



SECOND EDITION

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WAFROMAG

WEST AFRICA MAGAZINE

A PUBLICATION OF FAMSA WEST AFRICA REGIONAL COUNCIL



MEDICAL TECHNOLOGY:

**A Solution to West Africa's
Healthcare Challenges"**

FEATURING COUNTRIES

- Francophone Country Featured: Republic of Benin
- Anglophone Country Featured: The Gambia

WHAT'S INSIDE

3

STATEMENT | FAMSA WEST AFRICA REGIONAL COORDINATOR

Adebesin Oluwabusola Juliet

4

STATEMENT | EDITOR-IN-CHIEF

Chalaty A. Young

5

REGIONAL COUNCIL PORTFOLIO

FAMSA West Africa (2023/2024)

7

ABOUT FAMSA

Federation of African Medical
Students' Associations

8

EDITORIAL BOARD MEMBERS

West Africa Regional Magazine
(WAFROMAG) 2023

9

THE REGIONAL COMMITTEE | MSA OFFICERS (2022/2023)

FAMSA West Africa

11

FAMSA STANDING COMMITTEES

Brief Descriptions

12

REGIONAL COUNCIL REPORT

FAMSA West Africa (2022/2023 Tenure)

14

FRANCOPHONE COUNTRY FEATURE

Republic of Benin

16

ANGLOPHONE COUNTRY FEATURE

The Gambia

18

THE FUTURE OF MEDICAL TECHNOLOGY IN AFRICA

By Sharon Ogundalu

19

MEDICAL TECHNOLOGY IN WEST AFRICA

By Yusuf Hassan

20

AI IN WEST AFRICAN HEALTHCARE

By: Emmanuel Ededa

21

MEDICAL TECHNOLOGY IN AFRICA...

By: Chinecheren Obichukwu

22

INNOVATIONS IN MEDICAL IMAGING...

By: Adejumbo Tolunanimi Owenme

23

37TH FAMSA GA

Banjul, The Gambia

Please Meet
BANTURAKI DAVIS
FAMSA President



Banturaki Davis is a 6th year medical student at Makerere University, Uganda. With an unwavering passion for global surgery, research and patient-centred care. He has a strong interest in increasing access to quality healthcare and tackling surgical disparities. Banturaki is a dedicated leader at various student-led organisations and through his work, he is committed to leaving a lasting impact on the field of global health by working alongside others to build a better, more equitable health system for those in need. In his spare time, he enjoys reading and playing recreational sports such as football and karate. Believes that these activities are important for his overall personal and educational development, as they help him to stay physically active and to relax and clear his mind outside of the stresses of medical school.

...towards the improvement of healthcare in Africa



Statement

**ADEBESIN
OLUWABUSOLA
JULIET**

FAMSA WEST AFRICA

REGIONAL COORDINATOR

Dear Afromedics,

The healthcare in West Africa has long struggled with many obstacles, ranging from limited access to quality health services to the burden of communicable and non-communicable diseases. However, with the emergence of cutting-edge medical technologies, we find ourselves at the verge of a revolution that aims to address these challenges and aide in a new era of medical excellence.

Advanced telemedicine and mobile health applications now act as a bridge connecting patients with healthcare professionals remotely all because of Medical Technology and this not only ensures timely medical consultations but also enables early detection and intervention, ultimately saving and prolonging lives.

Infectious diseases, such as malaria, HIV, Ebola etc have continuously plagued the region. However, medical technology has given rise to innovative diagnostic tools, rapid testing kits, and advanced treatment options. These developments empower healthcare providers to swiftly identify and manage the outbreaks and safe guard the public.

Medical technology stands as a beacon of hope for West Africa, offering solutions to longstanding healthcare challenges. By embracing these innovations, we not only enhance the quality of healthcare but also build a resilient and responsive healthcare system capable of overcoming future challenges.

Yours sincerely,
ADEBESIN Oluwabusola Juliet
Regional Coordinator
FAMSA West Africa 2023.



Statement

EDITOR-IN-CHIEF

CHALATY A. YOUNG

Vice Regional Coordinator for
External Affairs & Editor-in-Chief

The West Africa Regional Magazine (WAFROMAG) is an annual publication of the FAMSA West Africa Editorial Board under the leadership of the Vice Regional Coordinator for External Affairs, FAMSA West Africa Regional Council.

This year's edition is themed "Medical Technology: A Solution to West Africa's Healthcare Challenges".

The theme was drawn from the perspective that technology is taking a toll on the practice of medicine globally and this global impact is being realized across the African region.

Medical Technology diagnoses, treats and/or improves a person's health and wellbeing, encompassing both low- and high-risk medical devices – products that can be as varied from tongue depressors, surgical gloves and medical thermometers to insulin pumps, pacemakers and in vitro diagnostics – and used to save the lives of patients everywhere across the world (apacmed.org).

As an aspiring healthcare professional, I personally see medical technology as a tool that all Africans health professionals should take advantage of. With the pace at which Artificial Intelligence (AI) is developing across various careers and professions, we must endeavor to adapt to the changes posed by these various technological advancements.

