

A patient-centric approach to maternity care tailored for underserved markets

Hack The Globe 2021

Theme: Global Health



Our Team



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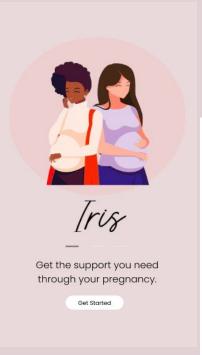
Devina Jaiswal

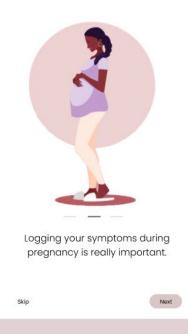
Bachelor of Science at

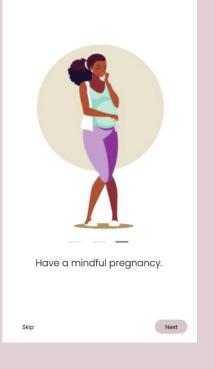
> the University of British Columbia

Our Misson

To provide women in underserved markets with increased autonomy over their health before, during, and after pregnancy by facilitating access to information and quality healthcare services.







Our Health Moonshot

Despite being the third wealthiest African country, Nigeria accounts for

20%

of all global maternal deaths

We envision a future with zero preventable maternal deaths, beginning in Nigeria and expanding globally.



Maternal health indicators in Nigeria are not improving, despite several decades of intervention.

The existing issues center around three pillars

Availability of Information

- Education surrounding optimal number and timing of appointments
- Education surrounding best care practices & symptoms of key risks
- Limited or no data storage by providers

Access to Services

- Long wait periods for care (1 OB/GYN per 181,458 individuals in Nigeria)¹
- Low continuity of care
- Challenges locating & receiving transport correct services

Quality of Care

- Disrespectful treatment of women by medical professionals
- Shortage of qualified healthcare professionals

Meet *Chioma*,a 22-year-old first-time mother,
living in Lagos, Nigeria

Since it's her first pregnancy, Chioma is looking for a platform to gain knowledge about the risk factors for pregnancy and track them over time so that she can get the help she needs incase of an emergency.

She is looking for a platform she can trust which helps her find clinics nearby her house ,with good ratings, because she is concerned that she currently doesn't have a primary doctor.

She owns a smartphone and has access to the internet.

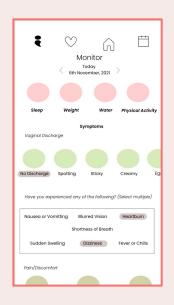


This is where we come in



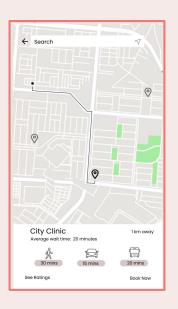


- Database of educational resources
- Daily tips based on stage of pregnancy



Symptom Tracking & Daily Journal

- Digital symptom tracker
- Appointment reminders
- Screening for risks
- Text-entry journal



Location & Reviews of Nearby Clinics

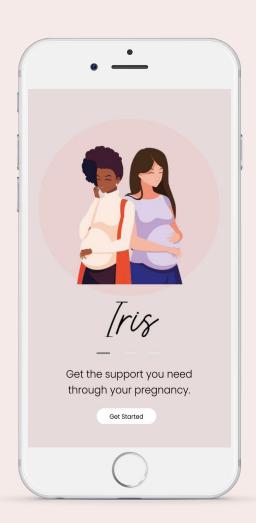
- Distance to hospitals and medical clinics in the vicinity
- Reviews and contact information for each healthcare provider



