

Kapsule

Category:

Best Startup

Company Name:

Kapsule

Turnover and/or Funding:

Turnover: \$522,000

Funding: \$1.3m <https://pitchbook.com/profiles/company/502787-98>

Sub-Category:

Medical Technology / Digital Health

Corporate history (creation, key milestones, main funding,...) Information on Condition / Disease and need for solution / product (prevalence, existing treatments / solutions):

Kapsule is Africa's largest health data platform, connecting the continent's healthcare sector to the global digital economy. With just a lean team of 12, they've aggregated patient data from over 14,000 healthcare facilities across 9 countries, unlocking insights from 69 million patient records. This extensive dataset empowers private companies, NGOs, donors, and governments to accelerate product sales, enhance clinical research, and drive meaningful healthcare innovation throughout Africa.

History of the development of the solution/product (Intellectual Property, preclinical and clinical datas, development collaborations):

Kapsule began as an idea in 2018 and officially launched in 2020, coinciding with the onset of the pandemic. Founded by David Chen a geneticist with 6 years consulting experience, Hannan Hashmi a digital health expert with background in Medicine, Law, and AI Software Development, and Femi Amoo a software engineer with BSc in Computer Science with a MSc in Cyber Security and Cryptography.

Initially, our goal was straightforward: increase foreign direct investment into African healthcare by providing reliable data to de-risk these markets. By mid-2024, we had

become Africa's largest source of aggregated health record data and reached profitability shortly thereafter.

Our founding hypothesis was that the primary barrier to healthcare investment in Africa was the absence of reliable data. Our team's diverse expertise; in healthcare consulting, healthcare delivery, and enterprise software development, positioned us uniquely to tackle this challenge.

We initially assumed the root cause of this data scarcity was widespread reliance on paper records. Consequently, our first mission involved digitizing clinic records, pharmacy inventory systems, and supply chain management.

However, our practical experience revealed an unexpected reality. While remote public healthcare facilities indeed rely heavily on paper, urban and private clinics which serve the majority of patients and represent the greatest commercial opportunity, have largely transitioned to digital systems. The true barrier wasn't digitization but data fragmentation.

Recognizing this, we pivoted our approach. We developed technology capable of harmonizing siloed data from disparate digital systems, securely aggregating and de-identifying patient records directly at their source. Compliant with rigorous data protection standards, this method proved highly scalable across multiple facilities and therefore countries, delivering unprecedented insights into medicine demand and disease patterns continent-wide.

To further align our incentives with healthcare providers, we introduced a profit-sharing model, managing all associated legal, technical, commercial, and compliance complexities. This strategic shift rapidly propelled Kapsule to become Africa's leading health data aggregator.

Today, our ambitions have expanded beyond the continent. We are actively extending our footprint into other low- and middle-income regions, aspiring to become a globally recognized alternative to industry leaders like IQVIA.

A recent example highlights our impact vividly. We assisted an oncology medicine supplier conducting feasibility studies for a product launch in Nigeria. Using Kapsule's comprehensive datasets, we analyzed cancer cases across hundreds of private hospitals, revealing that the market was significantly centralized: the top 10% of hospitals accounted for 84% of oncology demand, and the top 10 hospitals alone represented 52% of the entire market.

Armed with these insights, the company significantly revised its market entry strategy. Instead of a costly national rollout with numerous regional teams, they transitioned to a targeted approach, focusing on building relationships with key hospitals. This

adjustment resulted in savings of up to \$5 million in operational costs, including staffing, office space, and travel expenses.

Why this drug or device is innovative, the broad implications for future research, and/or how it will improve the human condition:

For the first time, major corporations, donors, and international bodies have reliable access to high-quality African health data. With Africa accounting for approximately a quarter of the global disease burden, this data holds significant potential to inform investment decisions, improve healthcare strategies, and elevate global health outcomes through impactful insights.

Kapsule's innovative business model not only aggregates fragmented health data but also rewards the original data providers. This creates a positive feedback loop (known as Jevon's paradox), where increased data utilization further drives data use, ultimately channeling financial benefits back to healthcare facilities through profit-sharing.

Our solution leverages Privacy Enhanced Training (PET) methodologies, including Federated Learning and Multi-Party Computation protocols, originally developed by the University of Oxford. This enables sensitive datasets to be pooled securely for collective analysis without compromising individual privacy.

Unlike Oxford's approach, Kapsule extracts aggregated insights directly from each data partner, rather than model parameters. This allows us to deliver patient-level, visit-level, and "sales-out" data, running PET-based analytics locally to satisfy data localization requirements.

We deploy AI primarily for our internal algorithms to link health records across facilities, accurately identifying unique patients from multiple data sources. Using edge-based de-identification and tokenization technology deployed via hybrid cloud we maintain data security with minimal latency (<350 ms) and ensure that no raw personally identifiable information (PII) leaves the facility.

Similar to Oxford's goals, Kapsule reduces barriers for new data partners by managing infrastructure, legal responsibilities, commercial risks, and compliance issues. Our overarching data protection principle adheres to the highest regulatory standards globally. Therefore, we uniformly apply GDPR compliance, alongside country-specific privacy regulations such as South Africa's POPIA, Nigeria's NDPR, Kenya's Data Act 2024, and the AU Convention 2014.

Our rigorous data protection approach has encouraged broader participation from data partners. Initially concentrated on the private healthcare sector, our recent partnerships with various Ministries of Health across Africa have paved the way toward a

comprehensive, unified view of healthcare needs, covering both private and public sectors continent-wide.

Kapsule differentiates itself from traditional data aggregators like IQVIA, which typically collect wholesaler-level 'Sales-In' data. In contrast, our PET and MPC technologies enable capturing 'Sales-Out' data, representing actual dispensing events at hospitals, pharmacies, and healthcare centers. This proximity to patient-provider interactions offers unmatched accuracy in assessing medicine demand and disease prevalence.

Our ultimate ambition is to develop a \"Bloomberg Terminal\" for healthcare data, providing accessible and actionable insights for researchers, private companies, governments, and emerging AI applications. By democratizing access to high-quality global health data, we aim to revolutionize medical practice, shifting from generalized treatment approaches to precise, patient-specific care.

Currently, we are collaborating with leading US universities and anticipate publishing peer-reviewed studies based on our datasets throughout 2025 and 2026.

Please provide appropriate references (PubMed, Abstract, Website):

https://theodi.cdn.ngo/media/documents/PETs_in_Practice__using_federated_learning_to_train_machine-learning_models.pdf

Conference Presentations (slides/recordings on request)

IQVIA Africa Health Data Summit 2024 keynote.

World Health Assembly 2025 side-event panel.

AU ECOSOCC Private-Sector Forum 2024.

Yale Africa Startup Forum 2025 plenary

University of Cape Town DS-I Africa (Data Science for Health in Africa)

Regulatory / Standards Engagement

Africa Intergovernmental Working Group - Health Data (2023-2024)

Member, AU Continental Fair Trade Area Working Group on Digital Economy Creation (2024-25).

Citations - Corporate website and public statements used for non-confidential facts.

References File Document upload:

Kapsule AU Private Sector Forum ty.pdf
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kapsule terminal logo.png