New South Wales Ambulance is one of the largest ambulance services in the world, serving communities ranging from small rural settlements and remote communities to larger coastal towns and the metropolitan areas of Greater Sydney. NSW Ambulance required tools that would allow it to undertake its own service planning across the many geographies within its jurisdiction.

ORH'S APPROACH

ORH developed a suite of models to assist NSW Ambulance in service planning. Each model focuses on a specific area of the service, addressing the unique challenges that different parts of the state present. The Demand Cover Model is used by the service to identify new locations, while the Rural Station Model analyses different rosters at smaller rural stations, including on-duty, on-call and mixed crewing. AmbSim is a detailed simulation model in which

incidents are generated and vehicles respond based on skill level, dispatch protocols and proximity. This model is used by NSW Ambulance to answer a wide range of service planning questions in the metropolitan areas of the state. It is also used to provide detailed advice to the NSW Ministry of Health and chief executives of local health districts on the predictable impacts of changes in hospital roles. Service planning and performance improvement teams were also provided with comprehensive training carried out by ORH consultants and, as part of an ongoing agreement, the models are upgraded each year with new functionality and the latest data to ensure that their outputs are always up to date. The cleaned data set that ORH developed during the production of the tools is used extensively to support additional analysis by NSW Ambulance.

RESULTS

The training provided by ORH, combined with transparency of the models and their assumptions and processes, has enabled service planning and performance teams to make recommendations and to provide clear explanations and evidence to both internal and external stakeholders. To date, projects carried out using the models have included assessment of new volunteer responder schemes, confirmation or



substantial modification of proposals to modify hospital roles, and the acceptance by the NSW industrial relations judiciary of proposed rota reviews. The Demand Cover Model has provided substantial benefits in the identification of optimum locations for new regional stations, including the identification of single-station options in situations where it had been assumed that two stations were needed.

KEY BENEFITS

- NSW Ambulance has gained a wider understanding of the appropriate techniques and approaches for analysing a variety of service planning problems
- The service can now undertake its own service planning, modelling and experimenting with variations in performance targets and rosters

to meet constantly evolving challenges

- Recommendations can be explained to a range of audiences using evidence generated internally by the service
- Because ORH has developed considerable familiarity with the issues facing the service, NSW Ambulance can access highly sophisticated, prompt and efficient advice to answer service planning questions, both using the existing tools and where additional analysis is required

To date, projects carried out using the models have included assessment of new volunteer responder schemes and rota reviews.



New South Wales Ambulance Supplying service planning tools

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