We cannot afford to be left behind. We must chase the changes, we must improve our strategies, we must adapt to the new order; and! One way it works is to make this a major subject of focus anywhere and everywhere we have a gathering of medical students, with FAMSA West Africa being a great example of such group.

It is my pleasure to welcome you to the Second Edition of the WAFROMAG, I am hoping you will find this more interesting to read and we look forward to us all leading this generation of emerging healthcare professionals towards the improvement of healthcare in Africa.

-Chalaty A. Young, VRCE-

Regional Council Portfolio

FAMSA West Africa (2022/2023)



ADEBESIN OLUWABUSOLA JULIET

Regional Coordinator

Adebessin Oluwabusola Juliet is a 7th-year medical student at the university of the Gambia, Banjul, The Gambia aspiring to be a surgeon, most preferably an obstetrician and gynecologist. She is also a graduate of Cell Biology and Genetics from the University of Lagos. She believes Africa has more potential than we are given credit for. Outside of her studies and professional responsibilities, she enjoys engaging in community outreaches, promoting health awareness and inspiring people. she loves singing dancing, watching movies and playing football.



JOHN GEORGE JOHNSON

Regional Secretary

John George Johnson is a 5th-year medical student, with the drive and passion for excellence for Africa. He currently serves as the Congressional Chairman for his MSA (UniGaMSA) and also as Secretary General for SCORE(GaMSA). He believes in dedication and commitment to whatever course of work he finds himself in. And now, serving as Regional Secretary for FAMSA West Africa gives him the platform to reach out to his fellow brothers and sisters studying medicine to become part of FAMSA to make Africa great.



OMALU FABIAN CHETACHUKWU

Regional Finance Officer

Omalu Fabian Chetachukwu is a 300L MBBS medical student of the Benjamin Carson Snr College of Health and Medical Science, Babcock University, Ogun State, Nigeria. He's also a pharmacist by profession. He is a lover of health politics and willingly offer himself whenever the opportunity to serve arises. He hopes to become a renowned surgeon that will contribute positively to the growth of Africa and the world at large.

Regional Council Portfolio

FAMSA West Africa (2022/2023)



CHALATY A. YOUNG

Vice Regional Coordinator for External Affairs

Chalaty A. Young is a 3rd-year Liberian Medical Student at the A. M. Dogliotti School of Medicine, College of Health Sciences, University of Liberia. He is the Secretary General of the Liberia Medical Students Association and the Lead Convener of the Liberia Health Education & Research Conference (LHERC). He is an aspiring medical entrepreneur and a youth development worker. He loves listening to music, teaching, reading, writing, networking, making new friends and chasing career goals.



AJIDAHUN TOLULOPE

Vice Regional Coordinator for Internal Affairs

Ajidahun Tolulope is a final year medical student at Olabisi Onabanjo University in Ogun State, Nigeria. He has a passion for healthcare and has dedicated himself to serving his community. Tolulope is highly respected by his peers for his dedication, hard work, and commitment to improving the lives of others. When he isn't on rounds or carrying out his duties, he loves to read sci-fi novels and is passionate about technology and the future. He also loves watching cooking videos on the internet and is enthusiastic about baking.



ELIJAH OKORIE

Vice Regional Coordinator for Membership & Capacity Building

Elijah Okorie is a 300L medical student currently studying in the prestigious Ambrose Alli University, Ekpoma, Federal Republic of Nigeria. He is passionate about personal and human capital development, politics, quality leadership and finance. He loves God and has served in various capacities too numerous to mention. He is an avid reader and an ardent learner.



AIME YEDENOU

Regional Translator

Aimé YEDENOU was born in Benin. He is a medical student in his thesis year at the Faculty of Health Sciences in Cotonou. As a future young doctor, he shares the opinion that medicine should be seen as more than providing care to patients following a diagnosis made after clinical examination. He thinks that medical students should put themselves in a global health perspective by seeking to provide health care to the entire population without any discrimination.

ABOUT FAMSA

The Federation of African Medical Students' Associations (FAMSA) is an independent and non-political organization founded and run by medical students studying in different medical schools across Africa. FAMSA serves as an important avenue for medical students to discuss and create impactful policies aimed to improve the livelihood of Africans in the aspects of health, education, and development. It was established with a focus on advocating and spreading awareness about medically relevant topics that have a major impact on the African continent. Since its inception in 1968, FAMSA has gained recognition internationally by both the African Union (AU) and World Health Organization (WHO), with several partnerships globally.

