

# THINKMD™

## THINKMD

### Executive Summary

THINKMD is a social impact company founded by a team of physicians and global health experts. THINKMD's mission is to develop health technology solutions that can be used by anyone, anywhere to extend quality healthcare knowledge and capacity.

Over the past four years, with data from over 50,000 encounters, THINKMD has developed a unique point-of-care mHealth platform that uses physician-based Bayesian scoring logic that is WHO guideline-compliant and works offline. It has imbedded self-training support that has excellent usability and acceptability feedback with data that shows increased usage over time. It decreases initial and subsequent training and evaluation cost and the health logic was designed to use real-time, clinical and epidemiologic data to facilitate the development of supervised machine learning algorithms that continually improve the accuracy of its assessments. Finally, it captures extensive key clinical, program, and user geo-tagged data points for program monitoring and evaluation, population and disease surveillance, health and economic modeling.

### Website

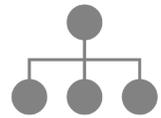
[www.thinkmd.org](http://www.thinkmd.org)

### Recognition

2016 Innovation to Action (USAID / DAI)  
2016 Tech Jam Award, Mulago Fellow



**YEAR FOUNDED**  
2014



**TYPE OF ORG**  
BENEFIT CORPORATION



**OFFERING**  
DEVICE OR TECHNOLOGY



**COUNTRIES**  
UNITED STATES,  
BANGLADESH,  
KENYA, NIGERIA,  
SOUTH AFRICA, SUDAN,  
ZAMBIA, INDONESIA

# THE STORY BEHIND THINKKMD

Two pediatricians from the University of Vermont, Dr. Barry Finette and Dr. Barry Heath, founded THINKKMD in 2014 to eliminate preventable death in children worldwide. They believe that if everyone has the knowledge to *think* like a physician (*md*) that access to quality healthcare for everyone, everywhere can be dramatically improved. They spent 3 years developing a simple-to-use technology with backend algorithms that were tested in field-based trials with 1,000 children in 5 countries, on 4 continents with correlation rates of between 80-95% to that of a medical professional. After four years, THINKKMD is working in 7 countries with world-class partners and is available in 8 languages. THINKKMD has only just begun.



## CHALLENGE

Nearly 15,000 children die every day from treatable clinical conditions, in particular respiratory distress, pneumonia, dehydration, and sepsis. While countries have made great strides in decreasing child mortality, at least 30 countries must at least double their current rate of reduction to achieve the Sustainable Development Goal target of reducing under-5 mortality to below 25 deaths/1000 live births.<sup>1</sup> A major barrier in increasing healthcare delivery is a growing lack of healthcare professionals to identify children who are sick and recommend appropriate early therapeutic intervention. Today, the largest shortages of health workers are in South-East Asia and Africa, which need an additional 6.9 million and 4.2 million health workers respectively to achieve universal healthcare.<sup>2</sup>



<sup>1</sup> The World Bank (2013). UN: Global Child Deaths Down By Almost Half Since 1990. [online] Available at: <http://www.worldbank.org/en/news/press-release/2013/09/13/un-global-child-deaths-down>

<sup>2</sup> WHO 2016. Global strategy on human resources for health: Workforce 2030. Geneva, Switzerland. Available at: <http://www.who.int/hrh/resources/globstrathrh-2030/en/>

## SOLUTION

THINKMD's diagnostics platform puts advanced clinical logic into the hands of any health worker, regardless of their level of training. It increases a user's adherence to recommended protocols and improves assessment accuracy by using data to continually improve the disease algorithms with geo-tagged health and epidemiologic data. Treatments are automatically calculated based on the age and weight of the patient or can be configured to *referral only* mode depending on the type of user and local guidelines. Current population subsets include: 1) Newborn; 2) Children under 5; 3) Youth and adolescent health (ages 5-15); and Antenatal (ANC) and post-natal care (PNC).

THINKMD has partnered with Vodacom and Mondia Health to launch a consumer-based triage platform on the Mum and Baby platform in South Africa that has more than 1.9 million users. To achieve scale and sustainability across Africa, THINKMD is developing a direct-to-consumer solution that incorporates THINKMD's sophisticated risk assessments as a white label product that can be branded by distribution partners. This intelligent platform will support consumers through their daily health and wellness journey: medicine management and reminders; behavioral change content, health information, and access to healthcare services.

## OPERATING AND BUSINESS MODEL

**THINKMD generates revenue by selling the following services and products:**

1. One-time customization and training fee (service)
2. Annual technology and customer service fee for MEDSINC (product)
3. Data Analytics and visualization (service/product)

**A summary of THINKMD's pricing structure is given below:**

1. THINKMD diagnostics platform (B2B model):
  - a. Customization and training fee - between \$22K-\$65K depending on the scope of customizations and scale of use (i.e. number of users). Pricing includes platform customizations, language translation, UI/UX changes, country specific treatment customization as per MOH guidelines, referral functionality, on-site training plus remote follow-up).
  - b. Technology and customer service fee. Price is based on the size of the project and ranges from \$5-\$25K inclusive of technology updates, and 24/7 customer service.
  - c. Data analytics and customized visualization dashboards - \$7.5K- \$20K year (includes M&E, clinical and epidemiological) with high-level functionality and features (time, demographics and scalar filters).
2. THINKMD Consumer based platform (B2C model)
  - a. Subscription fee on a daily, weekly, or monthly basis at an average subscription price of \$0.025
  - b. Future revenue streams include lead generation and advertising via API integration into partner platforms.

# IMPACT

THINKMD has designed its technology to work within existing systems to maximize impact and provide value beyond the financial cost of providing the service. To date, THINKMD is measuring impact in three ways:

- a. **Lives Saved and DALYs reduced:** THINKMD uses John's Hopkins LiST tool to estimate the number of Lives Saved for each implementation based on coverage changes for standard interventions. A decrease in the severity of incidence will be measured over time within a subset of the population to estimate the decrease in the number of DALYs.
- b. **Increase in economic productivity:** THINKMD calculates the potential economic impact of each life saved using the average economic activity of a person over their lifetime based on GDP/capital to calculate the ROI of using THINKMD's technology.
- c. **Field Studies:** THINKMD continues to measure health outcomes through collaboration with research partners whenever possible. For example, in 2018 THINKMD partnered with eHealth Africa and the Ministry of Health in Kano to perform a field-based study to measure the impact of THINKMD's technology on community health worker performance and an evaluation of the usability and acceptability of THINKMD's technology.

Impact studies have shown:

**100%**  
CHWs recommend  
THINKMD

**41%**  
Increase in  
WHO-IMCI  
compliance

**50%**  
reduction  
in training





# INNOVATIONS IN HEALTHCARE™

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