Health Analytics Report Generation

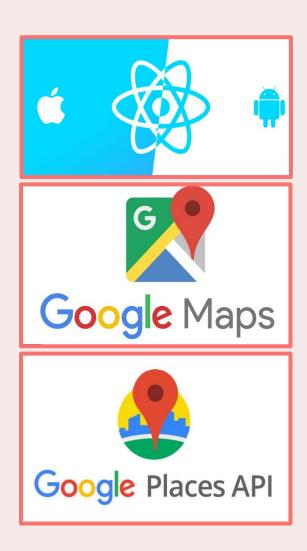
- Conversion of experiential data into medical data
- Consolidated report to be provided to health care provider

Introducing Iris



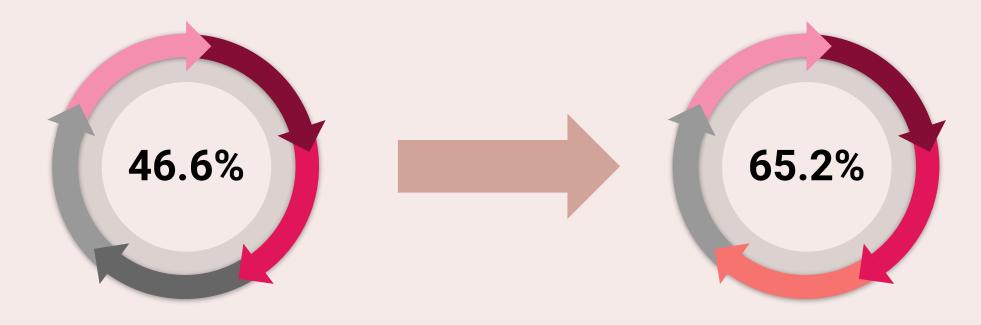


Technical Implementation





Access to Digital Network



Nigerian population have access to the internet

Projected increase in internet and data access by 2025

Our Unique Value Proposition

Linking patients to accessible, peer-vetted care providers

Empowering women to understand and monitor their health Conversion of experiential data to medically applicable insights

Substantial Opportunity for Impact



Better Health Outcomes for Pregnant Women

- Increased awareness of preventable complications during pregnancy
- Improved compliance with recommended medical visits
- Education surrounding best care practices



Increased Efficiency of the Healthcare System

- Provides comprehensive patient history to new healthcare providers, increasing efficiency & effectiveness
- Access to nearest facilities offering required services



Increased Autonomy by Putting Data in the Hands of the Patient

- Women fully control the data that they input and who they share it with
 Users review medical facilities that they visit, increasing accountability of providers

Measuring Our Impact

760K

24M

women impacted by 2026

funding to ensure free access to all women



93%

of preventable maternal deaths prevented

Roadmap for Success

Proof of Concept 2021

Go-to-Market 2022

Scale 2023

Expand 2024

Development of MVP

Fulfillment of regulatory requirements

Restricted launch in Lagos, Nigeria

Market Testing

Raise awareness of product in test market

Grant Funded

Refine product features in line with market needs

Establishment of strong strategic partnerships

Enable in-app appointment bookings & wait-time updates

Nigeria-wide launch in urban cities

Grant Funded

Scale to additional urban, African cities

Tailor solution for rural areas (development of offline SMS version)

Establish partnerships to link patients in rural areas to healthcare services (e.g., transport or community health services)

Grant Funded

Expand offering to include fertility and post-natal services

Integrate community/ social networking feature

Facilitate medical device sharing program for more accurate data inputs

Grant Funded

Implementation Plan

Q'3 2021

DEVELOPMENT OF MINIMAL VIABLE PRODUCT

Objective: develop baseline product and initial partnerships to test user experience

Key Considerations: reliability of mobile data access, smartphone penetration, user experience, data protection & security

Q'4 2021

SOFT LAUNCH IN LAGOS

Objective: reach and receive feedback from 5% of expectant mothers in Lagos

Key Considerations: product/market fit, integration of user feedback, refinement of business model & user interface

Q'1 2023

PRODUCT ADAPTATION FOR RURAL AREAS

Objective: tailor application to meet the needs of rural African communities

Key Considerations: language and cultural preferences of user, transport infrastructure to medical services, collaboration with community health workers

