Improving hydration in Hampshire Care Homes

Evaluation Report by Wessex AHSN
January 2020

1.0 Executive Summary

Why did we implement the project?
• Care home residents are among the most frail and vulnerable individuals in our population
• Care home residents are at particular risk of dehydration due to a combination of age-related changes, reliance on others to support them to drink and behavioural and cognitive factors such as the presence of dementia
• We wanted to study the impact of the hydration project on the health outcomes for residents, its effectiveness in involving and engaging care staff (e.g. improving hydration awareness and practice), and its acceptability to residents and care staff

Why is good hydration important?
Good hydration helps keep the mind and body healthy and helps prevent someone becoming dehydrated. Dehydration is a common cause of hospital admission and can be life threatening. It can cause a range of problems, such as slowing down recovery time, leading to infections (e.g. urinary tract infections), increasing risk of falls, increasing risk of developing pressure sores and making the symptoms of other illnesses worse. As such, dehydration also conveys serious economic consequences.

What did we do?
• In 2018-19, Hampshire County Council (HCC) and Wessex Academic Health Science Network (AHSN) worked together on improving hydration in 17 care homes (16 were owned by HCC, with one being managed by HCC). The approach was based on the previous ‘Hydrate in Care Homes’ work by Kent Surrey Sussex AHSN
• The project aimed to improve hydration awareness and practice among staff with a view to producing a more sustainable long-term model
• We adapted resources from previous projects, provided training to Hydration Champions and managers, hosted networking workshops to keep homes engaged, and evaluated the project using quantitative and qualitative data
• Care homes used the ROC (Reliance on a Carer) Hydration Care Assessment Tool to assess the hydration needs of each resident

What did we find?
• Quantitative data showed a small reduction in slips, trips, falls and injuries and fractures related to falls. However, this data is based on very low numbers of residents, and due to the baseline cohort used, probably involves a different population group, making it difficult to draw conclusions
• Wider benefits of improving hydration came from qualitative feedback and reporting from staff, residents and family members. Although it could not be clearly proven that these benefits were directly related to the project, the case studies showcased the positive perception of the project
• Both Hydration Champions and managers felt the project improved residents’ well-being, alertness and communication
• The project was perceived by staff as having substantial positive benefits for the residents they cared for
• The project led to recommendations involving implementation, measurement and sustainability / spread applicable to future hydration projects, along with the need to develop a sustainable and practical E-learning training package
What were the key successes?
• The impact on individual residents: 82% of managers stated improved wellbeing
• Simple but effective project, and not costly to implement
• Increased awareness and shared learning around hydration in the homes, e.g. 90% of managers stated there was a significant improvement in attitudes and awareness around hydration
• More opportunities for engagement between staff and residents during the working day and better knowledge of residents’ preferences and habits
• Creativity and innovation of staff to promote hydration
• Having regular workshops with a wide range of staff attending helped keep homes engaged and enabled learning and support between homes

What were the key challenges encountered?
• Ensuring consistent engagement from all care staff, including managers
• Ensuring good hydration practice is fully embedded into every home, and seen as a routine aspect of care for all care staff
• The difficulty in demonstrating impact on health outcomes and cost savings due to the very low number of residents for whom the data was available
• Initially, staff reported that they already knew about hydration, and were already doing things to improve hydration. However, training highlighted inconsistencies around how dehydration was identified, and showed them there were many other things they could do improve hydration

Why should other care homes follow this approach?
• Potential for significant impact on residents, especially in terms of wellbeing, alertness and communication
• Using the ROC Hydration Care Assessment Tool helps to identify the hydration needs of individual residents and sets out an action plan of how to address these needs
• Potential to improve the hydration of care staff themselves, leading to improved wellbeing. Whilst this was not measured or reported on in the main report, anecdotal reports suggested this
• It is a relatively simple and cheap intervention to try, and it is a project suitable for everyone to get involved in and show their creativity (including staff, residents, relatives and other visitors)
• It will provide staff with additional knowledge around hydration and supporting people with frailty
• Good hydration practice should be embedded into the induction of all care home staff. The recommendations from this project aim to address some of the challenges that all relevant organisations should urgently seek to respond to

2.0 Project Background & Introduction

2.1 Context
Keeping well hydrated is an essential part of healthy ageing. No information is available on the incidence of dehydration in the UK. There is also no recognised screening tool to detect dehydration and the method of diagnosing dehydration can differ amongst healthcare professionals. Care home residents are among the most frail and vulnerable in of the population. They are at particular risk of dehydration due to a combination of age-related changes, reliance on others to support them to drink and behavioural and cognitive factors such as the presence of dementia¹. A study by El-Sharkawy et al (2015) found that 37% of acute admissions over the age of 65 were dehydrated on admission to hospital². Another study (by Wolff et al, 2015) found that patients admitted from care homes were ten times more likely to be dehydrated than those admitted from their own homes³. The rate was still

five times higher after adjustments for age, gender, mode of admission, dementia and other variables. Hooper et al (2016) reported a dehydration incidence of 20% among a sample of care home residents. Increased risk of dehydration was associated with increased severity of dementia⁴.

2.2 Project background
In 2018-19, Hampshire County Council (HCC) and Wessex Academic Health Science Network (AHSN) worked in collaboration on an approach to improve hydration in 17 HCC owned care homes, representing 1069 beds. This project was based on the ‘Hydrate in Care Homes’ work originally undertaken by North East Hampshire and Farnham Clinical Commissioning Group (CCG). This work was subsequently further developed, implemented and evaluated by Kent Surrey Sussex AHSN (KSS AHSN)⁵.

The ‘Hydrate in Care Homes’ project carried out by KSS AHSN was implemented in 89 care homes in 2016, and showed a significant reduction (35% overall) in admissions from fractured neck of femurs (#NOF) associated with falls, compared to the rest of the homes in the same locality, not participating in the hydration project. Nursing homes showed markedly greater reductions in admissions from falls and urinary tract infections (UTIs) than residential homes. These reductions in admissions translated into cost savings of £202,531 (18% year on year reduction) across the CCGs. Compared to the performance of the homes not involved in the project, the Hydrate homes had an 11% greater reduction in hospital admission costs. Across all localities, 564 potential hospital bed days were saved over the five-month period during which the homes implemented changes. A project by North East Hampshire and Farnham CCG project, using a similar approach, found that #NOF admissions were reduced by 85% over an implementation period of 12 months⁶.

The project with HCC care homes aimed to improve hydration in a sustainable way, e.g. without the employment of improvement practitioners to collect monthly outcome data within each home as in the KSS AHSN project. This approach involved adapting the resources from KSS AHSN, providing training to Hydration Champions and managers, hosting networking workshops to keep homes engaged, and carrying out evaluation using quantitative (e.g. incidence of falls) and qualitative data (e.g. acceptability of the project to residents, family and staff). Following training and the launch event, data collection was carried out for a six-month period from June to November 2018.

The Reliance On a Carer (ROC) to drink tool⁷ was used by homes as a way of identifying the needs of each resident. The ROC tool assesses how much support a person needs from a carer and highlights their potential risk of dehydration. The greater the dependence of an individual on a carer to drink, the higher the potential risk of dehydration⁸. The tool categorises individuals into green, amber or red depending on their needs. It also includes a care pathway to enable the home to carry out specific actions to support the individual.

The project was a collaboration between the following organisations:
- Hampshire County Council (HCC)
- Wessex AHSN
- West Hampshire CCG
- In addition, Southern Health and South Central Ambulance Service NHS Foundation Trusts were involved in the early planning work around this project, in terms of agreeing what outcome data about residents would be feasible to collect.

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⁵ https://www.kssahsn.net/what-we-do/moderating-demand/Hydrate/Pages/default.aspx
⁷ ROC to drink tool has been developed by Naomi Campbell from Hydration Care Consultancy - https://www.hydrationcareconsultancy.co.uk/roc-hydration-care-assessment-tool/
2.3 Evaluation questions
The evaluation sought to answer the following questions:

1. What was the impact of the project on the health outcomes of residents?
2. How effective was the project in terms of involving and engaging care home staff?
3. What was the acceptability of the project for both residents and staff?

2.4 Mapping the data collection methods to the evaluation questions
The evaluation structure was separated into two main sections: quantitative and qualitative data. The quantitative data collection and evaluation was led by HCC, whilst the qualitative data collection and evaluation was led by Wessex AHSN. The following show how the data collection methods are linked to the evaluation questions.

