



Royal College
of Physicians



Future Hospital
Programme



Phase 1 Future Hospital development site

Worthing Hospital

Frail and older people

The Worthing Emergency Floor

Future Hospital Programme development site

Final Report

August 2017

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“The Emergency Floor was a real eye-opener – the Future Hospital has arrived!”

Lord Prior – Undersecretary of State for NHS Productivity – May 2016



Contents

i. Overview	4
Summary of process and flow	5
ii. Impact on patient care and experience	6
iii. Impact on workforce and staffing	9
iv. Project progress	11
a. Clinical outcomes	11
b. Progress made against project plan	16
v. Return on investment	17
vi. Future plans	18
vii. Summary	20
Appendices	22

i. Overview

The Worthing Emergency Floor project combined an Acute Medical Unit, an Acute Frailty Unit and a Surgical Assessment Unit in a medium-sized district general hospital on the south coast of England. This comprehensive redesign of unscheduled care aimed to dissolve traditional boundaries within the hospital and between primary and secondary care to improve the experience for patients while delivering efficiencies in flow and productivity in this challenging area. With admissions increasing by 5% per annum and winter peaks, particularly in older patients, of up to 15%, the RCP's Future Hospital Commission (FHC) report (2013) concluded that care should come *to* patients. It noted that it is not unusual for patients – *particularly* older people – to move beds several times during their hospital stay.

The Emergency Floor project was designed to address some of these challenges by focusing care around the patient **within a co-located unit** regardless of the route of access or specialty requirement of the patient. Patients benefit from the expertise of physicians, surgeons and geriatricians who previously operated independently in different departments and locations. Early access to comprehensive assessment by an appropriate multidisciplinary team and to diagnostic and treatment interventions would result in improved patient outcomes, reductions in length of stay and need for admission and safe transfers of care between specialties if required.

The Emergency Floor project aligned very closely with many of the core concepts described in the FHC report and the opportunity to join the Future Hospital Programme (FHP) as a development site in 2014 provided a unique opportunity to work with the RCP.

The key objectives of the project are outlined below against the FHC principles they align with:

Improved patient flow and experience	1,2,4,5,6,9,10
Co-location of admission streams	4,5,6,9,10
Limit moves and reduction in length of stay	3,4,5,6,9,10
Multiprofessional working	4,6,9,10
Improved training environment	3,11
Surgical pre-optimisation	1,4,9
Increased use of ambulatory care	4,5,9,10
Limit readmission rates	4,6,7,8,9
Improve patient and staff satisfaction	1,2,11

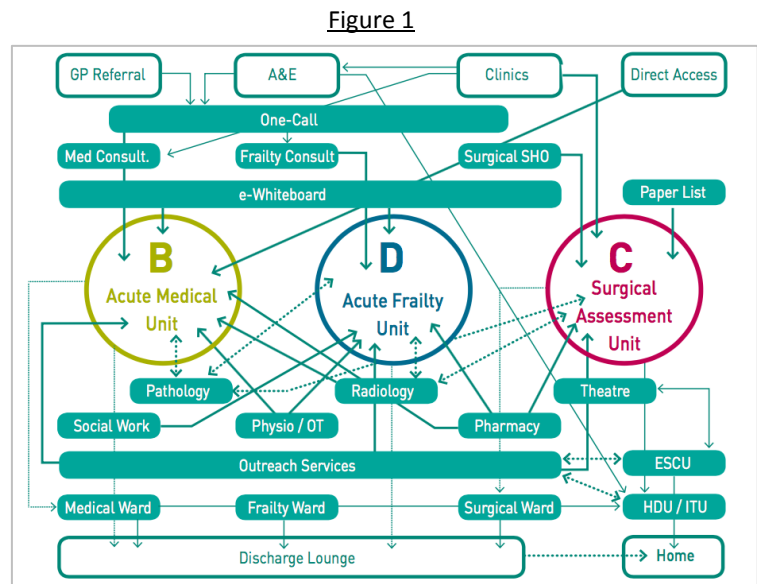
Core Future Hospital Commission Principles			
1	Fundamental standards of care must always be met	7	Good communication with and about patients is the norm
2	Patient experience is valued as much as clinical effectiveness	8	Care is designed to facilitate self-care and health promotion
3	Responsibility for each patient's care is clear and communicated	9	Services are tailored to meet the needs of individual patients, including vulnerable patients
4	Patients have effective and timely access to care	10	All patients have a care plan that reflects their specific clinical and support needs
5	Patients do not move wards unless this is necessary for their clinical care	11	Staff supported to deliver safe, compassionate care and are committed to improving quality
6	Robust arrangements for transferring of care are in place		

KEY INTERVENTION

In the Society for Acute Medicine Benchmarking Audit of 2017, Worthing was the only acute trust out of 90 sites that had a combined Medical, Surgical and Frailty Admissions Unit and this **co-location is the key element of this project**. The developments over the past 3 years have all focused on streamlining and improving on this approach to standardising care for all unscheduled admissions. Most acute trusts have an acute medical unit and many have surgical assessment units, with frailty units also developing across the UK – all of which have variations in the geographical layouts, the staffing and the processes involved. While many of the experiences of this project may not be directly transferable, the ability to apply a quality-improvement system to a busy clinical area, to measure and report on progress and to share and learn from other sites are all achievable and the **key question is whether co-location of these services improves the experience for patients and improves flow and efficiency through the system**.

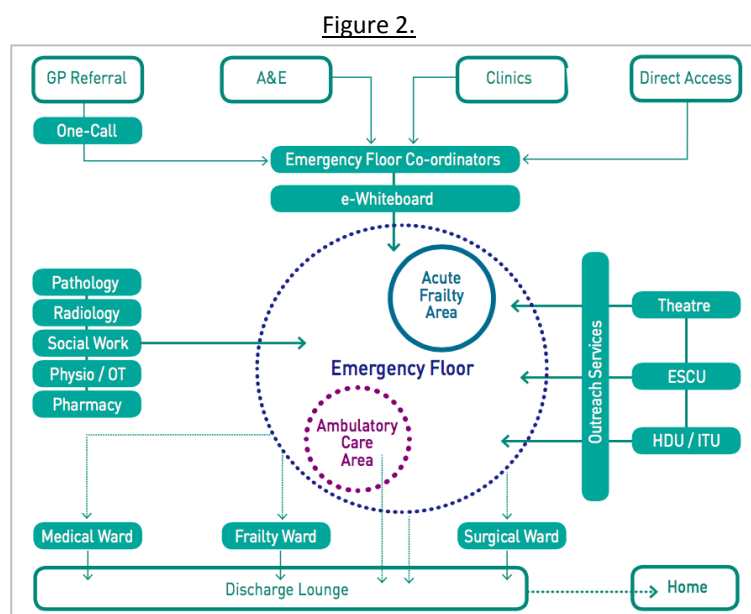
Summary of processes and flow:

Figure 1 illustrates the structure and process for the acute takes for each of the components of the Emergency Floor prior to opening. Different pathways for patients, referrals taken by different people with little co-ordination of this process and three distinct admissions areas made it very challenging for the support services - including the members of the outreach team and the wide variety of allied health professionals and other specialist teams - who would need to visit different areas in the hospital to provide input on patients. Bed-management teams would need to provide support across all of the inpatient wards and also across three separate high-turnover admissions areas. Ambulatory care was only available to patients being admitted under the medical teams and this was delivered in a very small physical space. There was no robust electronic system being used by the surgical teams to manage the take and communication was complex, often requiring multiple bleeps or phone calls to inform A&E, the bed-management teams and the wards of patients who were expected for admission. In addition, there was no close working relationship between the acute medical, acute frailty and acute surgical teams with the separate assessment areas on three different floors. Transfers of care from one team to the other would be complex and patients would often already have been moved to the 'wrong' specialty ward.



The reconfigured Emergency Floor (Figure 2) was accompanied by a more standardised approach to all referrals - with all expected admissions recorded on an electronic e-Whiteboard, accessible from throughout the trust and reflecting the expected patients, those that had arrived, been seen, had a consultant review and other information. The coordination of all admissions has become more streamlined with better communication - enhanced by the use of 'walkie-talkie' radios and the e-Whiteboard. The bed-management team is able to communicate instantly with the A&E and Emergency Floor coordinators and together they are able to plan for arrivals and prioritise patients to the Frailty Unit or to monitored beds depending on their needs. Patients are still admitted under a geriatrician, surgical or medical consultant - who is the named consultant, but their care is now delivered in the same area, by a team of doctors, including specialty registrars, core trainees in each of the specialties and a group of 'acute care' foundation doctors.

The large Ambulatory Care Area is now accessible to all patients and has had a major impact on flow. All of the support services and members of the multidisciplinary team are now able to deliver care in a single area in which the most unwell patients, and those for whom a diagnosis is still not clear, are being cared for. Transfers of care between specialties can now occur without the patient being moved from one ward to the other with an immediate discussion between a registrar or consultant from each team. This significantly reduces the possibility of patients being transferred to the incorrect ward. Patients are triaged to specialty wards, or to remain on the Emergency Floor during the post-take ward rounds and the Emergency Floor team continues to look after all patients until they are moved off the ward. A robust electronic handover-system is in place to improve the quality of transfer of information to the ward-based teams.



ii. Impact of project on patient care, particularly patient experience

Improving the experience of patients being admitted as emergencies has been a core aim of the Emergency Floor project from the beginning. Patient experience was central to the idea of bringing services to patients and ensuring that, regardless of the point of entry, the source of referral, or the specialty to which a patient was referred, they had access to the right people, in the right place, at the right time.

Co-location has resulted in:

- a more standardised process for all patients
- improved availability of ambulatory care
- a reduction in outliers
- seamless transfer to the correct clinical team
- reduced ward moves
- equal access to specialist teams
- specialist nurses in oncology, diabetes, respiratory, heart failure palliative care and more.

During the design phase, considerable focus was placed on creating an environment that was easy to navigate, bright and welcoming and maximised the availability of natural lighting. The importance of layout, colour and signage for patients with dementia was a key consideration and historical patient feedback from the three component units was incorporated into discussions around process and pathways.

The FHC report was published in 2013 and laid out a challenge that “patient experience should be valued as much as clinical effectiveness” and with that the opportunity to join the RCP as a development site opened up. At this point a patient representative joined the team to explore how patient experience could be assessed and integrated into the continuous improvement of the service that was being delivered. The RCP provided support through their Patient and Carer Network (PCN) representatives who were invaluable in providing guidance and advice to the team.

