#### Dermatology in Uganda: Past, Present, and Future Prospects.

Mundeli Simon Peter (MBChB)\*<sup>1</sup>, Mirembe Stephen Kizito (MD)<sup>1</sup>, Mulyowa Grace Kitunzi (MD)<sup>1</sup>, Katja Dicke (MD)<sup>2</sup>

<sup>1</sup>Mbarara University of Science and Technology (MUST), Department of Dermatology, Mbarara city, Uganda. <sup>2</sup>Department of Dermatology, Environmental Medicine and Health Theory, Institute for Health Research and Education, Osnabrück University, Osnabrück, Germany. Institute for Interdisciplinary Dermatological Prevention and Rehabilitation (iDerm) at the Osnabrück University, Osnabrück, Germany (NIB).

Page | 1

### Abstract

This paper examines the progress of dermatology training, the distribution of the specialist workforce, and existing gaps in service provision in Uganda. Since the introduction of specialist training at Mbarara University of Science and Technology (MUST) in 1998, the field has expanded; however, its integration into public healthcare remains insufficient.

The absence of dermatologists in regional and national referral hospitals has led to limited access to specialized care, with most dermatology services concentrated in private practice. Additionally, the widespread misuse of unregulated cosmetic products and steroid creams exacerbates the already existing skin health challenges.

Despite the Ministry of Health's recognition of dermatology as a priority field, implementation of specialist recruitment remains nonexistent. This article underscores the urgent need for structured policy interventions to incorporate dermatologists into public healthcare, regulate cosmetic beauty practices, and expand dermatology training programs across the country.

Strengthening dermatology services through strategic investments and policy execution will enhance patient care and address the growing burden of skin diseases in Uganda. The findings advocate for immediate action to bridge the gap in dermatologic healthcare and improve accessibility for underserved populations.

Keywords: Dermatology, Uganda, Mbarara University of Science and Technology, Dermatology Society of Uganda.

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**Corresponding Author:** Mundeli Simon Peter **Email:** mundelisimon@gmail.com Department of Dermatology; Mbarara University of Science and Technology, P.O. Box 1410, Mbarara, Uganda.

#### Background

Uganda faces a severe shortage of specialist dermatologists, with only 12 serving a population of over 45 million. Dermatology in Uganda has evolved significantly since the establishment of the Dermatology department at Mbarara University of Science and Technology (MUST) in 1998. This has become the sole institution providing specialized dermatology training in the country.

Despite progress in training, specialist dermatologists in Uganda still have limited integration into public healthcare. The growing burden of skin diseases, unregulated cosmetic procedures, and widespread steroid misuse highlight the urgent need for a more structured and robust dermatology sector.

Although the Ministry of Health recognizes this gap, implementation remains absent. Expanding training, incorporating dermatology specialists into public hospitals, and enforcing regulations on unlicensed cosmetic practices are essential for improving dermatologic care in Uganda.

## Past and present state of specialist dermatology training in Uganda.

Dermatology is a branch of medicine that focuses on the diagnosis and management of skin, mucous membrane, hair, and nail disorders, playing a crucial role in healthcare worldwide.(1). Dermatological conditions account for over 20% of outpatient cases globally, and with the specialist dermatologist-to-population ratio in Uganda being alarmingly low, patients with these conditions are significantly underserved.(2). Dermatology training in Uganda has had both progress and challenges. Specialist dermatology training was not available in Uganda until 1998, when the dermatology clinic was opened at Mbarara Regional Referral Hospital (MRRH) in southwestern Uganda. Before then, only one physician at Mulago National Referral Hospital offered dermatology care to Ugandans. Consequently, the dermatology clinic at MRRH has played a significant role in shaping the training and practice of dermatology in Uganda.

