

Institution: University of Northumbria at Newcastle		
Unit of Assessment: 3 (Allied Health Professions, Dentistry, Nursing and Pharmacy)		
Title of case study: Integrating health, care services and housing: innovative and improved ways of helping older people		
Period when the underpinning research was undertaken: 2011 - 2019		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Glenda Cook	Professor	01/11/1989 – Present
Philip Hodgson	Lecturer	01/11/2009 – Present
Catherine Bailey	Associate Professor	01/07/2010 – Present
Dominic Aitken	Senior Research Associate	05/05/2015 – 26/04/2017
Joanne Gray	Associate Professor	26/03/2012 – Present
Gemma Wilson	Senior Research Fellow	01/09/2014 – Present
Period when the claimed impact occurred: 2014 - 2020		
Is this case study continued from a case study submitted in 2014? N		
<p>1. Summary of the impact (indicative maximum 100 words)</p> <p>Public services must meet the challenge of supporting older people who live with diseases and disabilities to continue living independently for as long as possible. One way to do this is to integrate health and care services with housing. Northumbria University researchers have focussed on these integration processes and identified that, to be successful, services needed to identify and respond to issues early, upskill housing staff, and create pathways for integrated working across services. This research led to three key impacts. 1) New models of integrated services for older people were created that have resulted in reduced hospital admissions in North Tyneside and enable older people to live in their own homes for longer, thereby reducing the cost of care. 2) The approach has led to a collaboration with master planners and policy makers to shape the design of housing developments that aim to support independent ageing-in-place. 3) The research was used by The Centre for Ageing Better to lobby the UK Government for better funding of the Disabled Facilities Grant (funding home adaptations), helping drive subsequent budget increases of GBP92,000,000 between 2018-2020, taking annual funding to GBP505,000,000.</p>		
<p>2. Underpinning research (indicative maximum 500 words)</p> <p>In the current national policy and practice landscape, the integration of housing services with health and care sector services, to best support people to remain independent in their own home as they age, is often overlooked. Professor Glenda Cook and her team addressed the problem of lack of integration processes through a Knowledge Transfer Partnership between North Tyneside Council (NTC) and Northumbria University from 2011 to 2015 (KTP 8717, [G1]). The KTP focussed on the delivery of the Council's sheltered housing services for older people. This began with a mixed methods Health Needs Assessment (HNA) of 978 sheltered housing tenants [R1], which then formed the evidence base for pilot service improvement initiatives, designed and evaluated by the research team [R2, R3].</p> <p>The HNA used a parallel three strand mixed methods design, including an exploration of tenants' perspectives, analysis of routinely collected data in the sheltered housing service and hospital admission data. This was used to identify conditions that typically result in high hospital emergency rates for tenants (such as exacerbations in chronic obstructive pulmonary disease or injurious falls) and to design preventative interventions that may reduce such non-elective admissions [R1]. These interventions included the introduction of a pilot telehealth service, whereby tenants can have direct access to a health care professional. A qualitative case study evaluation of this pilot, specifically focussed on respiratory conditions, highlighted requirements for workforce development and the feasibility of this service operating across sheltered housing and health service boundaries [R2]. Further interventions included a process for routine collection of falls data and the development of a "healthy living falls prevention programme". The successful evaluation of the pilot programme led to this becoming integral to North Tyneside's community falls service and falls pathway [R3]. In addition, new housing health and care referral</p>		

and treatment pathways have been developed, one of which enables older sheltered housing tenants to be referred directly from sheltered housing services to multidisciplinary community NHS services within 2 hours, often avoiding hospital admission altogether [R3].

Following the success of service development and horizontal service integration based in sheltered housing, a new health-focused service – Safe and Healthy Homes (SHH) – was embedded in the Local Authority's housing service across all forms of housing and tenures [R4]. The SHH service replicated the referral and treatment pathways that had been designed and evaluated by the team for the sheltered housing study [R3]. This new service allowed for (self)-referrals of older and disabled people living in all forms of housing and all tenures if they considered that a housing need (such as mould and damp) was affecting their health. Northumbria researchers undertook a qualitative exploration of experiences and outcomes, through in-depth semi-structured interviews with 15 householders. The findings confirmed the importance of SHH officers performing 'facework' to provide a trusted source of guidance to help householders navigate through the complex systems of assistance in order to receive an integrated programme of housing, health and care interventions [R4].

More recently, innovative research featuring phenomenological interviews (N=30) and wearable cameras has been carried out with local authorities to ensure their home adaptation services have taken a similarly holistic approach to supporting older people to remain in their homes. This can be achieved by identifying improvements in key services, from funding support to product design [R5]. In addition, the team gathered the views of 41 older people on self-contained housing developments providing facilities, care and support, and age-friendly accommodation (referred to as integrated villages) using Q methodology, which is a process allowing the systematic appraisal and ranking of people's views on key features [R6]. The findings provided a unique insight into the views and orientation of older people regarding the relative attractiveness of features of specialist housing. Whilst the provision of good care was important, the study also highlighted the diversity of older people's needs and wishes, as well as the fact that they valued attractive and practical features too, such as gardens and transport links and the potential for social interaction [R6]. These insights have informed local authorities' housing plans and those of a housing consortium, which successfully secured planning permission and initial development of an accredited 'garden village'.

