Australian e-Health CSIRO Research Centre



We harness health data to drive efficiency, productivity and decision-making for hospitals, patients and communities to support quality and safe patient care

We develop safe and effective tools for generating insights, informing operational planning and policy making through modelling and simulation, surveillance systems and clinical decision support using data science and artificial intelligence.

Smart outpatient scheduling

The challenge

Timely access to specialist care is key to patient safety and quality outcomes.

Demand is growing for these services, creating unsustainable pressure on our public health system, high-volume waiting lists, long appointment delays and adverse patient outcomes.

Despite this, there are no existing software solutions that support hospitals to manage outpatient demand and reduce these growing demands.

Our response

We've created tools that:

- improve decision making when clinicians are booking appointments for patients by predicting suitable dates
- provide hospital administrators with 'what if' scenario modelling capability to create alternate booking schedules.

Our tools are designed to improve scheduling and management, and model future patient flow by forecasting demand.

Hotspots

The challenge

Our public health system needs to understand the risk of AMR outbreaks to respond effectively.

AMR risk varies depending on a region's population density, access to services, and climate. Remote-dwelling populations are at an increased risk of AMR due to high burden on chronic infectious diseases, which necessitates large volumes of antibiotic use. Climate and socio-economic factors contribute to an increased risk. Current surveillance systems do not quantify spatial risk, which affects the ability to prepare and initiate an effective and equitable public health response preparedness and to help in identifying regions of increased risk.

As a result, local and national strategies including public awareness, antibiotic stockpiling or vaccination, can be targeted to the most vulnerable populations in Australia.



Source: https://amr-hotspots.net

