African Association of Oral and Maxillofacial Surgeons

4TH PAN AFCOMS CONFERENCE

13-15 Mar • 2014 • NAIROBI • KENYA

IAOMS

Supporting Oral and Maxillofacial Surgery in Africa

IAOMS: Supporting Oral and Maxillofacial Surgery in Africa

The 4th Pan African Conference of Oral and Maxillofacial Surgery was a great success and well deserved congratulations and thanks should go to Dr. John Fisher, Dr. Eric Kahugu and his organizing committee Dr. Walter Odhiambo, Dr. Matthew Akama, Dr. Meshach Ong'uti, Dr. Kennedy Koech and Dr. Emily Nyamu.

As we know, providing adequate care to patients in Africa is a huge challenge-you can read in more detail in the papers that follow. Mr. James Maccharia, the Cabinet Secretary of Health, addressed this challenge during the opening ceremony. It was most reassuring that the Cabinet Secretary expressed his great support for our profession along with his intention to significantly strengthen the delivery of oral and maxillofacial care in Kenya.

I have asked some colleagues from Kenya to give us more insight in the challenges for Oral and Maxillofacial Surgery care in sub-Saharan Africa and am most grateful that Professor Guthua, Dr. Odhiambo and Dr. Ong'uti have provided us with informative papers.

There was also an IAOMS Foundation session during the congress, allowing for a discussion on how IAOMS can provide meaningful support to our profession.

Many gave reports on the ways in which IAOMS has already provided significant support. Dr. Simon reported on OMF Surgery in Tanzania and how educational support as well as provision of operation room facilities has created much better quality of care. Dr. Su Yin Htun spoke on her one year IAOMS Foundation Fellowship in cleft lip and palate surgery that provided her with training in South Africa, Indonesia and the United States. Dr. Tuoyo Okoturo started with microvascular reconstructions in his own institution after having participated in the hands-on course organized by Dr. Julio Acero and Dr. Rui Fernandes in Lagos, Nigeria. Dr. Erik Kahugu and Dr. John Fisher led the discussion, based on the experiences of Dr. Elison Simon, Dr. Su Yin Htun, and Dr. Tuoyo Okoturo, which initiated fascinating conversation on how IAOMS can support the profession in Africa by reflecting on their own training and analysis of current educational opportunities in the continent.

The congress was a great success, with many outstanding lectures and pleasant social activities. I wish the Pan African Association a great future and look forward to attend their next meeting, taking place in Egypt in 2016.

Piet Haers
IAOMS President

African Association of Oral and Maxillofacial Surgeons

The months of hard work by the local organising committee in preparation for the 4th PanAfCOMS has paid off!

On behalf of the African Association of Oral and Maxillo-facial Surgeons, may I use this opportunity to thank the LOC again for their efforts. My thanks are owed also to the IAOMS who allowed their President, Prof. Piet Haers, to attend and to make his very significant contribution to the success of the meeting. Financial assistance from the IAOMS for additional speakers and for the IAOMS fellows is also gratefully acknowledged. Lisa Markovic in the IAOMS office in Chicago was always willing to assist, and contributed in no small way to spreading the news about the conference to all corners of the globe. Thank you, Lisa.

Nineteen Countries participated in the PanAfCOMS

- Brazil
- Jamaica
- Canada
- United States of America
- United Kingdom
- Germany
- Austria
- Poland
- Italy
- India
- Japan
- Egypt
- Tunisia
- Nigeria
- Ghana
- Ethiopia
- Tanzania
- South Africa
- Kenya

No academic meeting is successful without the participation of our trade partners, and to them we owe a huge vote of thanks. I trust that their investment will produce returns which will ensure their participation in future AfAOMS events.

The scientific program was varied, of great interest, and relevant to the needs of OMFS in Africa. I and many of our international colleagues are humbled by the dedication and innovation displayed by surgeons often working in less than ideal conditions with limited facilities. I trust that we in Africa will all be inspired by what can be achieved with the will to make the quality of lives better for our patients. It is my hope that the presence of the Cabinet Secretary for Health (Minister of Health) in Kenya for the opening and for the first presentation of the meeting will equally inspire him to improve facilities and conditions for Oral and Maxillo-facial Surgery patients in our host country.

The social program, as always, provides the environment for the very necessary informal exchange of ideas and camaraderie essential for the advancement of any medical or surgical discipline. This meeting was no exception.

