PROJECT EVALUATION

Project Number	49
Project Name	Strata
Evaluation Status & Date	Project Evaluation 18 April 2019
Project Owner	Murray Leys
Project Manager	James Lamb

Version control

Version	Date	Author	Comments
1.1	6 March 19	James Lamb	1st Draft
1.2	7 March 19	James Lamb	Editing and Graeme McMurdo's feedback
1.3	8 March 19	James Lamb	Editing, feedback/changes from Mark McElholm and outcome of meeting with Rob McCulloch-Graham, Mike Porteous, Suzan Bell and Michael Murphy with Mark on 8th March.
1.4	15 March	James Lamb	Editing and addition changes from Mark McElholm
1.5	21 March	James Lamb	Edit and changes from Murray Leys.
1.6	28 March	James Lamb	Metrics changes in section 2 and route to funding for extended pilot.
1.7	01/04/19	James Lamb	Finance section updated
1.8	09/04/2019	James Lamb	Finance section updated
1.9	18/04/2019	James Lamb	Finance section updated

SECTION 1 || Summary

1.1 Project description

Background

Strata enables improved, more efficient automated processes which match patient's needs to resources. It can be applied across all health and social care pathways and therefore has the potential to be a critical tool for the Partnership in enabling the redesign and improvement of all integrated services.

As a web-based system, Strata stands alone from both our NHS and SBC systems and IT architecture but can be securely integrated with both to enable automation of processes and improved information sharing. It also contributes to creating and maintaining a single view of the person. In future, the aim is to integrate Strata with MOSAIC and appropriate NHS systems, reducing paper work, avoiding duplication, error and the need for the patient to provide the same information multiple times.

This 6-month prototyping project set out to apply Strata to the improvement and automation of the discharge management processes – specifically the processes of discharging the person from the hospital (Borders General Hospital and the 4 Community Hospitals) to both Residential Care and Care at Home providers. As a prototyping project, the main aims were to:

- Gain an understanding of the challenges of applying both the Strata system and approach to our operational environment
- Determine whether or not there was a business-led case for committing to Strata on a permanent basis and expanding across further H&SC pathways

The Challenges

- **Staff time** – Across the discharge management processes, significant professional and administrative time is taken-up in trying to source appropriate external provision to meet clients' assessed needs – by post, telephone and email. This also involves significant provider time in fielding calls and responding to requests for information about current and expected vacancies/capacity.
- **Speed of Referrals** – The above inevitably affects the time it takes to complete a discharge and needs to be addressed if we are to address delayed discharges
- **Management Information** – There is a lack of real-time management information on capacity and flow across the discharge process that enables bottlenecks in system to be identified and addressed.
- **Compliance** – inconsistencies in process and practice as well as problems of completeness of information exist across the process.

Critical Success Factors

- Compliance - All those involved in the discharge process (the START Team, Matching Unit and Providers) need to be using the system in a compliant way and for a sustained period.
- Business ownership – Business ownership needs to be in place at 2 levels:
    - Those who own and manage the discharge process - actively recognising and leveraging the value of the system in the management and improvement of the process and service.
    - H&SC Management – recognising that the value of the solution, not only in terms of the discharge management process, but also the value in its wider application in terms of:
        - The redesign, improvement and automation of any H&SC pathway
        - The contribution to improved business intelligence
        - Contributing to a shared IT architecture across partner organisations.

1.2 Project aims - *Original project aims identified in the PID*

The aim of the project is to establish an improved, more efficient and automated discharge process by integrating health and care systems and digitising the currently slow manual processes. In particular, the project aimed to:

- Improve patient flow out of hospital.
- Reduce patient delays due to process.

This will be achieved by:

- Engaging with, training and setting-up the Matching Unit, START Team, Care at Home and Residential Care Providers on the Strata system
- Mapping and redesigning processes
- Using Strata to develop a live directory of Care at Home and Residential Care services.
- Digitisation of paper/manual processes.
- Building electronic pathways to automate decisions and actions.

1.3 Summary of progress against project aims and achievements

Engagement & Process Mapping.

Initial engagement with the START Team, Matching Unit and both Residential Care and Care at Home providers took place in August 2018. Over the period August-October, existing processes were mapped and validated. Redesigned, improved and automated, processes were also established.

