



Dr. Fidelis Ndombera

"Scaling Accessible Healthcare with Al Medical Agents: Lessons from Emerging Markets."

- How Al agents can address healthcare access and diagnostic gaps
- •Lessons from emerging markets that can inform global healthcare innovation
- •Implications for pharma, diagnostics, and clinical operations





Scan the QR code

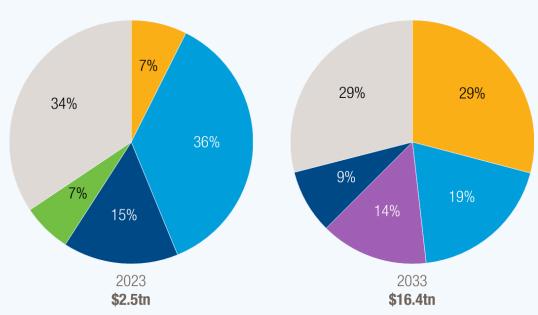
- Artificial intelligence (AI) is fast becoming the defining technology of our time. A new <u>UN Trade and Development (UNCTAD) report</u> projects the global AI market will soar from \$189 billion in 2023 to \$4.8 trillion by 2033 a 25-fold increase in just a decade.
- By then, Al could quadruple its share of the global frontier technology market, rising from 7% to 29% and emerging as the sector's dominant force.
- But Al's rapid growth risks widening global divides.
 Development is highly concentrated, with advanced and large economies benefiting from a deeper talent pool of workers with the needed skills.
- In 2022, just 100 companies mainly in the United States and China – accounted for 40% of global Al research and development (R&D). Combined, the two countries hold 60% of all Al patents and produce a third of global Al publications.



Al takeover: Share of frontier tech market could quadruple by 2033

Estimated frontier technology market size and share of selected technologies, 2023 and 2033



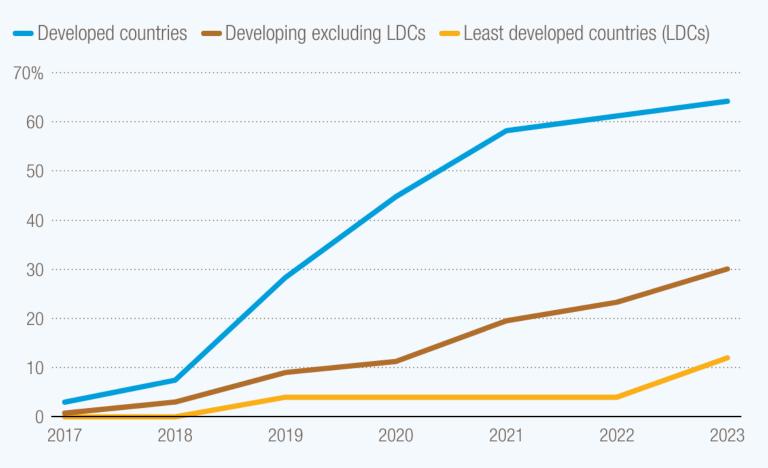


Source: UN Trade and Development (UNCTAD) based on various online market research reports. *Note:* Market size data capture the revenue generated by the sales of products and services. The graphs show the top four of 17 frontier technologies by market share for each year. The remaining 13 are grouped under "other".

>

Mind the gap: The stark global divide in Al strategies

Cumulative share of countries with a national artificial intelligence strategy by country grouping, percentage, 2017–2023



Source: UN Trade and Development (UNCTAD) elaboration on data from Artificial Intelligence Index Report 2024 (Stanford, United States).