The PanAfCOMS provided the opportunity for the executive committee of the AfAOMS to meet and for us to hold a general meeting of the Association. A new executive committee has been elected and will assume office on January 1, 2015.

The participation of no fewer than 19 countries from Africa and the International community is a clear indication that the African Association of OMS is growing, and I am confident that the potential for a significant increase in the number of members for both the AfAOMS and the IAOMS as a result of the gathering in Nairobi has been fuelled.

The 5th PanafCOMS will take place in Egypt in 2016. I look forward to seeing you there.

John Fisher
President, AfAOMS

East African Association of Oral and Maxillofacial Surgeons

The Eastern Africa Association of Oral Maxillofacial Surgeons (EAAOMS) recently hosted and organized the 4th Pan African Conference on Oral Maxillofacial Surgery, which was held at Crown Plaza Hotel in Nairobi from the 13th to the 15th of March.

The conference which was hailed as a resounding success had world class presentations covering the whole spectrum of craniofacial surgery. It attracted 94 surgeons and trainees from Brazil, Jamaica, USA, Canada, UK, Belgium, Austria, Germany, Italy, Holland, Poland, India, Japan, Egypt, Tunisia, Ghana, Nigeria, Sudan, Ethiopia, Tanzania, South Africa and Kenya.

It was preceded by two pre conference courses form the 10th to the 12th of March held at the same venue; one run by AOCMF on Craniofacial Trauma and one run by KLS Martin on Craniofacial Oncology.

The conference was officially opened by Mr. James Macharia the Cabinet Secretary of Health who was impressed with the scope of surgery practiced by the surgeons and lauded them for coming together to discuss and share ideas with a view to enhancing patient care. The conference and pre conference courses were graced by Professor Piet Haers the President of the International Association of Oral Maxillofacial Surgeons (IAOMS) and several other leaders in the profession.

Aside from the busy scientific program attendees were treated to a Welcome Reception cocktail for all at the Crown Plaza on the 13th and a Gala Dinner for all on Friday the 14th at no cost to the attendees. These were excellent opportunities for social interaction and for the surgeons to let their hair down and network.

Several attendees took the opportunity to visit Kenya's renowned National parks before and after the conference. A brave few even stole away for early dawn breakfast at the Nairobi National Park which is only 15 minutes away, or round of golf at the adjacent golf course, before returning to the conference venue.

The EAAOMS is a small young organization and we are proud that we were able to host what was undoubtedly a successful 4th PAfCOMS. All who attended expressed great appreciation for the quality and content of the conference.

We are grateful to all the colleagues who supported us in getting speakers and to those attended and presented papers. We appreciate our Corporates partners who responded to our appeal and met almost all the expenses, enabling us host a world class event.

Thank you and we look forward to the 5th PAFCOMS in 2016.

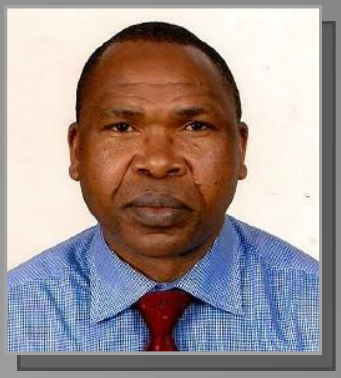
Yours sincerely,

Eric Kahugu
President, Eastern Africa Association of Oral Maxillofacial Surgeons
Secretary General, African Association of Oral Maxillofacial Surgeons

PAN AfCOMS Local Organizing Committee

Dr. Eric Kahugu

Dr . Walter Odhiambo



Dr. Mathew Akama

Dr. Meshack Onguti

Dr. Kennedy Koech

Dr. Emily Nyamu

International Committee

Dr. John Fisher

African Association of
Oral and Maxillofacial Surgeons
AfAOMS

EAAOMS

IAOMS: Supporting Oral and Maxillofacial Surgery in Africa

Some Highlights from the PAN AfCOMS

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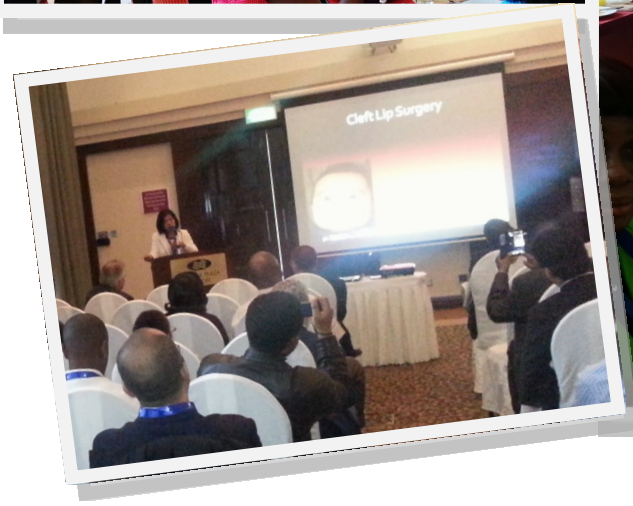