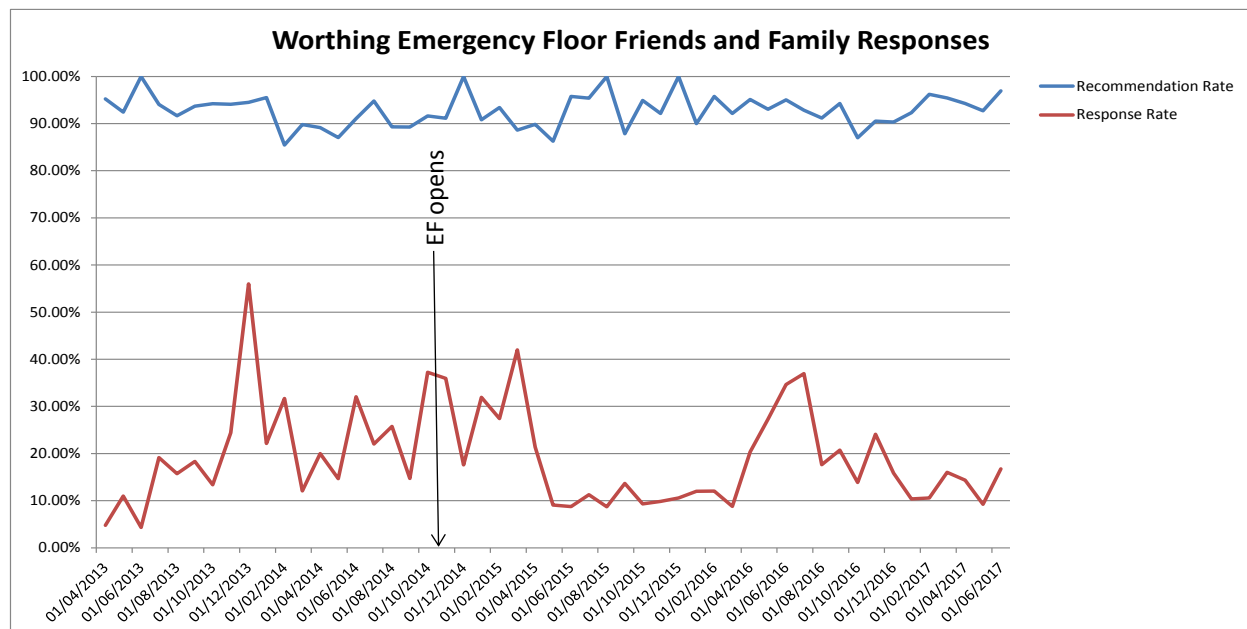


Figure 3: Friends and Family feedback – AMU/SAU/AFU and then Emergency Floor

Working with the trust’s Patient Experience department we produced a revision of the trust patient survey to incorporate the RCP patient experience questionnaire and, along with other volunteers, our patient representative played a role in collecting feedback from patients during their time on the Emergency Floor. Friends and Family responses, the survey feedback and plaudits and concerns were raised at the daily safety huddle so that staff could have immediate feedback on specific examples of excellent care as well as areas of concern. This form of feedback allowed issues to be dealt with in real-time and provided a constant reminder to the team of how well patients perceived the service to be delivered. During the 3-year period since opening and over a period of significant change and service redesign, there was no reduction in the percentage of patients or carers who would recommend the unit and the hospital to friends and family (Figure 3). Volunteers were given training and helped with the patient surveys to allow more time for interviews and to ensure that clinical staff were able to undertake their duties. The Emergency Floor does pose some specific challenges, as this is often the point in patients’ journey through the hospital system when they are most unwell and least ready to answer questions on the service, and this is reflected in the relatively low rate of return of surveys.

As a member of the second cohort of the Acute Frailty Network, a pilot emotional mapping survey (Figure 4) was undertaken. Incorporating this type of exercise into our feedback will also allow future surveys to focus on specific aspects of a patient’s stay that may be particularly stressful to identify how to make improvements in those areas.

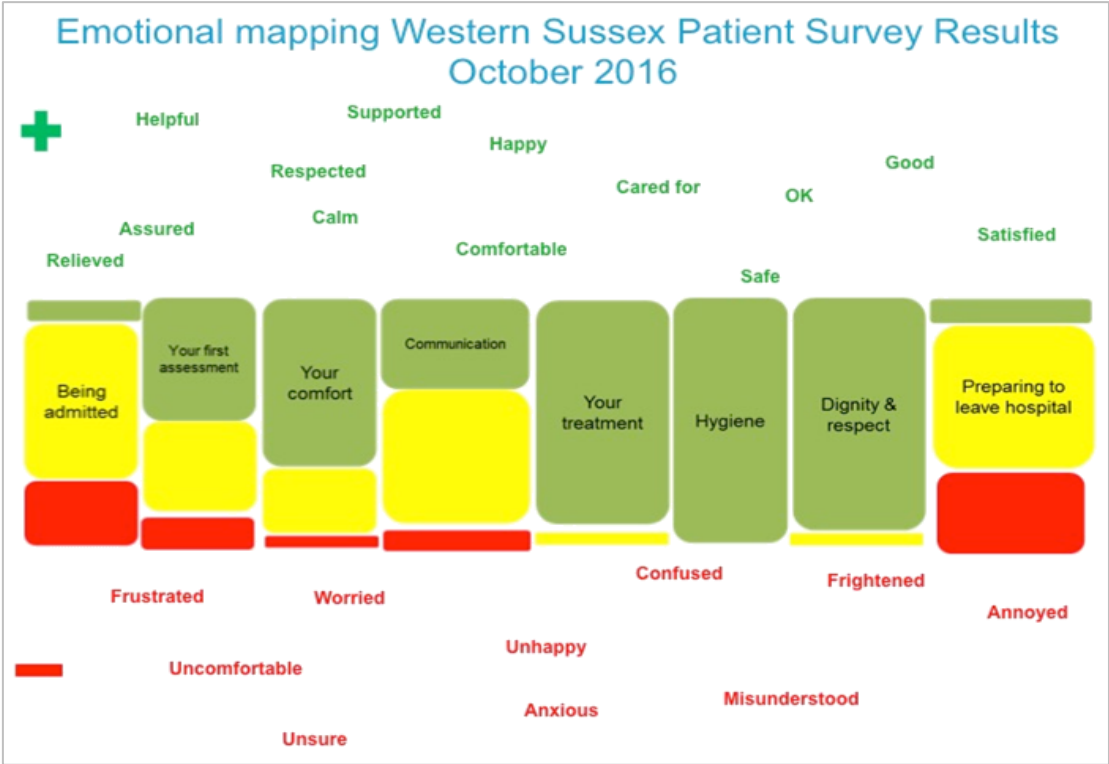


Figure 4: Emotional mapping for older patients admitted as emergencies – October 2016

Alongside this important qualitative information we gathered data on aspects of the patients’ pathway that we correlated with experience - using the time that patients wait to see a nurse, a junior doctor, the physiotherapist or the consultant as surrogate markers for experience. The importance of rapid access to the ‘right person,’ to senior decision-makers and to appropriate support from occupational and physiotherapy in outcomes for patients helped us to deliver on the challenge of delivering an experience in parallel with improved clinical effectiveness. Figure 5 shows the improvement in time to being seen by a junior doctor for all non-elective referrals to the Department of Medicine for the Elderly (DOME). An even greater improvement was seen in surgery where waiting times were almost halved from 140 minutes to 76 minutes.

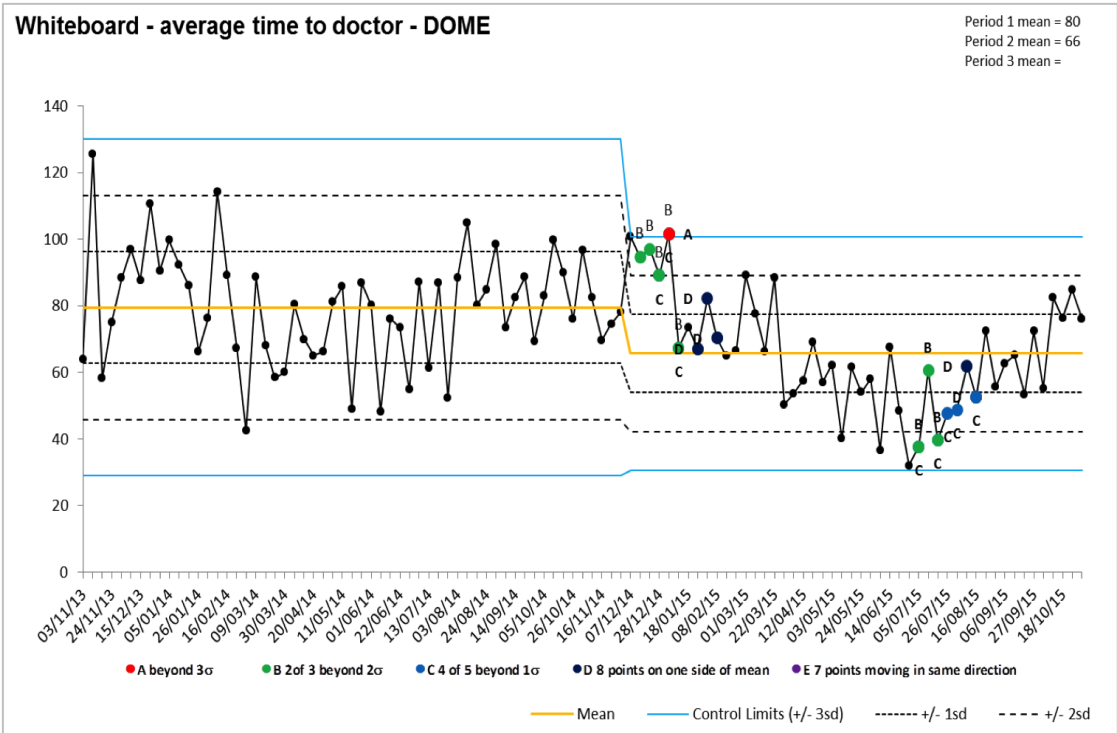


Figure 5: Average waiting time for patients to see first doctor after referral from A&E or GP

The FHP places the patient experience at the top of the agenda. Each development site worked with a patient representative to explore ways of engaging patients in the project, ensuring that the experience of the users of the system were measured and incorporated into the projects. The exact role of the patient representative was not clearly defined and has been an important part of the learning process. This project was already at an advanced stage of development by the time that it joined the RCP's FHP and direct patient involvement had been limited up to that point. The patient representative was included in the Emergency Floor Operational Group meetings, has been a core part of the FHP team from the beginning and has helped with collecting feedback from patients and working with other RCP patient representatives on understanding what can be done to ensure that feedback influences future developments. Alongside the many successes, there have been frustrations at not succeeding in setting up a Patient Forum or a post-discharge follow-up telephone survey - ultimately requiring too much administrative time to manage alongside the other responsibilities of the team. These are areas that the trust is now developing as part of its Patient First programme.



Key messages:

- Early involvement of patients and carers in design of pathways and clinical areas
- Agree a balanced form of patient feedback that can be analysed for themes
- Regular feedback to staff on patient experience was well-received
- Reporting on waiting times is helpful and reflects process, experience and outcomes
- 'Acute Care' Foundation programme has aided in reducing waiting times
- Patients are most anxious about the time around admission and discharge
- Having all new admissions in one area makes transfers of care easier
- Co-location maximises equity of access to all supporting specialist services

iii. **Impact on workforce/staff/team**

The Emergency Floor has seen a constant evolution of its staffing over the 3-year period since it opened. The lack of similar models across the country made it difficult to know exactly what the specific challenges would be but there was a shared sense of excitement at the prospect of a new unit, novel ways of working and the benefits of bringing each individual departments' skills together. Staff-engagement events were held regularly to discuss the concept of co-location, combining existing teams and developing a skill-mix that would meet the needs of a more heterogeneous group of patients.