\$4.63 Trillion



\$4.2 Trillion

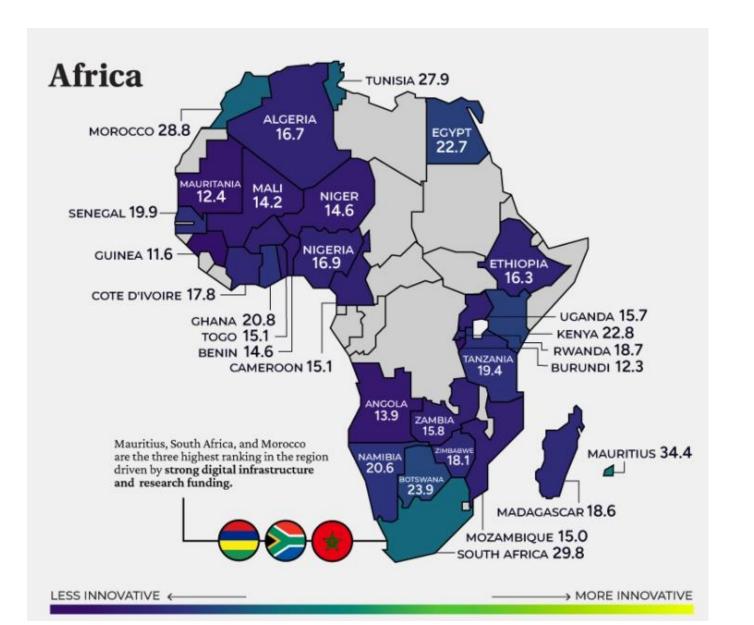


Africa

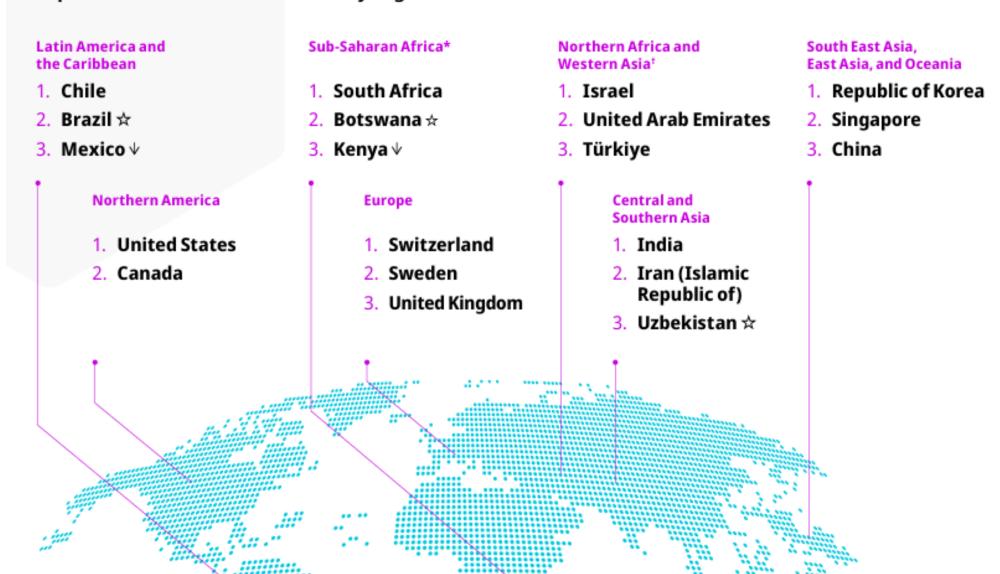
Global Innovation Index Below, we show the most innovative economies in the world, based on analysis from the WIPO Global Innovation Index. LESS INNOVATIVE + MORE INNOVATIVE Scores are based on the following 7 categories: ➤ Business Sophistication 20 ➤ Human Capital & Research ➤ Institutions ➤ Infrastructure MOST INNOVATIVE: EUROPE ➤ Market Sophistication **SWITZERLAND** ➤ Knowledge and Technology Outputs NORWAY SCORE: 64.6 ➤ Creative Outputs For the 12th year in a row, Switzerland leads the ranks thanks to its high number of patents and institutional strength. MOST INNOVATIVE MOST INNOVATIVE: ASIA NORTH AMERICA SOUTH KOREA U.S. SCORE: 57.8 SCORE: 61.4 34.3 UNITED STATES MOROCCO 28.8 NIGERIA 16.9 MOST INNOVATIVE: MIDDLE EAST ISRAEL SCORE: 50.2 BRAZIL PERU 29. MOST INNOVATIVE: AFRICA MAURITIUS AUSTRALIA MOST INNOVATIVE: SOUTH AMERICA SCORE: 34.4 CHILE SOUTH AFRICA MADAGASCAR SCORE: 34.0 ARGENTINA

