Report of SIMTEGR8 Project Workshops:

Intensive Community Support (ICS) Service

Dr Anastasia Gogi, Dr Antuela Tako, Rosemary Palmer, Ivan Liburd

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1. Introduction

This is the second phase of the Simulation to Evaluate Great Care (SIMTEGR8) project. The first phase was undertaken in 2015 collaboratively between Leicestershire County Council, Healthwatch Leicestershire, Loughborough University and SIMUL8. It evaluated four patient centric service integrated admissions avoidance schemes being piloted through the Leicestershire Better Care Fund (BCF).

Evaluation of up to four further schemes has been built into the BCF Plan for 2016/17. These schemes are:-

- a) Ambulatory pathway at CDU (Glenfield) hospital admissions avoidance scheme for cardio/respiratory patients.
- b) Lightbulb Programme (housing support service).
- c) Help to Live at Home (domiciliary care).
- d) The Intensive Community Support (ICS) Service.

The evaluation is undertaken using facilitated simulation modelling, to support the development of patient centric integrated community services aimed at improving the user experience.

A crucial part of the assessment process is a set of workshops held with project leads. The purpose of the first workshop was to develop an agreed process map (i.e. conceptual diagram) of the care pathway with the project leads. The second workshop used the computer model built as a result of the first workshop to facilitate a discussion on how the intervention can be improved. This report sets out the outcomes of these two workshops in relation to the Intensive Community Service (ICS)

These initial workshops were conducted as a partnership between staff of Loughborough University and Leicestershire County Council, with support from SIMUL8. The workshop participants included staff of the ICS service. This report is structured using the methodology designed for the workshops, which will be outlined below. It was found that:

- The selection of the participants led to meaningful discussion about the patient pathways;
- The workshops identified a number of actions that could be taken forward to improve the ICS service;
- The workshops stimulated collaboration between participants for future work on the ICS service

2. The Intensive Community Support (ICS) Service

Intensive Community Support (ICS) offers an alternative to traditional hospital care for adults requiring intensive nursing and therapy input within their own home to patients registered with a GP within one of the three Leicester, Leicestershire and Rutland Clinical Commissioning Groups. These virtual beds are split across five teams with the West North ICS team hosting (an indicative) fifty five of the 256 beds.

The ICS team comprises registered nurses, occupational therapists and physiotherapists with support from health care assistants, technical instructors and administration staff. The ICS team also works closely with Local Authority Social Services departments.

The aim of this service is to respond to patients wishes for care to be delivered in their own homes. In addition the ICS service facilitates enhanced care requested by GPs.

The ICS service can respond to patients on either a 'step up' or 'step down' pathway. The step up pathway is for patients referred by their GP or community service, or by the East Midlands Ambulance Service. This is an established pathway; the evaluation forms part of its ongoing development.

It is important to note that the step-down ICS pathway was not included in this evaluation. However, the pathway is the same in terms of processes once the referral has been made. The data has been separated using the referral source code to ensure that only the step up element of the service is being evaluated.

3. Methodology

The *SimLean Facilitate* approach described in Robinson et al (2014) and the PartiSim approach described in Tako and Kotiadis (2015) have been adopted and modified to be used for the purpose of this study.

Simulation models are developed after discussing the care pathways with relevant stakeholders in a facilitated workshop. These models are subsequently used in a facilitated workshop environment to generate understanding and discussion around the effectiveness of the pathway and how the user experience can be improved, and to identify potential improvements.

In order to analyse whether the patient pathway is the most efficient for the patient and the service the methodology follows a set of specific steps:

Stage 1: Initial Pathway Briefing. This involves developing an initial understanding of the
pathway and the data needed to inform the process map. The data are then interpreted as
an initial process.

- Stage 2: Workshop Conceptual Modelling. This includes discussion of the planned pathway and reflections on its efficiency. The discussion serves as a basis for developing the simulated computer model in order to evaluate the intervention.
- Stage 3: Model Development. This is a quantitative representation of the qualitative conceptual diagram developed during the previous workshop. Data in the model may be adjusted to generate a representative behaviour of the system. The detailed complexity of the model is deliberately kept to a minimum to ensure stakeholder and patient participation in the next stages. The model developed aims to provide a good enough representation of the service to show the basic processes involved and to show the capacity and use of resources within the system.
- Stage 4: Workshop Project Leads' Perspective. This workshop uses the model to facilitate a discussion on how the intervention can be improved. The discussion involves the following four phases:-
 - Model Understanding, the simulation model developed is presented and shown to the participants to allow them to understand how the simulation works;
 - Face Validation, the participants are asked to consider whether the simulation model reflects what actually happens;
 - Problem Scoping, by taking a helicopter view of the pathway, participants are asked to identify system wide issues which have previously remained hidden because they are normally involved in the detail of only their part of the process;
 - Improvement, during this session the group is encouraged to identify changes that can be introduced to the service to reflect on the ideas produced throughout the session.
- Stage 5: The Patient Perspective. Due to the fact that patients accessing the ICS service are elderly and frail, it was decided that a workshop with the patients and their carers would not be pursued. It was instead decided to use a questionnaire survey to collect data on patient satisfaction, using information gathered in the two workshops held with the project leads. The aim would be to test some of the assumptions made in the model and to ensure that the patient view of the service was also captured.

