

# NHS Sunderland CCG

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# All Together Better Sunderland

## Care Home Digital NEWS tablet

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Better Health and Care  
for Sunderland.

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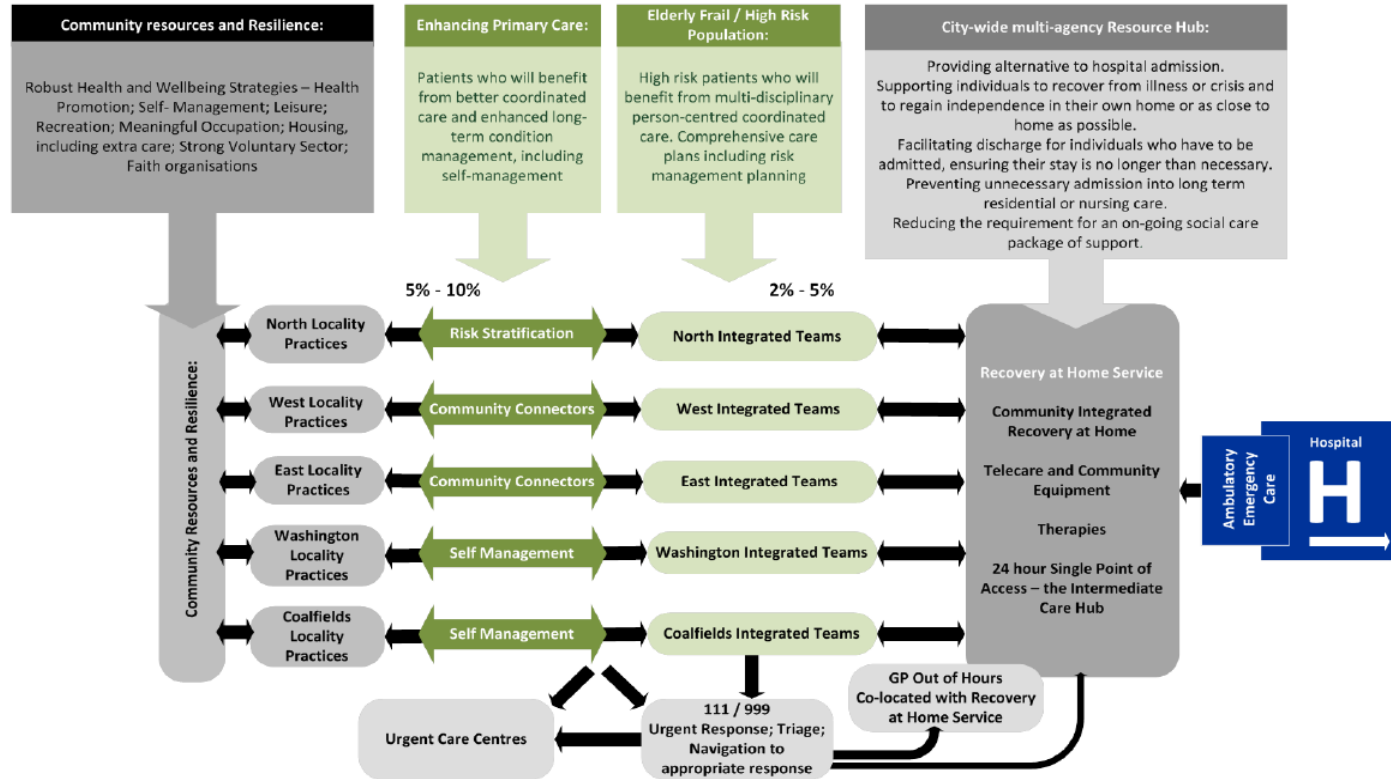
# Introduction and background



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# Sunderland Care Model



together  
for

Health and Care  
for Sunderland.