VISION

"Our Vision is to become a strong network of medical students who are aware of global health issues and are responsive to the current questions facing the medical profession and global health"

AIMS & OBJECTIVES

- 1.To project the image of African Medical Students both on the continental and international scene.
- 2.To enhance and broaden the general and special education of member medical students in and about various parts of Africa as a special furtherance of the diligent efforts of the medical schools, and thus to contribute to the improvement of medical education in Africa.
- 3.To establish contact with every Medical Students Association in Africa on purely professional matters.
- 4.To promote mutually beneficial exchanges with international correspondences, geared towards active involvement and enhancement of the overall standing of FAMSA on an international level. Publication of news which are of medical relevance on partnering journals, as well as the organization of professional exchanges between countries and involving various Medical Student Associations, in order to promote diversity and/or collaboration, and maximize student participation and exposure.
- 5.To generate initiatives in conducting well-structured population and Health surveys, as well as promote bio-medical research in African medical students, the original findings of which must be collated and disseminated as far as the African continent is concerned.
- 6.To encourage and assist member associations in fulfilling the essence of this education, which is to contribute towards the improvement of health conditions in Africa (especially those of higher prevalence/incidence) by facilitating and/or rendering help in all projects where medical students can be of assistance.

Find out more about FAMSA at www.famsanet.org

FAMSA / Towards the improvement of healthcare in Africa

The Editorial Board Members

FAMSA West Africa Regional Magazine (WAFROMAG) 2023



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YOUNG**
Editor-in-Chief



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ERUDULU**
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VICTOR**
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Translator 1



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Translator 2

The Regional Committee | MSA Officers (2022/2023)

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Students' Association (FUBIMSA)**Anyakora Chiagoziem Ivy-Mary | MSA Officer**Gregory University Medical Students
Association

The Regional Committee | MSA Officers (2022/2023)

F A M S A W E S T A F R I C A

**Odemona Damilola Kudirat | MSA Officer**

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**Avit Kysiane Christ | Representative**

National Organization of Health Sciences Students' Côte d'Ivoire

**Boakye Danquah Oliver | MSA Officer**

University for Development Studies Medical Students Association (UDSMSA)

**Fasama H. Kollie | MSA Officer**

Liberia Medical Student Association (LMSA)

**Noutchom Fambeu Paulinea | MSA Officer**

University of Abomey-Calavi (Cotonou Medical Students Association)

**Sang Jatta | MSA Officer**

University of The Gambia Medical Students Association (UniGAMSA)

**Ogunka Favour Nkechinyere | MSA Officer**

Babcock University Association of Medical Students

**Yerbo Amaleboba | MSA Officer**

Family Health Medical School Students Association

**Salako Adedamola Adegoke | MSA Officer**

Obafemi Awolowo University MSA (IFUMSA)



The FAMSA West Regional Council gives its special recognition for the Regional Committee to

Odemona Damilola Kudirat

(MSA Officer, Olabasi Onabanjo University Medical Students' Association (OOUMSA)

&

Akinwumi Adeola Victoria

(MSA Officer, Ekiti State University Medical Student Association - EKUMSA)

For their outstanding performances throughout the 2022/2023 tenure.

And to the rest of FAMSA MSA Officers, we appreciate your efforts and thank you for your service, we indeed had a wonderful tenure.

Congratulations!!!

FAMSA Standing Committees



SCOMER

Standing Committee on Medical Education and Research (SCOMER) is one of the five existing standing committees of FAMSA. It is concerned with coordinating and guiding the work of FAMSA in the field of medical education and research. Including furnishing member associations with FAMSA regulations and guidelines for medical education and research activities.

SCOHE

Standing Committee on Health and Environment (SCOHE)

is responsible for the work carried out by FAMSA on health and the environment. SCOHE is embodied with the responsibility of educating students and the general public concerning their health and environment and also developing their understanding through various activities carried out.

SCOPUB

Standing Committee on Publications (SCOPUB)

pays serious attention to the importance of publications. It works in creating content, reviewing submissions and publishing FAMSA publications as well as managing its social media platforms. It is responsible for publications including the AFROMEDICA journal, and newsletters, and assisting standing Committees and member associations with publication problems.

SCOPA

Standing Committee on Population Activities (SCOPA)

is the committee concerned with ways and means of keeping the population growth at a level compatible with an optimal standard of living and therefore deals with solving the problem of Family planning, Sexual and Reproductive Health and Rights, Population dynamics, Maternal and child health & Food security.

SCOPE

The Standing Committee on Professional Exchange

is tasked with drawing up a detailed programme for the health educative school covering elective covering, postings and activities.

Vision & Objectives;

To become a strong network of medical students, aware of global health issues and

responsive to the current questions facing the medical profession and global health.

To promote exchange of information through international student exchange programs,

study tours and conferences, academic, and professional development, and socio-cultural programs

To enhance professional development, networking and diversity in medical education.