4. Workshops

In the next sections, the structure and the outcomes of each workshop are presented separately.

4.1. Workshop 1: Conceptual Modelling

4.1.1. Introduction

The workshop was held on 11th October 2016 at Loughborough University's School of Business and Economics. It was facilitated by the project investigator (Dr Antuela Tako) and the post-doctoral research associate (Dr Anastasia Gogi).

The workshop participants were 11 key people involved in delivering the ICS service. The project lead for the ICS service was extremely helpful in ensuring that the workshop was attended by the right mix of professional staff who contributed to the work of the ICS service across all elements of the pathway. This was a key factor to ensure success and on the day contributed to an environment where productive conversations could take place. A consultant from SIMUL8 also attended this workshop.

The sessions were managed within a tight timeframe of 3 hours to impact minimally on service delivery. The active participation of all attendees and their willingness to commit to action plans was very encouraging.

4.1.2. Participants' anticipated expectations for the workshop

At the beginning of the session the facilitator briefly introduced the overall aims of the SIMTEGR8 project and the four phases of the study followed by a short presentation of the sessions included in this workshop. Participants were then asked to express what they hope to gain from this workshop. The following expectations were identified:

- 1. To find ways to improve patient and staff satisfaction with the service and to increase patient safety;
- 2. To consider the referral process, in terms of both its clarity and timeliness;
- 3. To identify delays or problems in the current and potential pathways;
- 4. To ensure that the service is equitable across Leicester, Leicestershire and Rutland and to test the consequences of any variation;
- 5. To identify the number of hand-offs and transfers from the ICS to other services and to review the appropriateness of these.
- 6. To ascertain whether the ICS service is successful in reducing avoidable admissions to hospital.

It is noted that the first expectation on the list will be met through the patient experience element of the evaluation. In addition, it was subsequently identified that there is insufficient data to be able to test hand-offs and transfers from the ICS to other services and whether the ICS service is successful in reducing avoidable admissions to hospital. The reason for the latter is that the data does not

show whether an admission is avoidable, merely that a patient has been admitted to hospital. The remainder of the aims would be tested during the follow-up workshop (i.e. the project leads workshop, Section 4.2).

The format of the workshop was as follows:-

4.1.3. The Process Map

Participants were asked to draw a process map of the step up ICS service by writing on post-it notes the activities/stages involved in the step up ICS service and to then stick them onto a whiteboard. After spending some time arranging the post-it notes in a sequential order, the Project Lead presented the process map to the participants. A discussion was then held on whether this process could be agreed by all participants.

After a few iterations, an agreed process map was produced. This was then converted into an electronic document, as set out in Figure 1 below

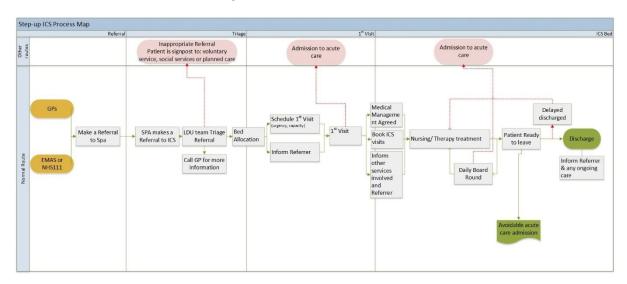


Figure 1. Step up Service Process map produced at the end of the workshop.

4.1.4. Pathway Effectiveness

After having drawn the process map, the participants were asked to discuss their views of the effectiveness of the pathway. These were as follows:-

- The process map demonstrates how much effort is taken up by triage before the patient is actually seen;
- Although the ICS step up pathway aims to avoid admissions to hospital, these were sometimes unavoidable due to clinical reasons;
- There are some variations to the pathway, depending on whether a referral is made in hours
 or out of hours. Therapists are not available outside of normal working hours so the out of
 hours triage is undertaken by a nurse and is therefore not multi disciplinary;
- The Single Point of Access (SPA) call handlers are not clinical staff and so could make inappropriate referrals;

- The SPA sometimes generates two separate referrals for the same patient: one to the ICS service and one to planned care community (district) nursing services. This could be because the referrer did not fully understand the ICS service.
- The ICS service at the time of the study also provided an element of the rapid response and unscheduled care service, although this issue was in the process of being resolved. It has a negative impact on the effectiveness of the pathway.