Nursing Staff: Teaching sessions were run prior to opening in which surgical, medical and frailty nurses met to learn from each other and to share concerns about how the new system would work. Opening the unit in a busy December made for a challenging start in uncharted territory, which was compounded by a 4-6 month period where there were daily gaps in the nursing establishment. As the winter passed and the processes embedded, the team settled into a routine that soon began to deliver rewards. The introduction of daily 'Safety Huddles' - at which staffing, flow, equipment and environment were discussed, encouraged all members of the multidisciplinary team to raise concerns that were shared and addressed by the group and helped to consolidate the Emergency Floor team. Recruitment and retention of nursing staff has remained a significant challenge and the Emergency Floor has never reached a complete nursing establishment. Despite this, sickness levels are no higher than on other wards, and a large number of nurses-in-training who have done placements on the Emergency Floor have applied for full-time posts on qualifying as, despite the challenges, the Emergency Floor still remains a popular clinical area with nursing teams.

Junior Medical Staff: For the first eight months after opening, the three teams of doctors for acute medicine, acute frailty, and surgery remained separate teams, as rotas and job descriptions were already in place. From August 2015, the *Acute Care Foundation Programme* was launched. The South Thames Foundation School approved a 4-month placement for foundation doctors on the Emergency Floor, which could be done *in addition* to separate medicine and surgical placements. During this block they would gain generic competencies in clerking and managing patients from all of the three specialties. They would receive support and input from acute physicians, geriatricians and surgeons and would gain exposure to ambulatory care. A bespoke rota was devised to ensure that the trainees rotated through the Frailty Unit, looked after a mix of medical and surgical patients and had days in which they would clerk patients coming in under each specialty, present their cases to the appropriate senior team member and also spent time on Ambulatory Care, with excellent opportunities to develop a wide range of practical procedure skills. This has been enormously successful and now all foundation trainees in the trust rotate through the Emergency Floor during their first year. Staff have been surveyed twice during this period and feedback incorporated into modifications of the rota, teaching programme and format of ward rounds.

Frailty Unit staffing: Co-locating the Frailty Unit within the Emergency Floor was a core component of the project. The previous Acute Frailty Unit was a highly functioning ward with a well-established team and the move to the Emergency Floor brought new benefits and challenges. Patients across the entire floor now benefit from a standardised multidisciplinary assessment that ensures that all aspects of the patients' needs are met, early discharge planning can be facilitated and access to specialty input easily facilitated. Patients in the Frailty Unit have improved access to specialist nurses in diabetes, COPD, acute oncology and palliative care and to rapid access to surgical and medical specialty input as required. At the same time, any patient on the Emergency Floor that requires a Comprehensive Geriatric Assessment (CGA) will now have one done on the day of admission. The increased pace and workload of co-locating the Frailty Unit with the other acute units has, however, had an unintended impact on frailty nursing staff. The focus on length of stay and requirement for flow through the Emergency Floor has resulted in some nursing staff returning to less fast-paced elderly care wards and outpatients. This may be related to the perception of faster turnover, although this is not borne out in the 0-1 day length of stay data, the requirement for greater flexibility and skills in caring for medical and surgical patients and the cultural impact of co-locating the nursing teams. A change in the organisation of nursing staff still poses a challenge for the nurse coordinators who are managing beds, liaising with community services while also trying to provide clinical and pastoral support to the frailty nursing team. The Frailty Unit has performed remarkably despite these challenges and the team still understands the essential role that they have in providing care to an ever-growing group of patients. Reorganisation released a band 6 nurse to function as the Frailty Nurse Coordinator for all three zones, rather than just the frailty zone itself, further improving the CGA process for patients across the floor. Long-term sustainability of results will depend on ensuring staff satisfaction as ward-based CGA clearly requires nurses skilled in meeting the needs of complex older people with frailty in acute crisis.

Measuring the impact on staff of such a substantial change in practice is a significant challenge. Surveying our staff revealed fluctuations in optimism and clarity of purpose - as one might expect. Over the 3 years since opening, however, the team has established itself as a group of hard-working and committed nurses, doctors, allied health practitioners and an enormous team of housekeepers, pharmacists, ward clerks, social workers, secretaries and handymen who work together with the common purpose of providing the absolute best experience and care for each patient.

There is constant learning, adapting and reviewing of how things are done and a clear sense of engagement with the process of improvement that is well aligned with the Western Sussex Patient First Improvement System program.

[WSHFT - Patient First Introduction Video](#)

Patient First is Western Sussex Trust's strategy for the roll out of patient-centred continuous improvement projects across the organisation generated by the staff and patients. The Emergency Floor is in the second-phase of this with the daily safety huddle evolving into a daily improvement huddle. At this meeting, staff identify and choose 'tickets' to tackle challenges with equipment, processes and even staffing. Staff engagement is one of the key or 'True North' objectives for the trust, and the 2016 Emergency Floor Staff Survey showed an improvement in 7 out of 9 domains looking at staff engagement (Figure 6).

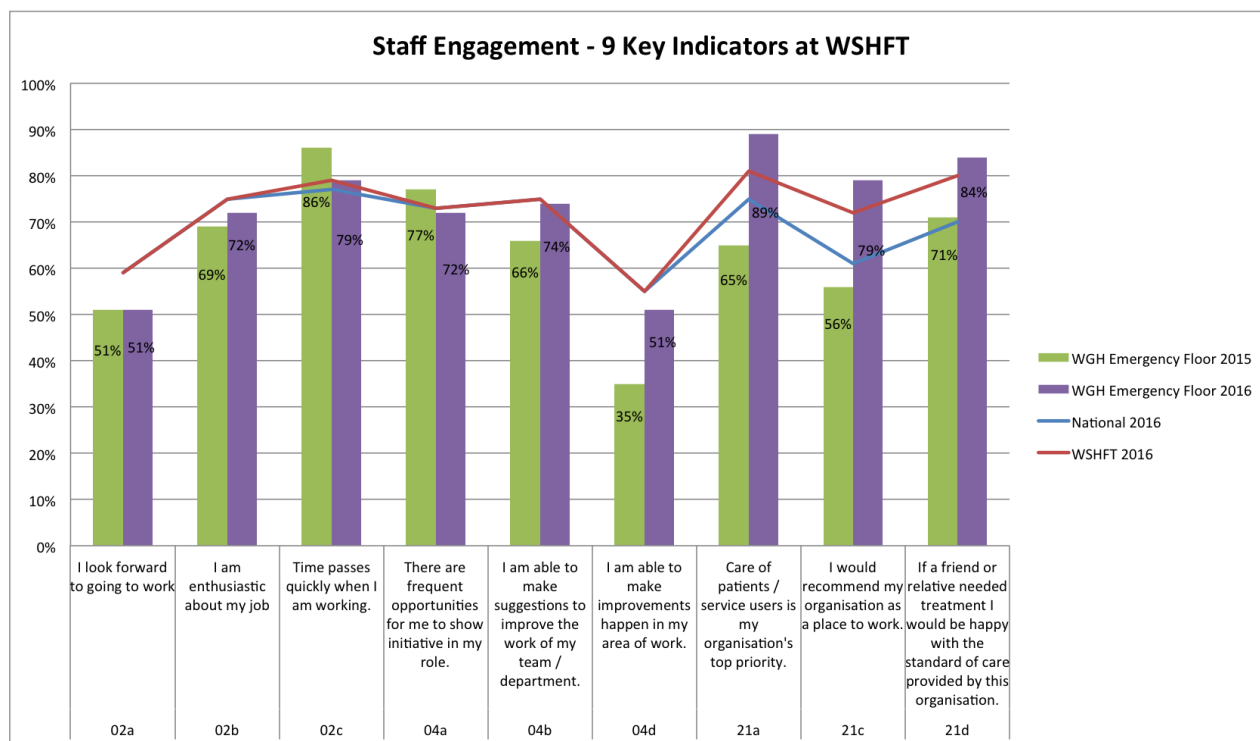


Figure 6: NHS Staff Survey – Staff Engagement questions 2015-2016



Emergency Floor Safety Huddle – daily 10h45

Key messages:

- Staff engagement has improved since opening the Emergency Floor
- Recruitment and retention of nursing staff remain a local and national challenge
- Acute Care Foundation programme highly successful
- Specialist nursing skills, such as frailty care, need to be preserved and nurtured
- Team cohesion has been strengthened by safety-huddles and shared goals

iv. Project progress

a. Clinical outcomes and revealed efficiencies

A key component of working with the RCP on the FHP has been the regular reporting of an agreed set of metrics, balancing clinical and experience measures. Data were collected and analysed by applying Statistical Process Control methodology, with training and support being provided to all of the development sites. One of the critical success factors for this project was the close involvement and support of the Information Team at the trust. A Data Analyst was closely involved in measuring and reporting on the data and helped to generate regular reports on progress.

By applying this methodology, small iterative changes in processes could be undertaken using a PDSA approach and the impact measured against the baseline indicators. This process, along with the requirement to produce regular reports, ensured that the successes *and* failures could be demonstrated and where improvements were made that these could be measured, evidenced and reinforced. The Emergency Floor has delivered a number of significant positive benefits outlined below:

A&E Performance:

Over the past 3 years, Worthing Hospital A&E has experienced a 4.5% average annual growth in attendances by patients over 65, 2.1% average annual growth overall to an annual attendance of 65,000. There has been an 8% average annual growth in emergency admissions. Over this period, the trust has maintained the 95% target for A&E for patients to be seen and discharged or admitted within 4 hours and has remained in the top 5% of performing Trusts in the country. Acknowledging that the 4-hour target is a measure of whole-system performance, the Emergency Floor has contributed to improving flow out of A&E as patients referred by GPs should no longer wait in the A&E department on arrival. Within 2 months of opening the Emergency Floor there was a measurable reduction in the number of patients breaching the 4-hour target of 8–11% as the number of patients being discharged within 24 hours increased and the utilisation of ambulatory care improved (Figure 7).

