

## Executive Summary

### Problem identified:

Primary care delivery faces unique challenges especially in emerging economies. These major challenges include but are not limited to,

- Lack of trained human resources like doctors, nurses, pharmacy and administrative staff combined with insufficient clean and functional physical facilities.
- Limited resources to purchase expensive hardware (like PCs) and lack of training to actually operate those computer systems.
- Inadequate or poorly implemented healthcare systems which have sub-optimal health outcomes in communities.
- Lack of monitoring and evaluation systems for the facility operations (like billings etc)
- Inability to quantify impact and metrics for population level healthcare outcomes. Scope of the solution:
- Liber Health is building the mobile-first electronic medical record and clinic management platform.
- It is a universal intuitive EMR for clinicians which has near-zero learning curve for clinicians.
- Complete practice management including managing patients, personnel, billings and health data.
- Platform access is based on user roles and permission defined by clinic administration.
- Ability to visualize, organize and export all clinical data for reporting to other organizations and authorities.
- Integration with mobile wallets and digital payment modes (like MPesa)
- Patient-facing mobile app which allows patients to monitor and share their personal medical history.
- Biometric identification of patients to instantly and correctly identify them specially in emergencies. Drastically reducing patient misidentifications and record duplications.

### Technology:

- Leverage mobile technology which clinicians are already comfortable with to reduce costs for the clinics and increase adoption rate.
- The platform uses AES-256 (military grade) encryption to secure all health data.
- The entire platform is built on international interoperability and security standards like HL7, FHIR and HIPAA.
- Integration with concept dictionary and diagnostic codes like ICD10, SNOMED and LOINC.
- Mobile application built with Flutter (by Google) to ensure optimal performance on low spec mobile devices.

### What is next?

- Our first pilot run will be with Ilara Health, a health tech diagnostics company which provides common diagnostics accessible and affordable to the 500 million people in Africa.
- The pilot will initially target 10 clinics in Nairobi, Kenya which are already using services/devices provided by Ilara Health.
- Ilara Health will become a re-seller and first client for our solution.
- Currently we are conducting market research and gathering customers requirements in Nairobi which will allow us to build an MVP in the next 4 months.
- We will refine the MVP for 6 months and then expand to target the entire Middle East and Africa (MEA) region.

### Opportunity:

- Kenya is widely regarded as the business hub in East Africa and eager to adopt innovations while functioning as a healthcare testbed for the region.
- Kenya has a mobile subscription penetration of 91% while 84% of the population are internet users these includes doctors and clinic staff.
- Above 80% of the population visit smaller community clinics rather than hospitals.
- Therefore, a mobile based EMR which allows medical staff to perform tasks on readily available mobile devices makes perfect sense.
- The health data collected from these clinics will have unprecedented impact in understanding population level health and get insights for better care outcomes.
- These insights can become additional source of revenue via research organizations (like WHO, CDC etc)

### Team:

- Combined experience of more than 25 years in the digital health space.
- Previously developed a centralized blood center management and automation platform (Panacea) which is currently deployed in more than 22 cities in Pakistan and Saudi Arabia and handles blood related data for 75,000+ patients.
- Team comprises of HIPAA security officers, Blockchain Experts, Data Scientists and Certified Programmers.

### Advisory board:

- Marcel Muenster – Founder and Director @ The Gritti Fund, MD, MPH, Subject Matter Expert at World Economic Forum  
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- Dr. Yousuf Ahmed – President and CEO @ AssureCare Inc. Dr.P.H., MHSA, MBA, FACHE. Former President and CEO Mercy Health  
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