4.1.5. Performance Measures

Next the group was asked to identify performance measures that could be used to identify the success of the study. The following measures of success were identified:-

- Bed occupancy rates above 90%;
- Average length of stay of 10 days;
- Low rate of acute admissions from the ICS service, i.e. how many patients referred into the service from primary/community care or social services ended up being admitted to hospital;
- Quality of care outcomes from a professional perspective;
- Positive patient experience resulting in reduced complaints and increased friends and family test scores;
- Reduction in inappropriate referrals.

The facilitator explained that the last two performance measures in the list above were not possible to measure in the project's evaluation. It was explained that the views of service users will not be measured because they are qualitative data which cannot be easily incorporated into a simulation model. However, the patient experience element of the evaluation undertaken by Healthwatch would aim to capture this. It will not be possible to test a reduction in inappropriate referrals because there is no relevant data that can be used to test the model.

Bed occupancy rates and length of stay will be included in the model as input data. The simulation users will be able to examine how a change such as a reduction in waiting times for the first visit can impact length of stay and bed occupancy rates. Quality of care would be measured by instructing the model that improved quality of care could reduce length of stay. Again, the simulation users would be able to examine the impact it had on other outcomes measured by the model.

4.1.6. Effectiveness of the ICS step up pathway

After discussing service performance measures, the participants were then asked to discuss learning acquired so far from the ICS service's step up pathway from the patient and the projects leads perspective.

The Project Leads Perspective

The delegates were next asked to consider the effectiveness of the service based their experience of the working for the service. The following views were expressed:-

- Consistency of the service was variable;
- The service was not unified across the three localities;

- Within the teams and resources that were available, the service performed well. It achieved
 its aim of keeping people at home and preventing admissions to hospitals;
- It was not always possible to put the intensity in and many patients had co-morbidities which could be difficult to manage. As a result, some patients need to stay longer than the average length of stay of 10 days.
- Patients on an end of life pathway were sometimes referred to the ICS service. This was
 inappropriate; they should be supported by the Hospice at Home Service. However, it was
 confirmed that the Hospice at Home had capacity issues and that this had been escalated.
- It was suggested that the triage process should be strengthened to prevent inappropriate referrals.

The Patients perspective

When asked about the feedback received from the patients who had accessed the ICS service, it was confirmed that the indicator used to test patient perspective of the service was the friends and family test. The most recent data was from August, but this still needed to be validated. However, it showed that most patients were either likely or extremely likely to recommend the service, that they found staff friendly, informative, easy to understand, kind and that the service provided was excellent. The only criticism was that the service could be a little slow to respond, although it was expected that this related to the step-down element of the service.

The participants also reflected that from the patient's perspective, the pathway could be changed to include:-

- Visits that are flexible and suited to them rather than the provider;
- Increased frequency of visits.

This issue would be picked up again during Stage 5 of the evaluation as a questionnaire would be sent to service users with the friends and family test.

4.1.7. Potential Changes to the Service

When asked about what changes to the service were anticipated in the future and whether it would be worth testing them through the simulation model, it was suggested that social care was changing with the new Help to Live at Home Model. However, it was not known what impact this service would have so it would not be possible to test it through this evaluation.

4.1.8. Participants' Actual Outcomes from the workshop

At the end of the workshop participants were thanked for attending and were asked to express their actual outcomes from the workshop. These are summarised below.

Expectations that were stated at the beginning of the workshop showed that participants generally understood that the workshop could help them to achieve an agreed process map of the ICS service. However, some of the participants' anticipated expectations were more relevant to the purpose of the Project Leads workshop rather than to this one.

At the close of the workshop the participants generally appreciated the chance to hear the views of others. They thought that it was useful, informative and a helpful way to gain a better understanding of the ICS service operational pathway and what will be evaluated by the project. Comparing participants' anticipated outcomes for the workshop to their actual outcomes at the end of the workshop, it can be concluded that their aims had generally been met.

4.1.9. Conclusions from the conceptual modelling workshop

The discussion during the workshop was lively with many contributors and engagement during the drawing of the process map was high. It was particularly useful for the Project Lead to be involved in explaining the process map to the rest of the participants.

