



HEALTH REVOLUTION

Wearable monitors, smartphones, electronic health records and new environmental sensors are just some examples of technologies that can benefit from a knowledge of where. Consumers, health care providers and policy makers are increasingly looking for smart ways to link and analyse these data to make better decisions for our health.



We have access to enormous amounts of data. From the routine information collected by health agencies and GPs, to the spontaneous data gleaned from social media feeds and smartphones. FrontierSI's health program will take these rich and prolific data sources and merge and analyse them in novel ways with a focus on the spatial dimension, to give new insights into individual health and wellbeing.

Working with our partners we will play a key role in providing Australia and New Zealand with the tools required to answer the question: how can location inform better health outcomes and improve health system efficiencies?

OUR CONTRIBUTION

Our research has built connections between sensors, health risks and disease management. We have used novel techniques, like photogrammetry, to help diagnose rare diseases and treat burn victims. And, we have visualised how cancer screening, diagnosis and survival vary across the country to portray national patterns of cancer incidence, survival and screening practices.

We have been demonstrating the importance of location information to health and have been connecting policy makers, spatial scientists and medical professionals to undertake research delivering actionable outcomes.

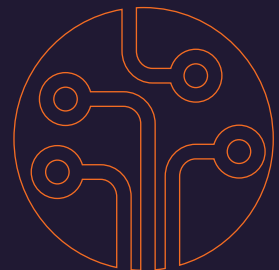
Our research efforts will align with national health priorities and we will continue to seek guidance from our partners in government health agencies.

RESEARCH FOCUS

In collaboration with our partners, our multi-disciplinary research teams will develop methods to collect and integrate personal health data with both environmental data and the data being collected every day by our digital devices. Using the latest technology, researchers will also build new spatio-temporal models and predictive algorithms to assist health care planners and providers to manage, prevent and treat chronic diseases with robust, relevant and individually focussed interventions.

We will work closely with our positioning, spatial infrastructures and rapid spatial analytics programs to ensure projects across FrontierSI are delivering outcomes of value to our health program.

Our outputs will be delivered fit-for-purpose and ready to use empowering the health profession and the community to take more informed, preventative health action.



PARTNER

Government Partners

Academic Partners

Industry Partners

Local, State & Federal

Product & Service Vendors

Health Insurers

OUTPUTS

- Models to inform care pathways
- Models to improve service provision
- Evidence-based to inform policy

- Development of new models and techniques
- Research papers

- Algorithms and models for integration into new products

- Client risk profiling
- Disease modelling

BENEFITS

- Informed Policy & Planning
- Reduced Potentially Preventable Hospitalisations (PPHs)
- System efficiency
- Improved care pathways
- Equitable healthcare
- Early warning interventions
- Disease modelling

- Modelling research
- Connection with end users
- Creation of new data sets
- Commissioned research

- App development
- Analytic platforms
- Hosting
- Data Acquisition

- Better understanding of client risk
- Reduction in benefit payment

IMPACT

We will see significant improvements in chronic disease management from an individual and system level, measured through economic, social and individual metrics.

