
CONFERENCE ABSTRACT

Informatics Here and Now to Support Efficient Integrated Care

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Under the NSW Integrated Care Strategy, the NSW Government has committed \$180 million over six years to implementing innovative and locally led models of integrated care in NSW[1], with wide variation in care models and target populations across 17 sites spanning the state. The challenge is to identify successful programs at each site, and scale them up across the state, with information provided to different Local Health Districts to help them choose the right program to meet the needs of their local population.

Methods: The study comprised all IC sites for which at least 18 months of post enrolment data was available (13,000 patients across 12 sites). Using an interrupted time series design, we evaluated year-on-year differences in (1) the number of ED visits, and (2) length of stay for hospital admissions, for each patient, across a 6 year period – 4 years before and 2 years after (pro rata adjusted) the enrolment date as point of reference. Year-on-year differences, as a self-referential metric for individual patients afford a more direct measure of efficacy in a heterogeneous cohort setting.

For inferential confidence, we used propensity score matching to establish an equivalent comparison group for each of the program cohorts using Admitted Patient and Emergency Department Datasets, the Registry of Births and Deaths, as well as socioeconomic and geographic information provided by the Australian Bureau of Statistics for the population of NSW.

Results: We were able to identify successful programs where patients had a significant reduction in ED presentations and / or Hospital stays measured relative to their comparison group. In each case we quantified the reduction in service utilisation.

For successful programs, we have produced algorithms which can separate those patients who will benefit from the program and those who will not, to support clinical decision making for future patient selection and enrolment.

Finally we have used these algorithms to show in advance the patient populations across NSW, who are likely to benefit from each of the programs earmarked for scale-up. We have built an R/Shiny software based dashboard to help communicate this information to partners and stakeholders.

Conclusion: We have created an evidence based, state wide approach to implement IC which takes proven programs, scales them up, and enables each locality to choose those which best meet needs of their population.

References:

1-Available from: <http://www.health.nsw.gov.au/integratedcare/Pages/default.aspx>