Referrals to Residential Care Providers via the Start Team

Training of both START Team members and providers in the system was undertaken in November. Business Broadband details (Static IP Addresses) were requested from providers and, once obtained, Strata consultants visited each of Care Home to help providers to set-up the system which went live in December. However, a small number of providers were delayed for a variety of reasons ranging from a virus outbreak to the time taken to establish their Static IP address. One provider, declined to pay the additional £5/month cost of business broadband and still has not been included in the pilot.

There are 16 Providers covering a total of 29 Residential Care establishments (inc. Garden View). As at the end of Feb 11 Care Homes were actively posting vacancies, 16 are not active and 2 (Berwick Care Home and St. Andrews) are not on the system.

Referrals to Care at Home via the Matching Unit

There are 9 Care at Home providers in total. Only SB Cares covers the whole of the Borders and is currently the only provider in Berwickshire. Training of the Matching Unit (MU) and SB Cares in Berwickshire took place in November. The remaining suppliers were then scheduled to be trained in January. However, delays in obtaining providers' Static IP addresses has meant that not all providers are on the system.

As at end of Feb, 6 providers are trained and have access to the system. 3 are still in the process of being set-up on the system. None are regularly accessing the system. None are posting capacity regularly which may be due to lack of capacity – however, capacity is still being sourced by the MU via telephone and emailing and capacity is being returned to suppliers when packages come to an end. Without active use by the providers, the MU isn't able to use Strata to make referrals and, instead, are using the system as a waiting list.

Temporary Suspension of the System

During February, there was an urgent need to relieve pressure at the BGH and a decision was taken by SMT to temporarily suspend the use of Strata and revert to the old system (which still operates concurrently) as all providers – both Residential Care and Care at Home – were not yet fully operational on the system.

1.4	What areas of the Borders is the project covering

The project covers the whole of the Borders area.

1.5	Which care groups has the project supported?

All clients of Social Care & Health Teams who have social work managed care packages.

Section2 || Outcomes, outputs and benefits

2.1	Project outputs

Planned Output	Actual Output	Comment
A tool to support the discharge of patients	Strata is in place creating a system for both the START team and the Matching Unit to manage and support the discharge of patients.	Until mid-March, there were still 5 suppliers that were not live on the system and, as a result the old method is still running. It is only when STRATA becomes the only way of managing discharges that the value of the system can be measured.
A live and dynamic online directory of provider beds and services that can be used to match patients with an appropriate care setting.	Strata is operational, providing a live and dynamic directory which provides visibility of availability across those providers that are live and active on the system.	The directory is able to show provider capacity. For example on 20 Feb, the system showed 34 residential care or nursing beds available across the borders. However, a number of suppliers were either still not live on the system or not consistently posting their availability.
More Efficient – and wherever possible – automated processes	More efficient and automated processes have been designed and implemented.	Older processes are still in operation pending all providers being live on the system. Full automation of the process requires integration with MOSAIC and TrakCare. It has not been possible to achieve this within the pilot project and this would form part of a next phase. By adding this functionality we will ensure that the capture of all required information is enforced in the system which will allow us to build trusted referrals which will further speed up the transition process. Additionally, this will drive up data quality to support us with planning and decision making.

2.2 Project outcomes

Planned Outcome	Actual Outcome	Comment
Quicker Referrals (1- 2 days/referral)	By moving digital referrals to providers, it is estimated that there are savings of between 1 and 2 days through removing the need to post referrals or to email waiting lists on a twice-weekly basis. Instead, information is sent and received instantly with the correct information which should reduce the need for additional assessments. Quicker referrals of 1-2 days should help ease pressure on hospital beds. However, related cashable savings will only be achieved if it is possible to close a number of beds in one area. This project, on its own, can reduce occupied hospital bed days and therefore combined with a reduction in bed base result in cashable savings. From April 2018 to March 2019, 932 individuals were provided with a care package when discharged from Borders General Hospital and Community Hospitals. 658 patients were discharged to a residential care facility. Therefore in total, 1590 patients were discharged to a social care service. If we assume a conservative figure of saving 1 day within the matching process this would equate to an annual saving of £208,290, if we assume the cost of an occupied bed day being £131.	These figures are based on a fully-compliant implementation across all providers.
Social Worker Staff Time (Potential efficiency gain of 22hrs/month in Social Worker time) (approx. £7,000/year based on £47,000/year SW salary and on-costs)	It is estimated that there is a potential saving in Social Worker time of approximately 22hrs/month. This time-saving is could be more effectively redirected to focus on stranded and super-stranded patients (i.e. those patients experiencing significant delays in being discharged) to ensure that they are being found the appropriate services as quickly as possible and therefore freeing up acute beds. **Time saved through** • viewing matched bed vacancy via Strata instead of home ring around • Automatic Matching • All information in one place • No need for Care Home Assessment **Calculation based on following:-** Current process of ring around of 50% of homes per referral with each call approx. 2.5 mins, rounded up to account for % of engaged 1st calls = 30 mins per referral • Based on 10 Referrals per week • 30 mins x 10 referrals = 5 hours of SW time saved/week	This is time currently spent on sourcing potential vacancies through ringing-around and could be redirected to focus on those patients who have been on the waiting list for long periods of time.

