

## THINKMD's COVID-19 Personal Triage, Educational and Surveillance Monitoring Tool

*Click on the following link to access the free THINKMD COVID-19 tool:*

<https://covid19.thinkmd.tech/go>

### **COVID-19 Personal Triage and Educational Tool**

THINKMD has released a COVID-19 triage and educational tool that guides people through a COVID-19 self-risk assessment. It is based on the latest published peer-reviewed WHO and CDC clinical data on presenting signs, symptoms and risk factors. Each personal assessment determines if an individual has none, some or many of the clinical symptoms and presenting features associated with COVID-19. The tool also provides an individual with WHO and CDC educational information on how and when to seek medical care, and recommended protective and preventive measures.

This tool is a progressive web-based application that is functional on any desktop, tablet or mobile smartphone. It is also available via SMS/USSD for feature phones users to ensure widespread global distribution. It is fully functional offline for use by health organizations in areas with limited connectivity.

The goal of this tool is to provide individuals a personal COVID-19 triage and pandemic educational tool in order to decrease the burden on healthcare delivery systems and to increase healthcare capacity where it is most limited. It acquires critical time-specific population health and epidemiology data for disease surveillance analysis that can provide health ministries and international health agencies essential data for developing and monitoring response strategies to mitigate the spread of COVID-19 and to maximize appropriate testing and health care delivery to those who need it the most.

Another key differentiator of THINKMD's COVID-19 screening tool is that it is dynamic and will be updated and expanded as new clinical and public health data is acquired and as country specific health ministries and international aid agencies update their response, guidelines and recommendations as the pandemic progresses globally.



- **Open Access:** THINKMD is distributing the COVID-19 home assessment **free of charge**.
- **Languages:** This tool is currently available in English, French, Spanish, Arabic, Portuguese, Hindi, and Bengali. Additional languages will be prioritized and added based on distribution partners' requirements.
- **Clinical Updates:** COVID-19 clinical screening risk will be revised as data is updated and reported through peer-reviewed articles and national/international health agencies.
- **Educational Updates:** We will regularly update the educational materials based on the pandemic's progression and WHO and CDC guidelines.
- **Geography specific updates:** THINKMD can include specific URL links, or national hotline numbers to access local, community, and national guideline information and recommendation sites and healthcare service/testing sites.
- **Global Mobile Network Operator Partnerships:** THINKMD is working with Mondia Media and its Mobile Network Operator partners to distribute THINKMD's COVID-19 screening tool in Africa, Asia and Europe. The assessment, triage and educational tool will be delivered free of charge via an SMS directly to all its general populations users.
- **US and General Population Based Distribution:** THINKMD has set up a webpage [here](#) and is encouraging wide sharing on social media.
- **Global Frontline Health Worker Primary Health Care Partners:** THINKMD is developing a version of its assessment, triage and educational tool that is fully functional in an offline environment that can be used by frontline health workers to perform community based screening and education.

## COVID-19 Surveillance Analysis and Visualizations

THINKMD's COVID-19 personal triage screening tool captures key geo-tagged epidemiologic and population health data that will be utilized for the emergence and monitoring of the COVID-19 pandemic, as well as predictive disease outbreak modeling. This information will provide key household and community-based public health information to health ministries and international health agencies to assist in the development



and monitoring of their COVID-19 response strategies.

THINKMD's COVID-19 personal assessment and triage tool fills a major void in the paucity of direct, real-time, population health data, in particular in the absence of widespread testing, and the growing strain on primary and secondary health care delivery clinics, and hospitals.

- **Geo-tagged symptoms:** THINKMD's COVID-19 specific symptomatology is geo-tagged and can be combined with other global data sets to further understand how the pandemic is spreading globally
- **Partners:** THINKMD is working with the **Tableau Foundation** to build and provide country specific COVID-19 data sets and **customized, real-time visualization dashboards** for actionable decision making.

## About THINKMD

THINKMD was founded by physicians from the University of Vermont Larner College of Medicine. Dr. Barry Finette, and Dr. Barry Heath set out to develop disruptive solutions to improve quality healthcare for everyone, everywhere. The company's mission is to eliminate preventable deaths by combining next-generation digital clinical intelligence logic with mobile technology in order to dramatically increase global primary healthcare capacity and improve access by decentralizing the healthcare delivery paradigm. Our team includes clinicians, engineers, data scientists, finance, and global health specialists. THINKMD utilizes an integrative patient-centric approach to develop novel technology to change healthcare delivery and leverage critical public health data that will improve clinical decisions, disease and population surveillance, healthcare monitoring and evaluation globally.