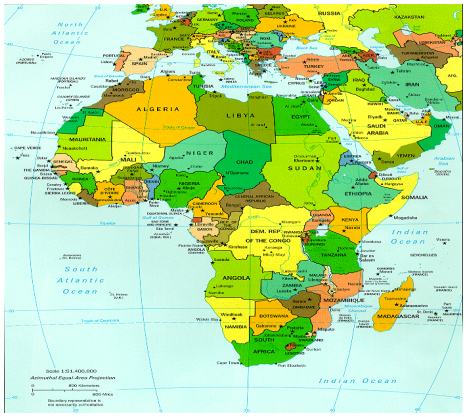
The Challenges of Craniomaxillofacial Surgery in Africa

Walter A. Odhiambo[1] and Symon W. Guthua[2]

Senior lecturer Department of Oral and Maxillofacial Surgery, University of Nairobi
Professor of Oral and Maxillofacial surgery, University of Nairobi

Introduction

Africa is a continent made up of 54 countries and a population of over 1 billion people. Most of the countries are in the low income and a few in the middle income economic category. The continent has enormous resource reserves that remain unexploited including minerals, favourable climatic conditions and a youthful energetic population capable of propelling various sectors of economy.



AFRICA

Fig.1 Africa a vast continent with 54 states and 1 billion population.

A fore mentioned notwithstanding, the continent is plagued with a myriad challenges that impact negatively on various aspects of socioeconomic development including healthcare delivery.

Burden of disease and poverty

Seventy five percent (25million) of people living with HIV/AIDS and TB Worldwide are in Africa and 1.2million people died of AIDS in the continent in 2012 [1]

Malaria is another disease that continue to ravage the continent; 60 -90% of malaria morbidity and mortality occur in Africa[2] With regard to road traffic crashes; Africa has the highest fatality rate at 24.1 deaths /100,000 despite having a low vehicle per capita[3]. Civil war and conflicts continue to claim and maim thousands of lives in several countries like Nigeria, Uganda, Sudan, Somalia, Egypt and many others.

Due to changing lifestyles, non-communicable diseases like cancers, diabetes and diseases of the cardiovascular system are on the rise.

According to the UN report, 239million people (30% of the population) were hungry or undernourished in sub-Saharan Africa in the year 2010 with 47% of the population reported to be surviving on $1.25 or less a day[4].

Challenges of Craniofacial Surgery

The challenges of craniomaxillofacial surgery in Africa do not exist in isolation but are an integral part of the challenges of providing optimum healthcare within the difficult circumstances described in the foregoing paragraphs.

Craniomaxillofacial problems and Challenges

Various factors contribute to the challenges ranging from those directly related to the disease conditions to those that are attributed to resource scarcity. Below are some of the disease conditions that pose challenges to craniomaxillofacial surgeons in Africa;

(i). Trauma which is mostly due to interpersonal violence, road traffic crashes, wars and terrorist attacks and attack by wild animals. Due to rudimentary violence and injury prevention measures and poor health infrastructure in the region, most of these injuries are very severe and characterised by heavy tissue loss (Figure 2)

