainability. A case example was the training of a pediatric oncologist for Burundi. The theoretical teaching and examination were done with the DUCP materials while clinical training was done by the Uganda Cancer Institute (UCI). UCI is the East African referral center and the main potential support for Burundi in the future. The research component was led by the head of pediatric oncology training at the Antwerp University Hospital, who is also mentoring the development of the pediatric oncology service development in Burundi through co-ordination of international organizations such as the GFAOP and St Jude Global. This case underscores the importance of ongoing regional collaboration aimed at sustained improvement of healthcare in resource-limited settings by sharing established resources.

The DUCP serves as an example where the primary support took the form of scholarships for training candidates, along with means of managing and enhancing training. These successful collaborations emphasize sustained efforts to enhance healthcare in resource-constraint settings. The significance of partnerships in pediatric oncology development has been widely documented. With a notable disparity in survival rates between low-income countries (LIC) and those in better resourced settings, urgent support is needed to provide treatment in resource-limited settings. International twinning partnerships facilitate expertise and technology transfer, assisting LICs in overcoming challenges. While locally driven, these projects receive support from volunteers and funding organizations, resulting in mutual pediatric oncology care, affecting Francophone Africa and benefiting all parties involved [9–11].

Adaptation During Challenges

The global pediatric oncology community, including Francophone Africa, was widely impacted during the COVID-19 pandemic, including training programs [12, 13]. Despite lockdowns and disruptions to traditional learning methods, the program demonstrated resilience by swiftly transitioning to remote learning through its established e-learning platform. This adaptability not only ensured the continuity of training but also highlighted the program's ability to anticipate and address unforeseen challenges, thereby reinforcing its robust foundation.

The training program also encountered various candidate-related challenges (Table 4) that were addressed systematically according to each situation or candidate's needs specifically focused on managing the training program effectively. By collaborating with the UCI and European universities, an existing course on the basis for clinical research was translated from English to French, using bilingual staff.

Impact on Human Resources and Healthcare Infrastructure

One of the key outcomes of the training program is the increase in both the quantity and quality of human resources in pediatric oncology. By providing specialized training to healthcare professionals, the program has empowered them to effectively care for children with cancer. Moreover, the establishment of new pediatric oncology units in previously underserved areas highlights the program's broader impact on healthcare infrastructure. These developments not only enhance access to care but also contribute to the overall improvement of healthcare systems in the region. Previous medical staff without pediatric oncology training who care for these patients have subsequently been trained. Therefore, scare skills from years of practical service have been consolidated with a research and theoretical framework. Nearly all graduates were retained on the continent, whether in the private or public sector. This not only makes it a worthwhile investment for each country, but these graduates assume additional administrative and educational roles which further support the return on investment.

Table 4 Candidate and program challenges and solutions

Challenges and obstacles	Solutions implemented
Access to funding to cover training expenses	Partnership between GFAOP and Foundation S, providing scholarships
Logistics and project management for training	Hiring of a secretary and project manager funded by the project, as DUCP is accredited by the Universities of Rabat and Paris Saclay, as well as being a GFAOP project Volunteer support from GFAOP members also facilitated logistical arrangements for travel
Cultural and linguistic barriers during candidates practical training	Formation of pairs between non-Moroccan DUCP candidates and Moroccan residents undergoing pediatric oncology training to assist with communication, especially in situations where Arabic dialects are predominantly used
Logistics for obtaining visas and settling in Morocco during onsite courses and training	Personalized assistance provided to candidates to navigate administrative procedures
Logistics for obtaining visas and settling in Morocco during onsite courses and training	Partnership between GFAOP and a local NGO, such as the Moroccan national NGO "association AVENIR" to cover expenses with reimbursement by GFAOP, ensuring smoother financial transactions and facilitating fund allocation for training purposes

Challenges and the Role of Government

Despite its successes, retaining trained professionals within pediatric oncology services even with previous government support is challenging. The 12.1% of graduates that were not retained in pediatric oncology services underscore the need for greater government involvement and commitment to secure employment in services where skills are best utilized. The Strategy on Human Resources for Health (GSHRH): Workforce 2030 emphasizes that health systems can only function well when they have sufficient, well-trained, and equitably distributed healthcare workers, who are competent, responsive, motivated, and productive [14].

The shortage and unequal distribution of health workers in the WHO African Region are well-documented challenges hindering universal access to health services. Despite efforts to strengthen the health workforce, critical gaps persist in production, deployment, and retention, impacting essential health service delivery and achievement of health-related goals like Universal Health Coverage and the Sustainable Development Goals [15].

Therefore, an increased collaborative approach where governments commit to retaining trained personnel in pediatric oncology services, thereby maximizing the impact of the training program, should become a priority for advocacy in the medical community.

Potential for Further Engagement

Greater engagement and collaboration to strengthen pediatric oncology services and research support will capacitate graduates further. It highlights the potential of initiatives such as the WHO Global Initiative to mobilize greater government commitments toward improving pediatric oncology care. By leveraging partnerships with organizations like WHO Afro, the training program can access additional resources and support, enhancing its effectiveness and sustainability. Encouraging graduates to participate in research working groups of the African branch of SIOP will prove access to the Africa research resources and support. There is a potential for the Francophone model to be translated and adapted for Lusophone countries, adding additional validity to the impact of the DUCP in Africa.

The comprehensive overview of the pediatric oncology training program, emphasizing the sustainability, impact, potential, and the need for continued collaboration with governments and private initiatives, illustrates the value of resource appropriate development of pediatric oncology training program and services in resource-limited settings.

In conclusion, the pediatric oncology training program for Francophone Africa has demonstrated remarkable success and sustainability over the past decade, thanks to the dedication of its partners and the resilience of the GFAOP network, which supports this initiative. Through collaborative efforts with organizations such as the Foundation S, the program has not only provided specialized training to healthcare professionals but has also facilitated the establishment of new pediatric oncology units in underserved regions, significantly improving access to care for children with cancer.

However, challenges such as retention of trained professionals and ongoing government support remain critical for the long-term effectiveness of the program. Moving forward, it is imperative to strengthen partnerships with governments and international organizations to ensure the continued growth and impact of pediatric oncology services.

By addressing these challenges and building on its successes, the pediatric oncology training program has the

potential to further enhance healthcare infrastructure, improve patient outcomes, and contribute to the global fight against childhood cancer.

Data Availability Data supporting the findings of this study are available upon request. The data are not publicly available due to privacy and ethical restrictions.

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