1. What was the impact of the project on health outcomes of residents?
   - Collection of the number of falls, associated injuries and hospital admissions relating to falls, to enable before and after comparison and hence explore potential association between these outcomes and better hydration
   - Initially, the project had hoped to collect data on UTIs, GP visits, hospital admissions and other aspects of general health and wellbeing. However, it became apparent that this data was not readily available (e.g. UTI data not routinely collected, issues around how UTIs are diagnosed; issues around standardised measures for health and wellbeing). Data on GP visits or other hospital admissions were also excluded as these had too many potential variables
   - Focus groups with residents and relatives – to ascertain the impact of the hydration project on residents, for example: hydration awareness; residents’ perceptions of staff engagement and impact on health and wellbeing
   - Resident case studies
   - Feedback / reflections from members of the project steering group

2. How effective was the project in terms of involving and engaging care home staff?
   - Involvement of care home staff in the project (including number of homes/older people participating, Hydration Champions trained)
   - The extent to which information and good practice were cascaded to the rest of care home staff
   - Survey of staff by way of self-completing questionnaires
   - Staff feedback from evaluation workshops
   - Feedback / reflections from members of the project steering group

3. What was the acceptability of the project to both residents and staff?
   - Survey of staff by way of self-completing questionnaires
   - Staff feedback from evaluation workshops
   - Focus groups with residents and relatives
   - Feedback / reflections from members of the project steering group

2.4 Project timeline
Figure 1 shows the timeline of activities associated with the project.
3.0 Methods

3.1 Project governance
A project steering group (with membership from key collaborators / partners) was set up in 2017 to oversee the project. Regular meetings were held to agree key actions / processes and keep the project on track. Data collection forms, information sheets and consent forms were developed, and outcome measures were agreed by the steering group.

3.2 Hydration Champion training
Training materials were developed (adapted from the KSS Hydrate in Care Homes project), which included a PowerPoint presentation, case studies and a session plan. Two half-day training sessions were run in May 2018 with staff in care homes who had volunteered or agreed to be Hydration Champions. Attendees were asked to complete an evaluation form at the end of the session. Additional Hydration Champions were recruited throughout the course of the project.

3.3 Launch event
A launch event was held on 19th April 2018 at the Middle Brook Centre in Winchester. The event was an opportunity to describe the project to the care homes and answer questions about how the project would work in individual homes. Managers were asked to sign up to the project ‘Charter’ (see Appendix 5) agreeing to follow the aims and focus on the following hydration pledges:

- Improve hydration awareness among staff and residents
- Encourage optimal hydration by meeting the hydration needs of all residents
- Ensure access to clean drinking water and hot drinks 24 hours a day
- Reassure residents that prompt assistance with all toileting needs will be provided

3.4 Project implementation
Care homes were encouraged to implement events, strategies and activities aimed at increasing hydration, which they felt would work in their home\(^9\) (examples shown in the image below). Resources (several of which were adapted from the KSS Hydrate Toolkit\(^10\) were provided to support them to do this. A key element of the Hydration Champions’ role was to share their learning with all staff within their home including ancillary staff not providing direct care. It was hoped that consequently all staff would have the opportunity to support the hydration programme.

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\(^9\) Interventions implemented varied from home to home. For examples, please visit [https://wessexahsn.org.uk/projects/204/hydration-at-home](https://wessexahsn.org.uk/projects/204/hydration-at-home)

3.5 Hydration Champion workshops / evaluation events
Workshop / evaluation events were held at three-monthly intervals in August 2018, December 2018 and March 2019. The purpose of these workshops was to update them on new information, obtain and share information about how the project was going and share good practice between care homes. A summary of topics and activities covered at each workshop / evaluation event is shown in Appendix 1 – table 1).

3.6 Quantitative data collection
Falls data was collected from mandatory incident reporting forms which are collated centrally at HCC. Data was collected for the six months of the project (June – November 2018) and compared with data over the same months for the previous three years (2015-2017). The longevity of the pre-project data was to account for any variability in small numbers.

3.7 Case studies
Data on resident wellbeing was collected using resident case studies written by Hydration Champions at their final workshop. They were asked to consider how one or more of their residents had changed since the start of the hydration project and what measures had been taken to encourage those individuals’ hydration.

3.8 Qualitative data collection – staff feedback
Hydration Champions completed surveys at the middle and end of the project. Care home managers were surveyed at the end of the project. These surveys used mostly open-ended questions and aimed to assess the care home’s engagement with the programme, including how information and good practice were cascaded to the rest of care home staff as well as benefits/enablers and barriers. Surveys were made available electronically, but these produced poor completion rates. Much higher completion rates were achieved from paper surveys available at the Hydration Champion workshops. A summary of the key questions asked at the mid and end of project (for Hydration Champions) can be seen in Appendix 1 - table 2.

3.9 Qualitative data collection – resident and relative feedback
HCC research governance team permission was granted in September 2018 to undertake this feedback. Resident and relative feedback was collected through attendance at focus groups and completion of individual questionnaires at four care homes in November 2018. The care homes involved were Westholme (74 beds), Forest Court (80 beds), Bishops Waltham (35 beds) and Hawthorne Court (80 beds). HCC research governance team permission was granted in September 2018 to undertake this feedback. Residents living with dementia could not partake in the feedback as they would not have been able to fully consent to the wider use of the information they would have provided to the
researchers. The focus groups were led by 2-3 researchers from Wessex AHSN. The activities carried out at each focus group session are detailed in Appendix 1 – table 3.

3.10 Qualitative data collection - reflections from the project steering group members
Members of the hydration project steering group were asked the following three questions to provide feedback and personal reflections on the project:
1. What are your reflections on the project in terms of the impact of the project on the care home staff and the care homes themselves, e.g. comments about engagement from the care homes?
2. What do you think were the key highlights of the project?
3. What do you think were the key challenges of the project?

4.0 Results

4.1 Champion training
A total of 63 staff were trained as Hydration Champions over two sessions in May 2018. Additional staff were recruited as Hydration Champions throughout the course of the project (and received informal ‘cascaded’ training by the care home). No data is available about the numbers of Hydration Champions trained who continued in their role. Table 4 (appendix 1) shows the numbers and roles of staff attending the two training sessions. All 17 care homes sent at least one staff member to be trained. Three care homes were represented at both training sessions.

Attendees were asked to complete an evaluation form at the end of the session. The evaluation consisted of a range of questions, asking attendees to rate each statement between 1 (poor) to 5 (excellent). The sessions were evaluated positively, with 97% of attendees rating their knowledge / practice as 5/5 or 4/5 by the end of the session. Details of the feedback are in Appendix 1 - table 5.

4.2 Launch event
A total of 71 care home staff (representing all 17 care homes) attended the Launch Event in April 2018. Each care home sent between three and six staff members to the launch event. A total of 15 care homes sent at least one manager or deputy manager. The different roles of the care home staff that attended are shown in Appendix 1 - figure 2.

4.3 Workshops / evaluation events
Three workshops (evaluation events) were held during the project. A variety of staff attended from managers to activity coordinators to kitchen staff. 16 of the 17 care homes attended two workshops (with only one home attending a single workshop). The numbers and roles of staff attending the workshops / evaluation events are outlined in Appendix 1 – table 6.

4.4 Quantitative data collection
Data for the project period was compared to an average of the data collected in June - November 2015-2017. This comparable data was available for 16 out of the 17 care homes (relating to 977 beds).

The data for falls, fall-related injuries (which included any injury regardless of severity), fractures and fall-related hospital admissions for each time period is shown in table 7 below. Whilst, except for hip fractures and hospital admissions, this shows a general downward trend in terms of numbers, it is important to note that these numbers are small, and consequently, due to the many other variables present (e.g. potentially a different population – this is discussed later in the report), any differences cannot be directly attribution to the hydration project. The downward trend (in terms of all slips, trips and falls and all injuries) was more marked in nursing homes than in residential homes.