Regional Council Report Summary

FIRST QUARTER ACTIVITIES SUMMARY

1. Call for and formation of regional council and committee
2. Orientation of regional council members by predecessors
3. Online public health campaigns i.e World oral health day online campaign
4. Recognition of Hard-working Regional council members
5. Regional council meeting bi-weekly
6. social, media account creation and maintenance



SECOND QUARTER ACTIVITIES SUMMARY

1. Medical pathway series
2. Mental health twitter space
3. World Malaria Day webinar in collaboration with FAMSA SCOHE
4. Capacity building: Leadership series
5. Social media blackout for the departed souls
6. FAMSA 102
7. Orientation for Regional committee members
8. World Autism day twitter space



1. Entrepreneurship Summit
2. Biweekly Regional Council Meeting
3. FAMSA West Africa Regional Conference (WARC'23)
4. FAMSA Officer's Activities in Various MSA's
5. Translation of FAMSA Toolkit to French by Regional Translator



- 1.Mental health webinar: Stress Management
- 2.SDG weekend
- 3.Regional Magazine
- 4.Translation of the FAMSA constitution by the Regional translator



Francophone Country Feature

REPUBLIC OF BENIN

Located in West Africa in the Gulf of Guinea, the Republic of Benin has a population of 7 839 914, with a rate of growth of 3.25 %. The population of Benin is mainly composed of youths, with 49% aged less than 15 years of age. Mean reproduction rate is 5.7 children. The Republic of Benin achieved independence since 1960 and has been enjoying a political stability for about two decades. Gross domestic product (GDP) per capita was US\$314 in 2006. 1/3 of the population lives under poverty line. The economy is based upon agriculture which is a source of income for 56% of the population. Trade balance is in deficit. Human development index (HDI) is 0.437; which sets Benin at the 163rd rank out of a total of 177 countries. The rate of poor households is estimated at 52.2%. The country is made up of 12 territorial divisions and 77 local subdivisions.

Health & Development

General mortality and morbidity: The Republic of Benin is characterized by a high population growth of 3.25%, a decentralisation of the health system and a good distribution of health infrastructure across the country. As a matter of fact, 77% of the population live at less than 5 km from a health establishment, with a low frequenting rate of 44 %. Health financing is mostly provided by households up to 52%. The country is currently in epidemiological transition, with the existence of communicable diseases, the emergence of noncommunicable diseases and the growing relevance of health problems related to the environment.

Health and environment: 66 % of households have access to running water. Only 38% of households are equipped with sanitary facilities. Air pollution is high with a daily emission of 83 tons of carbon monoxide in the major towns of the country.

Health system: The Republic of Benin is composed of 34 health zones, half of which is functional. The development of health services is adequate: 77% of the population live at less than 5 km from a health establishment. However, only 44% of this population resort to these health services. The share of the general State budget allocated to the health sector was 11% in 2009. The health sector financing is mainly based upon households up to 52%. There is a shortage of specialists, especially in health zones and an unequal breakdown of the staff. The health system decentralisation which commenced several years ago is still under way.

Francophone Country Feature

REPUBLIC OF BENIN

Continued...

The “Six Transformations” for the SDGs in Benin

The core of the “Six Transformations” is to recognize that the 17 SDGs can be achieved through six major transformations focused on: (1) education, gender and inequality (2) health, well-being and demography, (3) clean energy and industry, (4) sustainable use of land and oceans, (5) sustainable cities, and (6) digital technologies



1. Education, Gender, and Inequality

The first transformation covers investments in education (early childhood development, primary and secondary education, vocational training and higher education), social protection systems and labor standards, and R&D.

It directly targets SDGs 1, 2, 4, 5, 8, 9, and 10, and reinforces other SDG outcomes.



2. Health, Well-being, and Demography

This transformation includes interventions to ensure Universal Health Coverage (UHC), promote healthy behaviors, and addresses social determinants of health and wellbeing.

It directly targets SDGs 2, 3, and 5 with strong synergies into many other goals.



3. Energy Decarbonization and Sustainable Industry

This transformation groups investments in energy access; the decarbonization of electricity, transport, buildings, and industry; and curbing industrial pollution.

It directly targets SDGs 3, 6, 7, 9, 11-15, and reinforces several other goals.



4. Sustainable Food, Land, Water and Oceans

Interventions to make food and other agricultural or forestry production systems more productive and resilient to climate change must be coordinated with efforts to conserve and restore biodiversity and to promote healthy diets while significantly reducing food loss and waste. Important trade-offs exist between these interventions.

This broad transformation directly promotes SDGs 2, 3, 6, and 12-15 and reinforces many other SDGs.



5. Sustainable Cities and Communities

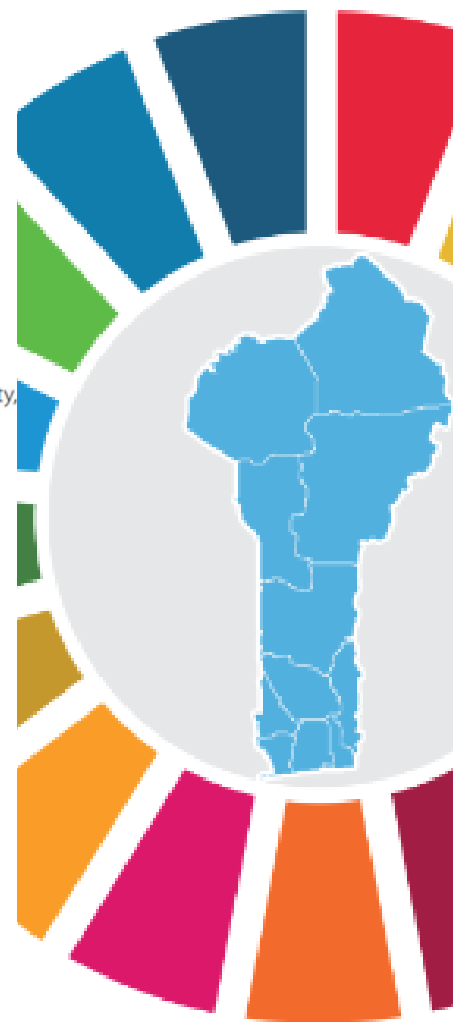
Cities and other communities require integrated investments in infrastructure, urban services, and resilience to climate change.