# What we did and how we did it



FOR HEALTHCARE LEADERS  
**HSJ**  
VALUE IN HEALTHCARE  
**AWARDS**  
WINNER

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# The National Early Warning Score (RCP 2012)



Setting higher standards

## National Early Warning Score (NEWS)

Standardising the assessment of acute-illness severity in the NHS

Report of a working party July 2012

National Early Warning Score (NEWS)\*

PHYSIOLOGICAL PARAMETERS	3	2	1	0	1	2	3
Respiration Rate	≤8		9 - 11	12 - 20		21 - 24	≥25
Oxygen Saturations	≤91	92 - 93	94 - 95	≥96			
Any Supplemental Oxygen		Yes		No			
Temperature	≤35.0		35.1 - 36.0	36.1 - 38.0	38.1 - 39.0	≥39.1	
Systolic BP	≤90	91 - 100	101 - 110	111 - 219			≥220
Heart Rate	≤40		41 - 50	51 - 90	91 - 110	111 - 130	≥131
Level of Consciousness				A			V, P, or U

\*The NEWS initiative flowed from the Royal College of Physicians' NEWS Development and Implementation Group (NEWSDIG) report, and was jointly developed and funded in collaboration with the Royal College of Physicians, Royal College of Nursing, National Outreach Forum and NHS Training for Innovation

*"Standardised assessment"*

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# What is the National Early Warning Score ?

- A **simple** scoring system in which a score is allocated to physiological measurements
- Base line NEWS – ‘Track & trigger’ function
- Person focused
- Utility in all settings

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Free e-learning package - <http://tfnews.ocbmedia.com>

# What NEWS means to care homes

- Aids recognition of clinical deterioration
- Standardises acute illness assessment in the community care setting
- Enables communication to other HCP's using a **common language**
- Informs appropriate clinical response and pre-alert which defines appropriate level of on-going care required.
- Decision support tool – 'defensible decisions & actions'
- Objective clinical information to support requests for home visits
- Family and friends 'confidence'

The National Early Warning Score (NEWS) thresholds and triggers

NEW scores	Clinical risk
0	Low
Aggregate 1 – 4	
RED score* (Individual parameter scoring 3) Aggregate 5 – 6	Medium
Aggregate 7 or more	High

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# Clinical Response Tool

Exceptions to the Clinical Response would be residents who would need a response from an emergency ambulance EG, suspected heart attack, suspected stroke, fitting, severe shortness of breath or unconscious (This is not an exhaustive list)		
News Score Risk	Frequency Of Monitoring	Clinical Response
0	Baseline NEWS	<p>How often a baseline NEWS is checked will depend on Care/Nursing Home policy/procedure; however it is recommended that they are recorded monthly. Consider increasing NEWS score monitoring to a 12 hourly if the following is present:</p> <ul style="list-style-type: none"> <li>• If patient has been identified as having an infection for early detection of sepsis.</li> <li>• Reduced appetite, new reduced mobility, change in sleeping habits, listless/lethargic, difference in cognitive behaviour (increased confusion)</li> <li>• Any other index of suspicion that the patient is unwell</li> </ul>
Total 1-4	<p>Consider increasing to every 4-6 hours</p> <p>The residents normal baseline NEWS needs to be taken into account when making the decision to increase monitoring e.g. if the residents normal NEWS is within 1-4 then there may not be a need to increase monitoring.</p>	<p>Escalate to the appropriate clinician (either within the home if available, residents GP or the Recovery at Home Team for further assessment to determine if increased observations or an assessment by a Senior clinician is required.</p> <p><i>The entire patient picture should be taken into account when deciding on a clinical response e.g. EHCP, Advance Care Planning (DNA CPR or Advance Decision to Refuse Treatment) or whether the resident has been identified as 'End of Life'</i></p>
Total 5 - 6 or score of 3 in one parameter	Consider Increasing to 30 mins - 1 hour (depending on level of baseline of resident)	<p>Escalate to the appropriate clinician (either within the home if available, residents GP or the Recovery at Home Team for further assessment to determine if increased observations or an assessment by a Senior clinician is required.</p> <p><i>The entire patient picture should be taken into account when deciding on a clinical response e.g. EHCP, Advance Care Planning (DNA CPR or Advance Decision to Refuse Treatment) or whether the resident has been identified as 'End of Life'</i></p>
Total of 7 or more	Consider constant observation	<p>Seek immediate medical advice by either contacting a GP, Recovery at Home Team or a 999 Ambulance response.</p> <p><i>The entire patient picture should be taken into account when deciding on the clinical response e.g. EHCP, Advance Care Planning (DNA CPR or Advance Decision to Refuse Treatment) or whether the resident has been identified as 'End of Life'</i></p>
Please note NEWS should not be used alone to determine a clinical response. It should be used as a tool to support decision making and facilitate effective clinical handover. A residents Long Term Condition which is likely to exacerbate should be considered as part of an escalation plan within their Emergency Health Care Plan (EHCP) in order to inform an appropriate clinical response to raised NEWS.		