The appropriate tariff using the HRG reference costs was applied to calculate hospital costs. Due to small numbers, it was not possible to conduct a robust calculation on the cost effectiveness of the programme in terms of reduction hospital usage.
Table 7: Difference in numbers of falls, fall-related injuries and fall-related admissions, and financial savings

<table>
<thead>
<tr>
<th>Fall, injury or admission (as a result of a fall)</th>
<th>2015-17 average</th>
<th>2018</th>
<th>Difference between 2015-17 and 2018 (-/+))</th>
<th>Financial savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Slips, trips &amp; falls</td>
<td>1314</td>
<td>1282</td>
<td>-32</td>
<td>No cost can be associated</td>
</tr>
<tr>
<td>All injuries</td>
<td>450</td>
<td>399</td>
<td>-51</td>
<td>No cost can be associated</td>
</tr>
<tr>
<td>Fractures</td>
<td>29</td>
<td>26</td>
<td>-3</td>
<td>Change too small to be robust</td>
</tr>
<tr>
<td>Hip fractures</td>
<td>11</td>
<td>11</td>
<td>0</td>
<td>No change</td>
</tr>
<tr>
<td>Hospital admissions</td>
<td>28</td>
<td>28</td>
<td>0</td>
<td>No change</td>
</tr>
</tbody>
</table>

4.5 Case studies
13 case studies were received from the care homes. Appendix 6 shows a full write up of the case studies. The following results have been summarised from these case studies:
- Nine residents (69%) were showing more engagement with activities and other residents
- Six residents (46%) had a reduction in UTIs
- Six residents (46%) had a reduction in falls
- Six residents (46%) were more awake and alert
- Four residents (31%) had gained weight / started eating more
- Three residents (23%) had improved skin health
- 100% had an improvement in other aspects of health and wellbeing

4.6 Qualitative data collection – Hydration Champion survey feedback
39 Hydration Champions from 15 out of 17 care homes responded to the survey. This ranged from one to five respondents per home. 40% of Hydration Champions were care staff, 21% were managers and a further 21% were either Nutritionists or Assistant Practitioners. No data was available on the proportion of trained Hydration Champions who responded to the survey (e.g. staff turnover meant some Hydration Champions who attended the original training sessions left their care home, and passed the role on to another Champion who may have then responded to the survey). A full breakdown of the roles that Hydration Champions normally performed within their care homes is outlined in Appendix 1 – table 8.

Enjoyment of Champion role
95% of respondents enjoyed the Champion role and would recommend it to other staff or homes. Quotes from Hydration Champions who enjoyed their role include:

“I love the idea of promoting hydration for the benefit of our residents’ wellbeing”

“I’ve enjoyed being a part of the project that helps and support keeping our residents safe and well, and less risk of falls and UTIs”

“[It is] very fulfilling. I have learned more of what clients’ preference in drinks are”

Those who did not enjoy their role reported a lack of support from their team and lack of time to fulfil their Champion role, as per the following quotes, “[I] find it hard to do hydration around my care work. I just don’t have enough time to do care work and hydration”; “It’s hard to do things for hydration and to do care as well”.

Enablers of the Champion role
Hydration Champions were asked what had enabled them to perform their role successfully. They could select multiple answers from the various options or report their own view. Support from colleagues was the top enabler at 53%. Supportive management, support from other Hydration Champions and the associated Hydration Champions workshops were all important factors. Having an allocated budget was the lowest enabler with 11% of them agreeing
that this was important. Continuity of staff, so that everyone knew the residents’ preferences and habits, and facilitating well-timed opportunities to encourage hydration were the main ‘other’ enablers. A full breakdown of the enablers according to the Hydration Champions is shown in Appendix 1 - table 9.

Barriers of the Champion role
Barriers to the fulfilment of the Hydration Champions’ action plans were also examined. As with enablers, Champions could select multiple choices or add their own views. A quarter of respondents felt that they did not experience any barriers. Lack of time (55%) and lack of interest from other staff (45%) were perceived to be the key barriers, which were also the main reasons reported by those who did not enjoy the role. Those that selected ‘other’ reported that there was no set budget within the home for hydration-related activities and this made it difficult to be innovative. Table 10 (appendix 1) presents a breakdown of the barriers to fulfilling action plans.

Sharing learning within care homes
84% of the Hydration Champions were able to share their learning with at least 50% of the care home staff while 44% reached at least 75% of staff. Figure 3 (appendix 1) shows this information visually. Figure 4 (appendix 1) shows the percentage of care home staff that the Hydration Champions shared their learning with, who then went on to be engaged in the project. Most Hydration Champions reported that at least 50% of their colleagues were engaged.

Confidence of Hydration Champions
The confidence of Champions in both sharing their learning with colleagues and implementing their action plans, was assessed three months after the training (along with the other questions). Figure 5 (appendix 1) shows the level of confidence the Hydration Champions had in sharing learning with care staff and implementing the action plan. The majority of them (89%) felt ‘confident’ or ‘very confident’ in sharing learning with care homes staff. 88% also felt ‘confident’ or ‘very confident’ in implementing the action plan drawn up at the training session. Staff in the roles of Activities Co-ordinator or Management, were most likely to report they were ‘very confident’ in sharing their learning.

Reliance on Carer (ROC) to drink tool
95% of Hydration Champions reported that they were using this tool. Those who were not providing direct care to residents and therefore not tasked with assessing their need for support, formed the non-users group. 100% of the Champions said that the assessment tool and summary care plans were easy to use. However, there was some uncertainty in the benefit of using them.

Looking at whether the tool was supporting them to ensure that the residents were having enough to drink, 49% of Hydration Champions stated ‘yes’. 34% of them selected the term ‘somewhat’ (see full results in figure 6, appendix 1). When asked whether they felt that the tool was crucial to the success of the programme, 58% answered ‘yes’ while 29% answered ‘somewhat’ (see full results in figure 7, appendix 1).

When Champions were asked how they ensured that all staff knew the results of each residents’ ROC to drink tool assessment, the most common ways were to share results in handover or write them into care plans. Some Champions reported using spreadsheets on the drinks trolley. More innovative ideas included using red, amber or green lids on personal water jugs, or corresponding coloured cups. These helped serve as reminders to staff as they passed by residents, particularly for those who needed more help. This method also supports the inclusion of staff who are not providing care, or included in handovers, increasing the potential for a ‘whole home’ approach to improving hydration.

Perceived change in health of residents
- 97% of Hydration Champions who responded to the survey felt there had been an improvement in the general wellbeing of the residents. 31% reported that this had been a major improvement
- 91% of the respondents felt there had been an improvement in the alertness of the residents while 20% reported this had been major.
- 86% of respondents felt there had been an improvement in communication with the residents, with 24% reporting this as a major improvement.
4.7 Qualitative data collection – manager survey feedback

11 managers from 10 out of the 17 care homes responded to the survey (59%). 100% said they would continue to have a Hydration Champion and implement hydration related activities.

All managers stated that their Hydration Champions had been able to complete their actions plans. Commitment from the Hydration Champions (82%) and providing time for them to participate in the programme (82%) were the top enablers. 73% of managers felt that the project was both practical and achievable. No barriers were reported and overall, managers felt it had made a positive difference to staff and residents. Figure 8 (appendix 1) shows a full breakdown of the managers’ perceptions of the difference the hydration project made to residents’ health and wellbeing. When asked about the difference the project made to staff attitudes around hydration, and resident wellbeing, alertness and communication (1 being ‘no difference’ to 5 being ‘major difference’), the following results were achieved (a graph of these results can be found in Figure 8, appendix 1):

- 90% of managers felt the project made a significant improvement to staff attitude and awareness around hydration (4 or 5 out of 5)
- 82% of managers felt the project made a significant improvement in resident general wellbeing (4 or 5 out of 5)
- 45% of managers felt the project made a significant improvement in the residents’ alertness (4 or 5 out of 5)
- 55% of managers felt the project made a significant difference in communication with residents (4 or 5 out of 5)

Cost effectiveness

When asked if the project had been cost effective, 82% of managers agreed while 18% were unsure. However, most managers did not know what the exact costs were, with estimates ranging from £10-£15 to £20-50 per week. Some homes fund-raised money to make the programme more self-sustaining, for example through running a coffee shop. The fact that most managers were unsure of costs could suggest that this was not a significant concern. One manager stated, “unsure, but cost is not as important as keeping residents hydrated”.

Reliance on Carer (to drink) Tool (ROC to drink tool)

Looking at whether the ROC to drink tool was supporting them to ensure that the residents were having enough to drink, 55% of managers clearly stated ‘yes’ and 37% of managers selected the term ‘somewhat’. The majority of managers also felt that the tool was crucial for the success of the project. Figure 9 (appendix 1) shows the full results.

4.8 Qualitative data collection – resident and relative feedback (focus groups and questionnaires)

Demographics of participants

Three of the four homes had advertised the focus groups to the residents and relatives to encourage engagement. 23 residents and 12 friends/relatives attended the focus groups and completed an individual questionnaire (n=34). On average 4-5 residents attended each focus group session with at least 1 family member in attendance. Figure 10 (see appendix 1) shows the age and gender distribution of those in attendance. The majority (68%) of the residents were female (n=15), reflecting the demographic profile across care homes. The mode (30%) of residents were aged 81-85 years old. Figure 11 (see appendix 1) shows the distribution of the length of time residents have lived in the care home. On average residents have lived in their care home for 1.5 years.

Perceptions on hydration activities and promotion in the care home

Figure 12 (see appendix 1) shows the differing responses from residents and relatives regarding whether they have seen hydration activities in place in the care home. Results suggest that the relatives were more aware of the project and hydration-related activities than the residents. Table 11 shows quotes from residents and relatives in relation to some of the questions. Residents in general were aware of wide range of drinks available, but there was some disparity in the types of hydration-related activities available, e.g. residents on different floors having less access. The majority of relatives said they had seen the project posters around the home. After prompting by the researchers, residents did comment about of the importance of hydration but did not link this with the posters.