These interventions naturally target SDG 11 and they also contribute directly to goals 6, 9. Virtually all SDGs are indirectly supported by this transformation.



6. Harnessing the Digital Revolution for Sustainable Development

If managed well, digital technologies, such as artificial intelligence and modern communication technologies can make major contributions to achieving virtually all SDGs.



Anglophone Country Feature

THE GAMBIA

It is the smallest nation on African soil and, with the exception of its western shore on the Atlantic Ocean, is encircled by Senegal. The country is believed to get its name from either one of two sources – the Mandinka term Kambra/Kambaa, meaning Gambia River, or from Gamba, a type of calabash that is hit when a Serer elder dies. Upon their independence, the country officially became The Gambia, and by the time it became a republic a few years afterward, the official name became the Republic of the Gambia.

Despite its size, Gambia is still a multi-ethnic country. The Fula, Jola, Mandinka, Serahule, and Wolof are among its largest ethnic groups. The country is so special in the sense that no area of The Gambia is predominated by a single ethnic group. Due to their close proximity, the tribes began to share many cultural characteristics, which sparked a drive toward the development of a Gambian national identity. The two primary ethnic groups are Wolof and Mandinka. Most Wolof people reside in Banjul, the nation's capital. The Mandinka make up the country's largest ethnic group.

The healthcare system in the Gambia is built around 3 levels. Primary is focused on villages with populations of over 400 individuals. Secondary is provided by the large and small health centres. Tertiary is delivered by 4 main referral hospitals, the Medical Research Council (MRC), several private clinics and NGO operated clinics. In addition to the 4 referral hospitals, there are 8 main health centres and a further 16 smaller centres, 200 plus mobile clinic unit teams as well as the Medical Research Council which is funded by the UK Government. There are also a number of privately run clinics as well as a few health focused NGOs operating in the Gambia. Although the health facility coverage is amongst the best in Africa (more than 80% of the population have access), the staffing of these facilities is highly inadequate.



Anglophone Country Feature

THE GAMBIA

Continued...

Culture and Ethnicity

One of the most valuable agricultural commodities in The Gambia is groundnuts which so many farmers invest in. It is mostly exported, and some of it is transformed into oil by industries within country. The Gambia has few mineral deposits such as clay, gravel and sand in which foreign investors explore.

Economy

With a population of about 2.5 million and a land area of 11,300 square kilometres, the people of The Gambia are known to be one of the friendliest, most welcoming, loving and hospitable people one could ever hope to meet hence the nick name "The Smiling Coast of Africa".

It is a multi-ethnic country with about 10 different ethnic groups including the Fula, Mandinka, Wolof and Jola. These ethnic groups live side by side in rural and urban communities. Ethnic multiplicity is an indisputable source of cultural richness and diversity with each having its language and well-defined traditions. The Gambia is very peaceful and her children live harmoniously with a very strong joking relationship among them (tribes or ethnic groups). The official language of the Gambia is English which is taught in schools, but people communicate mostly in their local dialects.

ABOUT UNIVERSITY OF THE GAMBIA.



The University of The Gambia was established in March 1999 by an act of the National Assembly of The Gambia. The enactment was a bold step to fulfil a long-standing desire of the people of The Gambia and to respond to several years of advocacy both within and outside the country for a university. Not only is it the Gambia's first University, but it is also **the only and largest public learning institution established thus far.**

What began as a small institution with just three departments in Science, Medicine and the Arts, quickly expanded to become a prestigious higher education institution. It comprises of about **8 Faculties** as follows: School of Medicine and Allied Health Sciences, Social Sciences, Agriculture, Education, Business and Administration, Technology, Law, and Engineering.

The annual numerical strength of the Medical Association is about five hundred Students from Pre-Medical to final level (a seven-year program) from different religious, cultural and ethnic backgrounds; additionally, from every geographical region in Africa.

The Future of Medical Technology in Africa

Written By: Sharon Ogundalu

In the nearest future, there would be better innovations and more advanced medical devices to make medical procedures and diagnosis much easier, preventive medicine will be adopted and medical technology will be fully incorporated into the healthcare system. Patient care and outcomes will be improved, efficient, accurate and precise diagnosis will be ensured and surgical procedures will be more reliable because medical technology is here to bring about all round revolution.