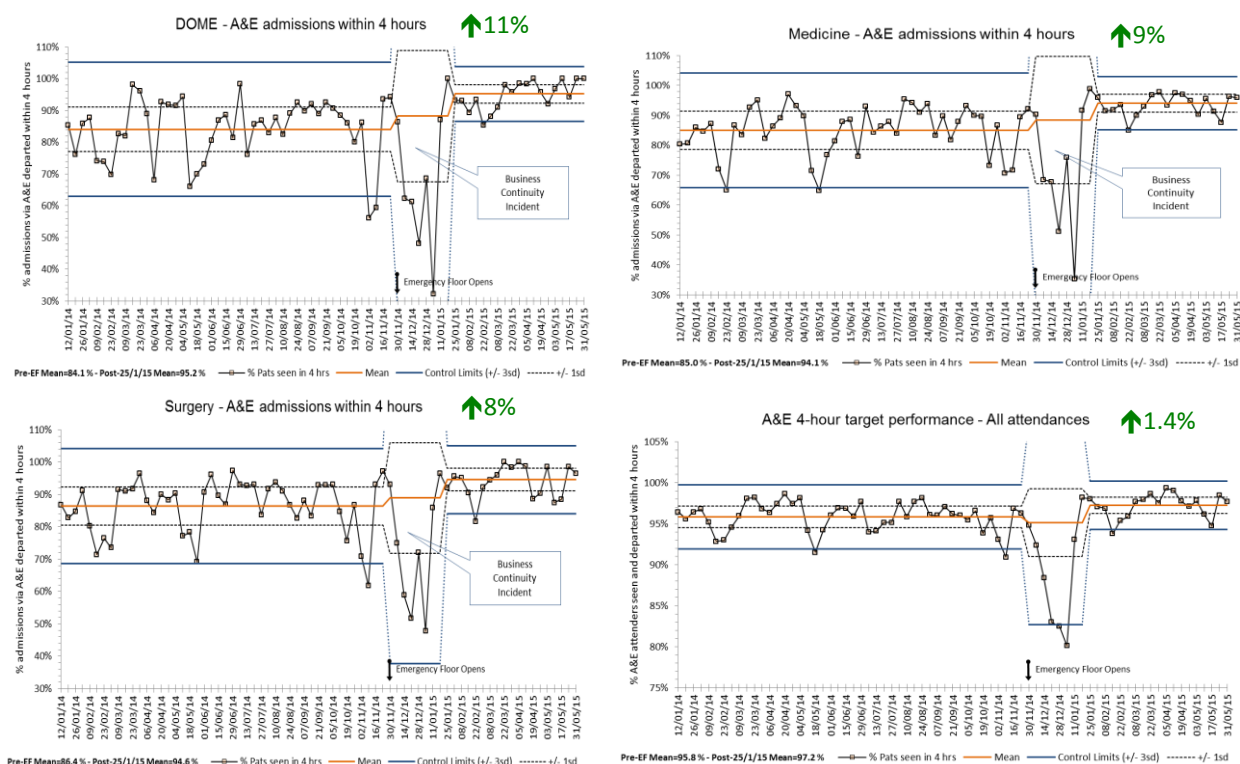


Figure 7: Patients admitted within 4 hours of referral to specialties from A&E

Although the improvement of flow out of the A&E department has improved, this has been offset by an increase in admissions. The improvement in flow was a composite of work done in the A&E department and the opening of the Emergency Floor and was assisted by using an electronic whiteboard to track admissions, by connecting the coordinators of both with hand-held site radios and by extending the Discharge Lounge service. This high level of cooperation between the teams was an essential part of the changes that were delivered. These have been cemented through monthly meetings of the Emergency Floor Operational Team at which all the members of the multidisciplinary team meet to develop further project work, such as prioritising investigations and ensuring early flow to the wards, of which the EF is pivotal.

Surgery:

The most important measurable impact of this project has been on the pathway, process and flow for surgical patients. As soon as the Ambulatory Care Area opened, it became clear that many patients previously admitted under surgical teams could be seen and cared for in the ambulatory setting. Within the first 12 months, there was a 30% increase in the number of patients with 0-1 day length of stay and a 33% (3.2 days) reduction in surgical length of stay on the wards (Figure 8). This was accompanied by a reduction in variation, reflecting more consistent processes and a more standardised approach to patients. It is important to note that data for surgical patients prior to the opening of the Emergency Floor was from the Surgical Assessment Unit that did not have an ambulatory area and would not have captured patients seen in A&E by the surgical team and discharged from there.

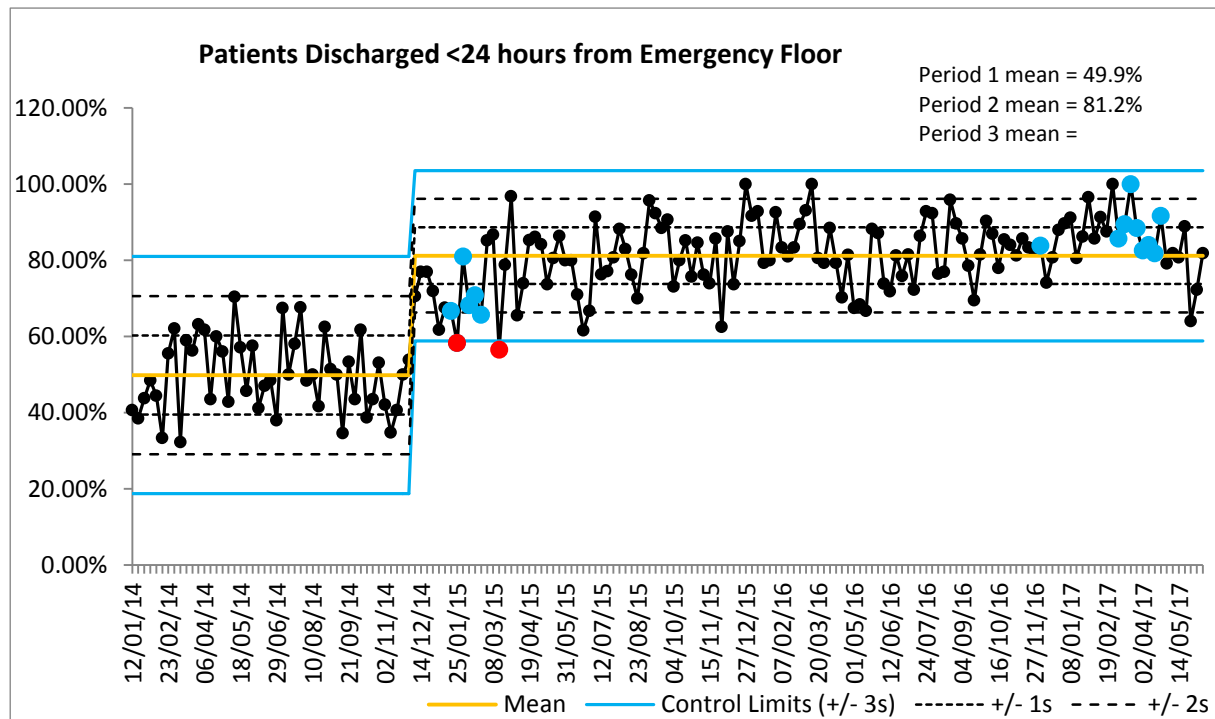


Figure 8: Surgical pathway patients discharged <24 hrs. from surgical assessment Unit / Emergency

The reduction in surgical admissions translated into an overall reduction in length of stay on surgical wards of over 3 days (Figure 9) with a consequent reduction in the number of inpatient surgical beds required. This was combined with other ward-based initiatives such as standardised board-rounds and increased use of the discharge lounge to contribute to a reduction by 23% of the number of outliers - the wrong patients on the wrong wards.

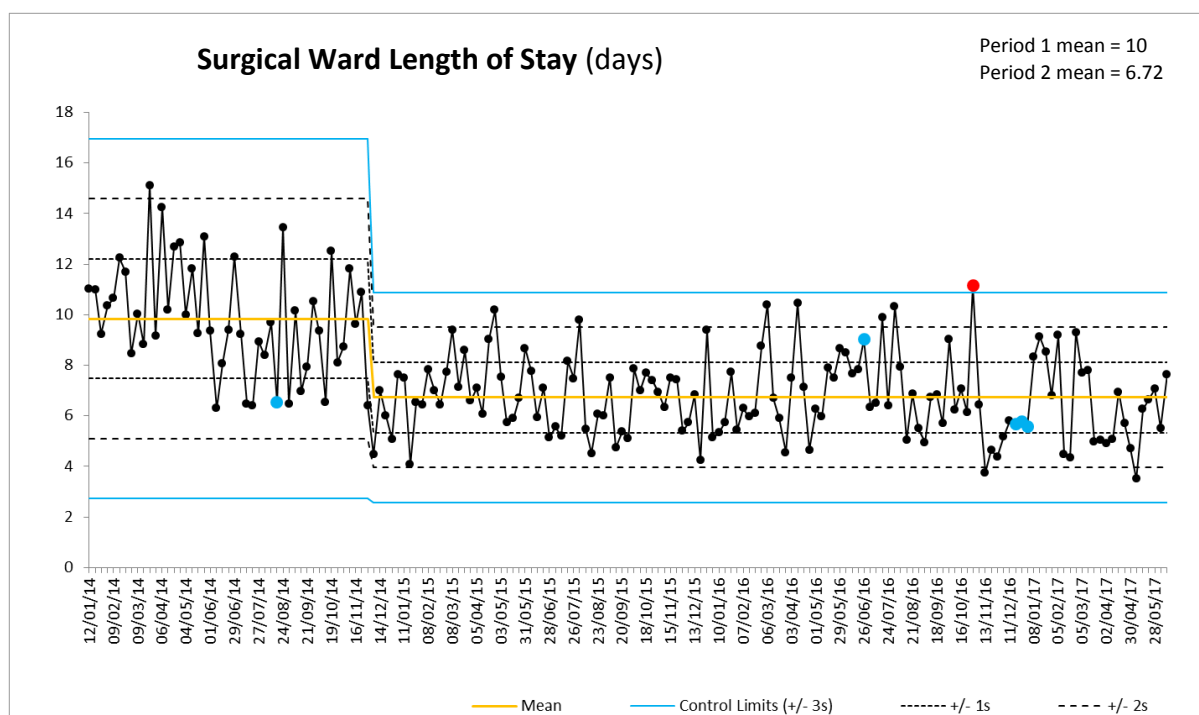
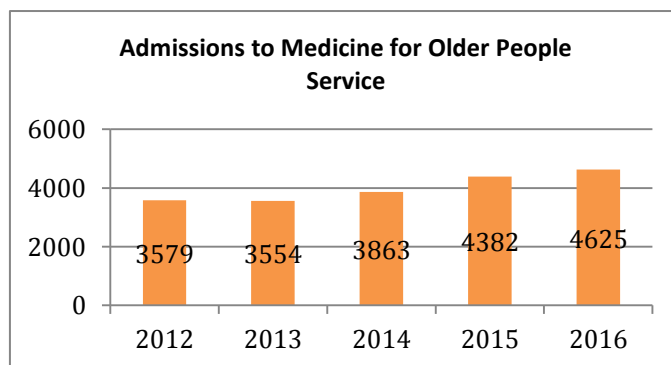


Figure 9: General Surgical ward – Length of stay – all wards

This important reduction in length of stay of surgical patients contributed to a larger trust-wide piece of work on ward reconfiguration and helped to enable the transfer of a 27-bedded surgical ward to the medical division. This occurred towards the end of 2015 and meant that the bed allocation was more aligned to the local demographic and needs of patients coming into the hospital. Staffing was a significant challenge because of nursing vacancies across the trust and nationally as well as an increased requirement for medical staff.

Care of Older People and the Acute Frailty Service:

In Worthing there has historically always been a *needs-related*, non-elective admission service for older people. The locality, Coastal West Sussex (CWS), has one of the oldest populations in England, with 25% of patients over 65 and with more over 50s and over 80s than most other areas of the country (CWS CCG data). In addition to the mean age, the population age band is skewed towards the very old. Admissions to the Department of Medicine for the Elderly (DOME) have increased by 29% over the last 5 years and the 22-bed Acute Frailty Unit was no longer able to contain all of the non-elective admissions, regularly resulting in outliers on the AMU, SAU and other wards. The predicted increase in numbers of older people, especially the very old, and the resultant pressures on the service going forward were important drivers for the redesign of the admissions processes.