Perceptions of staff behaviour around hydration

There appeared to be a limited awareness by residents and relatives in terms of any changes in staff behaviour to promote and model the importance of hydration. Figure 13 (see appendix 1) shows the number of residents and
relatives who thought that staff behaviour around hydration had changed as a result of the project. Comments from residents and relatives relating to staff behaviour varied across and within care homes, with quotes including such as, “They know what I like and bring me it”; “Agency staff don’t know what we want and don’t know what is happening”. Other quotes are shown in figure 14 (Appendix 1). The introduction of hydration and nutrition assistants in one of the care homes was welcomed by residents and relatives.

**Perceptions on what had changed in terms of a typical day in the home**
Residents and relatives reported that they had not seen any marked changes associated with the project in terms of changes across a typical day. However, one lady thought, “Drinks are being offered more regularly”. Other quotes are shown in figure 14 (Appendix 1).

**Perceptions on changes in health or how residents feel as a result of the project**
A small number of residents felt that their health / wellbeing had improved since the project started. Quotes from residents and relatives in relation to this are shown in figure 14 (Appendix 1).

4.9 Qualitative data collection - reflections from the project steering group members
The following quotes illustrate feedback and reflections from the hydration project steering group members:

**What are your reflections on the project in terms of the impact of the project on the care home staff and the care homes themselves?** - “The care teams are working in a more challenging environment, with increased needs in residents and fewer resources. I think this project has shown some staff that taking a step back and a) taking a small amount of time to prompt someone to drink, b) asking residents what their favourite drinks are, and c) making hydration more fun, can make a huge impact on health and wellbeing, and is much more beneficial to reactive care.”

**What do you think were the key highlights of the project?** - “The Champions that had good buy-in from their managers and support from staff were very positive about the programme and were keen to share their best practice, ideas and also keen to learn from others. Despite the challenges around the quantitative data collection, the Champions’ stories demonstrated the wide range of positive impacts the project can have.”

**What do you think were the key challenges of the project?** - “A whole home approach is key and was not always apparent in some homes; all staff need to work together for the collaborative benefit. This culture change is important but should be driven from within. Some staff saw the role as an addition to their normal role, whereas it should be seen as part of basic care. Therefore, it is important to embed the skills within induction programmes.”

**Maria Garrett-Marley, Susan Richardson & Nicki Rogers, Nurse Facilitators, West Hampshire CCG**

**Abbie Twaits, Senior Public Health Practitioner, HCC**
**What are your reflections on the project in terms of the impact of the project on the care home staff and the care homes themselves?** - “The project helped bring care home staff together: carers with managers; staff from all different areas (carers, activities co-ordinators, kitchen staff), and sharing between homes. This resulted in a real overall awareness on the importance of good hydration, and great ideas on how to improve across the homes. The impact on residents could be seen within days, which helped to spur on staff to keep pushing new ideas and fun ways to keep the focus on hydration as they could see the impact of their efforts. The homes with most success were those where managers were fully supportive and the Hydration Champions were empowered to run activities and make changes.”

**What do you think were the key highlights of the project?** - “The creative and innovative ways that staff promoted hydration and engaged the residents. One example seen was where staff and residents created smoothies together and had a tasting competition. Where staff worked as a team and created an inclusive positive culture, it was very evident that good hydration became part of everyday practice. Including staff hydration as an important aspect of the project was fundamental in showing the value of the staff’s own health and wellbeing. Most staff were extremely motivated and worked hard to make improvements and make a real difference to residents. Sharing stories and ideas at the workshops was so inspirational and helped keep the momentum going, whilst providing evidence of the effectiveness of the measures staff had implemented.”

**What do you think were the key challenges of the project?** - “Identifying the right staff - a few Champions had not volunteered for the role but were told to attend the training by their manager. Unsurprisingly they did not engage as well and appeared reluctant to take on the role. Staff turnover also meant that some Champions who had attended the initial training, subsequently left. Rewarding staff - we provided the Champions with folders, lanyards, water bottles and pens and the additional role and responsibilities is linked to the Valuing Performance appraisal process but I recognise that some staff felt they should have received a monetary award. The biggest challenge was trying to get teams to all work together to ensure promoting hydration is part of everyday practice and not just down to the Champions.”

Kathy Wallis, Associate Director (Healthy Ageing and Medicines Optimisation), Wessex AHSN

**What are your reflections on the project in terms of the impact of the project on the care home staff and the care homes themselves?** - “Involving Registered Managers at the launch helped ensure their engagement and support for the Hydration Champion role. Having supportive and positive managers appeared to have a direct impact on the Champions’ motivation and how quickly measures were implemented. It was a shame that despite the support and impetus from the Senior Management Team, there were still a small number of homes that did not engage. Scheduling the training sessions close to the launch and inviting the champions to the workshops kept the momentum of the project going. We set up a web based networking group and have encouraged Champions to share their ideas and good practice examples, but there has been a limited number of contributions to date.”

**What do you think were the key highlights of the project?** - “The energy and excitement at the 3-month evaluation workshop when the different homes shared the work they were doing, particularly when one home gave everyone some smoothie and fruit as an example of what they had been doing. The team-working within and between homes.”

**What do you think were the key challenges of the project?** - “If the manager did not support the Hydration Champions it was really difficult for the Champions to have time to implement ideas, or to get the input of their fellow workers; in some homes the weight of work made it difficult to focus on hydration…. Even though it is such a basic part of care.”

Liz Clarke, Workforce Development Officer, HCC
5.0 Discussion, conclusions and recommendations

5.1 Discussion

The quantitative data was focussed around falls and falls-related injuries as this information was readily accessible through the existing database. One major challenge to the analysis of data from care home residents is the frequency of changes to their population. In this case, data was provided over a six-month period and compared with data over the same six-months over a three-year period making it highly unlikely that the same population was involved. Over these time periods there would have been differing needs and levels of mobility particularly as anecdotal evidence suggests that the needs of residents currently coming into residential care are much more complex than they were previously.

While there was a small reduction in slips, trips and falls, and injuries and fractures related to falls, this data is based on such small figures, and are probably based on a completely different population group, which makes it difficult to draw conclusions. Despite the small numbers, in the context of the widespread perception that current care home residents have more complex needs than previous years, this reduction is encouraging and may relate to less traumatic falls. It can be suggested, although not evidenced, that where residents have had improvements in their wellbeing and engagement, they may be more likely to want to be more independent, thus increasing their potential to fall.

The plethora of confounding factors made this small-scale project difficult to analyse robustly. These wider benefits of improving hydration have come from qualitative feedback and reporting from staff, residents and family members. There are many other wider benefits to improving hydration which could not be captured, such as skin integrity, UTIs and quality of life. Despite lack of quantitative data, the positive reports from the care home staff, residents, family members, and steering group members help to demonstrate the impact of the project.

The use of case studies was a way of illustrating possible benefits. As these were chosen and shared by the participating homes, it was no surprise that an improvement in some aspect of health and wellbeing was stated for all 13 cases. In addition, 46% of case studies had reduced incidence of UTIs and a reduction in falls. 46% also reported residents being more awake and alert. The biggest impact at 69%, was an increased engagement with other residents.

What are your reflections on the project in terms of the impact of the project on the care home staff and the care homes themselves? - “I think it has ‘spoken’ to the care home staff and provided a tangible project that staff at all levels could get behind and contribute to. It’s given managers the opportunity to utilise and extend leadership skills and understand how important those skills are when introducing a new idea in practice.”

What do you think were the key highlights of the project? - “The project is an example of how something simple, non-digital or technical has the potential to have great impact. Whilst needing investment of time and educational resource, the actual overheads have been low in each home.”

What do you think were the key challenges of the project? - “The challenges are, as always, time to engage staff, provide education and training in the context of very busy working lives; and to collect sufficient before and after data to demonstrate impact. A further challenge is around scale and spread — how to reach all care homes and, of course, into peoples’ own homes.”

Jane Williams, Deputy Director – Transformation, Southern Health NHS Foundation Trust

and activities. Although it cannot be proven that these benefits were a direct cause of the hydration project, the case studies demonstrate the positive perception of the project which the quantitative data do not capture. The case studies have also shown some of the other wider benefits of promoting improved hydration in care homes, e.g. improved engagement and alertness of residents; weight gain.

Both Hydration Champions and managers felt the project had produced improvements in residents’ well-being, alertness and communication. In all cases the results confirmed that the project had been perceived as having significant positive benefits for the residents they cared for. The design of the questionnaires for staff meant it difficult to draw comparisons between the perceptions between Champions and managers. Future learning is to ensure that the questions are worded in the same way throughout the project.

