Transforming social care through the use of information and technology

Kent case study

1 Introduction

This case study has been drawn up following a conversation with Abraham George and Linda Harris of Kent County Council, Liz Cairncross of the Institute of Public Care (IPC) and Cecil Sinclair of the LGA, on 12 October 2016.

2 Case study – Kent Integrated Data Set

2.1 Context

The Kent Integrated Dataset (KID) is a whole population place based person level linked dataset designed by KCC Public Health and Kent CCGs. It evolved from a NHS England funded programme – the Long Term Conditions Year of Care programme in 2012, which Kent was invited to become one of five early implementer sites across the country, supporting the national integration agenda around the commissioning of integrated LTC care to improve outcomes and experience for people.

2.2 Aims

The original aim of the programme was to design capitated budgets & set tariffs around integrated personalised care delivery for patients with multiple long-term conditions across the NHS and adult social care. A detailed report of the programme is included as an accompaniment to this overview.

However, the Kent Public Health and CCGs soon realised far greater potential uses of linked datasets such as evaluation, public health surveillance and demand modelling. Other non-NHS administrative datasets were also included to the programme for linkage, reflecting full patient journey and wider determinants of health and wellbeing. Examples include Home Safety checks delivered Kent Fire & Rescue to estimate the impact unintentional injuries at home in the frail elderly.

The issue is not about savings but about capability and being more robust in the way you plan – the use of population health and care analytics to understand the role and impact of primary, secondary and tertiary prevention across the whole population.

2.3 Kent Integrated Dataset (KID)

Upon completion of the LTC Year of Care programme, Kent CCGs and Public Health have agreed to co-fund the programme locally and continue the data linkage work and advanced analytics for a further one year till March 2017 when CCG re_procurement of core business intelligence services have been completed.
KID involves:

- Linking person level activity and cost data from almost all NHS providers across Kent, including about 70% of GP practices (as of October 2016), acute, community, mental health, out of hours, hospices, adult social care and Fire & Rescue. Further projects have been commenced to link CAMHS, local authority education, children’s’ social care and district level data starting with Thanet District Council.

- Datasets are linked using pseudonymised NHS numbers for each patient, containing information on service activity and costs, where available, starting from April 2014. If NHS numbers are not available, probabilistic matching is considered.

- Any other personal data such as name, address and DOB are removed or replaced with proxies e.g. date of birth becomes age, address becomes Lower Super Output Area.

Over the last three years, KCC PH have been working to sort out complex issues around information governance. Advice and support from the national IG Alliance and KCC’s Information Security Officer have been critical the equivalent code of practice for safe secure data linkage and access e.g. privacy impact assessments, fair processing and wider governance arrangements for a Public Health led partnership.

The Kent Joint Strategic Needs Assessment is a statutory requirement and forms a key part of the legal basis to bring the data sets together. The process is owned by the Kent Health and Wellbeing Board, and the development process has been managed by Public Health. Priorities for data analytics projects have been set by Public Health and the CCGs.

Two stakeholder groups meet regularly: Kent Integrated Care Payment group and the Finance and Informatics Group. These arrangements are described in a Memorandum of Understanding (MOU) between CCGs and the local data warehouse. From March 2017, it is likely that the programme will come under the NHS lead provider framework.

An access control policy has been set up to manage role-based access to the KID. At the moment there are 4 levels of access to the data, ranging from a standard suite of summary tables and graphs and a ‘cube’ for bespoke analysis, to row level data only accessible by the PH intelligence and the local data warehouse team, acting as the trusted third party data processor.

With much of data sharing arrangements and data flows in place, focus has now shifted towards assessing and improving data quality and data completeness and reassure users the outputs of analyses are robust for planning decisions.

Many of the datasets, the other datasets do not follow nationally agreed ‘data dictionaries’ and coding classifications which has compelled Public Health to seek local and national advice around setting business rules to consistently measure costs and morbidity.
Outcomes:

KIDS can be used for setting capitated budgets, system modelling and service evaluation.

At least 20 different analytical projects have been / are being carried out:

- Multi-morbidity dashboard covering at least 50 long term conditions so that can measure the numbers of people with more than one long term condition, reflecting the need for a better understanding of this group.

- All STP footprint areas have to deliver plans for the Five Year Forward View. The Kent and Medway STP have used KID heavily to model demand and capacity. Advice from local consultancy partners working on the STP have prepared detailed data quality assurance statements to help providers target their data quality improvement efforts.

- A number of needs analyses and assessments that form the Kent JSNA have used the KID, for example, an autism needs assessment which has involved bringing together data on numbers known to health and to social care and the level of service utilisation and costs.

- Project to link Fire and Rescue data on Home Safety Checks linked with A&E attendance to see assess the impact of home safety checks and A&E attendances attributed to unintentional injuries. While no significant impact was evident, the work led to useful recommendations for data quality improvements in in collection and coding, and resolution of some information governance issues all of which were greeted positively by Kent Fire & Rescue. The work has now been discussed in the national stakeholder group Fire as a Health Asset to design a robust evaluation framework for the roll-out of Safe and Well visits by Fire Authorities across England.

- Generating assumptions for understanding patient throughput across different services and service functions. This has helped towards local projects to forecast health and care service demand using systems dynamics approach.

- Quantifying and profiling self-funders in care homes by flagging the 700 odd care home providers in Kent, flagging the registered patient list and deducting those known to adult social care in order to identify numbers in care homes not known to adult social care.

Enabling factors:

- Vantage point of local authority Public Health to facilitate local data partnerships and the strategic requirement to access personal data to conduct JSNA, assess risks, child health surveillance, etc. provides a rationale for Public Health to bring local data together.

- Austerity and financial constraints.
Changing strategic priorities to achieve value for money and demonstrate robust business cases for investment and disinvestment.

Because of STP process, the Acute Trusts are much more engaged.

The partnership / cooperative approach in working with fellow organisations has helped keep the programme costs to a minimum level to-date - approximately £50,000 per annum towards data warehouse development costs.

Obstacles:

- Anxiety around sharing administrative data.
- Information governance took three years to sort out the issues.
- Data quality is ongoing issue.

Risks:

- Scope creep – so many other local datasets are in scope for linkage is possible but there is a need to focus on priorities and manage the complex local IG bureaucracy in negotiating data sharing arrangements with multiple organisations.
- Carry out regular re-identification risk assessments and review standard operating procedures as the scope and context of planning priorities and whole population analyses changes over time.

Future plans:

In discussion with Thanet District Council to link data on Assisted Bin Collection, Disabled Facilities Grant, Single person housing benefit discount, and leisure membership. Agreed to have service level agreement as long as receive data reports.

2.4 Social care

Children’s services use Liquid Logic and are using the early help module which links with education. Also, keen to move forward with mobile working with practitioner workforce mainly for assessment. The barrier is funding for new kit.

Adult social care (ASC) is looking at future case management system and what the system requirements are. ASC have rolled out i-phones as the standard device for social care staff. Planning to set up social care apps group and local digital roadmaps with health colleagues. Plan for mobile app, which will allow offline working. Piloting a shared care planning system with Orion Care and will be loading social care data onto it.

Funding of technology competing with other priorities at this time.