Artificial intelligence will help with diagnosis, radiology and quicken the process of introducing new drugs in the market to counter deadly disease, as it will be able to predict without being prone to forgetfulness or human error. It would have been programmed with all necessary information, hence diagnosis would be much easier and accurate. It would also carry out tasks with less time, making it more efficient and effective.

Digital therapeutics through mobile health and telemedicine, help to enhance preventive medicine and provide information about what to do and what not to do, it would provide quality and effective care in the comfort of one's home and information from this medium is much more reliable and accurate as it would have been compiled and checked by several professionals. It also helps to check patients with chronic illnesses, who need constant monitoring and observation, the doctor is able to do this, over an electronic device.

Data and predictive analysis would be connected to other technological devices including artificial intelligence to give suggested diagnosis by looking into the patient's records and giving insights based on current symptoms, past records and medical history. Analysis of these suggestions, will help the health care professional in giving proper care and an accurate diagnosis, improving patient outcomes.

3D printing has also been found to aid surgical procedures, implants, open heart surgeries, prosthesis, personalized airway stents and research is ongoing concerning bio printing of different organs to save those battling with cancers and other organ/terminal ailments. This could come in very handy and completely transform the future of medicine and if the bio printings actually work out, then patients suffering from cancers no longer have to die.

Augmented and Virtual realities (AR and VR) could be very useful in healthcare, they allow connection with the environment in a multidimensional way. Since cancer can be detected through image recognition, AR glasses could also be used and they could replace CAT scans and 3D scans by allowing straightforward scans, imaging and virtual checkups.

In conclusion, West Africa has been a strong region, pushing through all of our health challenges and now, with the advent of medical technology, we can still push further and provide a solution to our health care challenges. This can be achieved by fully incorporating medical technology into our health care system as the future of medical technology has been seen to be very bright and it would certainly be the best solution to all of the challenges currently being faced in West Africa. Medical technology would take health care to a whole new level and revolutionize the entire health care system and not just bring about improvement but an all-round transformation and our health care system will be redeemed.

M E D I C A L T E C H N O L O G Y

A Solution to West Africa's Health Challenges

An Article By: Yusuf Hassan

In West Africa, where healthcare challenges prevail, especially in rural areas, medical technology emerges as a ray of hope for all who call this land home. Medical Technology refers to the use of diverse tools, equipment, and innovations used in healthcare to diagnose, treat, and improve the well-being of patients. This innovative force holds the potential to revolutionize healthcare delivery holistically.

West Africa, as a region rich in culture and diversity, faces a complex web of healthcare challenges that impact the lives of millions. These include:

- Lack of available trained, qualified expertise in our healthcare systems.
- Unavailability of health insurance to our people.
- Unreliable health medical records of patients in the region.
- Fake and substandard health products and equipment.
- Presence of few local and regional pharmacy manufacturing companies.
- Lack of basic infrastructure in most rural locations in the region.
- Sociocultural and religious factors affecting the adoption of modern healthcare advancement.

West Africa will struggle to meet the healthcare needs of its growing population without timely technological and research-oriented health interventions.

Given the scarcity of trained health professionals in the region, the adoption of telemedicine becomes imperative. It enables healthcare delivery, especially in rural areas, utilizing technology to provide remote healthcare services, eliminating the need to struggle to visit the few hospitals available.

Artificial Intelligence (AI) can assist in healthcare delivery by handling routine tasks like writing notes, prescribing medicines, and ordering tests, which will save time in the few understaffed hospitals. Chatbots can also reduce hospital visits and help you decide if you need to see a Doctor. There are also simple AI apps that can diagnose problems like birth asphyxia and malaria. These can be utilized in rural West Africa, where few doctors or equipment are available.

Another way Medical technology can bring significant change to West Africa's healthcare is through the use of Electronic Health Records (EHRs).

These are digital systems that let Doctors store and find patient information easily, reducing mistakes and making healthcare delivery faster in our region. Patients can also share their medical history with Doctors In a convenient manner, giving them more control over their health records.

Having the complete health records of patients by using EHRs helps insurance companies better understand and handle risks. They use a lot of this information and utilize special tools to figure out health patterns and provide insurance plans that fit the people. This can make insurance cheaper and more readily affordable.

Modern technologies like Barcode, RFID (Radio-Frequency Identification), and Blockchain can be employed to track the manufacturing, distribution, and sale of drugs and other medical products in West Africa. This will aid in determining their authenticity and quality, and any problem will be spotted early before they reach the hospitals and clinics where they will be used.

Due to the limited number of local pharmacy manufacturing companies in the region, medical technology can analyze robust healthcare data to identify trends and drug medications that are in high demand by patients, helping them produce these medications of good quality and making them readily available at a fair price for easy accessibility and affordability.

Striving to innovate medical technology solutions that work well with local languages, with telemedicine systems that ensure private and modest settings are maintained during virtual appointments, will help to bridge any cultural or religious differences and make it easier for patients to understand and follow healthcare advice.