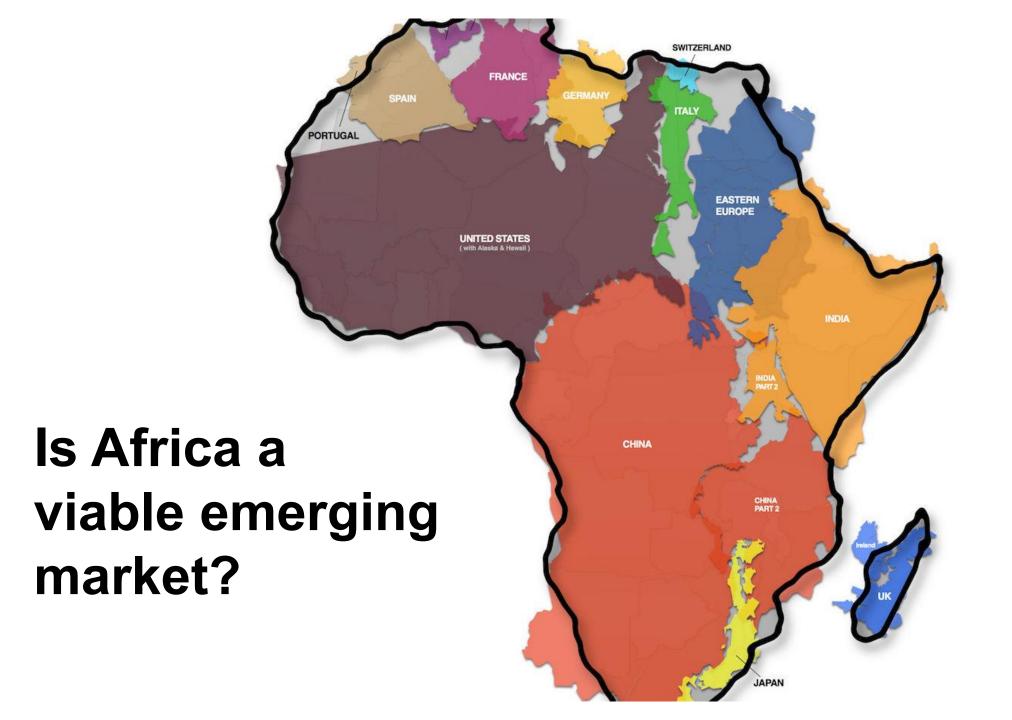


The Global Innovation Index 2022 captures the innovation ecosystem performance of 132 economies and tracks the most recent global innovation trends.

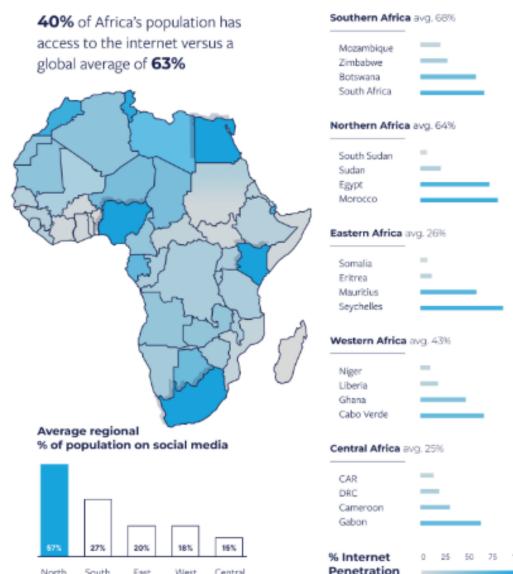


Top three innovation economies by region





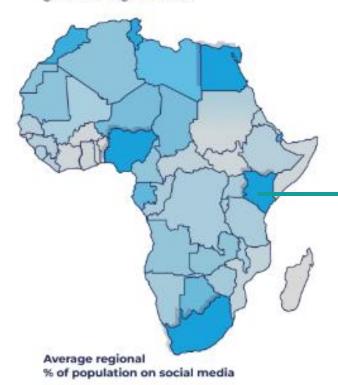
Opportunities & Challenges of entering the African Market



- 1. 570 million Internet Users in Africa vs 322 million in USA.
- 2. 747 million Cellphone Users in Africa vs 331 million in USA.

Entering the Kenyan Market

40% of Africa's population has access to the internet versus a global average of 63%



Kenya's internet penetration surges to 87.2pc with 43m mobile subscribers

Tenva's internet penetration has reached a rate of 87.2 percent, with over 43 million mobile internet subscribers.