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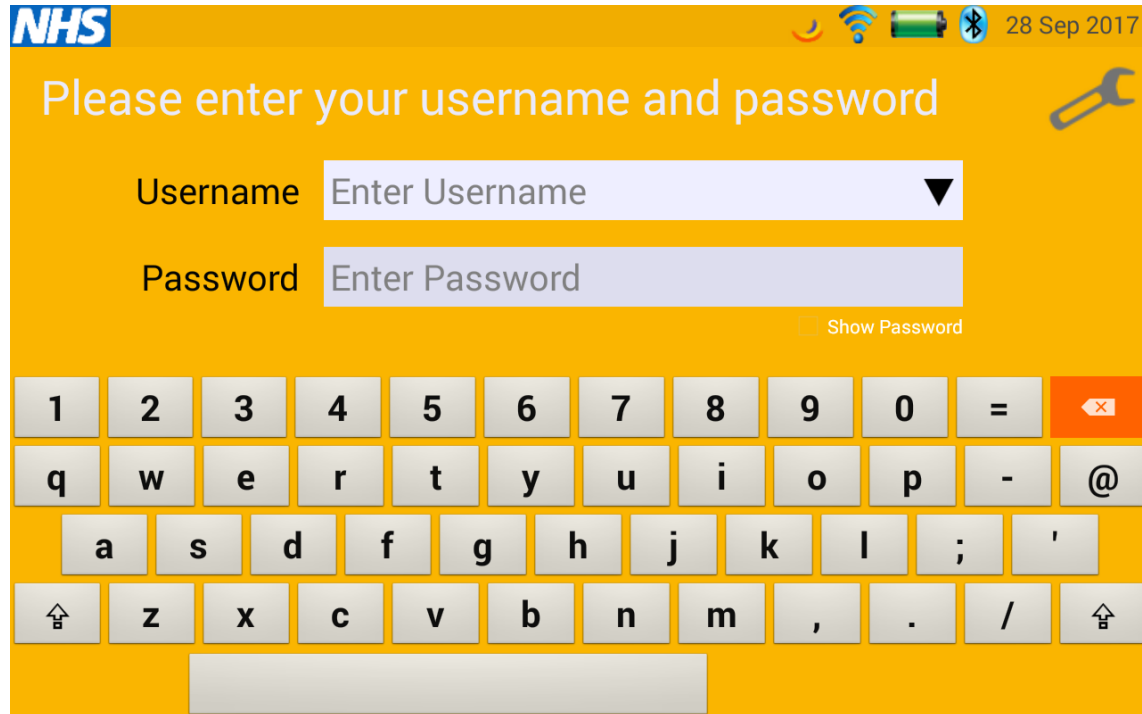
# The Blue Box



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# Secure Log in screen



The image shows a screenshot of the NHS Secure Log in screen. At the top left is the NHS logo. At the top right are system icons for signal, battery, and Bluetooth, followed by the date '28 Sep 2017'. The main heading is 'Please enter your username and password' with a wrench icon to its right. Below this are two input fields: 'Username' with a dropdown menu showing 'Enter Username' and a downward arrow, and 'Password' with a text field showing 'Enter Password'. To the right of the password field is a 'Show Password' checkbox. Below the input fields is a virtual keyboard with four rows of keys: the first row contains numbers 1-0 and equals; the second row contains letters q-p and at-sign; the third row contains letters a-l and semicolon/apostrophe; the fourth row contains shift, letters z-m, comma/underscore, forward slash/backslash, and another shift key. A long grey bar is positioned below the keyboard.

