

A teamwork approach to optimising fluid intake in older inpatients

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#Hydration #Teamwork #OlderAdults

Introduction

Evidence suggests that older people are at high risk of dehydration, with studies highlighting 46% of nursing home residents as dehydrated (Bunn et al, 2016) and one third of older adults admitted to hospital as clinically dry (El-Sharkawy et al, 2015). The shortfalls of hydration management have been widely exposed since the Frances report in 2013. Age-related changes create challenges for people to drink adequate fluid amounts (Nazarko, 2018), making dehydration prevention in older people an ongoing public health priority (NICE, 2016). Hydration needs of older people are complex and may not be fully understood and a proactive multi-professional team approach to facilitate regular drinking opportunities seems an achievable solution to increase hydration awareness, knowledge and daily fluid intake in older inpatients.

The SMART aims:

1. Increase daily average fluid intake by 20% post 4-week intervention
2. Ensure all patients are offered at least 6-8 drinks per day post intervention
3. Improve staff knowledge and attitude towards hydration care post education

Table 1 Quality Improvement Project (QIP) outcome, process and balancing measures, rational and actions

Measures	Rationale	Action
Outcomes <ul style="list-style-type: none"> • Average daily fluid intake (ml/day) • Number of drinks received per day 	Evaluate the effect of the system on patients	Use FBC to compare and analyse fluid intake (ml) pre and post intervention
Process <ul style="list-style-type: none"> • Number of fully completed fluid balance charts • Number of returned pre and post questionnaires 	Evaluate system performance and potential changes	Compare fluid input/output documentation by reviewing FBC and compare staff's hydration knowledge and attitude pre/post intervention by analysing questionnaire results
Balancing <ul style="list-style-type: none"> • Ensure hydration encouragement doesn't lead to overhydration • Staff managing patients' fear of incontinence • Staff and stakeholder feedback 	Monitor for unintended consequences of changes to a system	Identifying barriers offering optimal amounts of fluid/drinks per day by listening to staff's feedback and giving recommendations based on the results

Method

A quality Improvement methodology was used, including stakeholder engagement and Plan-Do-Study-Act (PDSA) learning cycles to influence, engage and educate staff on hydration management. Quantitative data was collected using a self-designed data extraction proforma along with qualitative data from pre and post questionnaire comparison.

Intervention

- 1) Sharing the **#ButFirstADrink** social media movement hydration initiative which includes educational posters (figure 1), flyers and a YouTube video.
- 2) Implementation of four **face to face** drop-in education sessions
- 3) Use of **local** hydration education resources from Age UK Salford and GM nutrition and hydration programme as teaching tools (Figure 2).