Q'1 2022

NIGERIA-WIDE LAUNCH (URBAN AREAS)

Objective: reach 20% of expectant mothers in Lagos by year-end 2022

Key Considerations: building awareness among target market, establishing strategic partnerships to enhance operations & increase access to care

Q'3 2023

SCALE TO ADDITIONAL URBAN AREAS

Objective: penetrate Nigerian market & launch application in additional urban African markets

Key Considerations: build partnerships & knowledge of new markets

Q'1 2024

INTEGRATE COMMUNITY COMPONENT

Objective: enable real-time interaction

between users of the app

Key Considerations: monitoring the platform

for inappropriate use, privacy concerns

Q'3 2024

FACILITATE MEDICAL EQUIPMENT SHARING

Objective: enable women in the same communities to increase the accuracy of at-home monitoring by sharing devices such as blood pressure cuffs or blood glucose monitors

Key Considerations: donation of set of devices, patient comfort sharing devices, quality control

& replacement of damaged devices, strategic partnerships for end-to-end delivery

CONTINUOUS PRODUCT IMPROVEMENT & SCALE

Go-to-Market

Strategic Partnerships

Specialized medical clinics & hospitals



Transport services to increase access



Public Sector & DFI Partners



Private Sector & Non-Profit Partners



Iris

Thank You!

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Appendix

- 1. Feasibility
 - a. Cost
 - b. Sources of Revenue
- 2. Potential Corporate Sponsors and Grant Providers
- 3. Data Privacy
- 4. Figma Prototype Link & GitHub Code

Feasibility - Costs

| 1 | 5 Year Financial Plan - Costs | | | | | |
|----|-------------------------------|--------------|--------------|--------------|----------------|----------------|
| 2 | | | | | | |
| 3 | Year | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| 4 | App Development Expenses | | | | | V |
| 5 | Mobile Developer | \$65,373.00 | \$65,373.00 | \$65,373.00 | \$130,746.00 | \$196,119.00 |
| 6 | Backend Developer | \$72,500.00 | \$72,500.00 | \$94,250.00 | \$122,525.00 | \$169,650.00 |
| 7 | UX/UI Designer | \$66,846.00 | \$66,846.00 | \$66,846.00 | \$200,538.00 | \$267,384.00 |
| 8 | QA Specialist | \$64,094.00 | \$64,094.00 | \$64,094.00 | \$128,188.00 | \$192,282.00 |
| 9 | Product Manager | \$86,000.00 | \$86,000.00 | \$86,000.00 | \$172,000.00 | \$258,000.00 |
| 10 | Tech Project Manager | \$79,534.00 | \$79,534.00 | \$79,534.00 | \$159,068.00 | \$238,602.00 |
| 11 | Database Architect | \$90,252.00 | \$90,252.00 | \$90,252.00 | \$270,756.00 | \$361,008.00 |
| 12 | Health Specialist Consultant | \$84,091.00 | \$84,091.00 | \$84,091.00 | \$84,091.00 | \$84,091.00 |
| 13 | IP Protection | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$20,000.00 | \$20,000.00 |
| 14 | | | | | | |
| 15 | Testing and Deployment | | | | | |
| 16 | Compatability Check | \$5,000.00 | \$5,000.00 | \$5,000.00 | \$7,500.00 | \$7,500.00 |
| 17 | User testing | \$2,000.00 | \$2,000.00 | \$2,000.00 | \$2,000.00 | \$2,000.00 |
| 18 | Training Guides for new users | \$5,500.00 | \$5,500.00 | \$5,500.00 | \$8,000.00 | \$8,000.00 |
| 19 | Pre launch marketing | \$46,750.00 | \$50,350.00 | \$50,350.00 | \$50,350.00 | \$50,350.00 |
| 20 | | | | | | |
| 21 | Ongoing Maintenance | | | | | |
| 22 | Ongoing marketing | \$50,000.00 | \$50,000.00 | \$100,000.00 | \$250,000.00 | \$250,000.00 |
| 23 | Maintenance and bug fixes | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$35,000.00 | \$35,000.00 |
| 24 | Team Support and training | \$10,000.00 | \$10,000.00 | \$10,000.00 | \$25,000.00 | \$25,000.00 |
| 25 | | | | | | |
| 26 | Total Costs: | \$757,940.00 | \$761,540.00 | \$833,290.00 | \$1,665,762.00 | \$2,164,986.00 |