**NHS**


28 Sep 2017

Please enter your username and password

Username Enter Username ▼

Password Enter Password

☐ Show Password

1 2 3 4 5 6 7 8 9 0 = 

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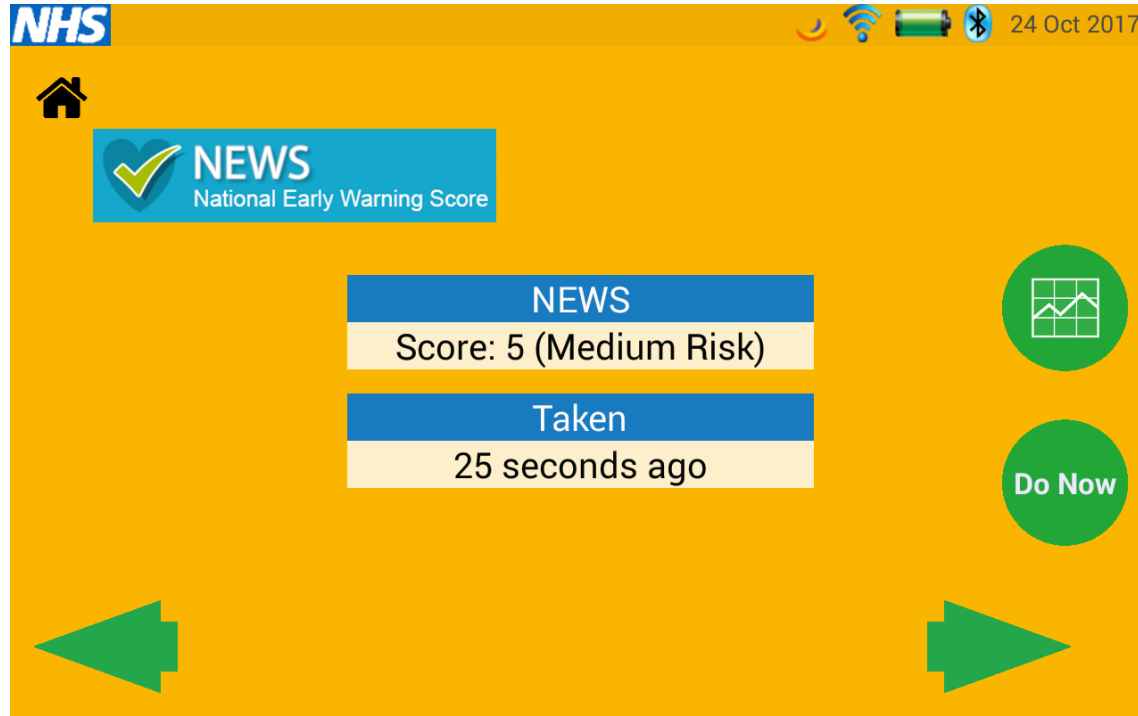
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# NEWS Screen



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# Respiration



**Together  
ter**

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# Purpose of the evaluation

To identify:

- Factors that inhibited or enabled the successful implementation
- Ways the implementation could be improved.

The evaluation time scale: *four months*.

# Methods

A multi-method design:

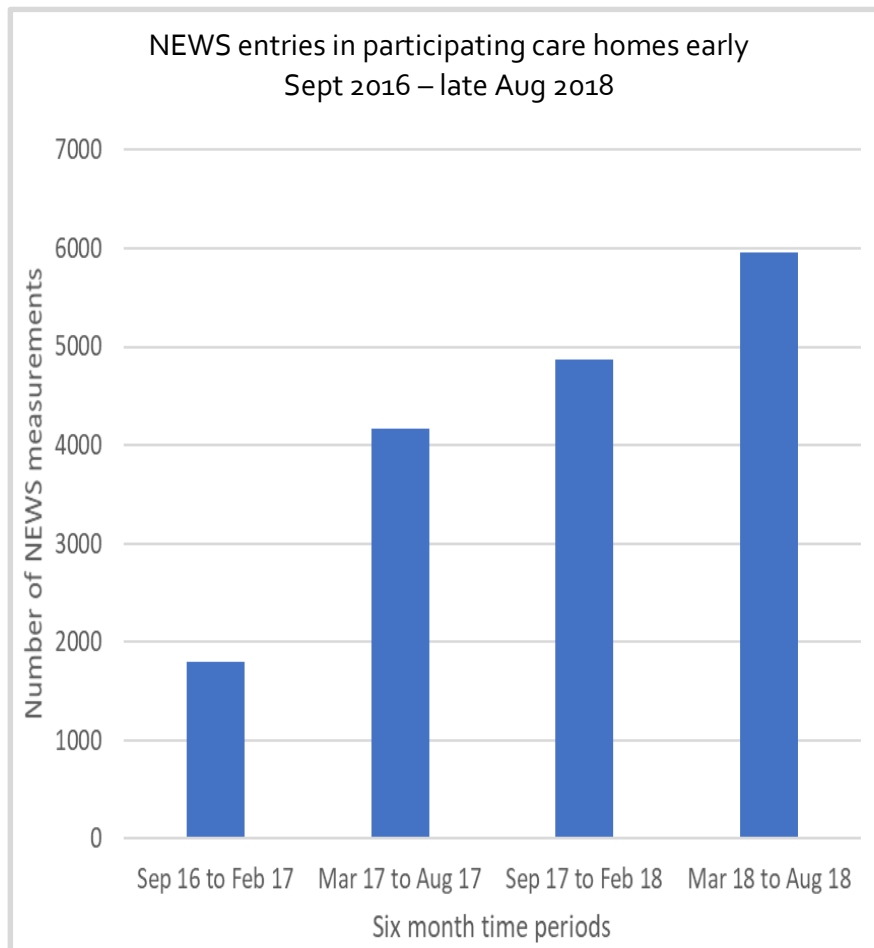
- Quantitative Component
  - A descriptive analysis of the number of NEWS recorded across 47 care homes over a 24 month period.
- Survey Component
  - A survey of care home staff views towards the intervention
- Qualitative Component
  - Interviews with stakeholders to explore attitudes towards and experiences of the intervention

# Quantitative Component

- NEWS measurements **increased** over four consecutive six month periods

Use across care homes varied.

- ¼ of care homes recorded more than 200 NEWS measurements
- Nearly one third (13 out of 46) care homes recorded a NEWS reading on less than 20 occasions over the two year period





# Survey Component

- Responses were mostly positive
- Some areas require improvement

100%	felt that it will become a normal part of their work in the future
88%	could see the potential value of the intervention
83%	felt that it was a legitimate part of their role
76%	felt that staff had a shared understanding of the purpose of the intervention
67%	<i>felt that the intervention was worthwhile</i>
86%	judged that management adequately supported the intervention
81%	felt that sufficient training is provided to enable the staff to implement the intervention
67%	<i>had confidence in other people's ability to use the tablet computers to record information</i>
67%	<i>felt that there were key people were driving the intervention and getting others involved</i>

# Qualitative Component

## Theme 1: Acknowledging and exploiting the benefits of using NEWS

### Ease of use (digital tablet)

*If you could use a mobile phone, then you can use this kit... OPSN 2*

*At first ...I was like, "Oh," because I don't deal with stuff like that but I ended up training people up on it and showing them stuff. It's just a case of adapting to it and using it. Nursing Ass., Care Home 1*

### Augmenting existing care

*...the other day, it was just nice to know that we were observing this [unwell] lady. So, if she becomes any worse and look for other signs, not just the kit, not just the obs. [NEWS]. So, all the other checks as well, so, it's [NEWS] just a back-up, isn't it? Manager, Care Home 3*

### Empowerment

*It just shows it doesn't have to be a nurse or a senior nursing staff, it can be a carer who can do it ... But like I say, it makes me feel important when I've got that little case there [containing NEWS equipment], I'm walking round and I'm thinking, "Right." I feel like a little bit of a doctor there. Carer, Care Home 1*