Co-locating the Frailty Unit within the Emergency Floor was a core component of this project. The Cochrane review on “Comprehensive geriatric assessment for older adults admitted to hospital” showed a significant improvement in the chances of a patient being alive and in their own home at up to a year after an emergency hospital admission if they receive coordinated specialist services. This effect is consistently seen from trials of geriatric wards where patients are admitted to a *dedicated* ward area and receive care from a specialist multidisciplinary team but not when patients remained in a general ward and received assessment from a visiting multidisciplinary team. Bearing in mind this evidence, and the experience of running an Acute Frailty Unit since 2009, the Emergency Floor was designed to allow co-location of the Acute Frailty Zone to maximize the benefit of “ward based” CGA. As such, the hypothesis we wished to test was whether co-location was at least as effective as ward-based CGA. All MDT resources, including the medical team (one acute geriatrician and specialty doctor acting as a senior decision maker), relocated to the Emergency Floor.

Although we do not have 1-year post-discharge survival data, and despite increasing admission numbers over the 3 years since opening, patient outcomes have remained the same for all of the balancing measures recorded: - 0-1 day discharges, for Emergency Floor and DOME wards, average length of stay for EF and wards, 30-day readmissions for EF and wards and mortality for EF and wards. In addition to the to these outcome measures, there has been no change in the likelihood of recommendation on the Friends and Family Test.

A further testament to the benefit of co-location in a larger space has been the ability to flex the use of the space (Figure 11). Originally sited in zone D (pictured below on the left), as a result of a regular need for a larger footprint, the acute frailty zone moved to zone B (pictured below on the right) to ensure adequate capacity to co-locate the acute frailty admissions with an increase of nine beds. This required far less effort than the usual requirement for ward relocation and allows capacity to be flexed according to patient demand.

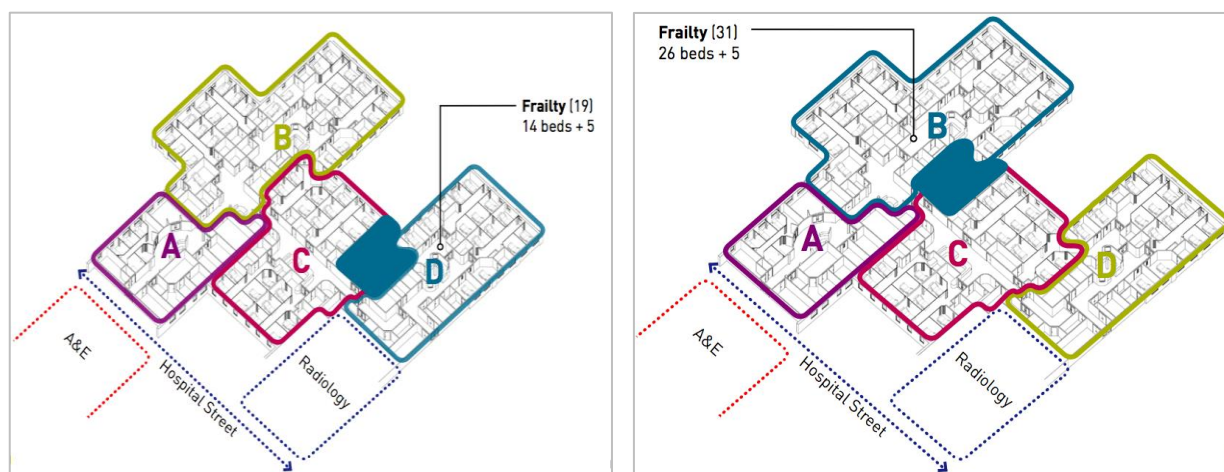


Figure 11: EF Zone Reconfiguration – June 2017 to match demand for frailty patients

7-day services:

The importance of measuring and reporting on the performance metrics is illustrated by the change in the proportion of patients for whom a documented consultant review occurred within 14 hours of arrival to the hospital (Figure 12). This measure of performance also correlates with improved outcomes and reduced length of stay. The graph reflects the fact that the medical and elderly care teams have been using the e-Whiteboard to record these data, while the surgical teams have not. The acute medicine consultant rota was also changed at the start of 2016 to provide 8am-7pm cover for 7 days a week and the impact of this change is clearly visible. The graph illustrates that the consultant provision to the three specialties is variable, as is the uptake of using the electronic system for capturing this information. This has supported a revision of the consultant geriatrician job plans and resourcing to support a mid-take ward round and weekend cover. Further work is underway to improve the electronic documentation of reviews by surgical consultants. Using data in this way continues to support service developments of this kind and highlights where variations in practice could be tackled to improve performance and patient outcomes.

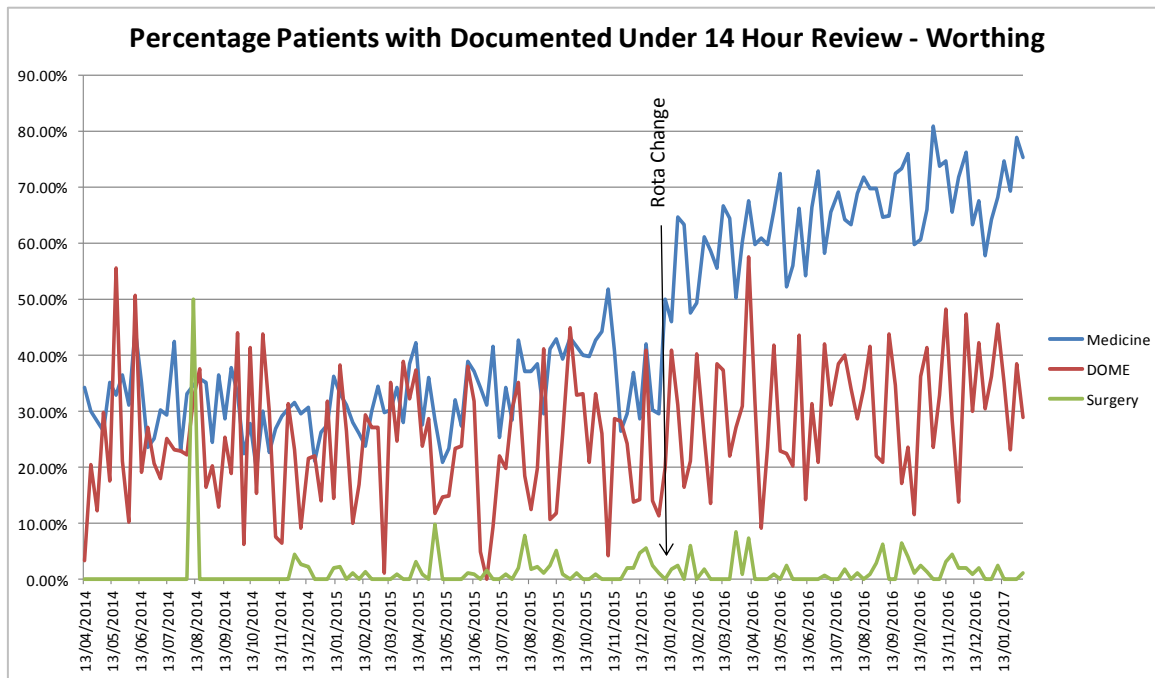


Figure 12: 14-hour consultant reviews documented on the e-Whiteboard

Ambulatory Care:

Ambulatory emergency care (AEC) has advanced significantly over the past 5 years and has played a major role in the success of the Emergency Floor project. It is likely that this has been the *single most important* factor in reducing admissions to the hospital and particularly so for surgical patients - many of whom required rapid assessment and access to a senior decision maker to agree on a management plan - but did not require overnight admission. It is difficult to isolate the particular impact that ambulatory care has had, but it is possible that organisations that already have a well-established ambulatory service for their surgical patients may not see the impact that was demonstrated here.

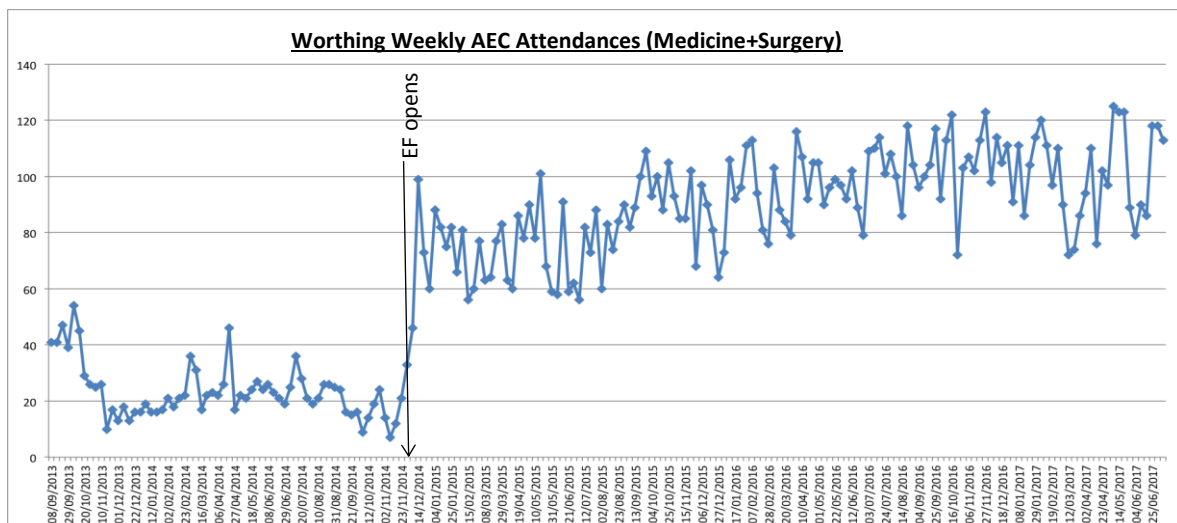


Figure 13: Patients seen on Ambulatory Care Area (ACA) – all attendances

Ambulatory emergency care has been a significant contributor to the success of the Emergency Floor project. The significant reduction in surgical length of stay can be directly attributed to the increased use of the Ambulatory Care Area for the majority of surgical assessments. Patients who would have previously been seen in A&E are also now seen in ambulatory care - easing the pressure on the A&E department. Despite the benefit seen for surgical patients, the Ambulatory Care Area has not been of adequate size or nursing resource to accommodate an increase of ambulatory frailty assessment to take over from the rapid access elderly care clinics. This is an area to explore moving forward as this has been shown to be helpful in other centres. Staffing of the Ambulatory Care Area has been an important factor in how well it functions on a daily basis. The current staffing configuration is an acute care F1 from 08h00 to 17h00 and medical core trainee from 11h00 to 19h00, with nursing ideally provided by two trained nurses and a healthcare assistant. Other configurations, including a new band 4 role, have been explored, and ambulatory care is also an excellent opportunity for the training of physician associates and advanced nurse practitioners.

The ability to absorb the rising number of admissions and attendances through a reduction in length of stay, reflected in Figure 14, underpins the key role that the Emergency Floor has played in system sustainability.