In this relentless pursuit of better healthcare in West Africa, the pivotal role of medical technology becomes unmistakably clear. It not only offers solutions but also promises a future where every individual in West Africa, irrespective of circumstance or location, can access quality healthcare at the right time. Together, we can make this vision a reality.

Medical Technology: A Solution to West Africa's Healthcare Challenges

AI in West African Healthcare

Author: Emmanuel Ededa

In today's rapidly evolving world, medical professionals are constantly faced with new challenges. West Africa, in particular, grapples with a myriad of healthcare issues, from a shortage of healthcare workers to inadequate infrastructure. However, amidst these challenges lies a powerful solution - medical technology, specifically the integration of artificial intelligence (AI) into healthcare practices.

As we embrace the age of AI, I perceive the great need for medical students and professionals in West Africa to cultivate skills in data science. This is not just a trend but a necessity. From my little research, I could tell evidently that AI has the potential to revolutionize healthcare by offering innovative solutions to some of the region's most pressing problems.

Traditionally, medical professionals have focused solely on clinical expertise, paying little attention to technical skills. However, the time has come for a paradigm shift. By learning computer programming and data science, healthcare professionals can unlock a world of possibilities. These skills are the gateway to developing AI-aided solutions that can address the unique healthcare challenges faced by West Africa.

A classical demonstration of my presentation is evident in an observation I made at the recent FAMSA conference held earlier this year. The coordinator discussed her extensive involvement in information technology despite not possessing in-depth knowledge of it herself. She relies on a team of individuals who assist her in this regard. One potential challenge I see is that she might encounter difficulties conveying her medical concepts to the technical team, potentially hindering the quality of outcomes. However, envisioning a scenario where she possesses computer programming knowledge, she could fully realize and implement her medical ideas with greater precision and effectiveness.

Consider AI-driven diagnostic tools that can swiftly evaluate medical images, forecast disease outbreaks, or provide tailored treatment recommendations. These are not far-off aspirations; they are achievable objectives that can greatly enhance healthcare provision in the area.

Encouraging medical students and professionals to embrace data science and AI is not just about adapting to the times; it's about becoming pioneers of change. By combining medical expertise with technical proficiency, I believe we can usher in a new era of healthcare innovation in West Africa.

In conclusion, West Africa's healthcare challenges require innovative solutions, and medical technology, especially AI, holds the key. It's time for medical professionals to diversify their skills, incorporating data science and programming into their repertoire. By doing so, they can become catalysts for change and lead the way in addressing the healthcare disparities that persist in the region.

Medical Technology: A Solution to West Africa's Healthcare Challenges

Author: Chinecherem Obichukwu

Medical technology has suddenly erupted as a ray of hope amidst Africa's healthcare challenges. With overpopulation and limited resources, the African continent is in great need of solutions to bridge the healthcare gap. Thankfully, advancements in medical technology have paved the way for improved healthcare delivery, diagnosis, and treatment options, specifically channelled to the unique needs of the African people.

In Africa, where access to quality healthcare remains a significant concern, medical technology has proven to be a solution. Medical devices and diagnostic tools have enabled healthcare professionals to accurately diagnose diseases and conditions, thereby facilitating timely interventions. This has contributed to a higher success rate in treatments, ultimately saving so many lives.

The advent of telemedicine has been particularly instrumental in reaching remote and underserved areas of Africa. Through telemedicine, patients can now consult with healthcare professionals using digital communication platforms, eliminating the need for long journeys to medical facilities. This has brought convenience, affordability, and efficiency to the healthcare system, making it more accessible for all.

Moreover, digital health solutions have improved the overall management of healthcare resources in Africa. Electronic medical records systems have replaced paper-based documentation, ensuring the exchange of patient information between healthcare providers. This has not only enhanced the continuity of care but also enabled data-driven decision-making, consequently leading to better health outcomes.

In recent years, affordable and portable medical devices have been developed specifically with the African context in mind. Low-cost ultrasound machines, for example, have enabled healthcare workers to perform obstetric scans even in remote areas with limited access to medical facilities. This has revolutionized prenatal care in Africa, reducing maternal and infant mortality rates.

In a region struggling with infectious diseases, medical technology has also played a vital role in disease surveillance and control. Innovative laboratory equipment and point-of-care testing devices have allowed for instant and accurate diagnosis of diseases such as HIV, malaria, and tuberculosis. This has enabled healthcare professionals to promptly initiate appropriate treatments, prevent further transmission, and effectively manage public health crises.

While medical technology presents so many opportunities for Africa's healthcare system, it is important to address the challenges that come with its implementation. Limited infrastructure, inadequate training, and high costs often hinder the widespread adoption of these technologies. However, with the efforts of governments, international organizations, and private sector partnerships, these obstacles can be overcome, ensuring that the benefits of medical technology reach all corners of the continent.

In conclusion, medical technology holds great promise in solving Africa's healthcare challenges. By engaging these advancements, Africa can discourage traditional healthcare models and create a more equitable and efficient system. With continued investments in research, innovation, and infrastructure development, medical technology has the potential to transform healthcare in Africa, improving the lives of millions in the process.