	• 5 hours x 52 weeks / 12 months = Approx. 22 hours per month saved	
Potential Administrative Efficiency Gains (approx £27,664/yr)	There are potential cost savings across both sender and receiver of £23/referral based on: • £1 per referral saved in terms of paper/fax/telephone costs; • £13 per referral in staff time saved by sender; • £9 per referral in staff time saved by receiver of referral. Effectively £14/referral for Partnership staff. Therefore, assuming 38 referrals per week in the Matching Unit this would equate to: • Weekly saving 38 x £14 = £532. • Annual Saving 52 x £532 = £27,664	These projected savings are based on an independent study by NE & Cumbria Academic Health Science Network and include provider costs. Any notional saving assumes that there is full compliance.
Improved Management Information	Strata provides management with real-time visibility of capacity within the system across both Residential Care and Care at Home Providers. The management information yielded by Strata, in tandem with other IT systems such as Mosaic and CM2000, will enable a greater insight into both the flow of discharges and match both the capacity posted on Strata with provider capacity from CM2000. This will enabling improved business intelligence and contract management capability.	Again, the value of Strata in providing management information is dependent on confidence in all players using the system in a compliant way.
Compliance	Strata provides the opportunity to have mutually agreed and manageable process around which to build and enforce compliance. Mandatory fields within the system are already ensuring that referrals can only be made if the necessary information (e.g. assessment, medication, and next of kin contacts) are included with the referral. The audit trail and time-stamping of transactions enables the ability to identify and rectify areas of non-compliance.	The system is built around IJB protocols and we can decide to enforce certain information to be collected or actions to be taken in order to enforce compliance. Furthermore it fulfils all GDPR, IG and ISO standards.
Provider Services Management Platform	This project will provide our placement providers with a management tool that will allow them to broker their services directly to the council and hospital and ensure that the information they receive allows them to quickly accept a patient. It also provides them with a facility to allow them to catalogue the services and resources that they provide right down to the characteristics of the service, resource and staff skills. Furthermore, it will provide them with access to information around the quality of service that they provide and the referral activity and placement activity that happens over given time periods which will prove useful when	

	interacting with the social care teams at council.	
Total Financial Planned Outcome	OBD savings - £208,000 SW time saved - £7,000 Admin time saved - £28,000 Total – £243,000	

Additional unexpected outcomes:

Improved Data Security – referrals are currently sent to providers via post or through block-lists of patients on the waiting list via zipped files. These pre-existing processes carry known security risks which would be negated through the use of Strata. The provider sees only details of patients that relate to potential and actual referrals for their service and their vacancies – rather than everyone on the waiting list.

Completeness of information – as per compliance above, missing information with referrals was identified by providers as an issue. Enabling mandatory fields, where a referral cannot be sent without the requisite information is already helping address this.

Expansion to other services – The Strata solution can be used by many other parts of the Health and Care System to support Clinical, Public health, social care and social prescribing initiatives. The Strata Platform can be used by the NHS to manage referrals between NHS services such as Mental Health and Community Nursing and AHP services. The council can also use the solution for referring patients to social prescribing initiatives and services such as adult and child safeguarding services, disability services, addiction and cessation services. This will provide a single platform for all client facing referrals which deliver improved outcomes to patients and citizens.

Improved Data Quality
By enforcing the completion of mandatory fields and actions such as attaching required documents the system ensures that all necessary information is collected so that downstream services have all the information needed to make the correct decision for the patient. Through improving the data capture this will greatly improve data quality which can then be used for management and planning decisions.