Staff are now also being encouraged to work in a more ‘strengths-based’ approach, where they support residents by carrying out tasks with them (or independently), rather than doing tasks for them (part of HCC Adult Health and Care Strategy12). Whilst this is more widespread among social workers at present, care homes are being increasingly encouraged to adopt this approach. Therefore, this may increase the opportunity to fall. This can be counterbalanced by following up the hydration project with strength and balance training and has been included in our recommendations.

A particular challenge to obtaining data and feedback from the residents themselves was the fact that 60-70% of residents in the care homes live with dementia. This may explain the low numbers of residents and their relatives who engaged in the focus groups which limited the feedback obtained (the research governance agreement meant the project had to exclude people with dementia from the qualitative data collection). Feedback mainly concentrated on their awareness of the project and what changes they had noticed. However, a small number of residents did feel there had been some improvement in their health and wellbeing. Although residents with dementia were excluded from the qualitative data collection, the design of the project produced increased social interaction with all the residents both from the day to day hydration practices and the hydration related activities. The known benefits this brings may well have contributed to the impact of the project on those both with and without dementia.

The activities such as making smoothies, were very well received by residents and family members. In homes with similar physical layout, e.g. communal kitchen and living room area, it was interesting to see the innovative way these spaces were being used, for example creation of café and bar areas; but this approach was not taken across all care homes. Whilst there was evidence of good individual examples of staff within care homes encouraging hydration, there was variation within and across care homes. There was also variation in the activities carried out, and some inconsistency on offer to some residents.

The residents’ awareness of the project and associated hydration-related activities in their homes seemed to be limited even among their relatives who were generally more aware. There seemed to be little, if any, perception of changes in both staff behaviour and a typical day in their home associated with the project. There are a number of possible reasons for these results, including staff engagement and communication of hydration assessment results and care planning. There is potential for these reasons to be explored in the future by similar hydration projects.

Examination of the impact of the project on the staff involved started with feedback from the Hydration Champion training session, which was very positive. The numbers in attendance at both the launch and workshops/evaluation events suggested that there was a good initial degree of engagement by care home staff. However, there were reports from some Hydration Champions and members of the project steering group that enthusiasm for the project waned over time. The term ‘Hydration Champion’ could have been a barrier to staff engagement, where some staff reported that their colleagues felt it was now the Champion’s responsibility to provide hydration care. Regarding lack of time, one important finding was that some staff felt that the hydration project was an addition to their role, and therefore not an essential aspect of routine care.

There seemed to be some key ‘ingredients’ for successful embedding of good hydration care, and ensuring consistent care staff engagement, which have come from feedback from Champions, managers and reflections from the steering group members:

- Support from colleagues (this was seen as the top enabler by Champions)
- Being allocated time to carry out implementation of different activities within the home
- Managers invested in the project from the outset, who clearly see the need for improving hydration. Interestingly the cost associated with the extra activities, e.g. cost of ingredients like fruit, was not seen as a significant barrier
- Identifying the right staff as Champions – staff who nominated themselves for the role were more likely to be successful
- Building a positive culture in the home, where good hydration care is embedded as part of routine practice

The use of the ROC to drink tool to assess the hydration needs of residents and the associated summary care plans were an integral part of the project. However, there was a degree of uncertainty among the Hydration Champions on whether this tool ensured the residents have enough to drink. This may have been due to the methods used by care homes to communicate the outcome of the ROC tool assessment between staff of different roles within the home, and how the care plans were shared, e.g. some homes used colours on the residents’ doors to denote their result (red / amber / green), whilst others did not appear to have a way of communicating the result with staff, including those in non-caring roles. HCC purchased an annual license for the ROC to drink tool (in June 2019) so that all homes can continue using this.

A lack of robust data meant it was not possible to calculate potential cost savings to the health and social care system as a result of this project. However, it is important to highlight that managers did not report concerns over the budget involved in running the project e.g. buying extra produce. Some homes even managed to build sustainability into the project, e.g. using the donations from cake in the tea rooms to buy extra produce. Therefore, the project has the potential to be a cost-effective programme, and it is recommended that future projects consider measuring this more robustly.

5.2 Project limitations

- The purpose of the falls data analysis was to assess whether implementation of the hydration project was associated with a reduction in the number of falls among residents in the participating care homes. It did not include assessment of the hydration status of residents or whether their hydration levels increased. It is therefore not possible to separate any changes in hydration levels from the impact of the various elements of the project on the results.
- Although in some cases there were large percentage differences in the number of falls and related injuries, this was based on some very small numbers. However, they do follow the trend of some of the results from the previous similar projects developed by North East Hampshire and Farnham CCG and KSS AHSN.
- Individual care homes implemented different strategies to try and improve hydration. This means that attributing any particular strategies to any improvements seen is not possible.
- Five of the participating homes had been involved in HCC hydration related projects previously. These homes were included in the project to reinvigorate their existing programme and use it as an opportunity to share best practice. It is possible that the impact of these previous projects was ongoing to a certain extent.
- The problems with comparative data analysis from the constantly changing care home resident population have been mentioned previously in the discussion.
- The different wording of the questionnaires to Hydration Champions and managers, and the different timing in getting them to complete these, makes it difficult to compare and look at trends over time.
- There was a degree of uncertainty among the Hydration Champions on whether the ROC to drink tool ensured the residents have enough to drink. Consequently, it was not possible to compare the data on falls between homes who clearly perceived the ROC to drink tool had supported their hydration work and those that did not.
5.3 Recommendations

It is important to highlight that this report is a self-assessment by the project team (and not an independent evaluation). As such, these recommendations are based on both the evidence gathered and the experience of implementation. Recommendations have been separated into those relating to implementation, measurements and sustainability / spread.

Implementation

- Having Hydration Champions who nominate themselves for the role, rather than being asked to fulfil the role by management
- Management support and support from colleagues is essential
- Change in culture within care homes is required to see good hydration as part of routine care for all staff, regardless of role
- Potential review of the term ‘Hydration Champion’ - feedback from the evaluation workshops revealed that the term ‘Champion’ seemed to give other staff the impression the Hydration Champions were solely responsible for providing the residents with fluids. This misunderstanding may have contributed to the results in figure 4 (appendix 1). Adapting the roles of staff appears to be one way that care home management teams have managed to cover staff vacancies to keep the momentum of the project going.
- As residents start to feel more active and energised as a result of improved hydration, consideration should be made about how to better embed strength and balance exercises in the care home setting. This could also take the form of ‘train the trainer’ style learning with activities co-ordinators.

Measurements

- Future hydration projects need to establish a clear set of diagnostic criteria for UTIs which is agreed by health care professionals in their locality and mandatorily collected by care homes. This would enable the impact of a hydration project on the incidence of UTIs to be examined. This would be particularly relevant if the project included measurement of fluid intake before and during the project. At present there is a paucity of data on whether improving fluid intake reduces UTIs in older people.
- Future hydration projects should also include grading for types of fall and aim to link this with amounts of fluid drunk by residents.
- Future hydration projects should build in methods of capturing financial impact, both for health and social care (e.g. as a result of improved health outcomes) and also the impact on the care homes in terms of buying extra produce, releasing staff for training
- Future hydration projects should aim to capture some data about the impact of the project on the hydration, health and wellbeing of care homes staff themselves
- The improvements seen in falls and fall-related injuries were based on very small numbers. Future hydration projects should be done on a larger scale with significantly more residents, to have a potential to show more definitive outcomes.

Sustainability and spread

- Hampshire care homes should be encouraged to continue the good practice started by this project (e.g. identifying the needs of residents around hydration, implementing hydration care plans, good communication between staff, and implementing fun activities and events to promote hydration). To support this, the following would be needed:
  - Ongoing hydration training to all staff. To build in sustainability, it is recommended that online / e-learning around hydration be developed and promoted across the care homes, to provide both training to new staff (e.g. staff inductions), and also refresher training to existing staff.
  - Embed hydration training into induction programmes to ensure that this is seen as part of the care role, not an addition.
  - Having someone from Workforce Development to take the lead for training, to help ensure maximum engagement from staff and managers.
  - Hydration training for managers and staff wishing to take on a role of ‘Hydration Champion’, to provide more in-depth information around hydration, and instigation of change in the care homes – perhaps in the form of e-learning for ease of access.
Continued opportunities for sharing good practice between care homes to help embed the project. Care staff should be offered the opportunity to go into each other’s care homes to learn from each other. The continuation of hydration workshops should also be explored, as a way of bringing Hydration Champions and managers together to share experiences and good practice.