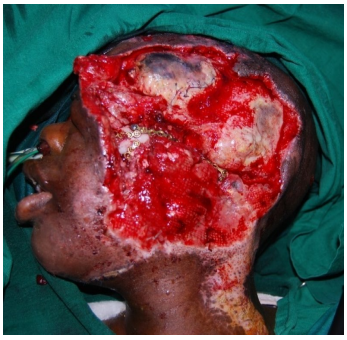


Fig.2a. Road crash injury

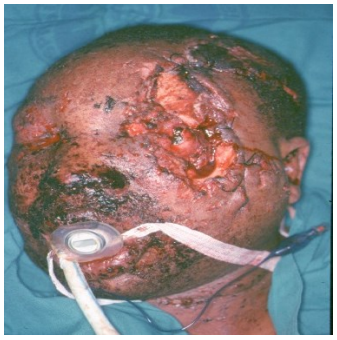


Fig.2b. Bomb blast injury

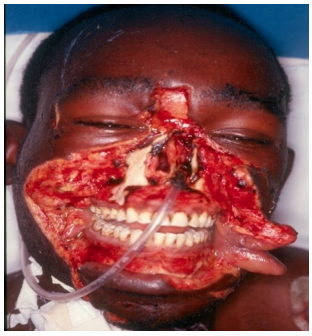


Fig.2c. Wild animal attack injury

In many instances these injuries disproportionately affect the craniomaxillofacial region, for example; more than fifty percent of those injured in the 1998 US embassy bomb attack in Nairobi, had injury in the maxillofacial region. [5]

(ii). Patient knowledge and socio-economic status – Patients lack of awareness or inability to afford treatment may lead to patients delay in seeking treatment or opting for ineffective treatment alternatives including witchcraft. Many patients with neoplastic conditions present late with very advanced lesions that make surgical procedures long, challenging and costly. Many require blood transfusion in an environment where HIV prevalence is high. (Figure 3)

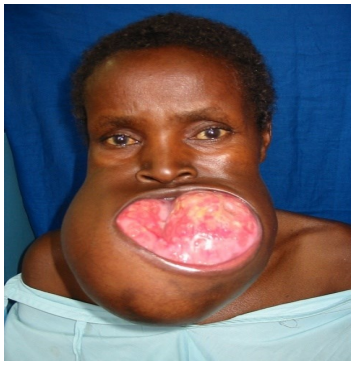


Fig3a. Ameloblastoma

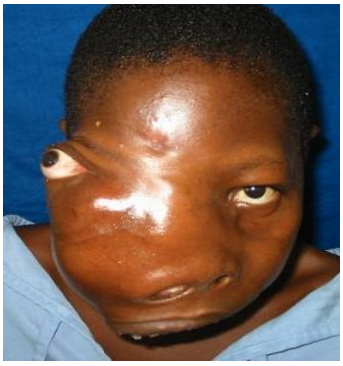


Fig3b. Juvenile ossifying fibroma

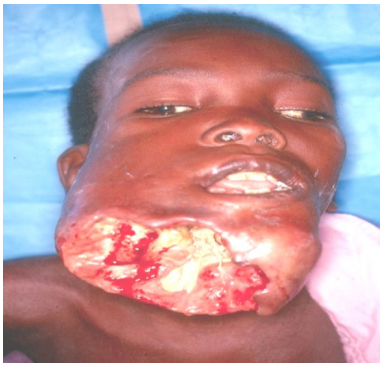


Fig3c. Burkitt's lymphoma

(iii). Clinician or healthcare provider factors – Unavailability of skilled personnel within reach may lead to wrong diagnosis, and improper treatment. Craniomaxillofacial Surgery is a highly specialised discipline and very few surgeons are qualified to offer these services in Africa (see the table below for surgeon/ population ratio in some countries in Africa.

Country	Population* (Millions)	Maxillofacial Surgeons	Ratio Surgeon/ Population
Kenya	41.6	21 (updated)	1:2million
Tanzania	46.2	7	1:7million
Uganda	34.5	1	1:35million
Zimbabwe	12.7	3	1:4million
Malawi	15.4	0	N/A
Zambia	13.5	0	N/A
Rwanda	10.9	0	N/A
Burundi	8.6	0	N/A

Table 1. Maxillofacial surgeon per population ratio in Eastern Africa Region[6]

Some traditional healers lay false claims of ability to cure diseases especially chronic diseases that elude cure of modern medicine like the Loliondo case in Tanzania where thousands flocked at the home of a retired Cleric turned herbal healer hoping to be cured of their ailments.[5]

(iv). Policy and institutional factors – Due to the severity of these craniomaxillofacial lesions, majority require extensive surgical reconstruction to restore form, function and aesthetics. Post radiotherapy osteoradionecrosis, higher propensity to develop postoperative keloids and hypertrophic scars are other conditions that are very challenging even to highly skilled surgeons (Figure 4).