Image 1 Intervention material - Poster

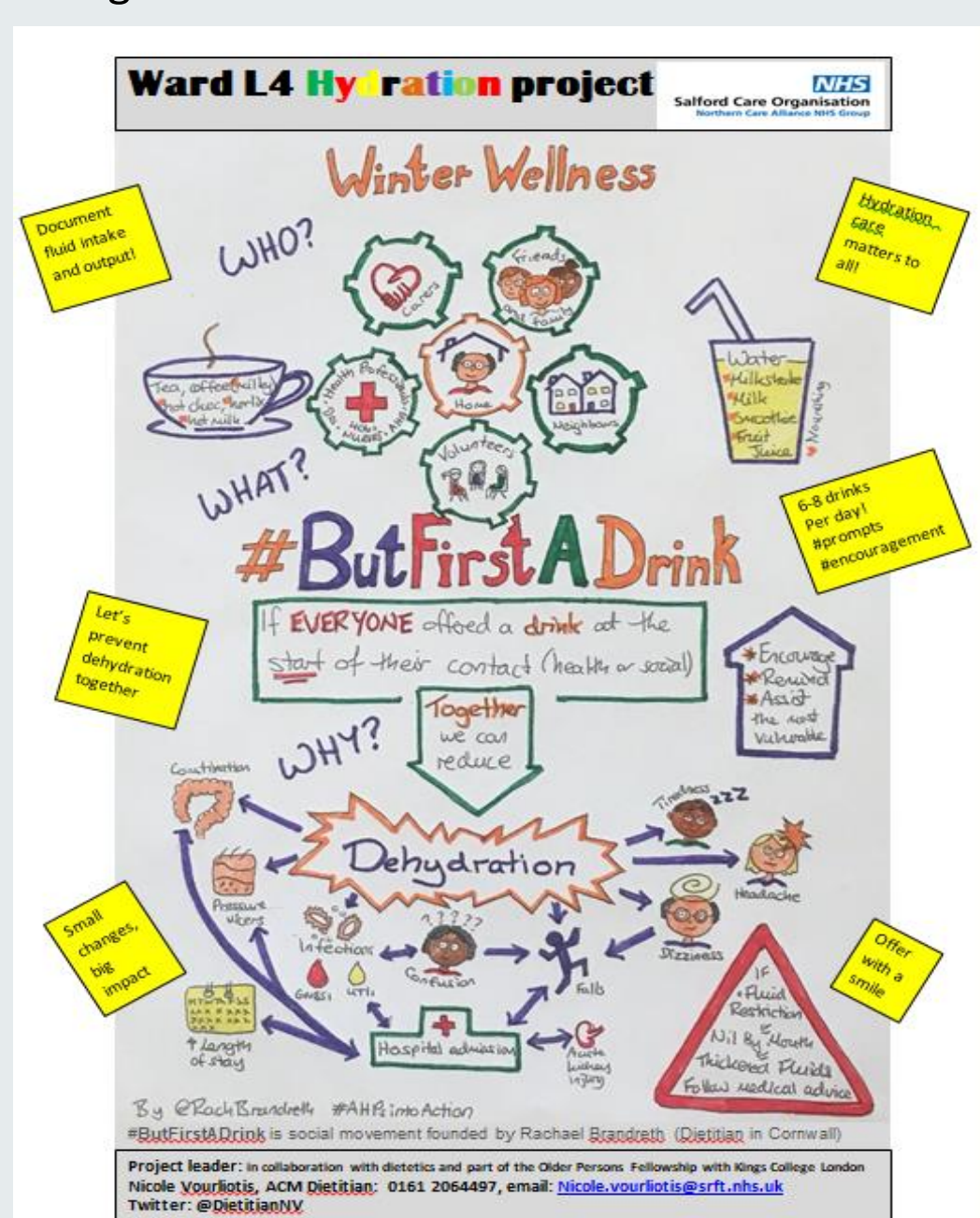