- Promote this approach to other care homes within Wessex and beyond, through sharing the outcomes of this project and through the creation of a designed executive summary highlighting the business plan
- Development of an e-learning training toolkit that can be used both by care staff in Wessex and beyond. This is currently being developed in collaboration between Wessex AHSN and HCC, and will be available free of charge. This training could also help upskill agency staff who may not know residents as well, and help to provide more consistent care particularly for those residents that need additional support to drink e.g. requiring a different drinking vessel, requiring a thickener or need help in holding a cup.
- Following discussions with Public Health England (who consulted their Nutrition, Diet, Obesity and Physical Activity teams), there is a need for the development of a public leaflet specifically about hydration for older people. This is an opportunity for the hydration steering group to jointly develop a leaflet.

5.4 Conclusion
The NHS Long Term plan 2019 guarantees NHS support to people living in care homes to ensure they stay well hydrated. The care home population are among the most frail, dependent and vulnerable in the UK and at high risk of dehydration. This project has aimed to improve hydration among these individuals by extending awareness and hydration practices among staff. There were project limitations, of which the most significant was probably the changing nature of this population with the perception of their more complex needs, across the 4 years of data comparison. Despite the small numbers involved in quantitative data analysis, there were clear indications of the positive benefits of the project on staff and residents and the 59% of managers who gave feedback would unanimously continue to have a Hydration Champion and implement hydration related activities. A number of recommendations have been detailed and with these in mind, we commend this project to other organisations.

13 https://www.longtermplan.nhs.uk/
Appendix 1

Tables referenced in the text

Table 1: Summary of topics and activities covered at each workshop / evaluation event

<table>
<thead>
<tr>
<th>Workshop</th>
<th>Topics / activities</th>
</tr>
</thead>
</table>
| 28th August 2018  | • Presentations from 7 care homes about how they were improving hydration for the residents in their homes  
                  | • Presentation from Wessex AHSN on wider work around hydration, e.g. Oxford AHSN’s work; evaluating coloured cups  
                  | • All homes wrote action plans                                                       |
| 5th December 2018 | • All staff made hydration pledges                                                  
                  | • All homes fed back on hydration activities which were a success                    
                  | • Presentation on the focus group findings                                           
                  | • Presentation sharing the evaluation results to date                                |
| 20th March 2019   | • Feedback on the evaluation findings to date                                        
                  | • Success stories – each home to share a case study                                  
                  | • Sustainability solutions - ‘do’s and don’ts’ from the project                     
                  | • Presentation on the ‘ROC to drink tool’                                            |

Table 2: Summary of key questions asked of Hydration Champions in the mid and end of project surveys

<table>
<thead>
<tr>
<th>Survey</th>
<th>Key questions</th>
</tr>
</thead>
</table>
| Mid project survey            | • How have you shared knowledge with other members of staff? (if knowledge has been shared, what difference this made?; if knowledge has not been shared, what were the barriers to this?)  
                                | • Have you carried out the action plan you set at the training session? (if no, what were the barriers?)  
                                | • How much difference do you think there has been in the health of residents as a result of the project?  
                                | • Have there been any negative outcomes as a result of the project?  
                                | • Have you been using the ‘ROC to drink’ tool and care plan?  
                                | • How easy to use is the ‘ROC to drink’ tool and care, and how effective is the tool and care plan in helping make sure residents have enough to drink |
| End of project survey         | • Have you enjoyed your role (if yes, why?) and would you recommend the role to other care homes and staff?  
                                | • What enabled you to be successful in your role?  
                                | • What percentage of staff did you share your hydration knowledge with, and what was the most successful method of sharing learning with other staff?  
                                | • Barriers to sharing knowledge / learning with other staff, and implementing action plan  
                                | • What extra support might have helped you fulfil your role and implement your action plan better?  
                                | • What changes has the project made (if any) to residents’ wellbeing, alertness, communication, falls, UTIs  
                                | • Have you been using the ‘ROC to drink’ tool and care plan?  
                                | • How easy to use is the ‘ROC to drink’ tool and care, and how effective is the tool and care plan in helping make sure residents have enough to drink  
                                | • What advice would you give to future Hydration Champions? |
• What actions would you suggest to maintain the interest and commitment to improving hydration in care homes?

Table 3: Focus group session methodology

**Activities carried out at each focus group session**

- On arrival at the home, the researcher spoke to the care home manager to find out which residents were coming to the focus group (focus groups were held in one of the lounges)
- Staff helped bring residents to the lounge. They did not remain with the residents and relatives to enable participants to share honest opinions and feedback. The home provided refreshments for the attendees
- Consent was obtained from all attendees and information sheets were given. The researcher talked to each individual separately ensuring that they understood what they were consenting to and to answer any queries. Copies of the consent forms were held by both Wessex AHSN and the individual care homes for six months before being destroyed
- The focus group leader (one of the researchers) welcomed everyone and introduced the focus group
- Following a welcome and introductions, one of the researchers (as the focus group leader) asked the group eight open-ended questions to explore the topic and get attendees engaged. These questions can be found in Appendix 1
- Other researcher(s) took notes as a record of the discussion
- Individual questionnaires were given to residents and relatives (different questions for each) after the focus group. The questionnaires consisted of 10 questions to explore their own personal characteristics, e.g. length of time at the care home; and specific questions about the project, e.g. “tell me about a typical day here in the home?”, “have you seen any activities that address hydration?”. A copy of the questionnaire can be found in Appendix 2.
- Some residents did not wish to attend the focus group, but did complete a questionnaire in their own room, with support from a researcher

Table 4: Attendance details of staff attending the two training sessions

<table>
<thead>
<tr>
<th>Date</th>
<th>No. people attending</th>
<th>No. care homes represented</th>
<th>Type of attendees</th>
</tr>
</thead>
<tbody>
<tr>
<td>16th May 2018</td>
<td>30</td>
<td>8</td>
<td>A mix of Care Assistants, Assistant Unit Managers, Assistant Practitioners, Activities Co-ordinators and one Deputy Manager</td>
</tr>
<tr>
<td>22nd May 2018</td>
<td>33</td>
<td>13</td>
<td>A mix of Care Assistants, Activity Co-ordinators, Assistant Unit Managers, Night and Day Care Co-ordinators and Heads of Kitchen. Two Registered Managers attended along with two deputies and a team leader</td>
</tr>
</tbody>
</table>

Table 5: Feedback from training sessions

<table>
<thead>
<tr>
<th>Percentage of attendees providing each rating</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Before the course, how would you have rated your current knowledge / practice?</strong></td>
</tr>
<tr>
<td>5 (excellent)</td>
</tr>
<tr>
<td>4%</td>
</tr>
<tr>
<td><strong>The trainer’s ability to engage me was:</strong></td>
</tr>
<tr>
<td>53%</td>
</tr>
<tr>
<td><strong>The trainer’s knowledge was:</strong></td>
</tr>
<tr>
<td>60%</td>
</tr>
<tr>
<td><strong>At the end of the course, how would you rate your knowledge / practice?</strong></td>
</tr>
<tr>
<td>37%</td>
</tr>
</tbody>
</table>
Table 6: Attendance details of staff attending the workshops / evaluation events

<table>
<thead>
<tr>
<th>Date</th>
<th>No. staff attending</th>
<th>No. care homes represented</th>
<th>No. care homes sending Managers / Deputies</th>
<th>Attendee roles</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.08.18</td>
<td>37</td>
<td>15</td>
<td>4</td>
<td>4 Managers / Deputies, 4 Assistant Unit Managers, 4 Activity Co-ordinators, 5 Assistant Practitioners, 13 Care Assistants, 1 Night Care Co-ordinator, 3 Kitchen staff, 2 Nutritionists, 2 unknown</td>
</tr>
<tr>
<td>05.12.18</td>
<td>48</td>
<td>14</td>
<td>7</td>
<td>8 Managers / Deputies, 1 Team Leader, 4 Assistant Unit Managers, 4 Activity Co-ordinators, 3 Assistant Practitioners, 13 Care Assistants, 2 Day Co-ordinators, 2 Night Care Co-ordinator, 3 Nurses, 1 Nutritionist, 3 unknown</td>
</tr>
<tr>
<td>20.03.19</td>
<td>38</td>
<td>16</td>
<td>8</td>
<td>8 Managers / Deputies, 1 Team Leader, 1 Assistant Unit Manager, 4 Activity Co-ordinators, 2 Assistant Practitioners, 11 Care Assistants, 3 Day Co-ordinators, 1 Nurse, 1 Nutritionist, 3 Kitchen staff, 2 unknown</td>
</tr>
</tbody>
</table>

Table 7 (located within text in section 4.4)