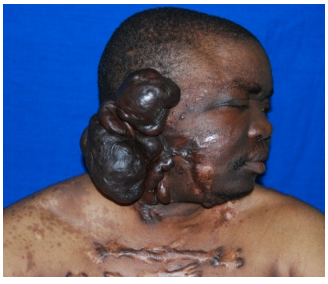


Fig4a. Cervicofacial keloids

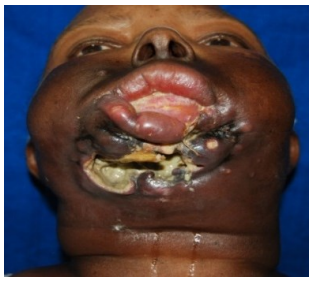


Fig4b. Severe osteoradionecrosis of the mandible

A significant number of operations with heavy tissue loss require restoration with flaps some of which involve micro-vascular anastomoses followed by specialized care by well-trained post-operative nursing staff. The need for a multi-disciplinary team and sophisticated equipment make these operations very costly and way above the economic reach of the majority who usually have no medical insurance cover.

We can therefore broadly group the challenges into five main categories;

Late presentation – About 50% of patients seen in public hospitals present with advanced lesions either due to lack of awareness, late diagnosis and inappropriate treatment or inability to afford treatment.

Accurate diagnosis – Even where treatment can be provided the diagnostic tools and personel may be lacking e.g. imaging such as CT scan and histopathological studies.

Economic resources – as already alluded to above, the level of poverty in Africa is high and majority are unable to afford reconstructive surgery especially where implants are required. Many patients are also unable to return to the hospital for postoperative follow up

Management – The actual management of craniomaxillofacial surgery patients has challenges that require special personnel, like very skilled anesthesiologists to contend with difficult intubations as in cases of Ludwig's angina, craniomandibular joint ankylosis and other large tumors that make airway access difficult. Equipment for fiber optic intubation are rare.

Facility and equipment – The health facilities are poorly equipped and usually very congested. Many patients are subjected to an operating theater waiting list that run from weeks to months. Some early stage tumors may become inoperable during the prolonged waiting period and even those lucky to be operated, but require post-operative radiotherapy may not have the treatment available at the appropriate time.

Proposed Way Forward

AWARENESS - Enhance public awareness at the primary healthcare delivery level I and involve the Ministries of Health to reduce late presentations and improve early recognition of the disease conditions.

POLICY - CMF/OMFS Surgeons should be involved in policy formulation /health management committees in their respective countries to ensure that provision of proper diagnostic tools and patient management equipment are accorded due priority in health management planning.

TRAINING - CMF/OMF Surgeons: CMES, Hands- on short-term training in their own environment, Fellowships such as those provided by IAOMS foundation should be encouraged, outreach programs to provide care in remote areas are important. E- Surgical collaboration is a promising tool for partnership in managing challenging conditions. There is also a need to standardize training of OMFS in Africa.

RESEARCH AND CENTERS OF EXCELLENCE – Research and innovation to develop affordable materials and techniques that will make quality care accessible to the economically disadvantaged citizens. Highly specialized treatment can be offered in designated centers of excellence with state of the art equipment where skilled personnel are based.

INSURANCE – Universal National health insurance cover should be encouraged to reduce the individual burden of treatment cost.

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*This article is based on the Key Note address presented by Professor Symon W. Guthua at the 4th Pan African Conference of Oral and Maxillofacial Surgeons held in Nairobi, Kenya on 13th March, 2014

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2. *Hay et al ; The global distribution and population risk of Malaria; Lancet infect dis. Jun 2004; 4(6) 327 – 336*
3. *WHO Global status report on road safety 2013.*
4. *UNFAO & UN 2012.*
5. *Odhiambo WA, Guthua SW, Akama MK and Macigo, FG; Maxillofacial Injuries caused by the Nairobi terrorists bomb attack; Int. J Oral Maxillofac Surg. 2002;31:374 – 377*
6. *UNDP Human Development Index 2013*
7. *www.shomonews.com/babu-wa-loliondo-promises-another-big-one*

Outreach Program In Craniofacial Surgery

DR. Meshach Ong'uti MDS PhD (London)

Despite Africa bearing close to a quarter of the global burden of disease, it has the smallest share of the world's health workforce (WHO 2014) a meagre 3%. A report on the state of the health workforce in sub-Saharan Africa estimates that the physician to population ratio is 15.5 per 100,000 while the nurse to population ratio is 73.4 to 100,000. Industrialized countries have 20 times more physicians and 10 times more nurses serving the same population size. (World Bank 2004). It is therefore no surprise that the surgeon to population ratio in sub-Saharan Africa is estimated at only one for every 250,000 people. This ratio is more dismal in the rural areas with only one surgeon for every 2.5 million (Kikande 2005).