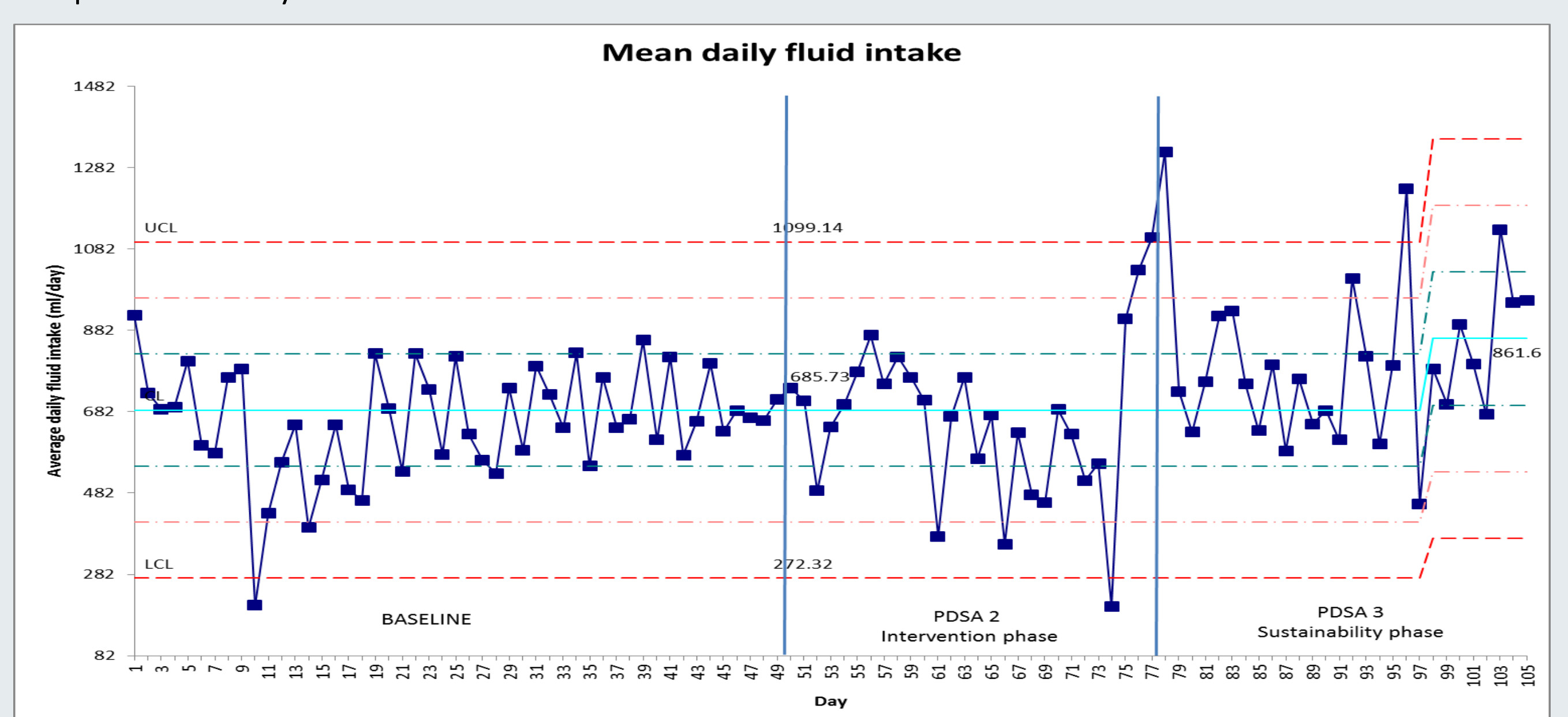
Image 2 Intervention material – hydration leaflet, coasters