Time saved in completing returns – both the Council and Providers are required to compile and submit statistical returns on a regular basis. Information from Strata will save time on gathering and presenting information.

2.3 Impact on individuals/Case studies /Quotes from service users –.

Residential Care

- **Residential Care Providers** - use Strata as a live and dynamic directory of their actual and pending capacity in their Care Homes. This includes information on the type of rooms and the skills and services that they have available. The information is updated as and when there are any changes in vacancies. The information is posted by each Care home, not by provider. The Residential Care provider accepts or declines the referral via strata.
- **START Team** – based in the BGH and Community Hospitals, the START team, having completed the client assessment, enter details of hospital patients to be discharged to residential care onto Strata (and, currently as Mosaic). Strata is then used to match patients to Care Homes based on available capacity and patient's needs and preference – effectively using the live and dynamic directory above. All necessary patient information (e.g. assessment, medication and next of kin) is sent to the provider via

Strata.
In future, when Strata is integrated with Mosaic and TrakCare, patient data will flow between systems. This will remove the need for manual keying of patient data and enable required fields in Strata to be populated automatically. In turn, this will reduce both duplication and risk of error as well as allowing better use of staff time.

Care at Home

- **Care at Home Providers** – like residential care providers, care at home providers will use Strata to post capacity (morning, afternoon, evening or no capacity) and accept referrals. Of the 9 Care providers, 4 are still not on the system. None are regularly posting available capacity. One of the reasons for this is understood to be due to lack of capacity due to recruitment issues or absence. This will be explored further with providers through engagement sessions over the next few weeks.
- **Matching Unit** – the START team, having completed the client assessment, enter details of hospital patients to be discharged with a Care at Home package onto Mosaic. The Matching Unit then add the patient details from Mosaic into Strata. Strata is then used to match patients to Care At Home provider based on available capacity and patient's needs and preference – effectively using the live and dynamic directory above. All necessary patient information (e.g. assessment, medication and next of kin) should be sent to the provider via Strata.
  Currently, as all providers are not yet on the system or publishing their vacancies regularly, the Matching Unit are unable to use Strata in the way described above. Over the coming weeks, there will be further engagement and training sessions with all providers to ensure compliance.
  As with the Residential Care process above, once integration has taken place with Mosaic and TrakCare, patient data will flow between systems reducing duplication and error as well as allowing better use of staff time.

Others

- **Service/Contract Management** – will have improved management information from Strata giving visibility of capacity across providers and the discharge process from hospital to residential care and home care. This will enable better business intelligence, particularly when data from strata is combined with data from other systems.
- **Patient** – the patient shouldn't see anything in terms of Strata itself, but should benefit from a quicker discharge process to an appropriate care setting that matches their needs and preferences.

SECTION 3 || Finance and resources

3.1 Approved budget 'v' actual expenditure - *Please complete the table below*

Year	Amount awarded	Amount spent	Comments
2018-19	£75,000	£75,000	This was G-CAT/ Framework price for 6-month fixed-cost Strata pilot. Spend was split 30% upfront, 40% on system going live and 30% at end of project.
Total	£75,000	£75,000	

SECTION 4 || Project Future/Sustainability

4.1 Project Future

The Strata project was funded until 31st March 2019 and aimed to develop a Business Case for mainstreaming Strata and applying the system to additional pathways. However, the implementation process across 16

residential care providers (29 Care Homes), 9 care at home providers and 19 staff in the START Team and Matching Unit has proved to be more complex and taken longer than originally anticipated. As the pilot has not yet been fully implemented across all providers and both the original and the Strata-based processes are still running concurrently (therefore the data from a fully implemented system has yet to be captured), it is proposed that:

- The pilot be extended for a further 6 months – with a view to operating fully from May 2019
- The scope of the pilot be extended to include:
    - Hospital to Home referrals from the START team
    - Referrals to both Care at Home and Residential Care from the community-based locality teams
- The project runs concurrently with other related ICF-funded projects within the wider "Discharge Programme". The Strata project therefore becomes part of the Discharge Programme and the Programme timelines (to September 2019) and that it becomes part of a collective evaluation for the mainstream funding for the Discharge projects, which are:
    - Hospital to Home
    - Matching Unit
    - Transitional Care
    - Garden View
- That integration between Strata and both Mosaic and TrakCare is pursued during the extended pilot but only so far as preparing costed plans for undertaking this work.

