

Background

The impetus behind the Red2Green project in Cheshire and Wirral Partnership NHS Foundation Trust (CWP) is the national issue of ever increasing pressures on mental health services and inpatient beds, which emphasises the importance of patients receiving active and timely care in the most appropriate setting and for no longer than is clinically necessary. However, there are wide variations locally and nationally in length of stay, even for patients with similar conditions. CWP had already achieved high levels of efficiency in bed use but recognised the need to keep improving quality and effectiveness. For example, the length of stay within CWP was already below the national average of 36 days (inclusive of leave) due to the introduction of the Centralised Bed Management Hub, the development of the Complex Recovery Assessment and Consultation (CRAC) team, the Home Treatment Team gatekeeping assessment and implementation of Acute Care Standards. Therefore CWP has the 5th lowest acute bed numbers according to national benchmarking and has avoided any acute out of area placements since January 2016. However, as demand and bed occupancy still remains high, it was agreed to adapt Red2Green from physical acute healthcare, translate it into mental healthcare and test it out as pilot projects on wards with high complexities of admissions to improve flow through reducing 'wasted time' in a patient's journey.

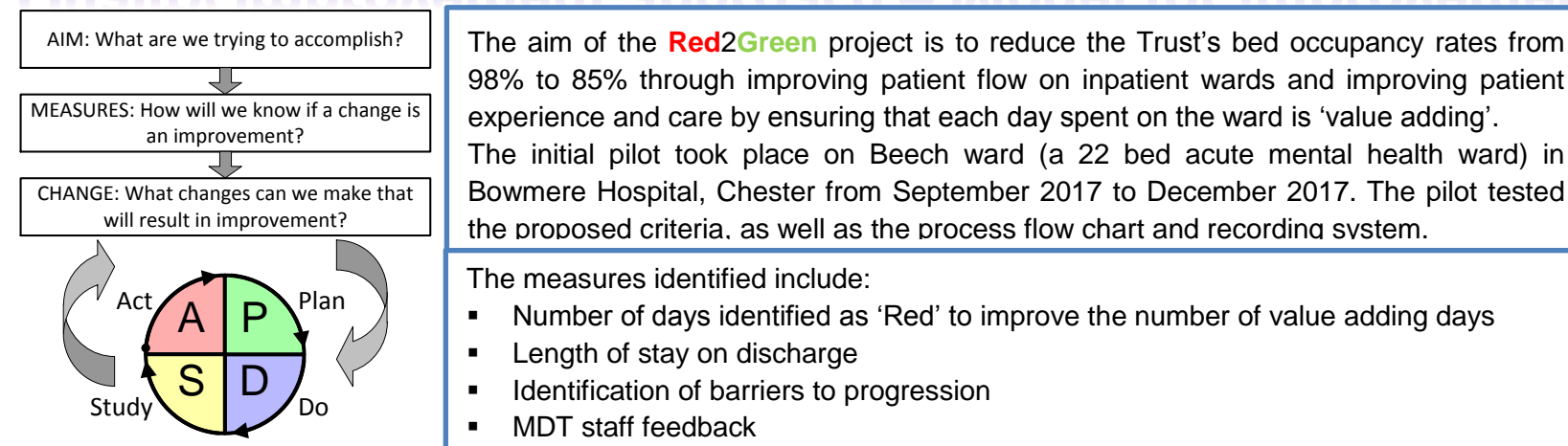
What is Red2Green?

Red2Green in CWP is a process and set of principles to support patient flow within mental health inpatient settings, through supporting a focus on resolving issues to progress patients along their discharge pathway. By examining the Red and Green status of each patient day, **every day** during the MDT board round, it enables and empowers staff to identify internal or external delays and allocate same day actions to facilitate active intervention, treatment or discharge.

A GREEN day is a day of value for a patient – they are receiving active treatment

A RED day is a non value adding day – they are not receiving active treatment or it could be provided in the community

Quality improvement approach – Model for improvement



Plan, Do, Study, Act (PDSA) Cycles (examples)

PDSA 1 - Initial engagement took place via an Acute Away Day held in August 2017, where inpatient staff were engaged on the criteria and process for Red2Green, as the criteria used nationally was specific to physical acute care and required redefining to make it applicable and useable within mental health inpatient settings.