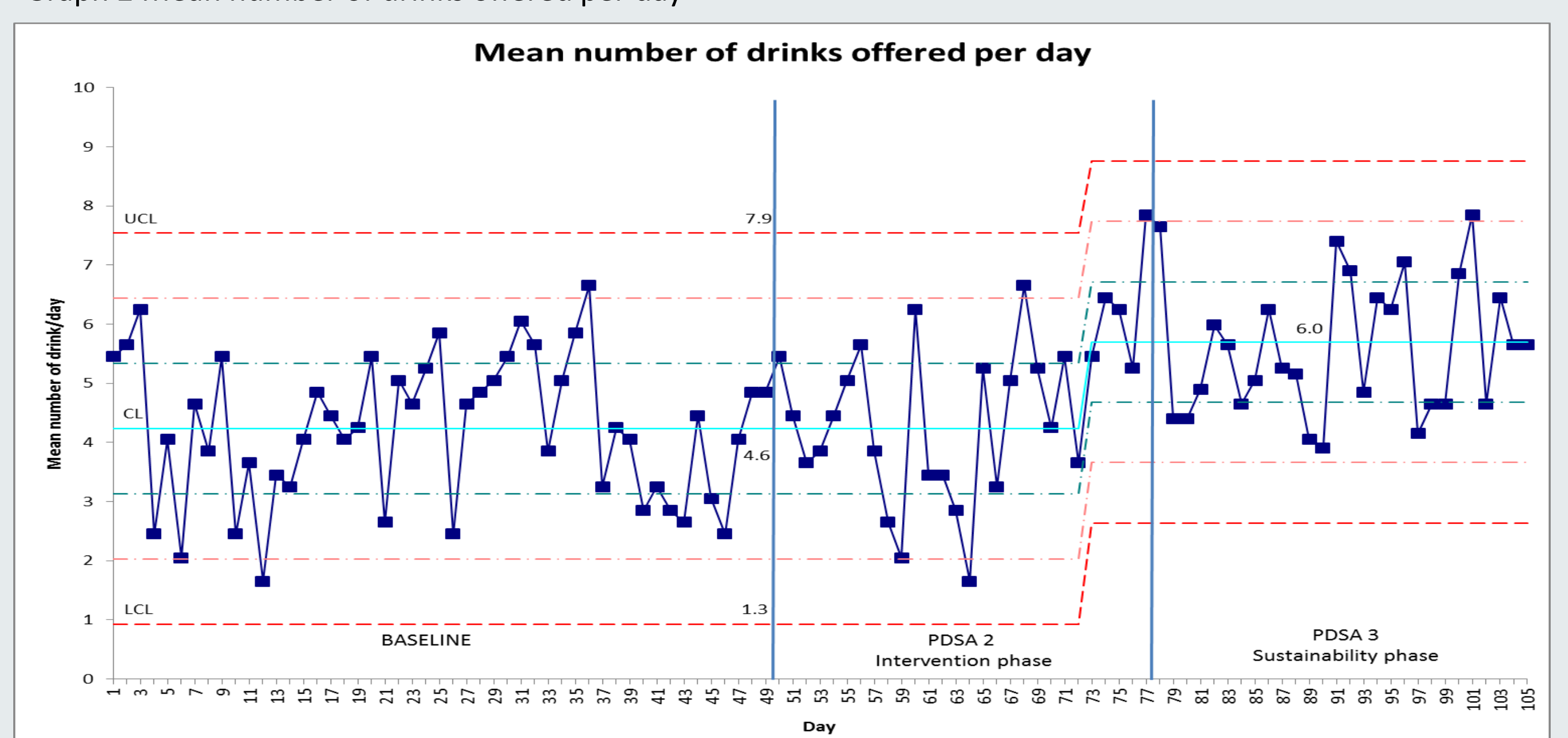
Results

- Statistical process control (SPC) charts show a time-series data, (Graph 1 and 2).
- In 15 weeks, 461/525 fluid charts were reviewed from 169 patients
- Mean age was 84 years and 68% females.
- Average daily fluid intake increased by 25% (exceeding aim) indicating 176mls more fluid was offered on average/day.
- Mean number of drinks/day increased from 4.6 to 6 post intervention (end of PDSA 2).
- Knowledge and attitude improved in some areas, however fluid output is not routinely recorded
- Post intervention, 89% of staff felt that offering a drink at first contact is a suitable hydration promotion campaign.
- The project scored 58% using the NHS sustainability model (ACT Academy, 2018) suggesting reason for optimism.

Graph 1 Mean daily fluid intake



Graph 2 Mean number of drinks offered per day



Staff feedback

- "I think it's a great project, takes the pressure off nurses by involving everyone, let's face it hydration is everyone business" (Dietitian)
- "I would have never thought to document in fluid balance charts and we always offer fluids during a swallow assessment" (SALT)
- "So far nobody has refused a drink, indicating the need for regular prompting rather than waiting for patients requesting drinks". (Geriatrician)

Conclusion

- Presumed high level of sustainability, as no new funding required.
- As it is a behaviour change project, further engagement and momentum is dependent on ongoing enthusiasm to drive the **#ButFirstADrink** approach. This intervention is free, simple and innovative and stimulates behaviour change, raises drinking awareness and increases hydration.

Future recommendations

- ✓ Consensus on who needs a fluid balance, hydration policy?
- ✓ Reviewing recommended daily fluid intakes for older adults
- ✓ Collaboration with mealtime volunteer program?
- ✓ Further PDSA cycles to build on results (improvements)
- ✓ Digital education, using **#ButFirstADrink** video compared to written education material
- ✓ Instead of relying on accurate fluid charting by staff, introducing self-recording as a potential intervention

References

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