The concept of adopting a facilitated mode of practice to stimulate discussion about and create an agreed process map was effective. It was also useful to have participants across all elements of the pathway as this contributed to an environment where productive conversations could take place. The discussion in this workshop revolved around the patient pathway, the effectiveness of the service and the performance measures.

At the end of the session, participants demonstrated a shared understanding of the entire pathway, Therefore, using facilitated simulation modelling as a means of conceptual modelling has been successful.

4.2. Workshop 2: Discussing the simulation model with the Project Leads

4.2.1. Introduction

The workshop was held on 17th January 2017 at Loughborough University's School of Business and Economics. It was facilitated by the project investigator (Dr Antuela Tako) and the post-doctoral research associate (Dr Anastasia Gogi).

The workshop participants were 7 key people involved in delivering the ICS service, one of which did not attend the first workshop.

4.2.2. The simulation model

A screenshot of the model used for the project leads workshop and outputs page can be seen in Figure 2 and Figure 3 respectively. The model was a simplified reflection of the service, partly due to data availability but also because the purpose of the evaluation was to help the project leads identify areas of potential service/process improvement rather than to show the detail of the service. The model was built to allow users to assess the current patient journey experience and the effects of the service on hospital services. It was also built to help users visualise differences in the service performance in case of changes to waiting times for the first visit, changes to length of stay through staff being more efficient and effective during visits, and reductions in the number of delayed discharges.

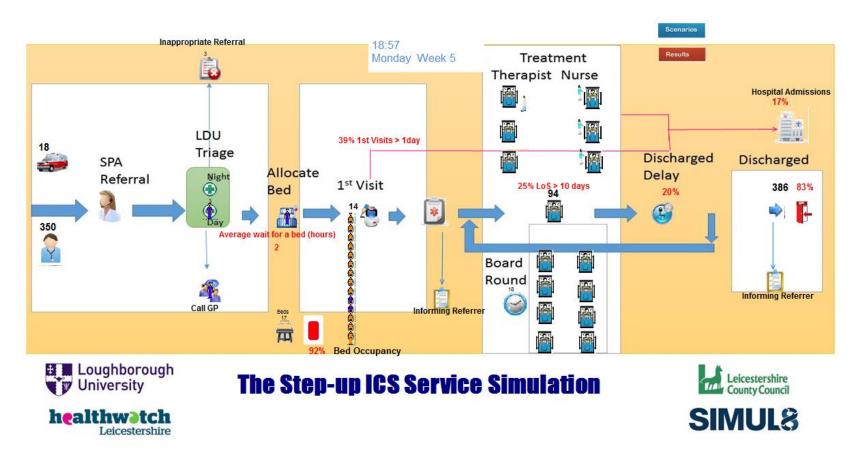


Figure 2. A Screenshot of the model used for the patient's workshop

	A	В		
1	Results	Scenario 1		
2		1st Visit Wait > 1 day: 30%-40% Discharge Delay: 15-20% 0 < LoS < 21 days		
3	Discharged	604		
4	Admitted to Hospital	98		
5	Percentage of Referrals Admitted to Hospital (%)	16		
6	Average LoS of Patients Admitted to Hospital (hours)	8		
7				
8				
9	Bed Occupancy (%)	91		
10	Average wait for a bed (hours)	2		
11 12 13	LoS			
14	Average LoS (days)	6		
15	Number of Patients with LoS > 10 days	107		
16	Percentage of Patients with LoS > 10 days	19		
17 18 19	1st Visit			
20	Average Waiting Time for 1st Visit (days)	1		
21	Number of Patients with 1st Visit Wait > 1 day	237		
22	Percentage of 1st Visits > 1 day (%)	40		
23				
24				
25	Discharge Delay			
	Average Dicharge Delay Duration (hours)	29		
26				
26 27	Number of Patients delayed at Discharge Percentage of Patients Delayed at Discharge (%)	98		

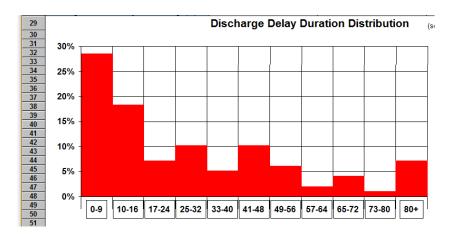


Figure 3. A screenshot of model outputs showing current service performance.