INNOVATIONS IN MEDICAL IMAGING AND EARLY DETECTION OF DISEASES: THE WAY FORWARD FOR WEST AFRICA

BY: ADEJUMO TOLUWANIMI OWENME

In West Africa, the field of healthcare faces a multitude of challenges, from high rates of infectious diseases to an increasing burden of non-communicable conditions.

Despite the challenges, technology can greatly play a significant role in the prevention and management of these diseases.

Technology can be used to enhance disease surveillance. Additionally, it can be utilised for early detection, information access, remote and effective healthcare delivery, and the development of new treatments and vaccines.

Medical Imaging technology is one of such applications. It is a valuable tool for diagnosing diseases and guiding treatment plans. The lack of access to imaging equipment has hindered the early detection and management of conditions like cancer, heart disease and infections.

THE IMPORTANCE OF EARLY DETECTION

The significance of early detection cannot be overstated. Many diseases, including cancer, cardiovascular conditions and infectious diseases, often exhibit subtle symptoms in their early stages. By the time they become symptomatic, they may have reached an advanced, less treatable state. This is where Medical Imaging becomes a critical tool in West Africa's healthcare.

Some of these Key Innovations include:

1. **ULTRA SOUND:** Nigeria is one of the top 5 countries with the highest maternal death rate. Accessibility to ultrasound can significantly decrease this percentage by improving pregnancy outcomes and detecting disease conditions early. It can also decrease neonatal deaths across West Africa. The use of Portable and cost-effective ultrasound machines is invaluable for prenatal care, detecting heart conditions and diagnosing various abdominal issues. It is particularly useful in resource-limited areas such as rural areas. Solar-powered ultrasound machines are overcoming unreliable electricity and expanding ultrasound's availability. AI intelligence implemented in ultrasound can assist less experienced users in capturing and interpreting accurate scans. This makes ultrasound more valuable for early detection without requiring specialist staff.
2. **PORTABLE X-RAY UNITS:** Portable X-ray machines have proven to be vital in diagnosing respiratory diseases like tuberculosis, which is a major health concern in West Africa. These devices can be transported to remote areas, reducing the need for patients to travel long distances to urban hospitals.
3. **DIGITAL RADIOGRAPHY AND LOW CT DOSE SCANS:** These produce high-quality images while exposing patients to less radiation, improving safety and accessibility.
4. **TELEMEDICINE AND TELERADIOLOGY:** Apart from the limited healthcare infrastructure West Africa faces, there is also an issue of accessibility. Telemedicine will greatly expand access to healthcare in West Africa. Telemedicine can expand access to medical imaging services, especially in remote areas. Patients can have their images taken locally and then consult with specialists located elsewhere for interpretation. Teleradiology has become an invaluable tool in providing timely and expert diagnoses irrespective of geographical limitations.

In conclusion, advances in medical imaging have created new opportunities for the healthcare sector in West Africa. These technologies are facilitating early detection of disease, which lead to better patient outcome and, ultimately, a healthier population. As the region continues to invest in these advancements and expand their accessibility, West Africa strides towards a brighter and healthier future.



The 37th FAMSA General Assembly Banjul, The Gambia

Date: November 29 - December 2, 2023

Theme:

**“Promoting Preventive Medicine Through
Enhanced Primary Health Care in Africa.”**

Africa has limited preventive health care services to promote optimal health and wellness. Across the healthcare continuum, integrated approaches are needed to avert the worsening sequelae of child and adult healthcare, and simultaneously address the many risk factors and conditions affecting communities as well as medical limitations through the identification of determinants that influence people's health and well-being

To efficiently and adequately address the inconsistencies in the continuity of health care, cross-cutting and integrated strategies can include

1. Epidemiology and surveillance for early detection and prevention through Preventive Medicine
2. Environmental and community approaches to promote health, support healthy behaviours, including wellness centres to promote healthy lifestyles and
3. Intervention that reduces barriers to care and improve the effective use of clinical and preventive services for persons with disabilities. These entirely refer back to enhancing our Primary Health Care.

APPRECIATION TO THE REGIONAL COUNCIL

The Regional Coordinator would like to appreciate Chalaty, George, Tolu, Fabian, and Aime for a job well done through out the Tenure and for your commitment. You guys did really great, I am proud of you and I am glad and honored to have worked with all of you.

Cheers to a successful tenure.

From Adebessin Oluwabusola Juliet
Regional Coordinator, FAMSA West Africa

APPRECIATION TO ALL AFROMEDICS...

Dear Afro Medics, it has been a privilege serving you. Though it has been a bumpy ride, but we thank you all for your trust in us and for your participation. United we stand, divided we fall, so far we come together with one voice and dedication, there is nothing we can't overcome. We wish us all a great career and a great future.

Congratulations to a successful tenure!!

Thank you!

West African Regional council 2023

P U B L I S H E D B Y

The Editorial Board
West Africa Regional Council
Federation of African Medical Students' Associations
(FAMSA)
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