

Report of: Chief Information & Digital Officer / Head of IM&T Health and Care Hub

Report to: Director of Resources and Housing

Date: 20th October 2017

Subject: Enhanced Data Warehouse Health and Care Hub

Are specific electoral wards affected? If relevant, name(s) of ward(s):	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are there implications for equality and diversity and cohesion and integration?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the decision eligible for call-In?	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No
Does the report contain confidential or exempt information? If relevant, access to information procedure rule number: Appendix number:	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Summary of Main Issues

The Leeds Health and Care Hub brings together analysts from NHS Clinical Commissioning Groups, Public Health and Adult Social Care. A joint analytical platform with a single version of health and care data sets will increase efficiency, reduce variations in analytical output and reduce duplication of effort. This combined approach will help deliver better city health and care outcomes.

The Leeds Data Model is a key analytical asset, developed by the Hub, for the City and is used to understand the effectiveness of existing services. This project provides a further development of the model to support population health management analysis. This will provide value in terms of identifying variations in health and wellbeing outcomes and cost, quality and performance of services to inform new models of care that will be more effective in meeting needs.

The current platform has reached the limits of its capabilities and the infrastructure that hosts the solution is reaching the end of its life and needs to be replaced with a robust and secure solution.

This project supports the Leeds Health and Wellbeing Strategy and is aligned to the city based strategy for Digital and Information.

Recommendation

The Director of Resources and Housing is requested to approve spend, from an approved allocation in the Better Care Fund, of £660,754 over a 24 month period spanning three financial years - 2017/18, 2018/19 and 2019/20.

1 Purpose of this report

- 1.1 To justify and recommend that the Director of Resources and Housing approve spend, from an approved allocation in the Better Care Fund, of £660,754 over a 24 month period spanning three financial years - 2017/18, 2018/19 and 2019/20.

2 Background Information

- 2.1 The Leeds Health and Care Hub brings together Primary Care IT, Clinical Commissioning Group Analysts, Public Health Analysts and Adult Social Care Analysts. This has initiated a direct link between the work of the different analysts in the Hub with CCG Commissioning teams, Public Health Consultants and Social Care Practitioners. Current analysts within the Hub are based across a variety of physical sites and analytical platforms across the City with access to a differential set of analytical tools and skill sets.
- 2.2 A critical city asset known as the 'Leeds Data Model' has been developed over the last few years. The Leeds Data Model is a commonly pseudonymised¹ transaction level data model which contains data including primary, secondary and community health and adult social care. It is used to understand the effectiveness of existing services and to carry out analysis looking at the effectiveness of re-ablement packages in reducing the risks associated with residential and nursing care admissions. This data model offers considerable potential for further development to support population health management analysis, however the platform it currently operates on has reached the limits of its capabilities.
- 2.3 Over the past 18 months, the Public Health Intelligence Team have successfully developed a robust business intelligence platform to house data sets including GP Audit data, Hospital Episode Statistics, Births and Deaths data, child health data and contract monitoring data sets. This currently consists of a series of unconnected databases due to constraints linking existing data sets under current data sharing contract agreements. However the solution has been designed in such a way that it can be used as a template to scale up to accommodate much larger linked data sets if required.

3 Main Issues

- 3.1 Population increases, changing patterns of health and care needs and greater numbers of people living with long term conditions in the City are creating changing demands and challenges for health and care services. The requirement for the system to adapt against a predicted funding gap of £740m by 2021 is placing increased emphasis on access to good quality, accurate analytical outputs to support system redesign and commissioning decisions.
- 3.2 Commissioning practice is developing from commissioning providers that deliver elements of care pathways to commissioning providers that deliver improvements in population health outcomes. This requires additional analytical capacity and a

¹ Pseudonymisation is a procedure by which the most identifying fields within a data record are replaced by one or more artificial identifiers, or pseudonyms

supportive infrastructure to enable effective analysis that is timely, accurate and flexible to system needs. For example, measuring the impacts of transformation plans using health and wellbeing KPIs; identifying opportunities for system changes through population segmentation analysis and evaluating new models of care. These are all factors for the city, as is making best use of the 'Leeds Pound' (£).

