Conference Abstract

Financial modelling for telemonitoring

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Abstract

This paper provides an overview of the ScHARR MALT model which is intended to be a financial planning tool for the organizations involved with Telehealth adoption or changes to the current Telehealth provision system. The unique feature of the ScHARR MALT model is that the financial and cost effectiveness estimates are generated from disease (HF and COPD) progression models, not based on the ad hoc calculations from unidentified stakeholders like it is done in other business cases.

The financial model was developed to have the capability to perform different types of option appraisal. The financial model has the functionality to

a) specify the casemix of patients on telemonitoring (TM) according to severity subgroups, which will allow for different TM implementation strategies based on patient severity status

b) specify different implementation scenarios i.e. choose the number of TM devices available at different time points

c) specify different service models i.e. choose from different permutations of activity, supplier and contractor (e.g. choose different stakeholders to perform a specific activity in each TM option, this is because the TM service is provided by a number of partners who are subcontracted to deliver their piece of work)

d) specify different contractual agreements i.e. choose from different permutations of contract for each activity between the supplier and contractor

These capabilities allow the model users to test different scenarios for scale and speed of implementation/deployment, contract and service configurations. A wide range of alternative scenarios can be considered in the model, ranging from a) procuring elements of a telemonitoring service versus a full managed service, b) speeding up to scale versus staying at current capacity,
c) contracting by outcomes versus contracting by process. For all these scenarios, costs and benefits for each stakeholder are output along with the return on investment (RoI) measures. These will allow for estimating the efficiency of each telehealth scenario (for e.g. achieved by speeding up to scale) in terms of health benefits, potential cost savings and RoI.

Keywords:

financial modelling, telemonitoring, return on investment