## THINKMD Technology

We understand more than ever that making accurate healthcare decisions is critical. Many of us rely on healthcare professionals to provide expert guidance, but getting access to care and testing at the right time is often not possible. THINKMD's clinical decision support technology helps users identify how sick a person is, what illness they may have and what steps to take next.

In 2014, THINKMD started developing integrated clinical assessment algorithms and spent three years conducting field-based research and validation studies, which were published in the [American Journal of Tropical Medicine and Hygiene](#) in June 2019. The results indicate that THINKMD's clinical assessments and triage recommendations correlate up to 95% with healthcare professionals.

THINKMD's clinical decision support technology is unique in the following ways:

- **Integrated Clinical Assessments:** THINKMD employs the same logic and clinical approach used by physicians to complete an integrated clinical assessment of an individual. This assessment does not utilize a binary, “skip logic” decision tree approach, but allows the user, through a series of basic questions and tasks, to acquire key clinical data points. Each data point is assigned a “weight”, then packaged and analyzed based on a Bayesian-based clinical rules engine to simultaneously determine a clinical severity assessment for an expanding list of clinical conditions and diseases.
- **Automatic Treatment, Triage and Follow-up Recommendations:** THINKMD's technology provides age- and weight-specific triage, treatment, and follow-up recommendations that comply with WHO guidelines.
- **Simple and Educational Interface:** Our goal is to increase the capacity and enhance performance of the individual user, not simply train them to fill out an online form. With expert UX/UI designers, we have created a simple interface with limited text that is easy to use and intuitive to operate.
- **Data Collection for Surveillance, Population Health Monitoring, and Program Monitoring & Evaluation:** THINKMD acquires real-time, geo-tagged public health data with each assessment. Once deployed in a region, aggregated and analyzed data from THINKMD can offer epidemiologic, outbreak surveillance, population health, and predictive disease modeling that would provide valuable information to NGOs, health ministries and international health agencies, helping to direct and ensure efficient and effective allocation of limited resources to where they are most needed.
- **Rapidly Configurable & Customizable:** THINKMD's technology is designed to be adaptable and customizable for regional specificity (e.g. language, clinical diseases, treatment, UI/UX) with the ability to quickly configure updates to reflect public health priorities, revised national guidelines or questions/information related to specific disease screening or newly emerging diseases.

## THINKMD's Partners

THINKMD implementing partners are NGOs, research entities, and private sector businesses. Primary end users for NGOs and research entities are frontline health workers (FHWs), represented by community healthcare workers (CHWs), nurses, and pharmacists, while primary end users in the private sector are parents, patients, and caregivers.

- **Bill and Melinda Gates Foundation:** The Foundation has provided support to THINKMD to develop the next generation of interoperable APIs clinical decision support interfaces, entity tracking features and augmented interoperability with case-management platforms and global health medical information systems (HMIS) such as DHIS-2.

- **Mondia Media and Vodacom, South Africa** launched THINKMD's personal health platform, Am I Sick in April 2019 to encourage parents and caregivers to assess the health of their children for key diseases and conditions, and for pregnant and new mothers to assess their own health before and after pregnancy.
- **Save the Children, Bangladesh** adopted THINKMD's technology for use in July 2017. The digitization of the workforce has improved the quality of healthcare delivered for newborns, children under 5, pregnant and new mothers in one of the poorest urban slums in the country.
- **Save the Children, Kenya** began using THINKMD's clinical assessment technology in coordination with the Kenyan ministry of Health in Kibera, Kenya with public and private nurses and pharmacists with the goal of improving healthcare delivery in an under-served urban slum.
- **Save the Children, Indonesia** is using THINKMD's technology to improve the quality of care delivered in clinics in Sumba, Island.
- **Alight, Darfur Sudan** began using THINKMD's clinical assessment platform in clinics to improve healthcare delivery and to monitor the workforce and overall disease burden of newborns and children under-5 in a conflict zone.
- **Alight, Somalia** distributed THINKMD's clinical decision support technology to physicians and nurses working in their life-saving clinics across Somalia and Somliland in September 2019. The health professionals using THINKMD's technology have assessed more than 13,000 children in the first six months of the partnership.
- **Healthy Learners, Zambia** and THINKMD jointly launched a youth-adolescent screening track in Zambian schools. The goal of the project is to digitize an existing paper-based program and increase the healthcare capacity of school healthcare workers to provide preventative healthcare and broad integrated clinical health assessments.
- **EHA Clinics, Nigeria** is using THINKMD's technology to assess the health of children in the community with the goal of bringing quality healthcare delivery to the home.