Table 8: Job role of Hydration Champions responded to the survey

<table>
<thead>
<tr>
<th>Job role</th>
<th>Percentage of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Staff</td>
<td>40%</td>
</tr>
<tr>
<td>Management</td>
<td>21%</td>
</tr>
<tr>
<td>Other</td>
<td>21%</td>
</tr>
<tr>
<td>Activities co-ordinator</td>
<td>11%</td>
</tr>
<tr>
<td>Kitchen Staff</td>
<td>5%</td>
</tr>
<tr>
<td>Nurse</td>
<td>3%</td>
</tr>
<tr>
<td>Domestic</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 9: Enablers for Hydration Champions to be successful in their role

<table>
<thead>
<tr>
<th>Enablers</th>
<th>Percentage of respondents who specified each enabler</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supportive colleagues</td>
<td>53%</td>
</tr>
<tr>
<td>Supportive management</td>
<td>47%</td>
</tr>
<tr>
<td>Support from other Champions</td>
<td>45%</td>
</tr>
<tr>
<td>The Champions workshops</td>
<td>45%</td>
</tr>
<tr>
<td>Your own creativity</td>
<td>32%</td>
</tr>
<tr>
<td>Training from Hampshire County Council</td>
<td>26%</td>
</tr>
<tr>
<td>Time to develop your action plan</td>
<td>18%</td>
</tr>
</tbody>
</table>
Table 10: Barriers to the Hydration Champions being successful in their role

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Percentage of respondents who specified each barrier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of my time due to work load</td>
<td>55%</td>
</tr>
<tr>
<td>Lack of interest by other staff</td>
<td>45%</td>
</tr>
<tr>
<td>I did not have any barriers</td>
<td>26%</td>
</tr>
<tr>
<td>Staff too busy to learn about hydration</td>
<td>21%</td>
</tr>
<tr>
<td>Lack of my time due to sickness/holiday</td>
<td>18%</td>
</tr>
<tr>
<td>Lack of support from care home management</td>
<td>13%</td>
</tr>
<tr>
<td>It was thought to be too expensive</td>
<td>8%</td>
</tr>
<tr>
<td>Other</td>
<td>5%</td>
</tr>
<tr>
<td>It was too impractical</td>
<td>3%</td>
</tr>
<tr>
<td>I was unsure how to share what I had learnt</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 11: Quotes from resident and relatives about hydration-related activities

<table>
<thead>
<tr>
<th>Question</th>
<th>Quotes</th>
</tr>
</thead>
</table>
| Have you seen any activities in place that have addressed hydration?  | “I am aware of smoothie making, myself and my husband have both been offered smoothies” (Relative)  
“Yes, I have had an invitation to partake in tea, coffee and other beverages. Water based drinks like squash, blackcurrant and apple juice. There is also hot chocolate, lollies and fruit” (Resident)  
“I like the smoothies….and ginger beer” (Resident)  
“The drinks were lovely, proper banana whizzed up” (Relative)  
“Yes, but the activities take place at the same time every day, would be good to have them at different times of the day or all day” (Resident)  
“Yes, but the drinks trolley doesn’t necessarily go upstairs to residents, so I miss out” (Resident) |
| Did you enjoy these, and which were more successful / fun?             | “Having a tea party and sitting in the garden eating strawberries felt very decadent” (Resident) |
| Have you noticed any changes in the choice and ways drinks are offered?| “Possibly, they seem to offer drinks more frequently and drinks are now offered before and after the meal.” (Resident)  
“Staff offer to me more because I get very thirsty, I love a cup of tea and they know this. I am offered cranberry juice and squash, this happens quite often. Cranberry juice is good for you” (Resident)  
“It is good to see fresh fruit being offered more often” (Relative)  
“I have never been offered ginger beer or smoothies as I am on the second floor. I liked the lollies that came round in the hot weather” (Resident)  
“I have not had a milkshake, I would love one, but it’s not been offered.” (Resident)  
“My mother has been offered orange juice but I have noticed that when the tea round is completed, and his mother is asleep, she isn’t prompted to drink her hot tea, so can end up with cold tea” (Relative)  
“My mother always says no when offered a drink; staff respect her wishes but wondered if the staff could leave a small portion of a drink for her to sip at” (Relative) |
Figures referenced in the text

**Figure 1** (located within text in section 2.4)

**Figure 2: Roles of care home staff attending the Launch Event**

- Deputy Manager, 11
- Team Leader, 2
- Assistant Unit Manager, 8
- Activity Co-ordinator, 6
- Assistant Practitioner, 5
- Care Assistant, 16
- Day Care Co-ordinator, 4
- Night Care Co-ordinator, 1
- Nurse, 2
- Kitchen staff, 4
- Nutritionist, 2
- Unknown, 2

**Figure 3: Percentage of care home staff who Hydration Champions shared their learning with**

**Figure 4: Percentage of care home staff who Hydration Champions shared their learning with and were then engaged with the project**
Figure 5: Confidence of Hydration Champions in sharing their learning and implementing their action plan

Figure 6: Hydration Champions’ perception about whether the ROC to drink tool ensures residents have enough to drink

Figure 7: Hydration Champions’ perception to whether the ROC to drink tool was crucial to the success of the project
Figure 8: Managers’ perceptions of the difference the hydration project has made to residents’ health and wellbeing

![Graph showing managers' perceptions of the hydration project's impact on various aspects.](image)

- **1 (no difference)**
- **2**
- **3**
- **4**
- **5 (major difference)**

- **5 (major difference)**
- **4**
- **3**
- **2**
- **1 (no difference)**

Figure 9: Managers’ perceptions about whether the ROC tool ensures residents have enough to drink

![Bar chart showing managers' responses to the ROC tool.](image)

- **Yes**
- **Somewhat**
- **No**

Figure 10: Age and gender of residents attending focus groups

![Bar chart showing the age and gender distribution of residents.](image)

- **Male**
- **Female**

% of Managers

- Improved staff attitude/awareness of hydration
- Improved staff hydration practice
- Improved resident general wellbeing
- Improved resident alertness
- Improved communication with residents

% of managers

- 1 (no difference)
- 2
- 3
- 4
- 5 (major difference)

- Yes
- Somewhat
- No
Figure 11: How long have you or your relative lived in the care home? (feedback from residents attending focus groups)

Figure 12: Have you seen any activities in place that have addressed hydration? (feedback from residents and relatives attending focus groups)

Figure 13: Have staff behaviours changed? (feedback from residents and relatives attending focus groups)
Figure 14: Quotes from residents and relatives (relating to section 4.7)

Quotes about changes in staff attitudes / behaviours around hydration:
- “I think it [the hydration project] is a very good idea. I feel my husband is much better when he drinks. I provide large bottles for my husband - the home is very good at refilling these regularly”
- “The regular staff are good at offering drinks and choice”
- “Drinks are put close to me, not like in hospital”
- “Slightly, not all staff know every person’s needs”

Quotes on perceptions of what had changed in terms of typical day in the home:
- “One day I was visiting and thought mum might be a bit dehydrated, she was licking her lips and they seemed dry. I suggested to the staff member getting her a drink and she had two and then became much more alert and responsive and accepting of care... “My mum needs encouragement to drink and eat” (resident’s daughter)
- “There is a small fridge in the lounge with drinks in it – I think this is an excellent idea as is the large (glass fronted) fridge in the dining room” (resident’s son)

Quotes about changes in health and wellbeing:
- “He has had no UTI’s recently. I feel the drinking helps avoid UTI’s” (Relative)
- “I feel my constipation is slowly getting better” (Resident)
- “I know we have to drink a lot, it is down to me to drink, need fluids in you, to wash the system out” (Resident)
- “…it’s good for your kidneys” (Resident)

Appendix 2 - Focus group questions

1. Have you seen any activities in place that have addressed hydration, e.g. Fruity Fridays, Mocktail Mondays, vintage tea parties? (list all activities that the home has used)
2. Were any of these more successful than others?
3. Have you noticed any changes in the choice and ways drinks are offered?
4. Has the staff behaviour changed as a result of this project?
5. Have you seen any changes in your family member/friend who lives here?
6. Has your friend/family member’s typical day changed as a result of the project and in what way? (to pick up whether drinks are given more regularly)
7. Have you noticed any changes in what the staff are doing – question for the residents?
8. Any other comments or thoughts?
Appendix 3 - Resident Questionnaire

1. How long have you lived here? (reason for this question – were they here before the project started?)
2. Where did you move from? (general question to learn more about the person and to understand them a bit more)
3. Tell me about a typical day here at the home, prompts for meals and drinks, entertainments, activities, tea time and anything else you wish to say?
4. Have you seen any activities in place that have addressed hydration? e.g. Fruity Fridays, Mocktail Mondays, vintage tea parties
5. Did you enjoy these and which were more successful/fun?
6. Have you noticed any changes in the choice and ways drinks are offered?
7. Have you seen any posters or information about hydration around the home?
8. Has the staff behaviour changed as a result of this project?
9. Has your typical day changed as a result of the project and in what way? (to pick up whether drinks are given more regularly)
10. Have you noticed any changes in your health or how you feel as a result of this project?
11. Is there anything else you wish to tell me?