- 3.3 To deliver the potential of collaborative working, analysts need to be working on a single analytical platform. This will improve integration of working practices across the teams and give greater visibility of work across the Health and Care Hub which will reduce duplication of effort and improve understanding of the analytical requirements for the city. It will increase efficiency by ensuring analysts are working on the same versions of data, ensuring consistency of analytical outputs and reducing the rework caused by differing outcomes from different versions of data sets. Additional efficiencies can be realised through the release of analytical capacity through the automation of routine analytical tasks.
- 3.4 A single analytical platform will improve data quality through standardisation of data sets. There will be an improved ability to analyse and visualise datasets, a strengthened ability to evaluate projects and programmes across the city and an improved understanding of the use of the Leeds Pound.
- 3.5 The Leeds Data Model offers significant potential for development through the use of pseudonymised GP Audit data to support the evaluation of new models of care and primary care initiatives.
- 3.6 The addition of an enriched data set will increase the quality of the analytical offer to the city. It will support improved understanding of the context of health transactions, improved capability to understand the wider health inequalities issues across the city and identify specific populations with elevated levels of risk. It will allow the improved understanding of differential pathways through services and differential rates of disease progression. It will improve population stratification techniques and the ability to monitor cohorts for Leeds.
- 3.7 A new technically robust, secure platform with additional storage capacity to facilitate development of the model is required.
- 3.8 Preservation of the linked data contained in the Leeds Data Model, transfer to a more sustainable platform with improved version control, improved backup capability and resources to enable expansion and further development of the model is a critical requirement.

4 Corporate Considerations

4.1 Consultation and Engagement

- 4.1.1 This project is not likely to have a direct effect on specific communities or wards.

4.2 Equality and Diversity / Cohesion and Integration

- 4.2.1 A screening document has been prepared. The result of this work will mean a better analysis of variations in both health and care services and outcomes across different demographics. This can help to address any issues of equality of access to services.

4.3 Council Policies and the Best Council Plan

4.3.1 This project is critical to the delivery of the Health and Wellbeing Strategy 2016-2021 and the Best Council Plan 2017/18 in that it provides the data necessary to inform policy and service delivery decisions to deliver the outcomes in those plans.

4.4 Resources and Value for Money

4.4.1 Full Scheme Estimate

4.4.2 Cost Estimates - include resources for ICT to support to the design and build the solution and to carry out the knowledge transfer back to the Health and Care Hub for ongoing future developments to the system.

4.4.3 The project team have been awarded funding from the Better Care Fund to the value of £660,754 and hope to complete the project within 24 months. The associated Business Case has been approved.

4.4.4 This BCF capital injection is funded and therefore does not require paying back.

4.4.5 Capital Funding and Cash Flow

Project costs will be funded from the Better Care Fund for which the Business Case has been approved. Note, there is no requirement to repay this funding.

4.4.6 Revenue Effects

The £50k costs to support the platform on an ongoing basis will be shared across the partner organisations to meet the revenue licensing and ICT support costs. There is no requirement to repay the Better Care funding.

4.5 Legal Implications, Access to Information and Call-In

4.5.1 This is a key decision and will be subject to call in.

4.6 Risk Management

4.6.1 The project will be delivered in accordance with the Council's project management methodologies and will utilise robust Risk & Issue management. Failure to deliver this project carries the following risks:

4.6.1.1 Failure to provide a mechanism for providing population segmentation analysis in support of population health management to underpin the plan to commission for outcomes and have integrated provision.

4.6.1.2 Failure to provide business solution to support the integration of business intelligence teams in Leeds CCG Partnership and the Local Authority.

4.6.1.3 Failure to improve on the analytical offer for the City supporting the Leeds Health and Care Plans and the City's aims for Health and Wellbeing.

4.6.1.4 Failure to provide a suitable platform to preserve the Leeds Data model leading to risk of loss of the Leeds Data Model. Loss of the Leeds Data Model (LDM) would result in an inability to effectively evaluate interventions. It would not be possible to estimate the effect on the Leeds Health and Care Economy which places strategic decision making at risk.

- 4.6.1.5 Failure to release analytical time and develop skill mix to maximise efficiency to cope with increased demand for analytics.

5 Conclusions

- 5.1 The Leeds Data Model and supporting data warehouse is a fundamental component to the delivery of numerous outcomes. Delivering this in a joined up way saves money and effort and makes best use of public money rather than doing things separately.

6 Recommendations

- 6.1 The Director of Resources and Housing is requested to approve spend, from an approved allocation in the Better Care Fund, of £660,754 over a 24 month period spanning three financial years - 2017/18, 2018/19 and 2019/20.

7 Background documents²

- 7.1 None.

² The background documents listed in this section are available for download from the Council's website, unless they contain confidential or exempt information. The list of background documents does not include published works.