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In 1998, the skin clinic was established by Prof. Emeritus Gerold Jaeger at MRRH and was named after Georg Klingmüller (1919-1987, dermatologist and leprologist, Kiel, Würzburg, and Bonn)(3). Over the years, it has grown into a consequential department of dermatology at MUST. The only other institution in East Africa offering dermatology specialist training is the Regional Dermatology and Training Center (RDTC), based at Kilimanjaro Christian Medical Center (KCMC) in Moshi, Tanzania. Therefore, the MUST Department of Dermatology has been attracting students not only from Uganda but also from the rest of other African nations. After its inception, Prof. Jaeger headed the department for 6 years, was the major financer, and in 2004, he handed over the reigns to Dr. Grace K. Mulyowa, who was his mentee. The department grew in the form of staff numbers, student numbers, clinic infrastructure, and resources, and in 2023, Dr Mirembe Stephen Kizito took over leadership. Throughout this time, the department has moved from being housed in a small one-room Out Patient Department (OPD) clinic to now occupying an entire ground floor of a multiroomed building within Mbarara University. The department can now ably provide specialized services, including diagnostics such as patch testing, punch biopsies, dermatopathology, and therapeutics, including laser therapy, phototherapy, cryotherapy, and dermatosurgery.

The department currently has 3 lecturers and 17 postgraduate students. It is mainly supported by the Ministry of Health (MoH) supplies through MRRH, which also provides two nursing staff. Collaborations encompass partnerships with; Center for International Migration, the International Society for Dermatology in the Tropics, and Health Volunteers Overseas (HVO), which is affiliated to the American Academy of Dermatology (AAD). Under these collaborations, expert dermatologists come throughout the year to offer training and examination to post-graduate and undergraduate students, as well as participate in patient care. These experts, on average, stay 3 weeks per visit. They have donated a phototherapy machine, LASER machines, ultrasound scan, electrosurgery devices, dermoscopies, cameras, and muchneeded sundries such as punch biopsies and curettes. Special acknowledgments go to Dr. Timothy O'Brien who comes with his wife Fran, from Australia, Prof. Stephan and Dr. Claudia El Gammal, Dr. Elke Weisshaar, Prof. Pietro Nenoff, Dr. Martin Schwermann, Dr. Karin Miller-Schaake, Dr. Hans Langer, Prof. Peter Elsner and Dr. Katja Dicke all from Germany and Dr. Alexia Knapp from Minnesota, USA who organizes monthly online dermatopathology and pediatric dermatology lectures. Their contribution to the growth and sustainability of the dermatology department at MUST has been pivotal in the training of specialist dermatologists and providing essential clinical services to patients in southwestern Uganda.



*Figure 1.* (Left-right) Dr. Edward Ogwang (3<sup>rd</sup>), Dr. Grace K. Mulyowa (4<sup>th</sup>), Dr. Stephen K. Mirembe (5<sup>th</sup>), the nursing staff, and postgraduate students with the dermatology department building in the background at MUST.

Page | 2

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*Figure 2.* A Dr. Timothy O'Brien (4<sup>th</sup> right, back row) with Dr. Gladys Aloyo (2<sup>nd</sup> left, front row) and postgraduate students at MUST. B. Prof. Stephan (seated on the right) and Dr. Claudia El Gammal (seated in the middle) with Dr. Stephen Mirembe (seated on the left), the author (far right), and other postgraduate students. C Phototherapy machine D LASER machines



#### **Current dermatology workforce in Uganda**

Page | 3

Currently, the registered specialist Dermatologists with the Uganda Medical and Dental Practitioners Council (UMDPC), 2025, are twelve. (4). Of these 12 specialists, 10 trained from MUST.(2). Five are employed by MoE in Uganda's public Universities, while 2 are contracted by the Uganda People's Defense Force (UPDF); the other 4 work in private practice in Uganda's capital, Kampala. Therefore, only 12 specialist dermatologists in Uganda are providing specialized care to a population of over 45 million people. This translates to a ratio of 1 specialist dermatologist per 3,750,000 Ugandans in comparison to I specialist dermatologist per 27,408 people in the USA. Only one

senior physician with additional training in dermatology is employed by the Ministry of Health at Mulago National Referral Hospital. Other 11 health care workers with diploma and Masters of science dermatology training obtained from Indian and UK institutions such as Cardiff are running private skin clinics in Uganda's capital, Kampala. There is also a pool of clinical officers who hold an Advanced Diploma in Dermatology and Venereology (ADDV) from the RDTC. These provide dermatological services working as clinical officers in both public hospitals and private clinics across various towns in Uganda. Even though some of these health care workers are working in public hospitals, they are still employed as clinical officers and therefore not incorporated into the

health structure as dermatological officers; it is for other specialties. Considering Uganda's explosive population growth, this dermatology health workforce remains insufficient.