4.2.3. Participants' anticipated expectations for the workshop

At the beginning of the session the facilitator briefly reminded the participants of the aims of the SIMTEGR8 project and the four phases of the study. She then explained that the purpose of the second workshop was to use the simulation model as a basis for the analysis of the intervention with the participants working together to find ways that the simulation model could be used, for example for improving the ICS service. After introducing the sessions included in this workshop, the participants were asked to express what they would like to gain from this workshop. The aspects of the ICS service that the delegates hoped to resolve through the workshop were:

- To identify areas that need further review within the process
- To identify how they can provide a timely service for their patients
- To learn how they can improve their services
- To understand the process of referrals into the ICS service
- To find out if the model represents the service

It is noted that all participants' expectations of the list above were relevant to the purpose of this workshop and were captured in the model.

The workshop sessions included the following sections:

4.2.4. Model understanding

The approach taken to address model understanding was to check that both the basis for building the simulation models was considered accurate and that the participants understood how it had been transferred into the simulation software. This involved an initial "walk through" of the process map which had been developed at the previous workshop. This was effectively led by the Project Lead. It continued by demonstrating how this was built into a SIMUL8-based model and then the outputs of a simulation run were presented in the form of number of cases and percentages of cases within targets so as to be familiar to the participants. The following assumptions are needed to be taken into account when considering the results of the model:

- The board rounds are made to start at 8.30am
- The simulation is set to run for one busy month
- The warm-up period which is an initial period where the model is running but no simulation data are collected is set to three weeks
- The follow up visits are made by either a nurse or a therapist
- The model does not show interaction with other services (due to lack of data availability).

The general conversion of these process maps into a simulation model appeared to be understood by all participants and the process map was confirmed as accurate.

4.2.5. Face validation

Having confirmed the understanding of the processes within the system the simulation was run through to allow the participants to view a top-down perspective and to study model outputs. The aim was to validate that the simplified simulation model was acting along the same lines as the real system. This wasn't intended to be a detailed validation to assess statistical accuracy, but instead for the participants to gain trust in the model, that it was performing as expected.

The data output from the simulation models in terms of the number of cases and number of different types of outcomes in general matched expectations. It was noted that the average length of stay in the ICS service is six days, although some stayed longer. It had been thought that the average length of stay would be higher, possibly seven or eight days. However, this was not seen as an inaccuracy in the model; the level of trust in the model was such that the Project Leads indicated they would undertake a further analysis of the data of patients admitted to hospital to see how quickly they were identified and whether this had an impact on overall length of stay. From a statistical point of view, the expected average length of stay should be 5 days considering that the data analysis shows that the length of stay is exponentially distributed and that it should not exceed the target of an average of 10 days.

A graph (Figure 4) showing the distribution of waiting times for the first visit had been produced and shown to the participants at the workshop, based on the dataset provided. This showed that 54% of visits took place in the first eight hours. The results indicated that the average waiting times for the first visit is 29 hours. It was suggested that the raw data behind the 14% of patients who were first visited after 40 - 48 hours should be checked to test whether the assumptions set out above were correct.

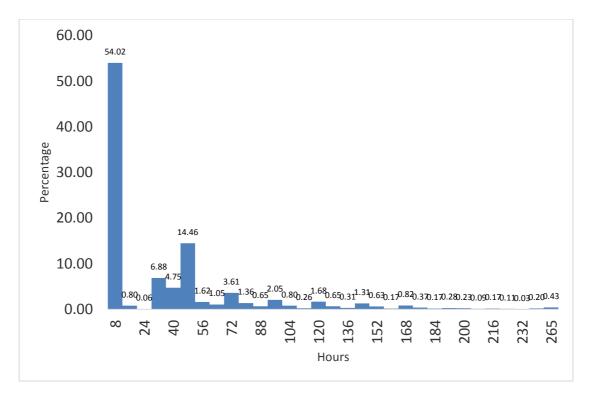


Figure 4. 1st Visit Waiting Time Distribution

4.2.6. Problem scoping

The facilitators and Project Leads were keen to understand whether any scenarios could be tested through the model to identify ways in which the service could be improved.

The following scenarios were identified for testing through the model:-

- Reducing the waiting time for first visits;
- Reducing the percentage of delayed discharges;
- Improving the quality of visits though being efficient and concentrated (this was shown in the model by a once day reduction in length of stay).
- Performing two or more of the above changes at the same time.

A screenshot of the scenarios tested during the workshop is shown in Table 1.

Improving the quality of visits through being efficient and concentrated had the most positive impact on reducing hospital admissions, bed occupancy and reducing the average waiting time for a bed (Scenario 1, Table 1). Reducing the waiting time for first visits could bring further reduction of hospital admissions.