Appendix 4 - Relative Questionnaire

1. Relative – male/female resident is male/female
2. How long has your friend/family member lived here?
3. What is your relationship to them?
4. Have you seen any activities in place that have addressed hydration?
5. Have you any comments on the success of these interventions?
6. Have you seen any posters or information about hydration around the home?
7. Have you noticed any changes in the choice and ways drinks are offered?
8. Has the staff behaviour changed as a result of this project?
9. Has your friend/family member’s typical day changed as a result of the project and in what way? (to pick up whether drinks are given more regularly)
10. Have you noticed any changes in the health or behaviour of your friend/family member as a result of this project?
11. Is there anything else you wish to tell me?
Appendix 5 – Hydration Charter

Hydration:

The Champion’s Charter:

I, the undersigned agree to champion the Hydration Project in my Care Home.

This will include:

- Expanding my own knowledge and skill base to empower learning within the home
- Inspiring and supporting colleagues, residents and visitors to improve person-centred approaches to hydration
- Encouraging optimum hydration by meeting the hydration needs of all residents
- Proactively sharing creative solutions and good practice
- Contributing to the evaluation of data to monitor the effectiveness of the project.

Signed          Print Name
Date            Role
Care Home Name
### Appendix 6 – Resident case studies

<table>
<thead>
<tr>
<th>Age</th>
<th>Gender</th>
<th>Length of time in home</th>
<th>What the home did to improve hydration</th>
<th>Impact on UTIs</th>
<th>Impact on falls</th>
<th>Impact on health &amp; wellbeing</th>
</tr>
</thead>
<tbody>
<tr>
<td>91</td>
<td>Male</td>
<td>3 ½ years</td>
<td>Encouraged with drinks hourly, especially with hot drinks which the resident prefers</td>
<td>No change (no regular UTIs prior to the project). Catheterised so fluid balance monitored daily</td>
<td>No change (transfers via hoist)</td>
<td>• More interactive with staff and other service users&lt;br&gt;• Wanting to come to communal areas more&lt;br&gt;• Improved skin health</td>
</tr>
<tr>
<td>86</td>
<td>Female</td>
<td>3 years</td>
<td>Encourage to drink more and given a choice of drinks – drinks more of her favourite drinks.</td>
<td>No change</td>
<td>No change (unable to mobilise without support)</td>
<td>• Enjoys socialising more and is more awake during the day&lt;br&gt;• Gained weight&lt;br&gt;• Toileting regularly&lt;br&gt;• Able to assist herself with meals and drinks&lt;br&gt;• Improvement in passing stools</td>
</tr>
<tr>
<td>No information</td>
<td></td>
<td></td>
<td>Carers ensured beaker was always full and within reach&lt;br&gt;Provision of milkshakes which she likes</td>
<td>Regular UTIs prior to the project. Only had 1 UTI since the project started</td>
<td>No change but now more confident with transfers</td>
<td>• Less confused&lt;br&gt;• Improved skin health – leg sore healed&lt;br&gt;• Improved mobility</td>
</tr>
<tr>
<td>80</td>
<td>Female</td>
<td>Over 3 years</td>
<td>Tried different types of drinks and vessels (e.g. beakers, straws)&lt;br&gt;Offered jellies, soft &amp; pureed fruit&lt;br&gt;Daily smoothies&lt;br&gt;More time spent with her encouraging sips&lt;br&gt;Increasing activities around hydration, e.g. smoothie making, parties</td>
<td>Reduction in UTIs</td>
<td>Reduction in falls</td>
<td>• More socially engaged&lt;br&gt;• More awake</td>
</tr>
<tr>
<td>No info</td>
<td>Male</td>
<td>1 ½ years</td>
<td>Physically waking him and spending more time giving fluids&lt;br&gt;Enjoyed seeing the hydration trolley and choosing things himself</td>
<td>No change</td>
<td>Reduction in falls (only fallen once since project started)</td>
<td>• More alert and communicative&lt;br&gt;• Improved constipation&lt;br&gt;• Gained weight</td>
</tr>
<tr>
<td>ID</td>
<td>Gender</td>
<td>Years</td>
<td>Changes</td>
<td>Positive Changes</td>
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<tr>
<td>84</td>
<td>Female</td>
<td>Over 3</td>
<td>Activities to encourage fluids, e.g. Tutti Fruiti Tuesdays and smoothie making which the resident enjoys and takes part in</td>
<td>Reduction in UTIs – occasional UTIs before the project, but none since</td>
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<td>Reduction in falls – up until May 2018, was falling 1-2 times / week; no falls since project started</td>
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<td>Engaging more in activities</td>
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<td>Improved food and fluid intake</td>
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<td></td>
<td>Improved constipation</td>
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<td>Gained 3.5kg in weight (highest ever weight even prior to admission)</td>
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<tr>
<td>80</td>
<td>Female</td>
<td>4</td>
<td>Provision of extra drinks</td>
<td>No change</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>Other staff, e.g. managers and office staff also giving drinks</td>
<td>Reduction in falls</td>
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<td></td>
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<td></td>
<td>Squash left in corridors and lounge so resident can help themselves</td>
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<td></td>
<td></td>
<td></td>
<td>Extra activities, e.g. cheese and wine</td>
<td>Improved skin health</td>
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<td>Improved wellbeing</td>
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<td>More active</td>
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<td></td>
<td>More alert and communicative</td>
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<tr>
<td>99</td>
<td>Female</td>
<td>2 ½</td>
<td>Supported resident to engage with other residents who then encouraged each other to drink more (other residents helped this resident)</td>
<td>Reduction in UTIs – hasn’t had a UTI for a few months</td>
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<td>No change (requires full hoist for transfers)</td>
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<td>Now spends every day in the lounge engaging with other residents (previously spent a lot of time in bed confused due to UTIs)</td>
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<td></td>
<td>Improved mood – a lot happier</td>
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<td>As she is less confused, she was able to tell the staff that her dentures felt strange (this was causing her not to eat much). This resulted in new dentures being fitted enabling her to eat again</td>
<td></td>
<td></td>
</tr>
<tr>
<td>98</td>
<td>Female</td>
<td>2</td>
<td>Offered different drinks and discovered she liked squash rather than water</td>
<td>Reduction in UTIs (common before the project but none since the start)</td>
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<td></td>
<td></td>
<td></td>
<td>Provided lighter mugs and coloured glass and jug</td>
<td>More ‘steady on her feet’ and has not fallen since the project started (previously would fall ‘once in a while’)</td>
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<td>Also offered fruit, jelly and fizzy water</td>
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<td>More alert and awake more, meaning she engages more with social activities</td>
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<td>Improved mood</td>
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<td></td>
<td>Able to do a bit more care for herself</td>
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<tr>
<td>88</td>
<td>Female</td>
<td>3</td>
<td>Encouraged to try smoothies, milkshakes, join activities around fluids</td>
<td>No change (rarely gets UTIs)</td>
<td></td>
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<td></td>
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<td></td>
<td>Enjoys lattes from coffee shop</td>
<td>One fall during the project so unable to comment on impact</td>
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<td></td>
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<td></td>
<td>Engages with more activities with the other residents</td>
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</tbody>
</table>
| 78 | Male | 2 ½ years | • Provides choice of favourite drinks regularly  
• Fluid-based activities  
• Providing more fluids from foods, e.g. custard, sauces, stews | Doesn’t suffer from regular UTIs (had one UTI during this project) | No change (uses wheelchair and hoist for transfers) | • More alert  
• More willing to engage in activities  
• Now eating in dining room (previously would eat alone in room)  
• Whilst this resident’s condition is deteriorating, the staff have still managed to encourage and maintain good fluid intake rather than letting it decline |
|---|---|---|---|---|---|---|
| No information | • Through discussion with family members, the home discovered the resident prefers cold fizzy drinks so these were offered regularly | No information | Reduction in falls | • More alert and awake more  
• Walking better |
| No information | • Having dedicated hydration assistants in the mornings to ensure she was having plenty to drink  
• Hydration staff and activities coordinators arranged lots of coffee mornings, tea parties, introduced smoothie, mocktails, fruit to make drinks interesting | Reduction in UTIs (admitted to care home from hospital after having frequent UTIs at home. No UTIs since start of project) | No change (had falls in past but not since moving to care home) | • Improved mood  
• Engaging with activities more  
• More sociable  
• Skin looks healthier |