ADVANCIA TECHNOLOGIES HEALTH **&** **ringmd**

Digital COVID-19 Platform and Telehealth Services to Support the Transition from Population Lockdown to Economic Recovery

A State-Based, National or Agency Response in 72 hours

The Advancia/RingMD team can help states make the essential transition from population-wide lockdown to economic recovery

- Lessons from China, Hong Kong and Thailand demonstrate that relaxation of population containment must be paired with a digital assessment strategy to prevent recrudescence of the epidemic

- We are international experts in COVID-19 digital risk mitigation, with our platform currently supporting millions of patients around the globe

- Our digital solution has been deployed around the world to standardize the triage, assessment and care coordination of at-risk COVID-19 populations

- We can support companies, states and nations to kickstart the economy by helping to monitor for reemergence of disease and immediately respond to contain outbreaks

- Our advanced analytics and patient monitoring capabilities are proven at scale

RingMD is the industry leader in COVID-19 response platforms

RingMD implemented the first COVID-19 digital telehealth risk mitigation solutions at Matilda Hospital in Hong Kong and Phuket International in Thailand. We continue to support a Phase 2 strategy of digital triage in conjunction with an information management platform to reduce the risk of exposure, protect physicians and medical care employees, and continue to provide access to care in situations where access to the hospital or clinic is difficult.

RingMD implemented the a nationwide COVID-19 digital telehealth risk mitigation solution for country of Chile within 72 hours.

## 18M people
Largest Digital Care Campaign Ever in Chile

The Advancia/RingMD Solution

Digital COVID-19 platform for triage and contact tracing supported by 24/7 backend physician ,nursing and public health support:

- Patient risk assessment, triage and contact tracing

- Real-time risk categorization and geospatial heat mapping

- Direct notification, testing and quarantine

- Advanced analytics and patient monitoring capabilities

- Incremental solution based on contingency

Know the Evolution of COVID-19 Spread in Real-Time
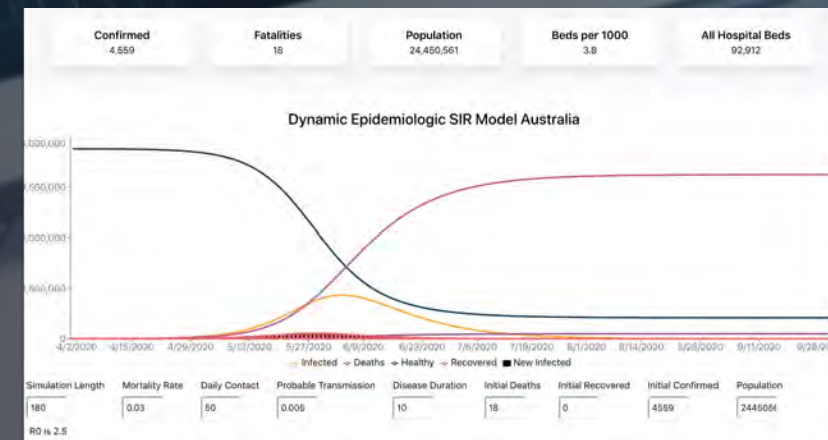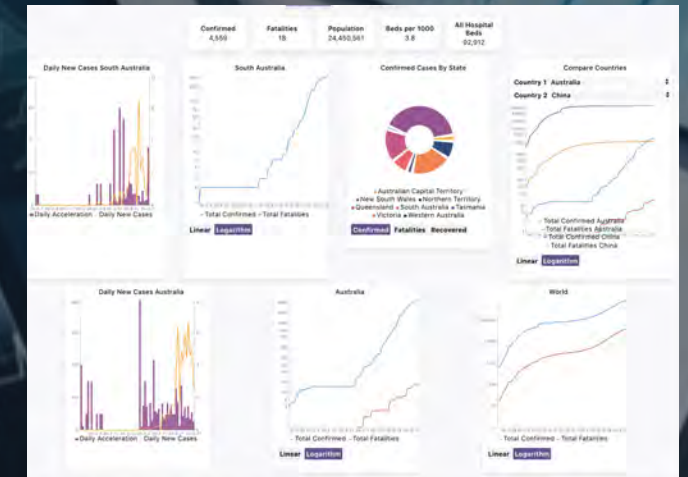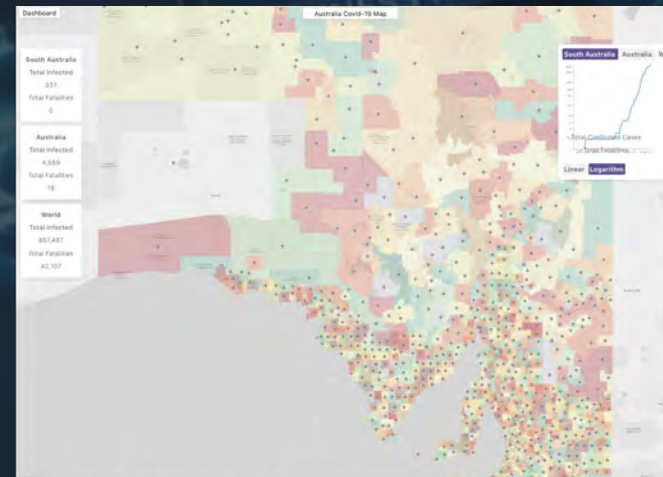
| REDUCE RISK | + | ACCELERATE IMPLEMENTATION | = | OPTIMISE RESPONSE |