### Improving communication

*It seems silly phoning a doctor to say ... "they're just not themselves". But if you've done their NEWS and their NEWS is indicating, you can obviously relay that information... Manager, Care Home 2*

# Qualitative Component

## Theme 2: Inhibitors to engagement and integration

### Challenge of vital signs

*...they sometimes get the oxygen saturations and heart rate around the wrong way ...And that is reading off the actual pulse oximeter... Or they won't actually take the full [NEWS] score, or the score will be inaccurate because they haven't done a respiratory rate, so the NEWS score is wrong. So, there is lots of variances. Care service*

### Other Priorities

*sometimes I think "would I even want them to be worrying about the NEWS scores, would I actually want them to be worrying about more basics: have they given them a drink; have they made sure that they've been up to the toilet?" You know? OPSN 2*

### Staff turnover and inconsistencies

*The turnaround can be very rapid ... so there can be a lot of unsettlement ... it causes a lot of unrest amongst everybody ... OPSN 3*

*But I think when you have got agency staff, who - sometimes they don't even know that the equipment exists - I think that's where sometimes you get some of the problems. Especially if they cover, kind of, nightshifts and weekends. OPSN 1*

### Complex Settings

*...it's a very difficult job in the care homes, it's very demanding and they [care home staff] are dealing with some very complex people. OPSN 2*

# Qualitative Component

## Theme 3: Failures of Communication

### **Problematic training**

*if they [fellow care home staff] had additional training or more quality of training, they may feel more amenable to actually engaging with it. Carer, Care Home 3*

*[The training] was very informative to me and I wonder whether ... the pitch was a bit high. OPSN 2*

*No, I never went on training. Carer, Care Home 1*

### **Gaps in understanding**

*I think different homes we've gone into do use them a little bit differently, or less than they should, or probably rely on them more than they should ... We've got ones that only use them now and again – not every month, but they might do it every two months, or not very often. It varies. It really varies. OPSN 1*

### **Poor communication**

*... if we have to ring for paramedics or 999, the triage can be just horrific.... they'll say "what's the NEWS?"... it frustrates the paramedics when they come out and we say we've tried to explain things ... And I think receptionists at GPs ... you would ring and say "we've done a NEWS score" and they'd be like "what does that mean?" Deputy Manager, Care Home 4*

### **Limited Support**

*So, the respiratory rate, I have often talked through it on the phone; "I want you to count for a minute, I want you to count how much their chest rises and falls". Just so we can get a value of their respiratory rate...Care Service*



**Academic Health  
Science Network**  
North East and North Cumbria

# **Evaluation of the Sunderland Connected Care Homes programme: A Health Economic Analysis of the Use of the Telehealth Care Home Digital Tablet**

[www.ahsn-nenc.org.uk](http://www.ahsn-nenc.org.uk)

 @AHSN\_NENC

# Methodology

- Study design – Interrupted Time Series
- Data: Count data from Sunderland CCG from April 2013 – March 2018 (8 care homes )
  - A&E admissions
  - Non-elective admissions ( excluding zero LOS)
  - Bed days
- 35 months pre (April 2013 – Feb 2016)
- 12 months roll out (March 2016 – Feb 2017)
- 13 months post (March 2017 – March 2018)

# Methodology

- Cost implications – comparing predictions with and without digital tablet over a 25 month period (March 2016 – Dec 2018)

# Results

- Increase in NEL costing an extra £83,705 on tariff over 25 months
- Overall decrease in A&E admissions – cost saving £5,834
- Overall decrease in bed days and LOS – cost saving £179, 425
- Higher NEL but reduced LOS



# Limitations

- Identification of residents by post code proxy
- High level data – lack of control for relevant confounding factors
- Need to re-analyse with longer follow-up for the use of the technology to be fully embedded into routine practice

# Next steps

- Appointment of community nurse who will support with clinical training and help to embed the further use
- On-going evaluation of the programme
- Embed within the All Together Better Alliance
- Links with Sunderland University and HENE funding to support the use of SBAR to further enhance the skills of the staff in care homes

# Contact Details

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