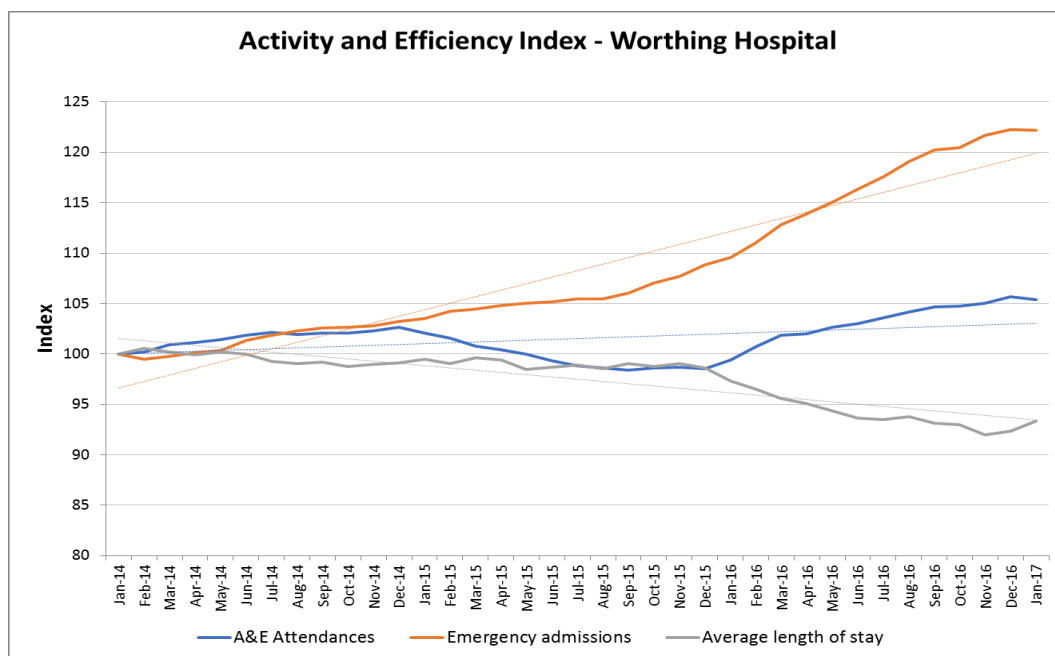


Figure 14: Efficiency Index of admissions + Length of stay

Key messages:

- A&E 95% 4-hour target supported through improved flow to the Emergency Floor
- 8-11% reduction in A&E breaches for patients awaiting specialty beds
- 30% increase in 0-1 day length of stay for surgical patients
- 23% reduction in medical 'outliers' on surgical wards
- No change in readmissions / mortality for patients admitted to the frailty unit
- Improvements in time to consultant review achieved through rota re-organisation
- Ambulatory care is a critical success factor achieving reduced admissions

b. Progress made against project plan

- **Improve experience of care for all patients**
- **Co-location of admission streams**
- **Standardisation of admission pathways**
- **Use of e-Whiteboard to track admissions**
- **Increase use of Ambulatory Care - particularly for surgical admissions**
- **Reduce non-elective admissions and improve length of stay**
- **Enhance multidisciplinary input**
- **Develop high-quality learning environment**

ALL admissions to Medicine, Surgery and DOME are via the Emergency Floor since opening

- This excludes conditions with direct access – e.g. PCI to Cardiac / Stroke to Stroke Unit
- This also now *includes* Orthopaedic and Gynaecology admissions out of hours
- Also includes Orthopaedic GP referrals via Ambulatory Care
 - Achieved through agreed pathway redesign and support of site-management team

Standardisation of admission pathways and use of e-Whiteboard to track admissions

- ALL unscheduled care patients arriving on the Emergency Floor now on e-Whiteboard
- This allows data collection for tracking times, consultant review and location of patients
 - Still need further work with teams to ensure consistent use of this system for more robust data

Increased utilisation of Ambulatory Care Area (ACA) – particularly for surgical admissions

- The potential for over 30% of all attendances to be managed through ACA results in bed saving
- Staffing this area with generic juniors has improved waiting times and reduced length of stay
 - Continues to expand, posing some challenges with respect to space and staff resource

Multidisciplinary working significantly improved across the Emergency Floor

- Daily Emergency Floor safety huddle has strengthened team identity and spirit
- Daily 11am MDT round covers the whole floor and improves access for all specialties
- Daily ward input from physio/psych/social work/intermediate care/dieticians
- Daily specialist medical input from neurology, palliative care, oncology and cardiology
 - In-reach from medical specialties still requires expansion and offers new potential

Monthly multidisciplinary Emergency Floor Operational Group meetings (EFOG)

- Remain multidisciplinary with additional input from Customer Care representative
- Patient representative input / feedback is an important component
- Consistent operational management support has enabled change and is essential
 - Essential to ensure continuous feedback and progress updates from the MDT

Develop high-quality learning environment

- Acute Care Foundation programme in second year, with good feedback from year-one survey
- Doctors' teaching programme now fully established, nursing updates also in-place
 - High demand area requires innovative approach to optimising learning for all staff groups

Patient experience

- Good Friends and Family feedback despite significant service pressures
- Patient Focus Group and telephone follow-up calls were not deliverable due to time constraints
 - Capturing patient experience must balance quantitative and qualitative data and is challenging

v. Return on investment

The Emergency Floor project has extended over a 3-year period and measuring the impact is extremely complex. There have been significant changes in the pathways for patients, the use of ambulatory care, staffing and ward reconfigurations within the hospital. Because of the complexity of the changes, it is difficult to entirely deduce which are directly attributable to this project and which are the result of the many changes occurring elsewhere across the organisation.

The return on investment can be seen in purely financial terms but it is also important to acknowledge the enormous value to the service of the networking, visits from other organisations and sharing of experience that being a part of the FHP has enabled.

Financial Impact Assessment:

The capital required for the Emergency Floor build was identified as £6.66m and the build was achieved on time and to budget. The full business case identified that the trust would have a negative overall contribution until 2014/15, then an overall positive contribution over the following years through a reduced need for inpatient beds, which would require the realisation of a bed-reduction of 17.9 beds. For 2015/16 the trust invested an additional £1.349m to enhance the clinical skill mix on the unit over and above the wards that were replaced. The Emergency Floor has had a significant impact on the patient journey for emergency admissions with an increased proportion of short-stay non-elective patients from 10.3% in 14/15 to 11.8% to mid-2016. Consequently, there was a shift in length of stay, and a corresponding reduction in the proportion of full-tariff non-elective activity, with an income reduction of £416k. The shift towards ambulatory care resulted in an increased proportion of patients meeting the Best Practice Tariff criteria for Ambulatory Care / non-elective same-day admissions with an increased income from this area. The most important impact has been through surgical bed savings - based on a saving of 17.9 surgical beds (albeit probably absorbed by a corresponding increased requirement for medical beds due to increased patient throughput activity) with a potential saving of circa £1m / year. As a result of the tariff changes, the trust secured additional revenue from the CCG. Some of this has been absorbed in ensuring adequate nursing and medical cover for the elderly care beds.

Networking and other opportunities:

The FHP has enabled an incredible amount of networking opportunities and the Emergency Floor project has generated opportunities to share experience and learn from others. The project was shortlisted for the HSJ Innovations Award Shortlist in 2016 and the team was awarded a Western Sussex Trust STAR award in 2015. The Emergency Floor project has been presented at 14 national and international meetings and visited by other acute trusts, international quality-improvement experts, NHSI and the CQC - not only for inspection (Appendix 1). Visitors to the floor have been very positive in their feedback and through these discussions there has been the opportunity to cross-examine and reflect on the changes that have been made and improve on them wherever possible. The staff on the Emergency Floor have worked extremely hard to continually deliver the highest standard of care and strive towards continuous improvement. This ethos is reflected across the organisation and in 2016 Western Sussex NHS Foundation Trust was awarded an 'Outstanding' rating by the CQC.

In April 2017, a group of 26 nurses and a consultant physician from the first Acute Medical Unit in Iceland visited the Emergency Floor for 3 days to immerse themselves in the concept, processes and day-to-day running of the department. They all spent time working across the four zones, including the Ambulatory Care Area and the Frailty Unit and some were attached to the coordinators of the Emergency Floor, and the frailty coordinator, to better understand how their roles functioned. In July 2017, the team wrote back to thank everyone for hosting the visit and reported back on the performance of their new unit. Within 3 weeks of opening, they had seen a reduction in patients waiting in their Emergency Department for beds in the morning from 20-25 down to 3-6; compared with the first 12 days in June of the previous year, they reported that they had admitted and discharged 94 patients through 20 beds compared to 44 patients through 17 beds and that the unit's average length of stay had been reduced from 3.9 days to 1.7 days. Over 75% of their patients are now being discharged directly from their new unit rather than being transferred to other wards. This was an uplifting example of the enormous potential benefits of sharing experience and knowledge, and this lies at the heart of the FHP and Future Hospital Partners Network.

vi. Future plans

Western Sussex NHS Foundation Trust includes St Richard's Hospital (SRH) in Chichester. 18 months after opening the Worthing Emergency Floor, a similar model was put in place at SRH, co-locating the admission streams and expanding the existing Acute Medical Unit from 42 to 55 beds with an Ambulatory Care Area. The physical space for the new SRH Emergency Floor did not have a rebuild and was extended by annexing another pre-existing ward area. There was no pre-existing Frailty Unit at St Richard's and this remains a key difference between the two sites with a single combined 'take'. The planning and roll-out on the new site did not have the same 2-year planning and discussion phase and data collection was less embedded in the process at SRH than it had been at the Worthing site. This process has underscored the fact that there is no 'one-size-fits-all' solution, but some of the core components of the project - such as the Acute Care Foundation programme and changes to the consultant working patterns - have shown some benefits. The changes have highlighted the importance of planning, communication, ensuring adequate staffing and the impact of major changes on teams but have opened up opportunities to explore new ways of working as well.

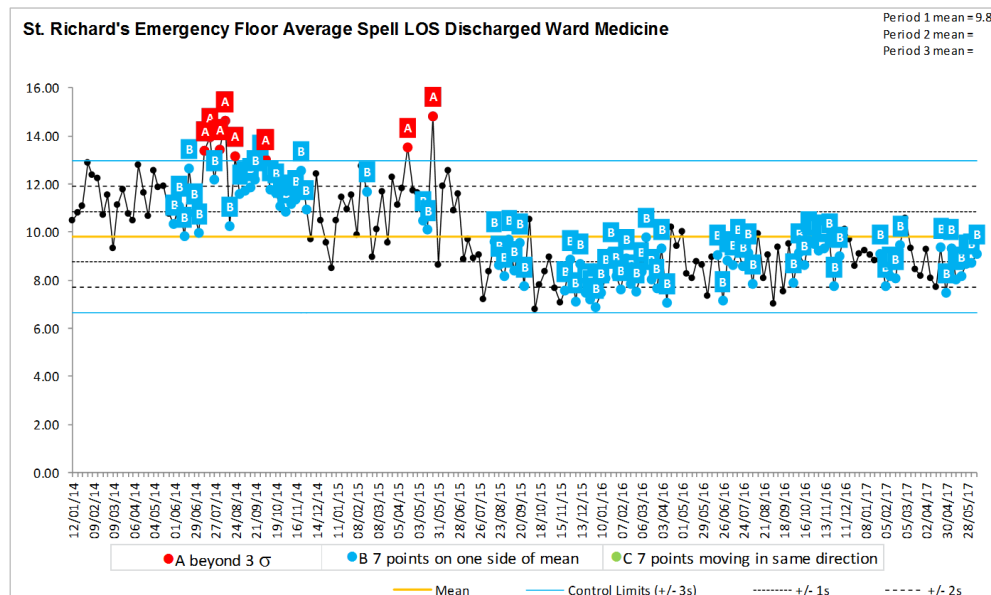


Figure 15: St Richard's Emergency Floor length of stay

Although the data collection is still in an early phase on this new site, there is already some evidence of a reduction in the variation in length of stay for surgical patients and a trend towards reduction in ward length of stay. There has been no increase in mortality across all specialties.