PDSA 2 - Each daily board round is approximately 45 minutes in length, with a longer more in-depth meeting held each Friday with the full MDT and CRAC team present to discuss complex cases and have team ownership of risk. The MDT reported improved team cohesiveness and trust as a result of the Red2Green pilot.

PDSA 3 - Initial data analysis identified a high percentage of internal barriers which, through the application of PDSA cycles to the spreadsheet and refinement of the criteria and escalation process, resulted in increased reliability and subsequent reduction in internal barriers reported.

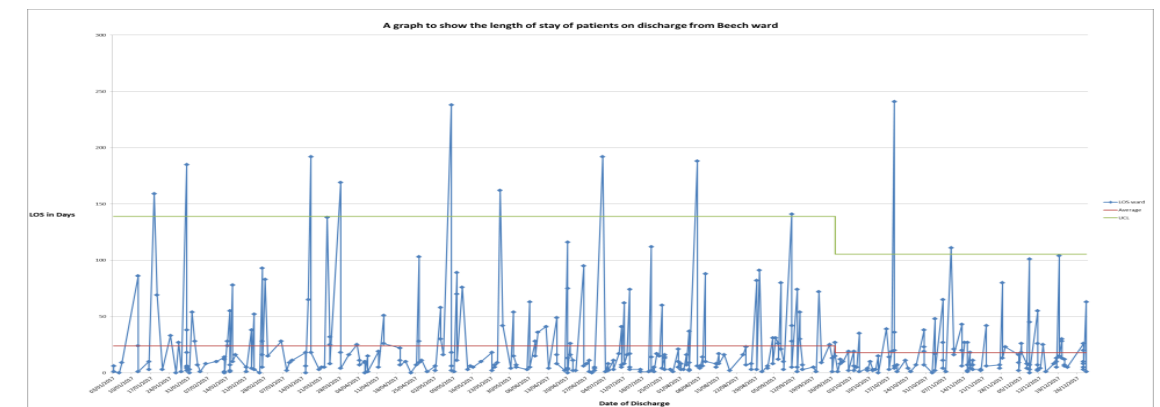
Results

The visual management tool (recording system) was continually refined as part of the PDSA cycles to improve data recording, usability and a more robust Red2Green database that has now been developed and being piloted as phase 2 on Beech ward to ascertain improvements in recording and reporting data.

The daily board round enabled staff to establish the Red2Green status of every patient in line with the criteria, which during the course of the project has been refined and tailored as our understanding of the Red2Green process improved. This is evidenced by the reduction in time taken for the board round to be completed and the reduction in variation in the Red2Green SPC charts.

The most significant outcome from the data analysis has been a **reduction in the average length of stay**. Utilising baseline data from January 2017 to September 2017, the impact of the Red2Green process was analysed from the beginning of the pilot on September 22nd 2017 to the end of December 2017. This demonstrated a **25% reduction in average length of stay** on Beech ward to a new average of 17 days.

Data analysis of the Brackendale project (pilot 2) identified a shift in the length of stay at six weeks, with the ward successfully achieving a **33% reduction in average length of stay** since the beginning of the pilot in January 2018 and at two months in. The Red2Green process also resulted in the reduction of one acute care MDT meeting per week, thus releasing two hours back into clinical time. Staff also reported improved team working and shared learning within and across the MDT. Red2Green has also further improved partnership working with commissioners to address identified external barriers and delays to discharge, such as accommodation issues and funding packages.



Conclusion

Red2Green has been successfully adapted by CWP and implemented for use within mental health. It has resulted in the Trust gaining significant learning in the development of an efficient and robust Red2Green process and visual management system to accurately record data, which has been successfully spread to further wards across the Trust. Evaluation of the project and data analysis has identified improved outcomes, with significant reductions in length of stay, the identification of further QI projects to impact on wider bed management and system flow, and staff reporting improvements in team cohesiveness, empowerment, and proactive, joint working within and across MDTs. These outcomes have been replicated in further wards across the Trust where Red2Green has been spread, with a plan in place for further successive roll out and continued monitoring and validation of data to measure impact. Ultimately, the Red2Green project has proved successful in reducing length of stay and importantly, improving the number of value adding days for patients so they do not lose one more day of community living than absolutely necessary.

For more information please contact: lauren.connah1@nhs.net
CWP video: <https://www.youtube.com/watch?v=V6nPz7SVV8q&t=40s>