

Planning for **new models of care** in Anytown

A hypothetical case study of how the *Long Term Conditions Financial Model* could be applied to test the financial impact of person-centred care interventions for those living with multiple long term conditions.



The **Anytown Clinical Commissioning Group** (CCG) has an ageing population, many of whom are living with multiple long term conditions.

The CCG is aware that this group will grow over time as the population ages and has identified from their analysis of the data that they are very high users of hospital services.

The Chair of Anytown CCG, a local GP, is passionate about managing care more proactively for these patients and has made this a priority for the CCG. They understand that this simulation tool will help look at the potential costs of different approaches once these are identified by clinicians.

Using the scenario results for future decisions

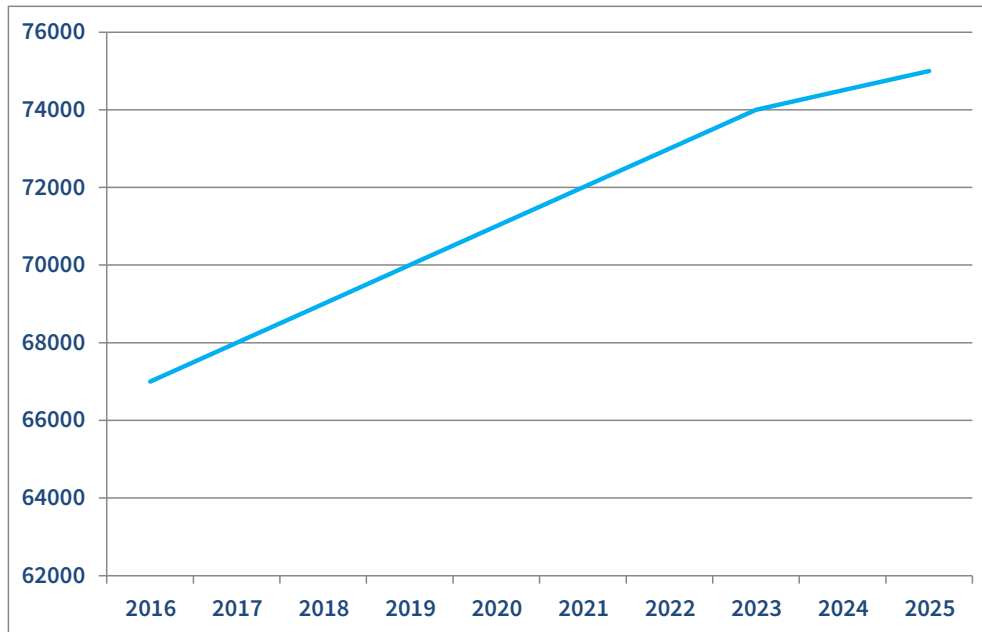
The Anytown CCG used this tool to run example scenarios through for three years with the simulation model and found that costs started to reduce in year two. This provided them with a sense of the community staffing resources which would be required in future.

This gave the CCG the confidence to plan and agree the business case going forward. As such, they are now refreshing the simulation data on a monthly basis to check progress against the trajectory.

Once you have been sent log in details for the NHS England SIMUL8 portal, you can access the simulation here:

Identifying the model care patient group

Anytown CCG 10-year population growth (over 65s)



2016	67,000
2017	68,000
2018	69,000
2019	70,000
2020	71,000
2021	72,000
2022	73,000
2023	74,000
2024	74,500
2025	75,000

Anytown CCG's first task was to clarify which patient group would be the focus of the model of care. Analysis of the over 65s population (about 20% of the total population) by numbers with long term conditions, attendance at the Emergency Department (ED) and subsequent admissions, revealed that there were three likely subgroups:



Very high level needs (6% of the over 65s cohort)

Over **90%** of this group attend the ED each year and have an **85%** likelihood of admission.

They have about four outpatient appointments per year and **65%** have electives. Those in this group usually have **more than five** long term conditions.



High level needs (30% of the population)

Around **60%** attend the ED each year and have a **40%** chance of admission.

They have two outpatient appointments per year on average and **75%** have an elective procedure. Those in this group usually have **three to four** long term conditions.



Low level needs (40% of the population)

Around **20%** go to the ED each year and have a **30%** chance of admission.

They have one outpatient appointment per year and **70%** have an elective. Those in this group have **one to two** long term conditions.

Calculating demand for the next three years

Using the simulation model, Anytown CCG could work through the analysis to focus on the key patient groups.

Using population projections, expected transition rates from group to group, and removing patients who were likely to die, they were able to use the simulation to calculate expected demand over the next three years.