Section Sect	Results	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Admitted to Hospital 62 53 60 53 Percentage of Referrals Admitted to Hospital (%) 11 9 11 3 Beds		Discharge Delay: 15-20%	Discharge Delay: 15-20%	Discharge Delay: 10-12%	Discharge Delay: 10-12%
Percentage of Referrals Admitted to Hospital (%)					
Bed Occupancy (%) 82 76 77 72 Average wait for a bed (hours) 0 0 0 LoS Average LoS (days) 5 5 5 Number of Patients with LoS > 10 days 14 15 11 12 St Visit St		62	53	60	53
Sed Occupancy (%)	Percentage of Referrals Admitted to Hospital (%)	11	9	11	9
Average wait for a bed (hours)	Beds				
LoS Average LoS (days) Average LoS (days) Solution of Patients with LoS > 10 days Percentage of Patients with LoS > 10 days 14 15 11 12 15t Visit Average Waiting Time for 1st Visit (days) 1	Bed Occupancy (%)	82	76	77	72
Average LoS (days) 5 5 5 5 Number of Patients with LoS > 10 days 80 84 60 69 Percentage of Patients with LoS > 10 days 14 15 11 12 St Visit	Average wait for a bed (hours)	0	0	0	0
Number of Patients with LoS > 10 days 80 84 60 69 Percentage of Patients with LoS > 10 days 14 15 11 12 1st Visit Average Waiting Time for 1st Visit (days) 1 1 1 1 1 Number of Patients with 1st Visit Wait > 1 day 232 138 232 138 Percentage of 1st Visits > 1 day (%) 39 23 39 23 Discharge Delay Average Dicharge Delay Duration (hours) 23 23 24 25 Number of Patients delayed at Discharge 113 113 55 58					-
Percentage of Patients with LoS > 10 days					5
1st Visit Average Waiting Time for 1st Visit (days) 1 1 1 1 1 1 Number of Patients with 1st Visit Wait > 1 day 232 138 232 138 Percentage of 1st Visits > 1 day (%) 39 23 23 39 23 Discharge Delay Average Dicharge Delay Duration (hours) 23 23 24 25 Number of Patients delayed at Discharge 113 113 55 58					
Average Waiting Time for 1st Visit (days) 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Percentage of Patients with LoS > 10 days	14	19		12
Number of Patients with 1st Visit Wait > 1 day 232 138 232 138	1st Visit				
Percentage of 1st Visits > 1 day (%) 39 23 Discharge Delay Average Dicharge Delay Duration (hours) 23 23 24 25 Number of Patients delayed at Discharge 113 113 55 58	Average Waiting Time for 1st Visit (days)	1	1	1	1
Discharge Delay Average Dicharge Delay Duration (hours) 23 23 24 25 Number of Patients delayed at Discharge 113 113 55 58	Number of Patients with 1st Visit Wait > 1 day				
Average Delay Duration (hours) 23 23 24 25 Number of Patients delayed at Discharge 113 113 55 58	Percentage of 1st Visits > 1 day (%)	39	23	39	23
Number of Patients delayed at Discharge 113 113 55 58	Discharge Delay				
	Average Dicharge Delay Duration (hours)	23	23		
Percentage of Patients Delayed at Discharge (%) 21 20 10 10	Number of Patients delayed at Discharge	113			
	Percentage of Patients Delayed at Discharge (%)	21	20	10	10

Table 1. Results of best scenarios indicating the areas of improvement in system performance.

4.2.7. Improvement

The findings of the model were welcomed by participants because they showed that the effect of the ICS service on hospital services is positive and demonstrates that the service is able to reduce pressure on hospital attendance. The findings also show that the model is meeting its contractual targets.

Participants then discussed how they could change their practice and work more efficiently to get better outcomes. The following suggestions were made:-

- Treat the first visit as a quick intervention/assessment and improve the quality of the second visit, making sure that it is made by the right specialty (i.e. nurse or therapist);
- Spend longer with patients on follow up visits to meet their needs as soon as they are identified;
- Standardise the service across Leicester, Leicestershire and Rutland;
- Consider re-focussing the service as a step-up service; occupancy rates as a whole are low which suggests that the step down element of the service is not as effective;
- Raise awareness of the outcome of the evaluation with GPs to give them confidence in making referrals.

The project leads were also keen to share the findings of the model with members of the team and congratulate them on the effectiveness of the service they provided.

There was confidence that the findings from the model would lead to changes and improvements in the service as it provides an evidence base and a rationale for change.

The model would be made available to participants to enable them to make changes to the model using refreshed data to see whether the changes proposed above led to the

anticipated improvements in performance. It would take about seven weeks for a change to have an impact which could be seen in the model.