The Advancia/RingMD triage, tracing and notification solution can be activated in 48-72h and is in use and verified in 3 countries for specific COVID-19 alleviation.

The need for an interactive solution NOW

- There is a critical need to know how epidemic is spreading and where

- SA Health's ability to rapidly trace contacts and locations is limited.

- SA Health's Current triage solution is PDF based and static providing no feedback loop to the system to direct decision making

- A low percentage of patients presenting with COVID-19 like symptoms ultimately need to be treated in an acute setting; currently a significantly higher percentage are presenting to the hospital and system

RingMD provides an interactive triage tool with geospatial mapping and telemedicine consults.

- The web based portal and app provides a standard symptom based questionnaire that can be tailored to SA Health protocols and triage

- Patients are categorized to 5 levels from the worried well (it also captures anxiety levels) to the acute and symptomatic

- It provides real time maps, hotspots and multiple analytic views using geospatial information and directs patients are directed to the most appropriate service

- Virtual consults are an optional add on to the COVID-19 solution that can be configured after rapid mobilisation

The real time monitoring provides system wide benefits

- Geospatial mapping provides visualisations on the spread of the virus that can be used to inform decision making and deployment of resources

- This enables resource prioritisation and pro active management of spread on a geographic basis as lock down comes in to effect

- The app can push notifications to users in the area and direct communications to local organisations to improve pro-active traceability.

- The app can supplement the workforce by enabling clinicians (including retired clinicians, or those stranded overseas) to provide consults remotely.

Key functional features: the solution is tried and tested

- The RingMD solution has been used for 6 years to provide out of hospital care: there are COVID-19 specific solutions that have been live in Hong Kong for 2 months, and also recently deployed in Chile and Thailand.

- Critical functions can be implemented in 48-72 hours

- The platform is hosted on Microsoft Azure (in Australia Azure government cloud) and accredited. Local data centres can be used if necessary.

- All data transmitted by video is encrypted with Secure WebSocket connections. The platform uses 128-bit Secure Socket Layer (SSL) encryption and is HIPAA compliant.

- The solution is white labelled for rapid integration into the system response

RingMD provides a simple **user-friendly interface** for both clinicians, patients and the system.

For patients

Account set up and legal disclaimer

- Web based or Android/ Apple apps

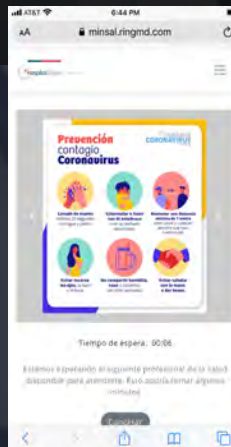- Confirmation for you/ a family member

Symptom based questionnaire

- Tailored to local guidelines

- Includes questions on anxiety levels

Risk Assessment/Triage summary

- Provides local service options and triage

- Can provide immediate telemedicine consult

Patient education on COVID-19

For public health workers/clinicians

Clinician workflow list

- Web based or Android/ Apple apps

Initiating a consult

- Phone or video options

Requesting a consult

- Provides local service options and triage

- Immediate education/telemedicine consult

Clinical summary

- Outcomes recorded and (can be) linked to electronic records

- Decision recorded
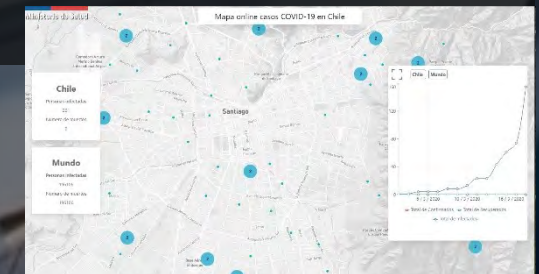
For the system

Real time feedback on outcomes

- IP and long/ lat. co-ordinate capture

Visualisations and maps

- Hotspot identification

- Severity and acuity of symptoms captured graphically

Continuous improvement features

- Updates to protocols

- New advice can be pushed to users

Geospatial analytics illustrate the symptom severity of patients as well as their location: the solution can push information to affected areas and prioritize communications and resources