Feasibility - Source of Revenue

| | А | В | С | D | Е | F | G |
|----|--------------------------------|--------------|--------------|----------------|----------------|----------------|---|
| 1 | 5 Year Plan: Revenue Streams | | | | | | |
| 2 | | | | | | | |
| 3 | Source of Revenue | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | |
| 4 | | | | | | | |
| 5 | Government Grants | \$320,055.00 | \$340,055.00 | \$574,500.00 | \$740,000.00 | \$1,150,000.00 | |
| 6 | Foundation Grants | \$350,000.00 | \$350,000.00 | \$500,000.00 | \$505,000.00 | \$800,000.00 | |
| 7 | Corporate Sponsorships | \$100,000.00 | \$100,000.00 | \$200,000.00 | \$300,000.00 | \$300,000.00 | |
| 8 | Public Donations | \$50,000.00 | \$50,000.00 | \$50,000.00 | \$80,000.00 | \$100,000.00 | |
| 9 | Equity Free Funding | \$20,000.00 | \$20,000.00 | \$20,000.00 | \$45,000.00 | \$60,000.00 | |
| 10 | | | | | | | |
| 11 | Number of Corporate Sponsors | \$2.00 | \$2.00 | \$4.00 | \$4.00 | \$5.00 | |
| 12 | Target Number of Public Donors | \$500.00 | \$500.00 | \$500.00 | \$800.00 | \$1,000.00 | |
| 13 | | | | | | | |
| 14 | Total Revenue | \$840,055.00 | \$860,055.00 | \$1,344,500.00 | \$1,670,000.00 | \$2,410,000.00 | |
| 15 | Cost Projects | \$757,940.00 | \$761,540.00 | \$833,290.00 | \$1,665,762.00 | \$2,164,986.00 | |
| 16 | Potential Profits/Proceeds | \$82,115.00 | \$98,515.00 | \$511,210.00 | \$4,238.00 | \$245,014.00 | |
| 17 | | | | | | | |

Potential Corporate Sponsors & Grant Providers

Health Systems Global



World Health Organization



Pan American Health Organization



Alliance for Health Policy and Systems Research



Canadian Society for International



Rockefeller Foundation



Bill and Melinda Gates Foundation

BILL & MELINDA
GATES foundation

Wellcome Trust



Autonomy over personal health data is core to our mission, and Iris will adhere to international best practices in order to ensure the security of our users' data.

- 1. Lawfulness, fairness and transparency: Any information and communication relating to the processing of personal data entered by users will be easily accessible and easy to understand.
- 2. Purpose limitation: Personal data will only be collected for the specified, explicit and legitimate purposes of the application.
- 3. Data Minimization: The period for which personal data are stored is limited to a strict minimum and is editable at any time by the user.
- **4. Storage Limitation**: Personal data will only be kept in a form which permits identification of data subjects for as long as is necessary for the purposes for which the data are processed.
- 5. Integrity and Confidentiality: Personal data will be processed in a manner that ensures appropriate security and confidentiality of the personal data, including protection against unauthorized access to or use of said data.

Figma Prototype

https://www.figma.com/proto/NwL50xc92 WjYdMoHLAlUCj/Who-run-the-world---htg? node-id=1%3A2&scaling=min-zoom

GitHub Link

https://github.com/devinapj/Iris