Due to the large burden of tropical infectious diseases such as malaria, tuberculosis and HIV/AIDS many diseases that need to be surgically addressed such as oro-facial diseases have been relegated to the bottom of the priority list by both government and donor agencies. There is an even greater shortage of trained personnel in specialty areas including Cranio-maxillofacial surgery. This has been attributed to fewer training centers and migration of trained personnel to developed countries.

Reconstructive surgery is increasingly becoming an integral part of Public Health and health systems development worldwide, not just in the urban setting but also in the rural and remote areas. Unfortunately provision of these services remains inadequate and poses a great challenge. In order to address this need Help a Child Face Tomorrow (HCFT) was founded with the aim of increasing access to specialized reconstructive surgical procedures to resource limited settings in both urban and rural regions.

HCFT is an indigenous non-profit medical relief organization that was established in 2006 and is playing a lead role in East and Central Africa in the delivery of free specialist outreach services for children and adults. Its main mission is to provide comprehensive primary healthcare services that include organized medical and dental outreach camps. HCFT also provides specialized surgical services covering a range of conditions that include congenital and/or acquired deformities (clefts), disabling burns, tumours, address nutritional needs and health education. The overall role of HCFT is to increase visiting specialist services in areas of identified need (rural and remote areas) and facilitate visiting specialist and local professional communication about ongoing patient care and needs.

The organization provides high quality reconstructive surgery with a focus on great functional and aesthetic outcomes. The ultimate goal is to improve the quality of life of these patients.

This organization advocates for the highest standard of services delivered to children and their families. We cover Kenya, Zambia, DRC Congo, Uganda, Rwanda, Somalia, Cameroon and Bangladesh. In all these places there has been a great need for training and continuity of needed surgical services. The Organization's program is truly unique as it focuses on specific needs of the region, identifies the appropriate professionals, provides long term follow-up, and advice appropriate interventions.

In the past 2 years HCFT has successfully operated over 3,000 patients in 21 hospitals in Kenya 5 hospitals DRC ,2 in Uganda, 5 hospitals in Somalia (Puntland and Somaliland) 3 Cameroon and 2 hospitals in Bangladesh. The reconstructive surgeries performed are largely elective. Majority of the patient deformities are secondary to congenital abnormalities while other causes include acquired infections, trauma and malignancies. Of the 3,000 surgeries noted above, 2,218 are cleft lip and cleft palate. Most of the acquired deformities are preventable is addressed early however majority of the patients present with advanced disease and or complications.

Some of the barries to accessing the necessary surgical interventions include; tangible and intangible costs such as the cost of the reconstructive surgery, travel costs and opportunity costs.

In optimal health care planning, reconstructive surgery should be provided in a timely fashion and at the same level of expected quality for both urban and rural settings. However, the reality we encounter in the rural facilities is lack of financial resources, overwhelmed systems, destitute, poorly equipped and lack of infrastructure. In addition these areas have a dire shortage of medical personnel including surgeons, anesthesiologists and nurses. Many of the areas we visit have dispersed and isolated populations therefore making communication and transportation a challenge not only for the patients but our mission team as well. Furthermore climatic conditions and political instability in some areas has been a barrier for the mission team. Identifying committed volunteers and looking for financial support to support the team for their travel and accommodation , to buy the needed supplies and equipment is another challenge.

The objectives of the outreach programmes through the HCFT model is to provide timely free quality reconstructive surgical care for those in need leading to an improved quality of life, restore health, confidence and self-esteem. Our experience provides invaluable insight to Ministries of Health to fund surgical programs which in turn directly impacts the provision of an integral component of health. Research and training opportunities are available but underutilized.

HCFT plans to achieve its objectives through the execution of:

Expanding the existing outreach services

Create sustainability of HCFT services

Enhancement of communication

Enhancement of education provision

Provision of ongoing quality and evaluation

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Several educational opportunities were provided by the IAOMS Foundation. IAOMS and the IAOMS Foundation look forward to continuing to partner with the African Association of Oral and Maxillofacial Surgeons in order to further the profession of oral and maxillofacial surgery in Africa.

If you want to contribute to the future development of oral and maxillofacial surgery please contact us-

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