Mapa online casos COVID-19 en Chile
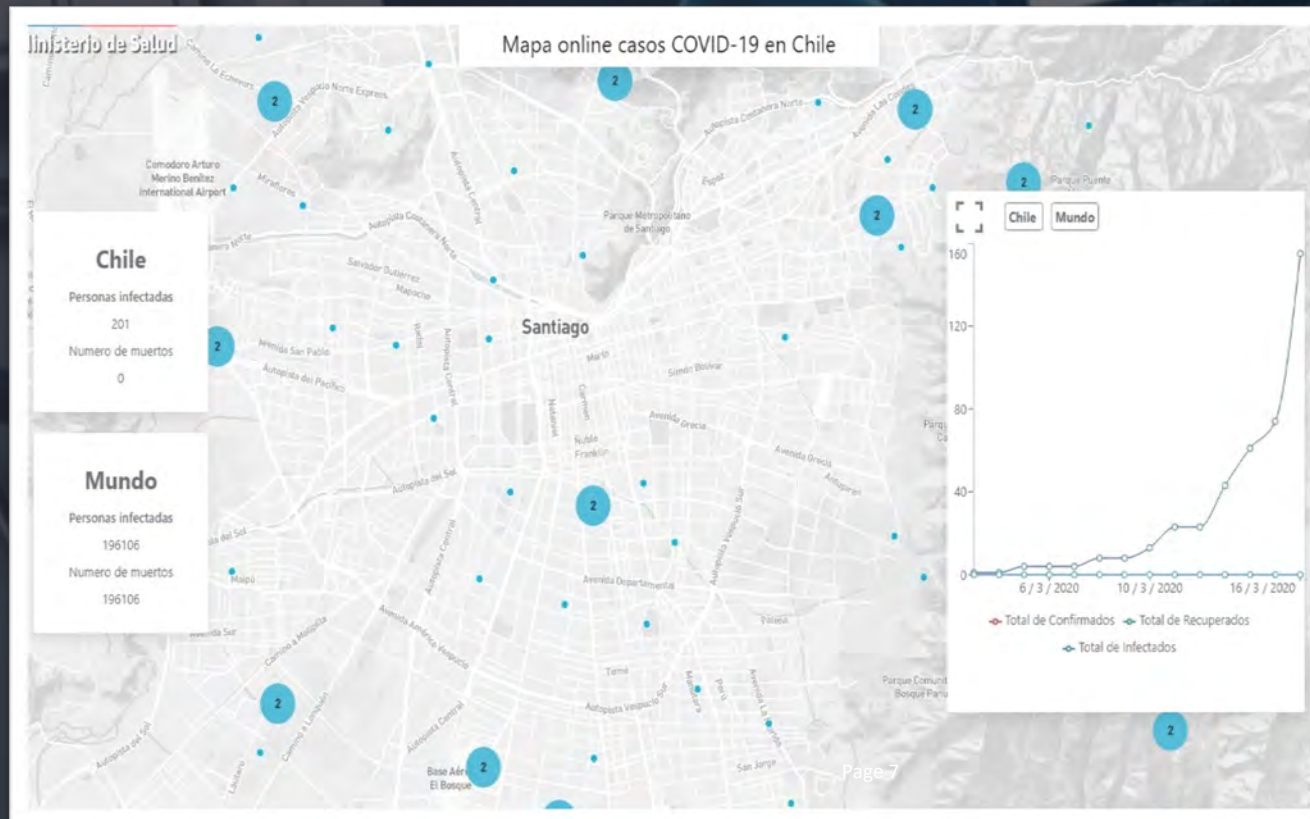
Supporting appropriate measures to improve traceability

- It uses geospatial data to track hotspots

- This can be used to direct resources to increase information, testing or lockdown

- Whilst traceability is an issue globally this is a proactive approach which leverages publicly available and freely provided information, avoiding amore draconian command and control approach:

  - In Singapore personal details are published online (name and address) for those patients who have confirmed cases of COVID

  - In China QR codes must be scanned at every transport hub before travel- this is linked to citizen ID

Our system receives **real time geospatial mapping** and analytics

- ▶ Analysis and visualization of key data and indicators
- ▶ Segmentation of patients into risk categories
- ▶ Geo-referenced analysis and automatic classification of patient risk
- ▶ Demand forecasting and forecasting model generation
- ▶ Outcome analysis, based on care protocols, of health professionals who work on the platform
- ▶ Detection of gaps and detection of opportunities for improvement
- ▶ Can be extended to interface with public information and other sources that relevant to the analysis of the pandemic