Their transition rates, based on the experience of the *Year of Care Early Implementer* sites, were set as follows.

In the 'very high' group, 45% of patients were expected to stay in that group, 30% would transition to the 'high' group, 8% to the 'low' group and 2% to the general over 65s population. 15% of this group were expected to die.

Y1	Very high	High	Low	Leavers
Very high	45%	30%	8%	15%
High	11%	50%	18%	14%
Low	4%	14%	52%	10%
Over 65s	1%	8%	21%	5%

Transition rates between needs groups

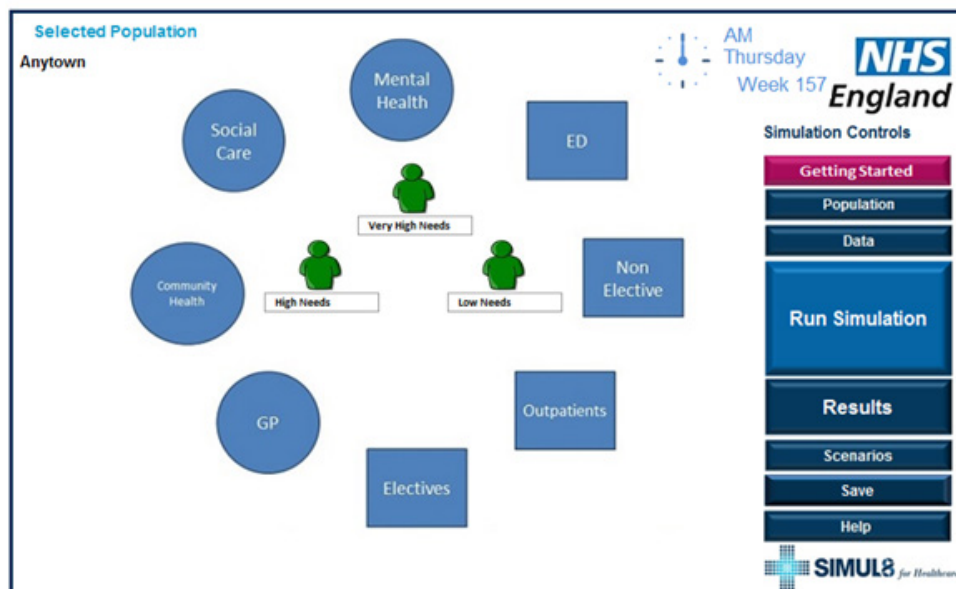
Assessing future costs

The simulation also allowed the CCG to input details of how each group currently uses care services.

Data analysis provided them with the likely number of A&E visits, admissions, day case and outpatient visits for each patient group.

Using this data, together with the cost and revenue for each unit of service, as well as the resource required, the simulation automatically calculated the outcome in cost, resource and volume if patients continued to use services in the same way over the next three years.

The simulation showed that the Anytown CCG would be looking at an increase in costs of almost £1m (a 12% increase on budget).



The Anytown simulation model

Scenario testing the New Models of Care using SIMUL8

Following a review of the literature, the Anytown CCG outlined one potential new model of care, targeting each needs group differently:

- ✓ **The ‘very high’ needs groups will receive a co-ordinated care service with personalised care and support plans.**
 - An experienced community nurse will create a care plan with the patients and/or their carers and a care co-ordinator will ensure that the patient is connected with all services required.
 - A maximum of six contacts are expected at a cost of £25 a contact for 50% of patients.
 - A Pharmacist will advise on medication management in 50% of cases.
 - This is expected to reduce visits to the Emergency Department by 27% and Non-Electives by 27%.
 - Outpatient visits should reduce by 40%.
- ✓ **The ‘high’ needs group will receive a well being support service for up to 12 weeks.**
 - Typically three contacts at £18 per contact.
 - 50% of this group will have a visit from a care co-ordinator at £25.
 - This is expected to reduce likelihood of transitioning to the ‘very high’ needs group by 10% and ED and Non-Electives by 20%.
- ✓ **50% of the ‘low’ needs group will receive a health check.**
 - This will enable preventative interventions to be implemented.
 - This is expected to reduce transitions into the ‘high’ needs group by 10%.

Using the scenario results for future decisions

The Anytown CCG ran this scenario through for three years with the simulation model and found that costs started to reduce in year two. This provided them with a sense of the community staffing resources which would be required in future.

This gave the CCG the confidence to plan and agree the business case going forward. As such, they are now refreshing the simulation data on a monthly basis to check progress against the trajectory.