Speaking during the Digital Transformation in East Africa Conference at Aga Khan University in Nairobi, the Cabinet Secretary for Information. Communications. and the Digital Economy. Eliud Owalo, noted that the improved internet infrastructure is driving growth in e-commerce and digital services. Owalo stated that

his ministry is determined to progressively enhance the country's internet connectivity, telecommunication services, and disaster management capabilities. The CS highlighted that the government is leveraging Public Private Partnerships (PPPs) with mobile network operators. Last month, a total of 330,000 low-cost mobile phones were produced, out of



CS , MICDE, Eliud Owalo (center) flanked by The Aga Khan University President and Vice- Chancellor Dr. Sulaiman Shahabuddin (right) and Global CIO, Aga Khan University, Shaukat Ali Khan (left) during the Digital Transformation

outlets. Owalo emphasized that the production of these mobile devices is largely a function of the private sector, all aimed at supporting digital entrepreneurship. Presently, the CS said, a manufacturing plant in the country is assembling the mobile aim of going into full scale

in the near future.

The CS further explained that the Government has adopted a collaborative approach that includes partnerships with the private sector to drive innovation and investment in the country. He assured that the public that the tion is essential for driving phone devices with the private sector is focused on how to foster innowhich 268,000 units were production of the phones vation, enhance service African region and Africa sold through Safaricom and other digital devices delivery and ensure no at large

citizen is left behind in the digital revolution.

"Eradicating poverty is an important objective for us all. Improved digital infrastructure and internet connectivity are powerful tools in our mission to build skills, expand job opportunities and reduce poverty," the CS said.

He noted that Kenya's vibrant tech ecosystem continues to grow and the Government remains committed to providing the right policy framework and enabling environment to support this growth. The CS further said that the Kenya National Digital Master Plan 2022-2032 sets out the country's blueprint for leveraging ICT in its ambitions for a growing sustainable digital economy.

Owalo recognized the outstanding contribution of the Aga Khan Development Network to develfor several decades adding that digital transformathe social and economic development of the East

Kenya has approximately 68.8 million cellular mobile connections, reflecting a penetration rate of 121% of the population, which is around 57 million.

Kenya | Country Health Profile

World Health Organization

Demographic

In Kenya, the current population is 55,339,003 as of 2023 with a projected increase of 51% to 83,593,239 by 2050.



55.3M (2023). total population



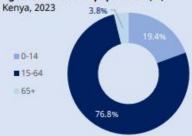
++0.061 percentage points change since 2022 4.6% (2021) current health expenditure (as % of GDP)

67 years (2019) life expectancy at birth

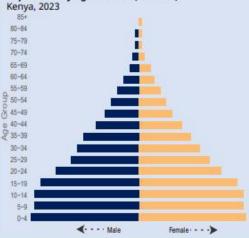
In Kenya, life expectancy at birth (years) has improved by

▲ 12.7 years from 54.1 [53.2. - 55.21 years in 2000 to 66.8 [66.2 - 67.4] years in 2021.

Age distribution of population (%)



Population by age and sex (millions)



Nsclaimer: The figures are extracts from different official government sources. They are to e interpreted within the local context. The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the out of WHO. Creation date: 03 February,2025 | Sources: Census 2019, KDHS 2022, KNBS and WHO | Technical Feedback: Cosmas Leonard cosmasi@who.int | Samuel Omara omarasi@who.int | WHO Kenya-www.who.int

Health status indicators

3.5 (2019)

Fertility Rate Children per woman Source: Census

41.1

Under-five mortality rate V 135.03 - 48.171 -0.79 improving since 2021 Under-five mortality rate (per 1000 live births)

32 (2022)

Infant Mortality Rate 32 per 1000 Live births Source: KDHS

20.4 (2021)

Neonatal mortality rate V [16.75 - 24.79] -0.3 improving since 2021 Neonatal mortality rate (per 1000 live births)

28.2 (2021)

Road traffic deaths Road traffic mortality rate (per 100 000 population)

355 (2019)

Maternal Mortality Rate Source: Census

21%

Probability of dying from any of cardiovascular diseases [14.6%-29.3%] cancer, diabetes, chronic respiratory diseases between age 30 and exact age 70 223 (2023)

Tuberculosis incidence V [128 - 338] -22 improving since 2022 Tuberculosis incidence (per 100 000 population) Source: National TB, Leprosy and Lung Disease Program