4.2.8. Participants' actual outcomes and their feedback on the workshop

At the end of the workshop, participants were thanked for attending and asked to express their actual outcomes from the workshop. Participants' actual outcomes from the workshop are presented below:

- The aspects within the ICS service control have the greatest change.
- Better understanding of model, results and that the model explains processes in detail.
- Better understanding of how the ICS service works and what impact it has on hospital admissions.
- By reducing the time before first visit can have an impact on hospital admissions or delayed discharge.
- The focus should be on Looking at the 1st assessments and completing on the second visit.

The participants were also asked to complete a questionnaire stating in a scale of 1 to 5 whether they agreed or disagreed with a number of statements about the workshops' communication, commitment, consensus and usefulness. Seven participants completed the questionnaire. The results of the questionnaires are presented below:

Communication	Average Score	
	1 = Strongly Disagree	
	5 = Strongly Agree	
1. The workshop provided me with an improved understanding of the ICS service	4.14	
2. The model helped me gain a better understanding of the ICS service	4.29	
3. There was open communication in the workshop sessions	4.43	
4. I understood the model findings	4.43	
5. I understood the opinions of others	4.57	
6. The session leaders paid attention to my ideas and opinions	4.57	
Commitment		
7. I was personally willing to involve myself in the interactive sessions	4.29	
8. I had ample opportunity to participate in the workshop sessions	4.43	
9. The topics discussed at the workshop are of importance	4.57	

to me	
10. Providing a timely service is important to me	4.86
11. I identified activities that I could change as part of my	4.00
day-to-day job	4.00
Consensus	
12. An integration of opinions was reached in the workshop	4.43
sessions	4.43
13. The workshop sessions built a shared vision	4.57
14. Consensus about the next actions to be taken was	4.67
reached as a result of the workshops	4.07
15. I agree with the conclusions reached	4.50
Workshop usefulness	
16. The workshops had a clear focus	4.86
17. All in all, I found the workshops useful	4.43
18. The model gave me a different perspective of the ICS service.	4.71

19. What did you learn from the discussions in the workshops?

- Reinforced the positive impact of ICS for patients
- Good data gives results- Know we are doing well -Positive news for the ICS team.
- The positive ways in which the service is working
- That the service is actually performing better than how staff feel it is.
- About the evaluation and model
- The effectiveness of the service

20. In your opinion, what do you think should be the next steps/changes to be taken within ICS and explain why do you think this is important?

- Reducing time for 1st visit
- Clear quidelines for ICS Cascaded down to teams as soon as possible
- Clear quidelines which is standardised in relation to the ICS criteria.
- Use model results to inform service change
- Standardising procedures, criteria and practices within each ward

4.2.9. Reflections on the project leads workshop

The discussion during the workshop was lively with many contributors and engagement with the model was high. The Project Lead was instrumental in explaining the model to other participants and challenging them to think about why the results were presented in a particular way. The participants were all enthusiastic about the model and had ideas of how they could make improvements in the service, based on the findings from the model.

Some of the comments during the workshop demonstrated the value of simulation modelling. These included the observation that 'it really brought the figures to life' and that participants had not expected to see the impact of changes so quickly.

The results from the survey given at the end of the workshop were very positive with respect to Workshop usefulness, Consensus and Communication. In more detail, they all agreed that the workshops were useful and they had a clear focus; the model helped them gain a better understanding of the ICS service giving them a different perspective of the service; there was open communication in the workshop sessions; the session leaders paid attention to participants' ideas; and they understood the opinions of the others.

In terms of participants' commitment, almost all agreed that they were willing to involve themselves in the sessions, the topics discussed at the workshops were of importance to them and most of them identified activities that they could change as part of their day-to-day job. One participant stated that s/he was not willing to involve himself/herself in the interactive sessions and was undecided on whether the workshops provided him/her with an improved understanding of the ICS service. However, it should be mentioned that this participant did not attend workshop 1.

Finally, all participants agreed with the conclusions reached from the workshops and felt confident that the model provided an evidence base which both confirmed that the ICS step up service was effective but also supported changes being made.

4.2.10. Conclusions

The concept of using a computer simulation of a patient pathway in order to stimulate discussion about and test the model set out in the business case was effective. It was also useful to have the same participants present at both workshops, as this gave a degree of continuity. The discussion in this workshop revolved around the patient pathway, the service and the representation of the pathway in the simulated model.

