## **APPENDICIES**

**Table 1.** Description of the PEACH Quality Improvement Collaborative.

Brief name	The Proactive Healthcare of Older People in Care Homes (PEACH) collaborative.
Why	The aim was to improve healthcare for care home residents, and Comprehensive Geriatric Assessment (CGA) was used to guide discussions.
Where	Nottinghamshire, UK. Collaborative shared learning events were carried out at a university location, and in-between events (action periods) teams met in local care homes, and at local Clinical Commissioning Group (organisations which plan and purchase healthcare services) locations.
Who provided	The PEACH collaborative was delivered by a team comprising a locally known clinical academic geriatrician, a nurse leader with expertise in appreciative inquiry to promote quality of life in care homes, a Health Foundation Quality Improvement Fellow, and a researcher with interest in improvement science. The overall PEACH programme was funded by The Dunhill Medical Trust (grant number FOP1/0115). The collaborative shared learning events were funded by the East Midlands Academic Health Science Network Patient Safety Collaborative ( <a href="https://www.emahsn.org.uk/our-work/patient-safety">https://www.emahsn.org.uk/our-work/patient-safety</a> ).
Recipients	The collaborative took place across a region which has four distinct sites, and a team formed in each site. In each site the person responsible for planning and purchasing healthcare services (commonly referred to as 'commissioners' in the UK) for older people recruited a team. Teams were multidisciplinary and included general practitioners (GP), nurses, therapists, geriatricians, pharmacists, dementia specialists, care coordinator, care home workers/managers, and voluntary sector staff. Members of the public with experience of care homes were also recruited to teams. The configuration of teams varied and depended on local resource and staff availability.
How	Face-to-face meetings.
When and how much	18 months (September 2016 to February 2018), with four collaborative shared learning events that took place approximately every 6 months.
What (materials and procedures)	<ul> <li>Collaborative shared learning events: The events included:         <ul> <li>Allocated time for teams to discuss and reflect on their local needs and priorities</li> <li>Allocated time for teams to brainstorm, and develop quality improvement plans</li> <li>Sessions for each team to present and share their project ideas, progress, and experiences of the improvement journey, describing challenges, successes, and lessons learnt around how to overcome barriers.</li> <li>Educational/learning sessions (described below)</li> </ul> </li> </ul>

Networking opportunities

Educational/learning sessions: the events included educational elements, with training g delivered on:

- Quality improvement techniques: setting SMART (Specific, Measurable, Achievable, Realistic, Timebound)
  objectives, and testing change ideas using a Plan Do Study Act (PDSA) approach. An educational game using 'Mr
  Potato Head' was carried out to demonstrate the PDSA, teaching teams how to set goals, test change ideas, and
  evaluate the improvement process.
- CGA, and using this approach to care for older people

Action period group meetings: during action periods (the time in-between each shared learning event) teams met at their own site locations to review progress, and progress their improvement projects.

Coaching: a Health Foundation-trained quality improvement fellow on the team (JB) provided coaching and mentoring to individual teams, both at shared learning events, and also during the action periods.

Signposting teams to relevant contacts and resources: when collaborative teams faced challenges the improvement team helped by signposting to relevant contacts, and resources.

Newsletter: provided project updates (i.e. meeting dates) and team stories describing progress with quality improvement projects. Shared through email, with approximately 3 newsletters per year.

Administrative support: the project improvement team provided the collaborative teams with administration support during action periods, for example, arranging meetings, and circulating meeting agendas/minutes.

Support with data collection: the collaborative intervention was one component of a programme of work which included work packages orientated around evaluating the activity of the QIC, collecting data around health care service use, and care home resident well-being. Collaborative teams were offered support with data collection, and quality improvement evaluation.

Shared learning events included features designed to create a safe working environment, and reduce effects of perceived hierarchy amongst teams:

- ice breaker activities to enhance relationship building.
- time was spent at the beginning asking teams to consider items to add to a list of 'ground rules', for example, (i) no question is a silly question, (ii) everyone listen when someone is speaking, (iii) mobile phones on silent.

  Team members were asked to comply with these rules throughout the events.
- all activities maintained an appreciative enquiry approach, using positive and encouraging language, e.g. asking teams to focus on what is working well and why, envisaging how things could be, and identifying how to work together to make it happen.

## **Tailoring**

	GPs and care home staff were provided with backfill payment for their time taken to attend events as they are independent sector workers and only able to attend meetings if adequate staff cover is arranged to cover workload.
Modifications to the programme.	The original plans included carrying out conference calls as another way to meet and discuss progress with
	improvement work. The conference calls would take place during action periods and involve each collaborative team
	with the improvement team. One conference call was carried out, and not repeated as face-to-face meetings were
	more effective for reviewing and discussing project progress.
How well	Over the course of the project 34 (out of 44) NHS and care home staff attended at least 2 (out of 4) collaborative
	meetings.

Table 2. Description of the Safer Care Homes (Safer Salford) Quality Improvement Collaborative.