# Page | 4 Uganda

Globally, skin conditions collectively rank as the fourth leading cause of non-fatal disease burden. The impact of skin conditions is significant in both high- and low-income countries, highlighting the need to prioritize their prevention. (5) In Tanzania, a study discovered that 34.7% of 800 individuals in a community had one or more skin diseases. (6). This highlights the high burden of skin diseases, a phenomenon not uncommon in Uganda. Currently, over 6000 patients are treated at MRRH's dermatology department every year, and the number of patients is continually increasing.

Ministry of Health, Uganda recognizes specialist dermatology training among the critical areas requiring immediate support, and therefore stresses the need for specialized local training and its integration into the national budget as a special project in the MoH Health Strategic Plan 2020/21 - 2024/25, under section 5.2(7)(8). Historically, dermatology services in Uganda have been limited due to an insufficient number of trained specialists and inadequate funding. Despite progress in the training of dermatology specialists at MUST, the lack of sufficient public sector employment at National and Regional Referral Hospitals for specialist dermatologists remains a significant challenge that has resulted in critical gaps in patient care.

Across Uganda, there is a growing concern over beauticians selling unregulated and illegal cosmetic products, particularly skin-lightening creams containing hydroquinone and mercury, such as Carolight, Sure Deal, Peau Claire, and Zikuzooka. Additionally, drug shops are increasingly dispensing potent steroid-containing combination creams (e.g., Skderm, Candiderm, Mediven, MCG) to patients with skin rashes, leading to dependency and severe topical steroid complications. Furthermore, some cosmetic practitioners provide soaps and serums for removing skin lesions like tags, but due to a lack of expertise, clients often suffer corrosive scars and only seek specialist dermatologists after complications arise.

To address this, the establishment of the **Dermatology Society of Uganda** is crucial. This body would collaborate with government regulators to enforce policies preventing the importation and sale of toxic creams while ensuring all cosmetic practitioners are licensed, thereby safeguarding the public from harmful dermatological practices.

The current management of dermatological diseases in Uganda involves a mix of both public and private healthcare providers. However, the high costs associated with private care have often led to catastrophic patient spending. Therefore, efforts are needed to integrate specialist dermatology services into the public health systems of National and Regional Referral Hospitals to better serve our communities in Uganda. This can be accomplished by recruiting trained specialist dermatologists and equipping National and Regional Referral Hospitals with the necessary equipment and facilities for specialized dermatologic care.

The 2024 harmonized staffing structure for National and Regional Referral Hospitals, published by the Ministry of Public Service, includes 6 positions for associate consultants in dermatology, 2 for consultant dermatologists, and 2 for senior consultant dermatologists. However, the current staffing rate is at 0% across all National and Regional Referral Hospitals, highlighting a significant implementation gap.

#### Conclusion

Dermatology in Uganda has made notable strides with the establishment of the MUST Department of Dermatology, leading to more locally trained specialists. However, despite this growth, the impact on public healthcare remains minimal. We recommend Ministry of Health, Uganda to implement a staffing structure that enables the recruitment of specialist dermatologists and dermatologically trained clinical officers at all levels of care in public health facilities.

#### **Data Availability**

Data sharing does not apply. **Conflicts of interest** 

The authors declare no competing interests

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#### **Consent for publication**

Permission for publication was obtained from the individuals whose names and images appear in this article.

#### **Authors' contributions**

M.S.P conducted a literature search on the topic, drafted the paper, and was a major contributor in writing the manuscript. M.S.K. supervised the work and revised the paper. M.G.K. revised the paper. K.D. revised the paper. All authors read and approved the final manuscript.

#### **Author biography**

Dr. Mundeli Simon Peter is a final-year post-graduate resident pursuing MMED Dermatology at MUST. Dr. Gladys Aloyo is a lecturer at the department of Dermatology, MUST. Dr. Mirembe Stephen is the Head of the department of dermatology, MUST. Dr. Grace Mulyowa is a senior lecturer in, Department of Dermatology, MUST. Dr. Katja Dicke is an allergologist at the Department of Dermatology, Osnabrück University, Osnabrück, Germany.

## Page | 5

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