

Using Simulation to Test New Models of Care

The Fylde Coast Experience

The Fylde Coast health economy was selected by NHS England as one of 29 'vanguard' sites across the country to test new ways of organising and delivering healthcare to local people. This case study reflects how the NHS Long Term Conditions Financial Model has helped Fylde Coast to **experiment quickly** with models of care in a risk-free environment, while regularly updating data for new sets of results.

As a vanguard site, the Fylde Coast health economy, made up of various Clinical Commissioning Groups (CCG) - *NHS Fylde and Wyre CCG, NHS Blackpool CCG, Blackpool Teaching Hospitals NHS Foundation Trust, Lancashire Care NHS Foundation Trust, Lancashire County Council and Blackpool Council* - will organise healthcare around patients, delivering more support in the heart of the community and **less in hospital**.

Fylde Coast undertook risk stratification of its population to determine the target groups for their new models of care, considering the hospital activity for each group. These pioneering new models of care will act as blueprints of change for the rest of the country.

Meeting Patients' Needs

Following a literature review and wide ranging clinical consultation, new models of extensivist care and enhanced primary care were developed to meet the needs of the identified patient cohorts.

Fylde Coast plans considered the likely impact of a “do nothing” approach, taking into account population change and historical activity growth trends and compared this with the expected impact of new models of care on activity, cost and workforce demand.

The Extensivist and Enhanced Primary Care Models

The initial neighbourhood adopters of the extensivist care model providing proactive care for elderly and frail patients with two or more long term conditions has had impressive results - showing a significant drop in both A&E attendance and outpatient appointments.

Extensivist care is overseen by a senior doctor who reviews each patient and discuss their needs with the patient’s own GP. A care plan is created, tailored to suit individual needs and including goals for the patient, so that they can work towards improving their own health and well-being where possible. The doctor is supported by a team of health and social care professionals, including nurses, therapists, and pharmacists, who will have holistic responsibility for a patient’s care – this includes overseeing care provision if the patient does require treatment in a hospital setting.

Plans for Enhanced Primary Care will see GPs working in neighbourhoods alongside community care and social workers. Supported by shared electronic care records

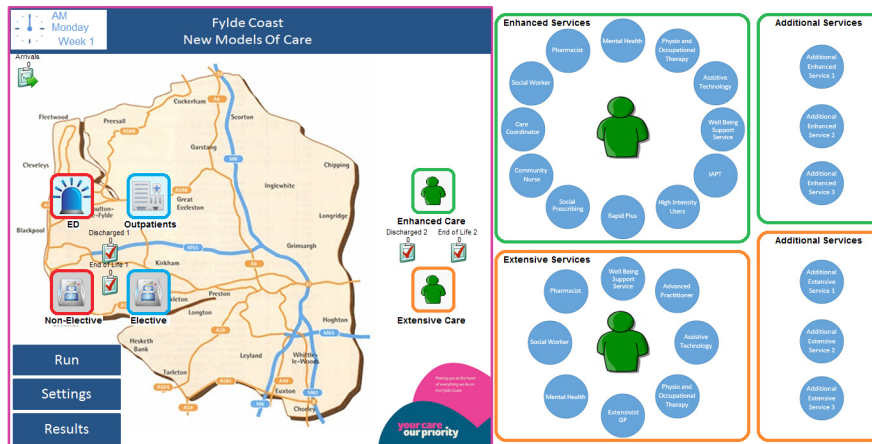
and a single point of contact for all out-of-hospital services, this is expected to ensure seamless care for every patient across the Fylde Coast.

As part of this work, supported by the North West Coast Academic Health Science Network, Fylde Coast worked with SIMUL8 Corporation to develop a computer simulation tool to model the initial assumptions for projected financial and resource expectations. This is being used with refreshed data to test performance on a regular basis and predict outcomes against plans going forward in line with the Plan, Do, Study, Act improvement approach.



Fylde Coast - An Example of Best Practice

NHS England commissioned a **Long Term Conditions Financial Model** to test the impact of person centred care interventions on costs, with the aim of distributing this across the NHS to be used by multiple organisations. The Fylde Coast New Models of Care simulation parameters were included in the NHS England model as an example of best practice so that other users across NHS England could test the impact of adopting these New Models of Care in their localities.



The Fylde Coast Simulation Model

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We asked Fylde Coast to explain the benefits of using simulation to support their decision making:

“We had ambitious targets for Payment by Results savings from our target patient cohorts and in the first instance we wanted to simulate our plans to ensure that there was alignment. Our simulation modelled the characteristics of patients in each cohort, for example an extensivist “type” patient had a 92% chance of attending A&E and an Enhanced Primary Care Patient had a 30% chance of attending A&E. These characteristics were modified if the patient attended an extensive care service to 50% and 25% for Enhanced Primary Care. The cost and activity volume of the new services was calculated dependent on patient use and set against the savings in hospital care.

We learned that whilst we had phased in the roll out of the schemes across the localities, we had not considered that not all eligible patients would choose to take up the service. This led to some useful discussions about how many patients we should plan for, and the impact of patients not taking up services.

Whilst we had divided our patients into different cohorts, we knew that there would be some transitioning between cohorts. The simulation encouraged us to think about the behaviours of those cohorts. Would an extensivist patient discharged from extensive care, continue to have the same characteristics or would they now behave as an Enhanced Primary Care patient?

We won’t know exactly until the programme has been rolled out, but we do know we need to consider these questions.

The precise nature of the model of care has not been described in huge granularity, and we didn’t have a sense of how many times a patient would be seen by a health and well being support worker in each of the cohorts.

The simulation allowed us to experiment very quickly with models of care in terms of types and numbers of contacts to fit with our budget predictions.

For example we wouldn’t expect all Enhanced Primary Care patients in the cohort to access all new services.

The real benefit will be in refreshing the simulation data regularly with with service utilisation data by these cohorts. This will quickly tell us whether our predictions are right and enable us to **predict performance trajectories** based on the updated results to see if we will meet our financial goals. In this way we can act quickly to ensure that the new models of care are working as we expect.”

Andrew Harrison, Finance Lead, Fylde Coast