Brief name	Safer Care Homes. This was part of a wider programme of work called 'Safer Salford'.
Why	The aim was to reduce medication errors, falls with harm and pressure ulcers.
Where	Salford, UK. Collaborative shared learning events were held at a local centre for quality improvement ( <a href="http://www.haelo.org.uk/about-us/">http://www.haelo.org.uk/about-us/</a> ), and in-between events (action periods) the collaborative met during peer exchange visits carried out at care home locations.
Who provided	The Safer Care Homes collaborative was delivered by a local organisation called Haelo: an innovation and improvement science centre based in Salford commissioned by Salford Clinical Commissioning Group. The Safer Care Homes collaborative was delivered by a team including an executive sponsor (Safer Salford board representative), a consultant geriatrician, a quality improvement lead, a programme facilitator, and a data analyst (measurement support).
Recipients	9 care homes (mix of residential and nursing) took part and collaborative members comprised care home managers, and senior/junior carers from each participating care home.
How	Face-to-face meetings.
When and how much	13 months (January 2017 – January 2018) with four half day collaborative shared learning events that took place quarterly, and monthly peer exchange visits.
What (materials and procedures)	In September 2016, a local expert panel met to set the aims of the Safer Care Homes collaborative. The panel included commissioners, general practitioners, community geriatricians, safeguarding leads, pharmacy leads and care home representation. A driver diagram was developed which set out the aims and objectives of the collaborative.  Collaborative shared learning events included:  Sessions for each care home to present and share their project ideas, progress, and experiences of the improvement journey, describing challenges, successes, and lessons learnt around how to overcome barriers.  The improvement team presented analysed data from care homes to the whole collaborative.  Allocated time for each care home to examine and reflect on data, and develop action plans.  The improvement team encouraged care homes to generate and test ideas that were aimed at reducing falls, pressure ulcers, and medication errors.  Educational sessions (described below)  Networking opportunities  Educational sessions: each event included educational elements, with training delivered on  Quality improvement methodology  Influence of the care home on harm reduction

Support with quality improvement coaching, data collection and project evaluation: members of the improvement team visited care homes weekly to provide additional support with quality improvement training, and provided each home with data dashboards constructed from data submitted from the home.

Peer support and exchange visits: collaborative members visited other care homes part of the collaborative as another way to share and exchange knowledge, and experiences. This helped to develop a support net work between the care homes.

Awards and celebrating good work: at the summit event care home members were recognised for their achievements with awards. All received an award for completing the programme, with additional awards agreed by the improvement team for "most improved", "most innovative PDSA", and "best use of improvement methodology".

## Tailoring

After the programme completed the improvement team adapted the model for improvement for a care home audience. This is called the "six steps to improvement" and based on the learning and feedback from participants. This is available online at: <a href="https://safersalford.org/wp-content/uploads/2018/07/6-steps-to-improvement-30.04.18.pdf">https://safersalford.org/wp-content/uploads/2018/07/6-steps-to-improvement-30.04.18.pdf</a>.

Establishing a baseline number of falls with harm and medication errors was difficult, and for this reason the improvement team worked closely with care homes to provide support with data collection and analysis.

Initially the improvement team planned that care homes would come up with their own innovative change ideas to test, however the care homes preferred the QI team to provide ideas based on evidence. One example of a change idea used to improve rate of falls is 'pimp my zimmer', an intervention where resident walking aids are personalised and decorated to help residents recognise and use their own walking aid, and allow staff to recognise when a resident is using the incorrect walking aid (https://safersalford.org/case-study-pimp-my-zimmer/).

## Modifications to the programme.

Part-way through the collaborative period, it was recognised that care homes valued time to share and learn from one another and so 'peer exchange visits' (exchange visits hosted in participating care homes) were introduced to enhance shared learning, exchange ideas, and develop support networks.

Education and training on the influence of the care home on harm reduction was introduced to help care homes see they can influence the reduction of harm, e.g. changing the belief that falls were either inevitable or caused by factors external to the homes.

	Although the focus of the collaborative was to reduce falls, pressure ulcers and medication errors, the majority of the homes focused on reducing falls during the collaborative. Focus on medication errors came later during the collaborative. This occurred after one home joined the collaborative part way through, and showed an interest in this outcome. Following this, other homes started to show interest in similar outcomes.
How well	Collaborative shared learning event attendance was not assessed.

**Table 3.** Description of the Enhanced Health in Care Homes Initiative

Brief name	Enhanced Health in Care Homes (EHCH)
Why	The EHCH initiative had 3 aims:
	<ol> <li>Deliver high-quality personalised care within care homes</li> </ol>
	2. Provide for individuals who (temporarily or permanently) live in a care home access to the right care and the
	right health services in the place they chose
	3. Enable effective use of resources by reducing unnecessary conveyances to hospitals, hospital admissions, and
	bed days whilst ensuring the best care for people living in care homes
	Across England individual organisations and partnerships were invited to apply to be part of the EHCH initiative. Six
Where	sites were selected across England: 1) Gateshead, 2) Airedale & Partners, 4) Nottingham City Clinical Commissioning
Villere	Group, 5) Connecting care Wakefield district, 6) Sutton Homes of Care, and 7) East and North Hertfordshire Clinical
	Commissioning Group. The information provided in this table outlines the EHCH Nottingham site.
	The Nottingham EHCH site was carried out in collaboration with the Care Home Steering Group which includes
Who provided	Nottingham City Care Partnership, Nottingham University Hospitals, Nottinghamshire Healthcare Trust, Age UK
	Nottingham and Nottinghamshire, Care Home Managers Forum, Nottingham City Council and University of
	Nottingham.
Recipients	The population covered by the Nottingham City CCG Vanguard: 52 care homes, comprising 28 residential homes and 24
	nursing homes.
How	Care providers work in partnership with local General Practitioners, Primary Care Networks, community healthcare
	providers, hospitals, social care, individuals and their families, and wider public services to deliver care in care homes.
When and how much	The EHCH took place between September 2016 - March2018.
	The principles of working within the EHCH model are listed below:
What (materials	<ol> <li>Personalised care: focusing individuals' needs, what matters to them (e.g. outcomes)</li> </ol>
and procedures)	2. Co-production: working in collaboration with partners, acknowledging the value of the care home sector in
	working alongside the NHS.
	3. Quality: focusing on improving quality, and using clinical evidence to improve care.

4. Leadership: strong leadership with a shared vision for better care, and recognising the cultural differences between organisations, sectors and commissioner.

Tailoring N/A

Modifications to the programme

How well Not known

Not known