THINKMD

HOW OUR SOLUTION IS DIFFERENT FROM OTHERS IN THE GLOBAL DIGITAL HEALTH SPACE 2023

INTRODUCTION:

Within the global digital health landscape, deciphering the functionality and the value of available technologies is rarely straightforward, even for the most digitally literate. The following document outlines THINKMD's digital health technology within this context, differentiating it while demonstrating how it can be implemented as a stand-alone digital health and data platform solution.

THE DIGITAL HEALTH LANDSCAPE:

Those familiar with the digital health landscape will know that there are many digital health tools that fall within various digital health categories at patient level, healthcare worker level and healthcare organization and policymakers level. An important distinction, however, are tools that support the **digitalization and management of healthcare information vs. digital health and data science tools**.

The first category includes technologies that have digitized health or clinical information and platforms that house or support this information, such as patient data and records, EHRs, case management tools, inventory/stock monitoring and financial information. **Digital health and data science tools,** on the other hand, include innovative technology and data that go beyond storing or digitizing health information and dynamically analyze health data to support real-time decision-making at the point-of-care. These are more advanced, newer and growing technologies and hold the promise of directly impacting the quality of healthcare delivered, the accuracy of provider decision-making, and patient outcomes. Examples of these innovative tools include clinical risk evaluation, triage/treatment option/ care plan development, diagnostic computer vision tools, algorithm based biometric sensors, ML/AI modelling and predictive disease modelling. THINKMD's clinical intelligence (clinical risk assessment) and data analytics solution falls within this category.



THINKMD:

THINKMD's clinical risk assessment platform transforms physician-based knowledge onto a mobile digital mobile health (mHealth) platform that allows a variety of end-users to perform clinical evaluation of a patient and **generates comprehensive clinical risk assessments.** The technology also includes THINKMD's data analytics solution that enables implementing partners to leverage the data their users acquire using THINKMD's clinical assessment software to make data driven decisions and solutions.

Clinical intelligence technology that "thinks" like a doctor.

Our clinical intelligence technology can be used on any digital device such as tablet or mobile phone, can be used by a multitude of end-users such as frontline healthcare workers and professionals, including community health workers, school health workers, and nurses, to perform comprehensive clinical assessments and provide care plan guidelines for a range of clinical conditions and diseases, or by a patient for self-assessment.

Transforming global health at the frontlines of care to enable better decisions, better data and better health to anyone, anywhere.

Clinical intelligence backed by clinical expertise

THINKMD was founded by physicians who are the clinical architects of THINKMD's clinical intelligence and data analytics solution. Together with THINKMD's engineering team, these physicians develop the clinical logic, oversee the design of the UI/UX and ensure that clinical accuracy and quality are upheld. The physicians also oversee all data analytics, data product and data solution offerings and are accountable for QA processes.





1 The user interface of our clinical intelligence platform is simple to use and guides the end user through an integrative clinical assessment, collecting patient demographics, illness history, vital signs and physical examination data. It provides a summary page of all information.

2 The clinical algorithms on the back-end use the inputs to make a medical evidencebased and WHO-compliant guideline, clinical risk assessment.

Triage classification, as well as comprehensive care plan decisions (treatment options, treatment instructions, diagnostic test, referral, re-evaluation, and follow up recommendations) are generated if the user is qualified to provide treatments.

 If the user is not qualified to provide treatments, e.g., an individual who is not authorized to provide health care (including a patient), the application works as a triage and healthcare seeking information tool, does not provide treatment and follow-up information, and instead refers the patient to a list of medical facilities supplied by the implementing partner.

Data for local, regional and global health: Better Decision, Better Data, Better Health.

Each time a user utilizes the clinical intelligence platform, a unique data set of real-time clinical risk across a population or region is collected. Built by THINKMD global health data analysts, data scientists and clinicians, analytics and insight from this data provide:



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Population health monitoring

Disease surveillance and alerts

Platform utilization

Program supervision and workforce monitoring

Patient data to drive program, research and development decisions

Health and behavioral change interventions

THINKMD data is compliant with FHIR standards, a key differentiator with respect to our technology interoperability. Implementing partners have simple access to raw data as well as DHIS 2 specific indicators that can be pushed to DHIS 2 instances. State of the art back end data management, security systems and functionality while a soon-to-be launched data portal provides access to embedded analytics, information resources and training, dramatically improving the data capacity and interoperability for programs and organizations. In addition, we have demonstrated that THINKMD technology can be interoperable with other platforms to significantly augment their technology or to add additional features to THINKMD technology.

THINKMD VS CASE MANAGEMENT PLATFORMS:

Case management tools are used for recording/registering individuals, viewing historical/previous health information, and collecting data for an individual over time. Many have workflow and 'tasking' functionality to prompt a health worker to perform an action or follow-up with a patient. Although many technologies perform these functions, the most well-known technologies with the largest reach are: Commcare (from Dimagi), Community Health Toolkit (CHT - from Medic), and OpenSRP (distributed and supported by Ona).

By creating and capturing longitudinal records, case management tools can be very useful in **programmatic data collection and reporting.** In many instances, case management tools are highly customizable and can be used for a variety of different tasks, workflows, and use cases. Another key feature of these platforms is that the data acquired can be used for **program reporting** to implementing group, funders and healthcare delivery organizations, including Ministries of Health.



Over time, most case management platforms have added area specific features (e.g. health, agriculture, governance) that **supports specific and routine aspects** of a user workflow. Many health-related case management platforms feature some basic health screening functionality for limited key demographic groups, that normally consists of digitized danger sign screening or a basic WHO protocol. Many of these are built on binary decision tree technology, embedded with guidelines that are limited, medically naïve and in some cases incorrect, and rely on unskilled end-users to make important subjective medical decisions.

Although basic data can be recorded and tracked, it is unclear the direct impact that these technologies have on improving clinical quality or health outcomes. Their specific impact will be limited and pertain to improving workflows, collecting longitudinal data, and program reporting which leaves a **significant opportunity for healthcare impact at the point-of-care**. Of note, THINKMD's clinical data solutions and management capability can also perform a vast majority of these functions as well as additional ones to fill these needs, but in a more simplified way that allows for easy adoption, training, maintenance financially sustaining and scaling, which is a challenge with traditional case management platforms. Our technology is designed to be **'integration friendly'** and can also be combined with other technology platforms to deliver integrated - interoperable solutions.

THINKMD was developed specifically for impact at the point-of-care, with the aim of increasing clinical capacity and creating quality healthcare workforces

THINKMD Technology: Designed for scale and impact:

THINKMD's digital solutions are currently live **supporting partners in 10 countries** as a standalone solution. THINKMD's digital health and data solutions platform was developed specifically for impact at the point-of-care, with the aim of increasing clinical capacity and creating quality healthcare workforces to fill the void of the critical health worker shortage in a financially sustainable way. THINKMD Data gathered at the point-of-care can then be used for program-country and global data-driven healthcare decisions through better data leading to better healthcare.





BETTER DECISIONS. BETTER DATA. BETTER HEALTH.