The cost of extending the pilot for 12* months would be up to £185,000 – with a minimum commitment of £57,500 – based on:

- £115,000 is the standard G-Cat (Government Procurement Catalogue) framework cost for Strata. This is based on £1/head of population. Going forward, if the partnership were to renew the contract, this cost would remain constant regardless of the number of pathways and processes we use Strata for (the cost would vary only by the size of our population – upwards or downwards). The cost includes not only the licence cost of the system, but also Strata consultancy time/expertise in redesigning processes and training all appropriate staff.
  Strata have agreed to include a 6-month termination clause, therefore the minimum commitment is for £57,500. If the outcome of the evaluation in September is not to proceed, this clause would be activated and no further costs would apply. We would then resort to the old manual processes.
- A provision of up to £50,000 to cover anticipated costs of the technical integration between Strata. These costs are still to be determined through negotiations with suppliers and will only be activated on a successful evaluation of the project in September and an associated further report to the IJB.
- A provision of up to £20,000 to cover the costs of technical penetration testing – this cost is still to be determined and would only be activated as per the above integration costs. Penetration testing would be required to show that technical integrations did not compromise data security.

It is proposed that the costs of up to £185,000 revenue associated with a further 12 month expansion and extension of the project be funded from the Integrated Care Fund. A project brief as part of the application for the funding accompanies this evaluation report.

4.2	**Resources released in order to sustain the project** – *What resources have been released to sustain the project at the end of the period of ICF funding? How will the project be funded?*

There are no resources to release to sustain the project at this stage. Evaluation of what resources could be released by the project would take place at the end of the extended pilot as part of a wider evaluation of the Discharge Programme.

4.3	If your project is to be terminated–*What is your exit strategy?*

If the Strata project was to be terminated then the process for discharge would resort to pre-existing processes. This would mean that the outputs, outcomes and benefits set out in section 2 above would not be realised.

Exit Strategy

- To communicate the end of the project to all stakeholders and advise them of the end date
- Care managers will return to sourcing residential care via telephone and using the post to send out referrals.
- Providers would return to fielding speculative calls from Care Managers and the Matching Unit on an ongoing basis.
- Matching Unit would continue to email the waiting list to Care at Home providers with inherent data security risks
- No renewal of contract with Strata

SECTION 5 || Lessons learned

5.1	Lessons learned

- **Complexity & Timescales** – We underestimated the complexity and timescales of implementing across all providers. Originally we considered limiting the pilot to a smaller group of providers based on the volume of referrals. Both providers and Senior Management expressed a clear direction that the pilot should encompass all providers and that there should not be a two-tier system.

- **Starting Before Winter Pressures** – Given the above it would have been helpful – but not possible – to have had an earlier project start date before the onset of winter with associated pressures on the discharge management process. In February for example, with not all providers live on the Strata system and extreme pressure in the general hospital, the decision was taken to temporarily suspend the use of Strata to manage discharges using the pre-Strata processes.

- **Avoiding Over-Lapping Processes** – There is a need to move more quickly to remove/stop pre-existing processes so that we don't have old and new processes running concurrently.

- **Business Ownership** – There was a change in senior management mid-project which meant that much of the experience and knowledge of the project from the business-side was lost and needed to be redeveloped. The project was perhaps over-reliant on a key manager in the business and arguably could have developed a broader business ownership for the project. This has already been addressed and will be in place for the proposed extended pilot.

- **Resistance to Change** - While those we engaged with were quick to see the benefits of Strata to them, the resistance to change or reluctance to give-up familiar ways was underestimated.

- **Project Management** – We had originally intended having a near-dedicated project manager to manage this project. Unfortunately, due to an ongoing review of programme and project management resources in the Council there were delays in recruitment which meant that this was not possible. As a result, there has not been the resource to manage the project in the level of detail that could have helped to move the project forward at a quicker pace. Appropriate project resource is now in place to manage the proposed extension of the pilot.

SECTION 6 || Declaration

6.1 Declaration	
I confirm this is a full and final evaluation of the project, approved by the Project Lead. I agree to supply any further information requested by the ICF programme team.	
Signed: (Project Manager)	
Date of signature:	