Given the impact on flow and length of stay for surgical admissions on the Worthing Emergency Floor, there is a potential for expansion to trusts that do not have well-established surgical assessment units, or those in which ambulatory care is not set-up to provide rapid assessment and turnaround for this group of patients. The 2016 Society for Acute Medicine SAMBA Audit highlighted that there are some units where medicine and surgery are co-located, but this is not a majority and could also warrant further exploration.

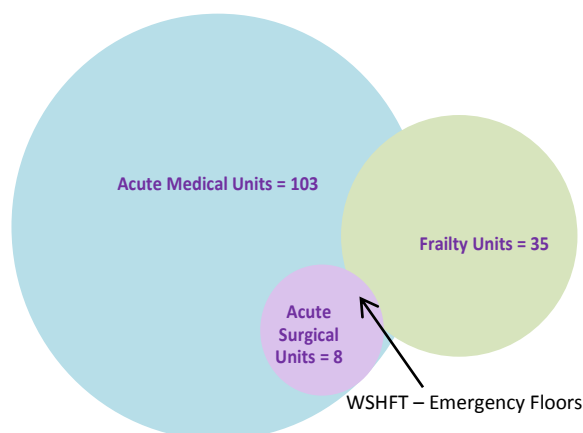


Figure 16: SAMBA 2016 unit configuration data

The Western Sussex team is working with the Nuffield Trust and the NHS Acute Medical Models team to explore whether the concept of co-location could address some of the challenges of units with significant staffing challenges. Utilising junior medical staff to cover admissions from a number of specialties in a single co-located space may partly address some of the difficulties and ensuring that all patients have easy access to a single multidisciplinary team could address resourcing issues and help with early discharge planning.

Since joining the RCP FHP, the trust has also joined the Acute Frailty Network and there has been further detailed QI work on the most effective method for the delivery of front door frailty. The important lessons and skills acquired over the last 3 years have contributed to how effectively this has been achieved. This programme includes the identification of frailty at the front door using the Rockwood Clinical Frailty Score and is part of the Front Door Frailty pathway redesign project - tasked with resolving the differences between provisions for acute frailty at the two sites. This has historically been limited at SRH by the smaller number of consultant geriatricians and a different evolution of the delivery of care for older people with frailty. Figure 17 illustrates the progress of introduction of an electronic system for recording frailty on all patients aged over 65, which will allow the service to be developed in line with the changing demographic and frailty profile of the population. The value of data collection, reporting and feedback as a core part of continuous improvement are embedded in this project.

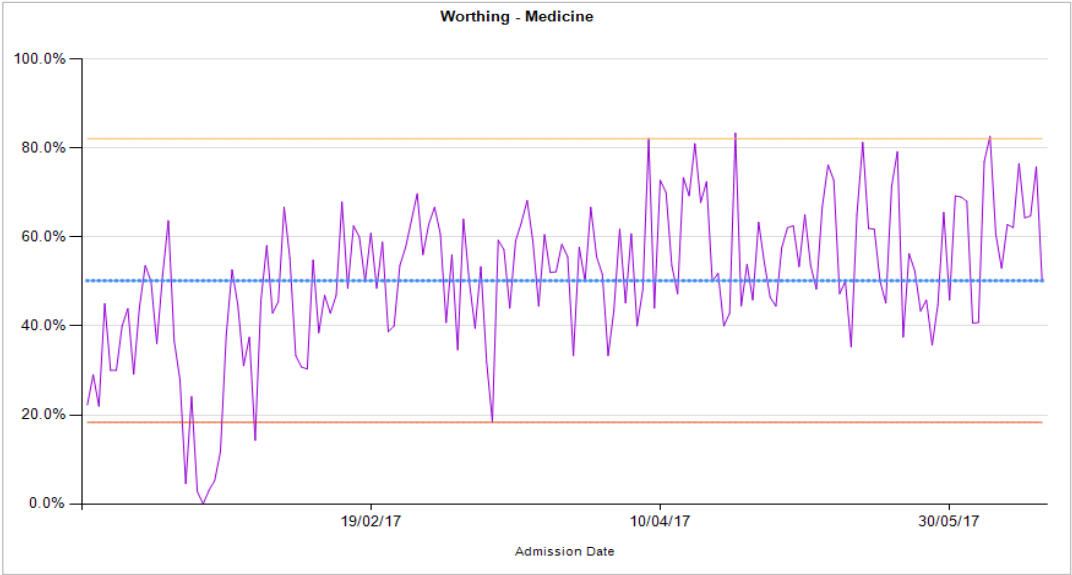


Figure 17: Completion data on Rockwood scoring of all patients >65 years

Although the concept, design, building and roll out of the Worthing Emergency Floor is now completed, and the pathway for unscheduled care patients is well established, the ongoing development and evolution of the service will continue. Working across all staffing groups to ensure that the staffing of ward clerks, secretarial and ambulatory care are correct, moving towards a different rota-system for the geriatricians to improve on time to consultant reviews for older patients, developing multidisciplinary teaching and tackling the challenges of recruitment and retention - these are all ongoing projects that involve the entire team. Improving the format in which data are reported to the teams through a standardised dashboard and completing the standard operating procedure for the Emergency Floor are important next steps.

Much of this is now supported through the **Patient First programme** - through the Patient First Improvement system. The safety huddles now include a daily improvement huddle that focuses on team solutions to challenges identified by all members of the team. This standardised approach is being rolled out across the entire organisation and is guided by the trust’s True North objectives (Figure 18). The greatest challenge to a large-scale project such as the Emergency Floor lies in its sustainability and in an organisational cultural shift towards one of continuous improvement built around the patient.

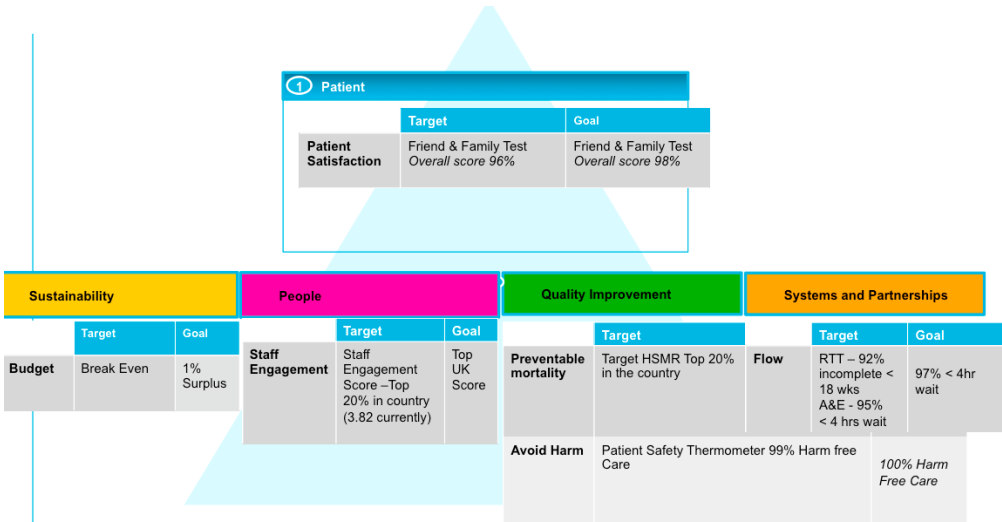


Figure 18: Patient First: True North Objectives

vii. Summary

The Emergency Floor project has spanned 7 years from the first discussions on how to reorganise care for patients admitted to the trust as emergencies under the medical, surgical and geriatrics teams. The process of designing a new system, creating a business plan and proceeding to collaborating with architects, builders and an extraordinary array of professionals from every aspect of the health service has been truly transformational. The success of such an enormous project has been underpinned by the trust's commitment to building services around the needs of patients and ensuring a system that is flexible and adaptable to the changes in the wider health economy. A clear vision of the benefits of co-locating services and streamlining pathways for patients has driven the development of a responsive service that is informed by data and by patient and staff feedback; and one in which continuous improvement is a core component of its evolution.

Joining the RCP's FHP as a first phase development site in 2014, just before the opening of the Emergency Floor in December 2014, was an incredible opportunity to build on the work that had already been done. The development sites had support with developing metrics to measure performance and experience and were required to produce regular reports on the project's progress. The focus on using clear quality-improvement methodology to measure and steer the project was supported by working closely with the trust information department and the reporting system ensured that a rigorous process was followed. The RCP partnership also provided quarterly peer-review through the other development sites and strong support from the Patient and Carer Network to ensure that the patient remained at the center of developments along the way. The Emergency Floor has had many visits in the 3 years since opening - from other trusts, NHS organisations and international visitors and this has opened up enormous opportunities to share ideas and learn from each other along the way.

While there is clearly no 'one-size-fits-all' model, core components of how the Emergency Floor functions, including the co-location of admissions, the increased use of ambulatory care, multidisciplinary-working, safety huddles, twice-daily medical board rounds and the Acute Care Foundation programme, have generated enthusiastic discussions. These important features provide a clear daily routine to how the Emergency Floor functions and this has reinforced the sense of organisation that can now be felt working on the floor - and has been frequently commented on by visitors. The multidisciplinary aspects of the Emergency Floor are at the heart of its success and these continue to develop with patients benefiting from the rapid assessments that they receive with clear goals for discharge which are set at an early stage to support timely discharges. Ensuring that the most appropriate team cares for patients was always an anticipated benefit of co-location and there are now daily examples of patients' care being rapidly and safely transferred to the correct team with a consequent reduction in the number of patients on outlier wards. A bed-reconfiguration project has also been completed, supported by the reduction in surgical admissions, which has allowed a surgical ward to be reconfigured to match the inpatient requirements for patients.