Our COVID-19 solution is currently active in 3 countries (going live in 4)

Hong Kong   *Thailand*   *Chile*

- Full telemedicine solution available in 48-72 hours including video and voice clinical visits

- Tailored solution to support cultural norms for human to chatbot interaction and human to human communication

- Provided powerful reporting and geospatial analytics to illustrate relative severity and dispersion of the spread of COVID-19

- Analytics informed health systems relative to where they would need critical assets and workforce

- Application support the government in appropriately managing access to healthcare facilities and guiding people to shelter in place when they were experience no or mild symptoms
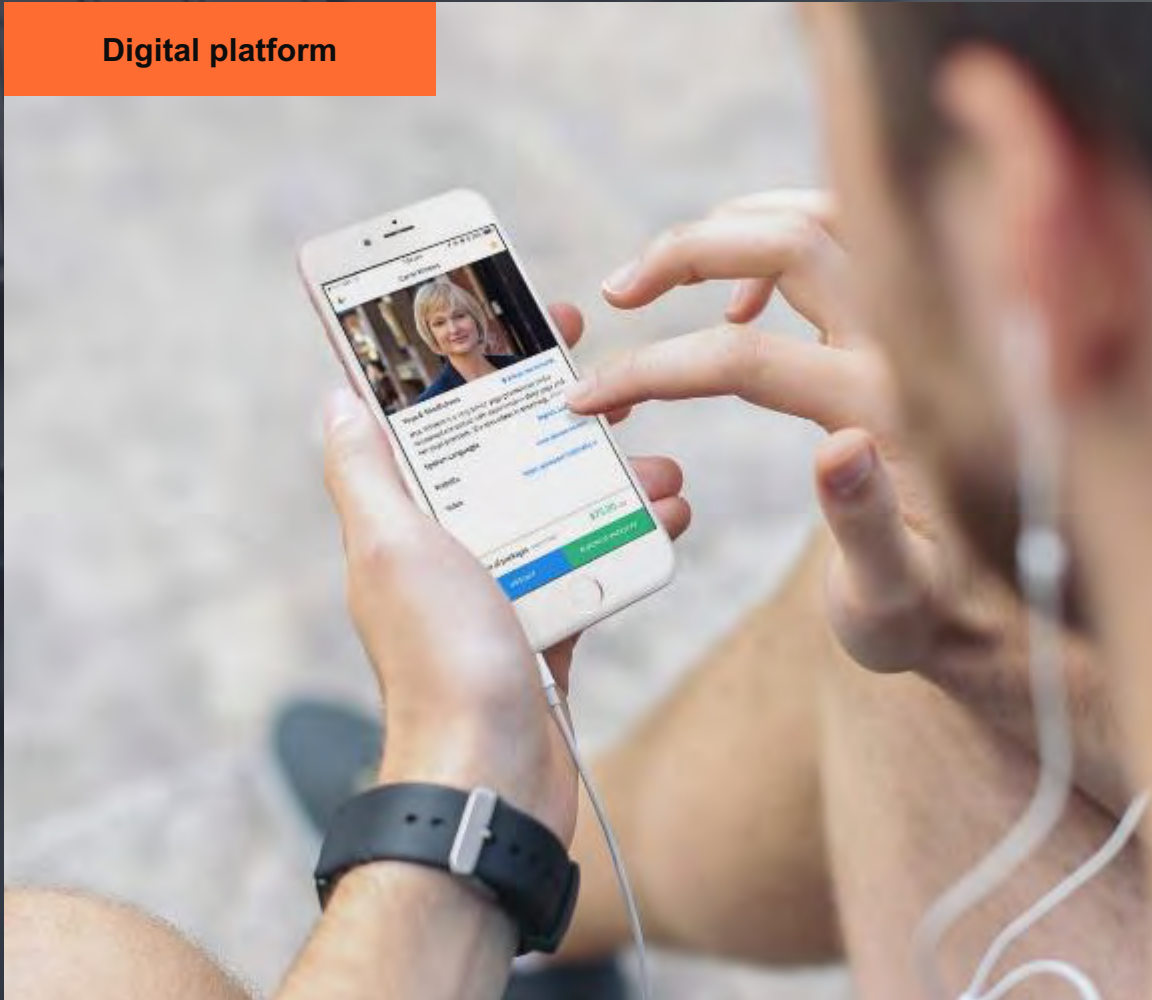

Key actions to support 48-72hr rollout

- *Determine clinical triage protocol and patient demographic questions and modify template questions*

- *Coordinate with app stores to enable rapid approvals*

- *Determine post triage decision actions for patient risk categories*

Solution security and privacy

Digital platform

► The platform is hosted on Cloud.gov, AWS and Azure, and provides a high availability (99.9%) system and redundancy in different geographies.