259 (2022)

TB Incidence Rate cases per 100,000 population Source: National TB, Leprosy and Lung Disease Program

0.4% (2020)

Hepatitis B prevalence among children under 5 [0.33% - 0.48%] Hepatitis B surface antigen (HBsAg) prevalence among 3.3%

HIV prevalence

0.31 (2023)

new HIV infections V [0.17 - 0.51] -0.09 improving since 2022 New HIV infections (per 1000 uninfected population)

120

Malaria Incidence Rate cases per 1,000 population per year Source: WHO GHO

63.65 (2021)

Malaria incidence A

[41.63 - 93.27] +1.63 worsening since 2020 Malaria incidence (per 1000 population at risk)

Risk factor indicators

18.4% (2022)

Stunting under 5 V [16.8% - 20.1%] -0.8 percentage points improving since 2021 Prevalence of stunting in children under 5 (%)

31% (2022)

Safely managed sanitation A +0 percentage points improving since 2021 Proportion of population using safely-

managed sanitation services (%)

4.5% (2022)

Wasting under 5 V [4.1% - 5%] -1 percentage point improving since 1987 Prevalence of wasting in children under 5 (%) Source: KDHS

38% (2022)

Handwashing facilities A

+0 percentage points improving since 2021 Proportion of population using a handwashing facility with soap and water (%)

33.2% (2019) Hypertension V

children under 5 years (%)

[26.8% - 40.2%] -0.5 percentage points improving since 2018 Age-standardized prevalence of hypertension among adults aged 30-79 years (%)

11.3% (2020)

Tobacco use [8.7% - 14%] Age-standardized prevalence of tobacco use among persons 15 years and older

12.4% (2022)

Adult obesity A [10.9% - 14.1%] +0.5 percentage points worsening since 2021 Age-standardized prevalence of obesity among adults (18+ years) (%)

2.5% (2022)

Children and adolescents' obesity [1.4%-4%] +0 percentage points worsening since 2021 Prevalence of obesity among children and adolescents (5-19 years) (%)

Service coverage indicators

8.7M (2021)

Interventions against NTDs V

-2 million change since 2021 Reported number of people requiring interventions against NTDs

77.1%

Family planning A

+29.6 percentage points improving since 2003 Proportion of women of reproductive age who have their need for family planning satisfied with modern methods (%)

89.3% (2022)

Births attended by skilled health personnel A

improving since 2003 (41%) Proportion of births attended by skilled health personnel (%) Source: KDHS

94% (2022)

DTP3 immunization coverage among 1year-olds ▼

-1 percentage point worsening since 2021 Diphtheria-tetanus-pertussis (DTP3) immunization coverage among 1-year-olds (%)

Health systems indicators

2.4 (2023)

46.7% (2022)

Health facility density A progressive improvement since 2020 and above WHO recommended 2. Density of functional health facilities (per 10 000 population) Source: Kenya Health Facility census

Government health expenditure as a percentage of total health expenditure(%), Source: WHO GHED.2022

22.3 (2023)

Density of nurses improving since 2021 and meets WHO standard Density of nurses (per 10 000 population)Source: Health Labor Marke t Analysis Report

7.2% (2024/25)

National budget allocated to Health Source: National Treasury 2.5 (2023)

Density of clinical officers Density of clinical officers (per 10 000 population) Source: Health Labor Market Analysis Report

24.2% (2022)

Out of pocket spending as a percentage of total expenditure Source: WHO GHED 2022

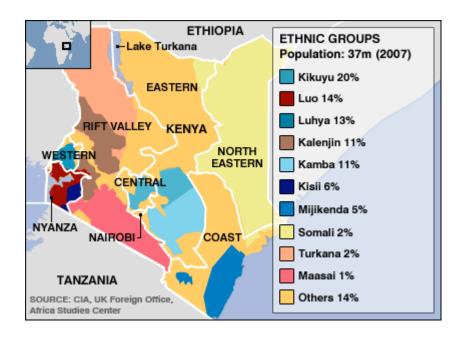
2.6 (2023)

Density of doctors improving but below WHO's recommended doctor-to-population ratio of 10 doctors per 10,000 people. Density of medical doctors (per 10 000 population)Source: Health Labor Market Analysis Report