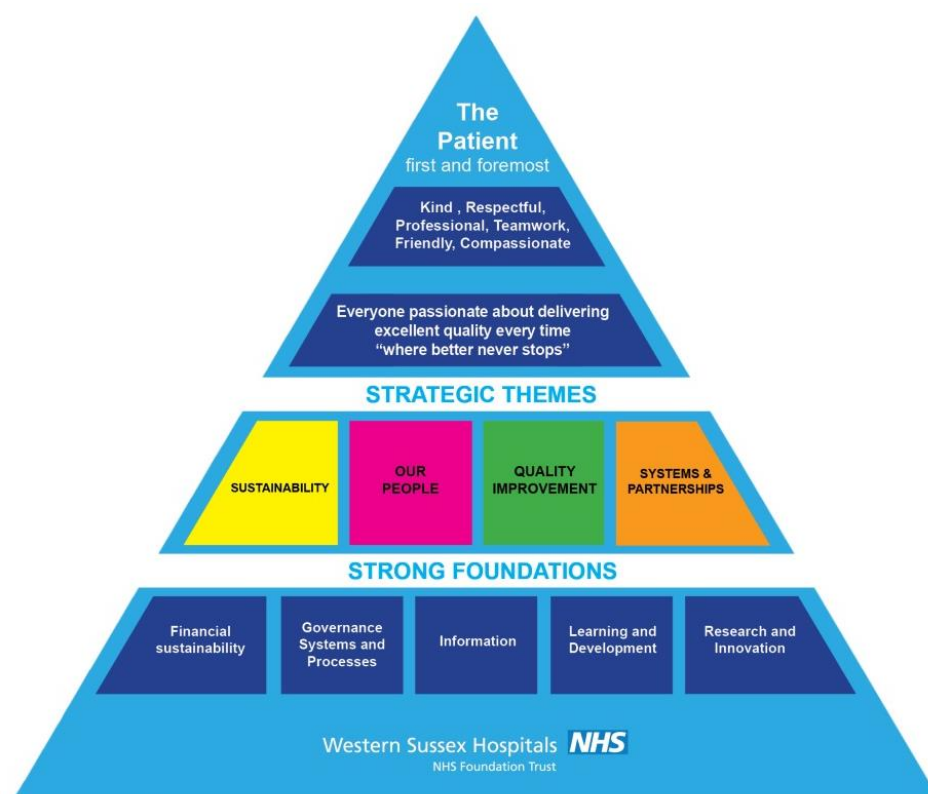
Flexibility has been essential to the success of this project, as it has enabled bed capacity to match the requirements of the combined admissions from each of the specialties; the original bed modelling overestimated the requirement for surgical capacity and underestimated the positive impact of ambulatory care on patient flow. The changing demographic resulted in an increase in older patients being admitted to the Emergency Floor and the flexibility of the floor has allowed the zones to be reconfigured to match this and continue to deliver focused care to the frailest patients in a co-located Frailty Unit. This has allowed ward-based comprehensive geriatric assessment to be delivered, supported by the multidisciplinary team, but has also ensured that every patient being admitted has equal access to the wide range of specialty services that support the Emergency Floor. The ongoing success of the acute frailty service has supported the move to co-locate these services and the potential for this model to deliver benefits in other organisations where these services are disconnected.

Staffing the Emergency Floor has been one major aspect of the project that has brought with it challenges and successes. A national shortage of nursing staff and the challenge of combining nurses from different backgrounds and with different skills and interests has resulted in the nursing establishment never being fully recruited to. As the Emergency Floor has established a clear role and function it has increasingly attracted newly qualified nurses who enjoy the wide variety of patients that they care for and the enormous learning potential of the unit. Ensuring that the particular skills of the frailty nurses are maintained and also disseminated to newly-recruited nurses is essential to ensuring the on-going success of the frailty unit and the flexibility of the service itself and this will be supported by a renewed focus on multiprofessional teaching and team working.

The medical staffing of the Emergency Floor has developed significantly over the past 3 years, with major benefits from the Acute Care Foundation programme. This has been developed to ensure that all first-year foundation doctors spend a 4-month block on the Emergency Floor, during which time they develop essential generalist skills in the assessment and management of patients being admitted under all of the specialties. The core clinical and practical skills that they acquire, and the support from medical, surgical and geriatric consultants, ensures that they develop a broad-based training and the competencies to proceed to other areas with confidence and the flexibility to meet the challenge of an increasingly complex and frail population presenting to hospital. Their exposure to a strong multidisciplinary team ethos also helps them to understand the important roles that all members of the team play in delivering comprehensive patient-centered care. Consultant rotas have been adapted to provide better cover across 7 days and have particularly helped to improve care and flow during the weekends. Further developments in the provision of acute frailty cover will still be needed to address some imbalances in the time to consultant review for older patients. Surgical consultant cover is also developing with recruitment of more acute surgical consultants who will have a greater role in the development of surgical services on the Emergency Floor.

Some of the greatest measurable impacts have been for patients admitted under surgery. Significant reductions in length of stay have been achieved through the increased use of ambulatory care and patients previously delayed in A&E waiting for access to surgical beds on the surgical assessment unit are now seen more rapidly on the Emergency Floor. There is ongoing work to improve access to appropriate investigations for patients to further reduce the time to decisions about surgical interventions and close working with surgical teams and bed-management has assisted in the development of more streamlined pathways for patients.

Patients have been at the heart of this project from the beginning. Patients do not always present with a clear list of problems and a clear diagnosis and identifying how best to look after them requires input from a team of people committed to understanding all aspects of their care needs. The Emergency Floor brings this team together in one co-located area and has developed enormously in the 3 years since it opened. The support of the RCP and the trust have enabled the staff to build a service that is welcoming, flexible and constantly evolving and proud to be a model for the Future Hospital.



Patient First

Appendices:

1. Visits and Presentations

Emergency Floor Presentations:

Society for Acute Medicine – Bristol – May 2015

RCP London – June 2015

Welsh Physicians Club – 2015

RCP London – October 2015

RCP Manchester – 2015

RCP London – June 2017

RCP Harrogate – 2016 & 2017

RCP – Yorkshire 2016

Acute Medical Models Network – June 2016

IHEEM Design – Manchester – October 2016

RCP – Loughborough – February 2017

FHC Liverpool – May 2017

European Healthcare Design – June 2017

Royal Society of Medicine – September 2017

Emergency Floor Visits:

Don Berwick

UCLH

BSUH

Warwickshire

QAH – Portsmouth

Basingstoke

Jersey

Tasmania

Landspítali Hospital – Iceland

AiC – Singapore

Chris Ham

NHSI

Trust Development Authority

Sir Mike Richards & David Behan – CQC

Lord Prior

Tauranga Hospital – New Zealand

Hillingdon Hospital

2. FHC Data metrics:

	March	December	January	February	March	April	May	June	July	August	September	October	November	
Descriptor		2015/15	2016/01	2016/02	2016/03	2016/04	2016/05	2016/06	2016/07	2016/08	2016/09	2016/10	2016/11	Comment
Demographics:														
Male	687	684	664	667	687	647	637	678	674	671	673	652	639	
Female	837	825	815	803	837	846	809	787	801	796	761	777	797	
Under 65	550	543	544	533	550	519	512	506	531	537	546	472	465	
65+	974	966	935	937	974	974	934	959	944	930	888	957	971	
Urgent Care admissions	1525	1509	1479	1470	1525	1483	1446	1465	1475	1467	1434	1429	1436	
Bed Occupancy	87.60%	85.50%	87.60%	81.90%	87.60%	83.90%	84.40%	85%	87.90%	84.30%	82.90%	89.00%	89.40%	Emergency Floor Only
														Across the Worthing Hospital Site
	92.60%	90.10%	94.20%	93.10%	92.60%	93%	92.40%	91.95%	92.00%	93.73%	94.84%	98.53%	97.36%	
Admission / Discharge Ratios	1:1:1.00	1:1:1.0	1:1:0.91	1:1:1.01	1:1:1.00	1:1.02	1:1:0.99	1:1:1.03	1:1:1.00	1:1:1.00	1:1:1.00	1:1:1.05	1:1:0.99	Emergency Floor Only
														Across the Worthing Hospital site
	1:1:1.00	1:1:1.01	1:1:0.97	1:1:1.01	1:1:1.00	1:1.01	1:1:0.96	1:1:1.01	1:1:1.00	1:1:1.00	1:1:1.00	1:1:1.00	1:1:1.00	
Readmission Rates	16.20%	14.10%	14.10%	16.40%	16.20%	18.10%	16.00%	21.70%	19.10%	17.60%	18.20%	16.60%	#N/A	EF readmission within 28 days
Length of Stay	30.5	30.6	31.4	30.4	30.5	29.8	30.1	30.4	32.1	31.7	31.5	32.3	32.4	Emergency Floor only
														Worthing Hospital
	2.90	2.75	2.64	2.75	2.90	2.87	2.62	2.54	2.64	2.47	2.40	2.54	2.32	All Wards
Mortality Rates	3%	3.20%	2.30%	3.50%	3.00%	2.80%	3.80%	2.00%	2.30%	2.60%	2.50%	2.70%	2.30%	Emergency Floor only (incl. ACA)
Friends & Family														See additional Inform
4 Hour Performance	96.01	94.12	95.38	93.3	96.01	95.8	96.47	96.48	93.4	94.39	96.42	92.39	91.79	Worthing Site
Use of Ambulatory	316	400	418	377	400	435	424	382	468	453	449	439	465	ACA clinics included f
Consultant review <12	70.00%	75.90%	75.10%	66.80%	70.00%	64.40%	69.3	68.6	61.10%	71.30%	70.50%	69.60%	68.70%	Methodology has cha
Of ALL patients, % with <14 Hours time-stamped Consultant	41.3	23.60%	32.40%	32%	38%	38.90%	38.85%	38.60%	37.00%	45.50%	41.20%	42.60%	43.90%	

3. Acute Care Foundation Programme Questionnaire

- Q1 What is your grade?
- Q2 Did you receive specialty induction documents/video
- Q3 Please rate these induction documents/video
- Q4 Did you have a 'shop floor' induction session?
- Q5 Please rate this 'shop floor' induction
- Q6 Please rate the following statements about Zone A
- Q7 Please rate the following statements about Zone B
- Q8 Please rate the following statements about Zone C
- Q9 Please rate the following statements about Zone D
- Q10 The formal teaching sessions on the Emergency Floor met my training needs
- Q11 The informal/bedside teaching met my training needs
- Q12 Did you undertake an audit/Quality Improvement Project (QIP) during this placement?
- Q13 If there were any specific reasons why you did not complete an audit/QIP please enter them here (e.g not required for my training, no support from Supervisor, no project of interest, my idea wasn't supported) etc.
- Q14 Did you personally experience bullying in this placement?
- Q15 Did you witness bullying in this placement?
- Q16 Please answer the following questions:
- Q17 I would have felt comfortable raising concerns with a senior colleague...
- Q18 Did you have a clear understanding of the purpose of the Emergency Floor at the beginning of your attachment?
- Q19 On completion of your post, did you have a good understanding of the roles of...
- Q20 Please rate the following statements about working with different specialties
- Q21 Do you think the Emergency floor attachment is useful at your stage of training?
- Q22 How would you most closely rate the experience your experience of working on the Emergency Floor?
- Q23 I enjoyed working on the Emergency Floor...
- Q24 If you have any further comments or suggestions (either good or bad) about the Emergency Floor please leave them here.
- Q25 Final Question. Please check this box if you wish to be contacted about any of the issues you have raised in this survey? (If so, please also leave your e-mail address in the next box)

4. Emergency Floor Dashboard





Royal College
of Physicians



Future Hospital
Programme