► These centers have been accredited under ISO 27001, SOC 1 and SOC 2 / SSAE 16 / ISAE 3402, PCI Level 1, FISMA Moderate and Sarbanes-Oxley (SOX).

► Local data centers can be used if necessary.

► All data transmitted by video is encrypted with Secure WebSocket connections when transmitting video between the server and users. The platform uses 128-bit Secure Socket Layer (SSL) encryption and is HIPAA compliant.

Key activities the first 48 hours of our rapid virtual response

Day 1

- Execute virtual project kickoff, confirm governance and set up virtual war room remotely
- Confirm state based clinical triaging and screening protocol (incl. confirm variations from the standard provided)
- Agree reporting and analytics requirements
- Initiate platform and confirm approved branding for White Label
- Define and execute internal communication plan
- Demonstrate and iterate app, reporting and analytics
- Confirm high level app workflow (de
- Confirm sponsorship for cloud.gov.au and other regulatory approvals

Day 2

- Execute app testing and validation for usability, accuracy, and security
- Provide training for first version of the virtual assistant
- Stand-up user help line for application
- Launch Application
- Gather data to configure additional functionality and determine launch plan

The whole solution provides a broader capability that can be scaled and sustained beyond COVID-19

Get the solution live	Embed the solution in the system	Optimize triage outcomes	Keep the solution staffed and relevant
Digital platform	**Digital program accelerator**	**Intelligence and Analytics**	**Professional Services**

Digital platform

- Implementation of the digital platform through web and mobile channels

- Defined operating model and remote support

- Design/ agree variations agreed to the triage algorithms

- Virtual assistant Q&A designed and chatbots developed

- *For telemedical consults*: Connection of health professionals through telemedicine for digital patient care.

Digital program accelerator

- Mapping and analysis of key roles and responsibilities
  - Who is charge of the virtual situation room?
  - How and by whom information is analysed?
  - How does this integrate in to SA Health's response teams?

- Internal alignment of the program and continuous monitoring

- Design and development of a contingency monitoring program

Intelligence and Analytics

- Patient flow modelling to enable virtual and out of hospital care
  - Chatbot
  - Telemedicine consults
  - Online pre-diagnosis

- Digital waiting room for patients who require immediate medical care (triage); targeted information can be provided at this point following the chatbot interaction

- Integration with digital care records

- Advanced analytics with geospatial spread mapping

- Analysis of the demand, by region, to plan the supply of services and the training of health professionals

- Monitoring of risk groups

Professional Services

- Telehealth-enabled physician, nursing and public health staff to perform assessment, triage, contact tracing and care/testing coordination

- Service quality assurance through dedicated, named support team

- Professional team training

- Analytics Dashboard / Reports& Model continuously updated

- Continuous improvement with on demand updates of medical protocols

- Continuous improvement of the processes behind the solution

- Ability to "push" notifications to users

Five things that set us apart

1 We deeply understand technology and the critical dependency between digital transformation and technology, including an intense focus on the need to drive positive customer experience and financial results, quickly and over the long term.

2 We deeply understand the healthcare industry, which is currently in a period of disruption that brings opportunities and threats. RingMD has successfully run similar programs in the industry and we have a local network to support us.

3 We understand the needs and complexities of the government and the moment that citizens are spending with COVID-19. We have previous experiences collaborating with your teams both locally and globally. We understand the dimension and complexity of the national and global reality and how it will impact citizens in the short term.

4 Our work approach is based on managing change and raising social awareness, designing the platform and technology is based on the experience of citizens and key actors, which allows us to generate connected and binding contention management.

5 We have an expert team with exclusive dedication to implementation, as well as good practices and specialists with knowledge of Digital, Social Management, IT, Processes, Risks, and Health, among others.

RingMD knows large scale tele-triage implementation

RingMD has partnered with the Indian government to be its exclusive telemedicine platform provider for the National Digital India initiative.

RingMD offers digital healthcare through the Common Service Centers (CSC) which are local access points for government service delivery.

250,000 sites
CSC focuses on the region
RingMD offers digital healthcare to 250,000 CSCs across regional India.

883M people
Outreach in rural areas
The goal is to increase to 500,000 CSC by the end of 2017 and reach 883 million people living in rural India.

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Contact us!

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