Opportunities & Challenges of entering the African Market

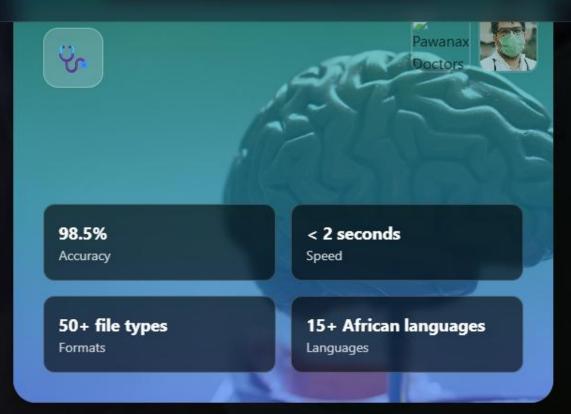


1000 languages

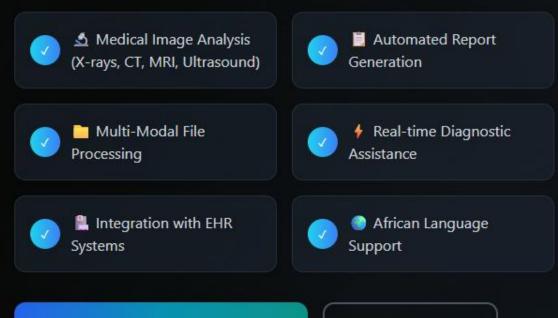


68 languages

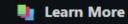
Pawanax Solutions Technology Research Hardware Future Security Blog Dashboard 😵 🗸



Imagine having the world's most brilliant medical minds working alongside you. Our revolutionary AI doesn't just analyze—it thinks, learns, and evolves with every case, transforming you into a superhuman diagnostician.









Multi-lingual AI Doctor Assistant



Scan the QR code

Pawanax AI is a Multiagent SOAP notes technology **SOAP notes** is a structured method for documenting patient information in healthcare settings.

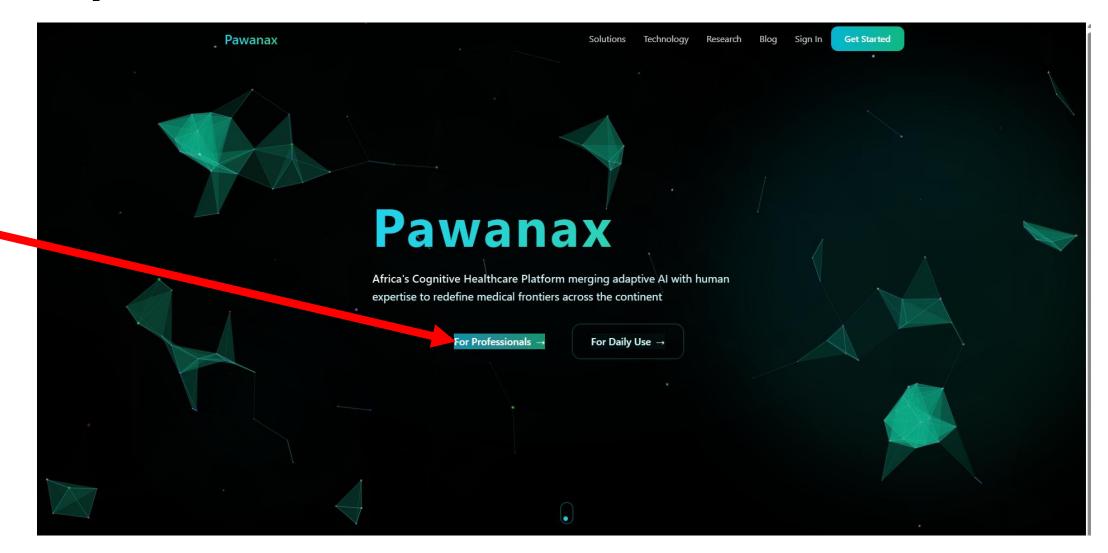
Subjective: Information reported by the patient, including symptoms and feelings.

Objective: Observable and measurable data, such as vital signs and test results.