Actions were identified which could further refine the model and make it even more useful as an ongoing tool for the ICS service to use. This would include using refreshed data once the changes identified in section 4.2.7 above to test whether the assumptions that they would improve performance were correct. Participants demonstrated a shared understanding of the entire pathway, despite many participants only being involved in a small part of the service. Therefore, it can be concluded that, in this case, using a computer model of a patient pathway as a vehicle for improvement, change and development has been successful.

4.3. The Service Users' Perspective

4.3.1 Introduction

Due to the nature of the service, it was agreed that a workshop setting with patients would not be conducive to the patients within the service due to receiving enhanced care packages in their own home, therefore making it difficult to engage with patients to gather information on the experiences of the service. In consultation with the project leads, it was decided to use alternative methods to acquire information on the patient experience, such as questionnaires.

As a result of the evaluation undertaken and based on the workshops, the following themes were identified as areas that could be further evaluated by the service:

- Treatment at home
- Experience & care at home
- Standard of care at home
- What could be improved based on patient experience
- Quality of care

A potential questionnaire that the service could use in the future is attached at the end of this report in the Appendix.

4.3.2 The questionnaires and metrics identified

Following a consultation with the programme manager and Loughborough University researchers, it was agreed that a different approach for engaging patients would be needed to gather patient feedback.

The NHS Friends and Family test was used as a way to capture the patient experience and to generate feedback.

The first section of feedback was taken from 8 patients and 3 carers and obtained in August 2016. Responses provided are as follows.

What could we have done differently to improve your care and experience? Please write any additional comments here, for example what was good and what was not so good, what could be done better?

- The service provided is excellent, very kind in all aspects of the service provided
- Nothing at all, the exercises and everything were perfect and I am feeling a lot better
- Friendly and very informative but in an easy to understand manner
- Nothing could be done better
- Not really, although timed visits would be better
- I think you have all been brilliant.
- Happy with the service given at present
- No problems, care as expected

- A little slow to respond when patient came out of hospital but after doctor reviewed the situation everything has been first class since,
- Patient says she feels nothing could be done better and very happy
- Nothing could be done better

The second section of feedback was received from 8 carers and 7 patients and completed between December 2016 and February 2017. Responses provided are as follows.

How likely are you to recommend our services to friends and family if they needed similar care or treatment?

- 10 extremely likely to recommend the service to friends and family
- 4 likely to recommend
- 1 too early to tell whether they would recommend or not

What could we have done differently to improve your care and experience? Please write any additional comments here, for example what was good and what was not so good, what could be done better?

- Staff spoke politely to patient
- Would recommend
- Very good care. Done everything asked without complaining.
- · Cannot think of anything
- Your care is wonderful
- Too early to tell
- Nothing
- Not knowing time visits are happening
- Not knowing what time visits are was not so good. Knowing visit times would better.
- All was fine
- Everything has been fine, nothing needs improving on
- Nothing, all been good

Question		Yes 🙂	No 🛑	N/A
Q1	Did you feel that staff knew what they had to do and how to do it?	15		
Q2	Did you feel that you were cared for with respect and dignity?	15		
Q3	Did you feel safe in their care?	15		
Q4	Were you or/and your carer given contact details for the service, if appropriate?	12	3	
Q5	Have you found the support you have received from different services has been joined up? For example between GP, Hospitals and Social Services?	12	3	

Q6	Were you involved in discussing and agreeing your care plan and/or goals, if appropriate?	12	3	
Q7	On your first visit/ admission to our service, did you feel well informed about the care you were to receive?	15		

4.3.3 Conclusions

It is interesting to note that the majority of the feedback is positive. The negative patient comments reflect the lack of communication around the time of the home visit, which reflects what was found in previous workshops and the both sets of NHS Friends and Family feedback.

Communication was further highlighted as part of the service that needed to improve when patients/ carers highlighted that they were not involved with the planning of care and that services were not joined up – for example between GPs, Hospital and Social Services.

To improve the experience of those that use services, communication must be improved and become a natural part of the process.

Appendix

The following list of questions could be used by ICS as a separate questionnaire to be sent to their service users.

Treatment at home

Would you prefer your care to be at home rather than in hospital?

Yes - definitely

Yes - to some extent

No – I would prefer to be in hospital

No

Not sure

Experience & care at home

Are healthcare professionals prioritising the care in your home at a time that suits you?

Yes

No

Sometimes

Not sure

Standard of care at home

How would you rate the care you have received?

Very good

Good

Ok

Poor

Very poor

If staff spent more time on your care, in what ways do you think it would benefit you?

What could be improved based on their experience

If you could make any other changes or improvements to the service, what would they be?

Quality of care

How could the quality of your care have been improved?

Do you find that each member of staff provides a consistent standard of care?

Yes

No

Sometimes

Not sure