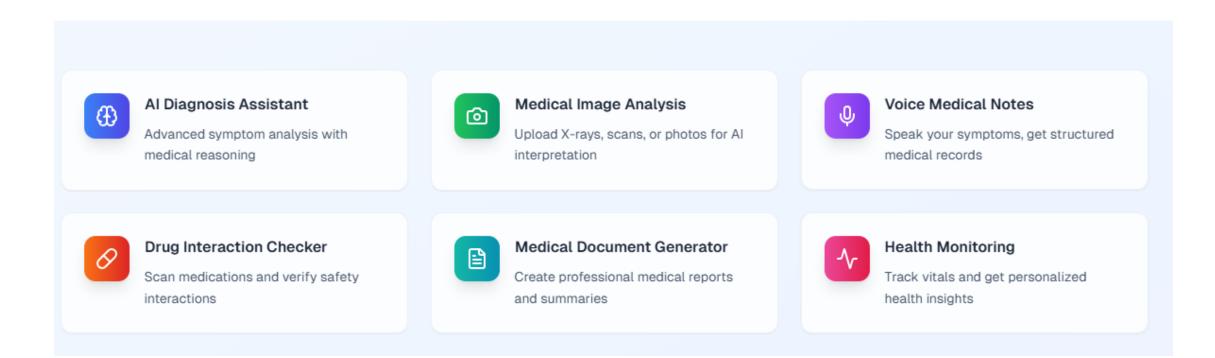
Assessment: The healthcare provider's interpretation of the subjective and objective information, including diagnoses.

Plan: The proposed treatment plan, including medications, therapies, and follow-up appointments.

Step 2: Access Doctors Portal via Professionals Tab



Pawanax Al Medical Agents



Medical Image & Voice Analysis

 Live Demonstration using CT scan specimen, skin analysis, voice note analysis and medical file review to produce a diagnosis and treatment plan. FOR 1 CLINICIAN

\$79/mo \$99/mo

7-Day Free Trial

7-Day Money-Back Guarantee

IF YOU GET PRO, YOU CAN:

- Unlimited visits with AI SOAP notes
- Unlimited custom templates
- Priority customer support
- Add members to form a team

Competitor

vs

Regional Offer



Budget (Africa)

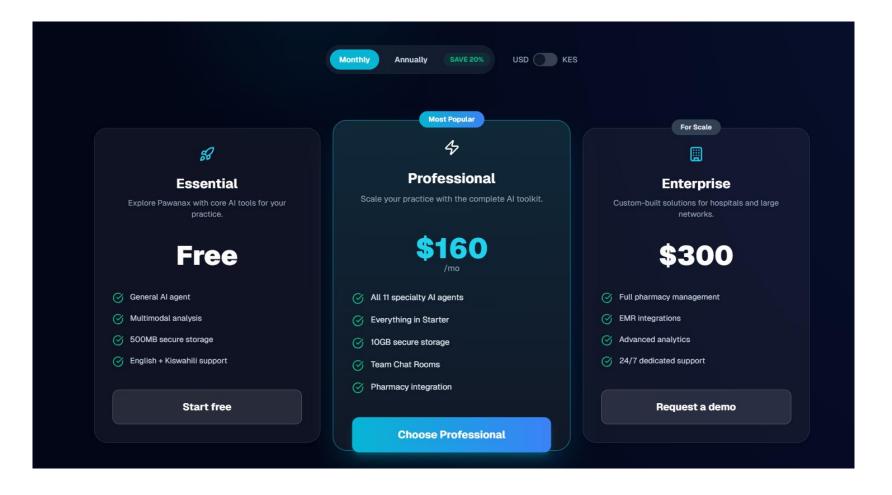
Affordable power for practitioners and clinics in Africa.

Available in Africa only. Detect location

\$30

- Medical Research Agent
- Octor's Dashboard
- 500MB secure storage
- 3 Languages Support

Get started



Partner with us

1. Donate to support the **Freemium Subscription** through **KESNET** a 501c3 organization





Scan me!

2. Test, use & advise us on our App



Scan the QR code

3. Acquire partial ownership



Scan the QR code

Conclusion

- Comprehensive Multi-Agentic System
- Addressing critical healthcare gaps with Africa's first AI system.
- Eliminating Barriers
- Native language support across diverse African populations.
- Empowering Clinicians
- Al-powered diagnostic support.
- Improving Patient Self-care
- Al powered comprehensive care that includes nutrition, exercise, mental wellness, e.t.c.
- Job & Wealth Creation

Follow me on Linkedin



Dr. Fidelis Ndombera

Scan the QR code