3. References to the research (indicative maximum of six references)

R1. Glenda Cook, Catherine Bailey, Philip Hodgson, Joanne Gray, Barron, E.¹, McMillan, C.², Marston, R.², Binks, E.², and Rose, J.³ (2016) Older UK sheltered housing tenants' perceptions of wellbeing and their usage of hospital services. *Health and Social Care in the Community*. **25**(5), 1644-1654 <https://doi.org/10.1111/hsc.12398>

R2. Catherine Bailey, Glenda Cook, Herman, L.², McMillan, C., Rose, J., Marston, R., Binks, E., and Barron, E. (2015) Deploying Telehealth with Sheltered Housing Tenants living with COPD: a qualitative case study. *Housing, Care and Support*. **18**(3/4): 136-148 <https://www.emerald.com/insight/content/doi/10.1108/HCS-09-2015-0015/full/html>

R3. Glenda Cook, Dominic Aitken, Philip Hodgson, Marston, R., Binks, E., Peach, R.², McMillan, C., Herman, L., Park, K.⁴, Conway, S.⁴, Graham, H.⁴, Blood, G.⁴, Cossar, P.⁴, and McKinnon D.⁴ (2016) Approaches to integrated housing, health and social care services: case studies from North Tyneside Council and Northumbria Healthcare. Housing LIN case study report <http://www.housinglin.org.uk/Topics/browse/HealthandHousing/Integration/?parent=8685&child=10343>

R4. Dominic Aitken, Philip Hodgson, Glenda Cook, and Lawson, A.⁵ (2017) Facework and Trust in Facilitating Health-Focussed Housing Interventions. *PLOS ONE* **12**(4): e0176074 <https://doi.org/10.1371/journal.pone.0176074>

R5. Catherine Bailey, Dominic Aitken, Gemma Wilson, Philip Hodgson, Douglas, B.⁶, and Docking, R.⁷ (2019) "What? That's for Old People, that." Home Adaptations, Ageing and Stigmatisation: A Qualitative Inquiry. *International Journal of Environmental Research in Public Health*, **16**: 4989 <https://doi.org/10.3390/ijerph16244989>

R6. Aitken, D.⁴, **Glenda Cook**, and Lawson, A (2019) Housing Options for the Future: Older People's Preferences and Views on Villages with Care and Support. *Health and Social Care in the Community*. **27** (5): e769-e780 <https://doi.org/10.1111/hsc.12805>

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Research funding

G1. PI Glenda Cook, KTP (2011 - 2015) - Innovate UK (25%), Department of Health (25%), North Tyneside Council (50%) Total Grant GBP138,450 (KTP8717)

4. Details of the impact (indicative maximum 750 words)

This research has led to three key impacts. 1) It has created and rolled-out integrated service pathways between health, social care and housing for older people in sheltered and general housing, resulting in improved outcomes, including enabling older people to live independently in their own homes [E1, E2]. 2) It has contributed to securing outline planning permission for a national test-bed garden village in County Durham. The approved scheme has underpinning principles of integrated health and social care to support householders to age-in-place and to optimise their wellbeing through prevention and enablement [E3, E4]. 3) The research has also directly informed housing policy on a regional level in relation to integrated older people's health and care services and housing across the combined authority of North of Tyne (population ~820,000 [20% 65+], ONS 2020) [E5] and contributed to national policy debates on housing for older people [E6, p73].

4.1 Integrated care practice improvements: Sheltered and private housing

The KTP with NTC was graded as 'outstanding' and recognised by awards from a number of regional and national bodies [E1]. It established new procedures for data collection and analysis [R1, R3] which have underpinned the roll-out of three integrated housing, health and social care service improvements. The first enabled direct referral of tenants from NTC's sheltered housing officers to NHS community multidisciplinary teams. This resulted in older tenants being treated in their own homes within 2 hours instead of having to access NHS primary care or experience long waits for treatment by emergency services. In 2014, analysis of this new care pathway was shown to lead to a 60% reduction in non-elective admission to hospital and treatment by primary care [E1]. This success meant that the service, which began in three sites, has been extended and made standard across all of the Borough's service (26 sites).

In recognition of the high incidence of falls by sheltered housing tenants, identified through the HNA [R1], the "healthy living falls prevention programme" was the second improvement established during the KTP. This has been delivered in sheltered housing schemes by NHS professionals, leading to improvements in balance and gait, which result in improved wellbeing [E7]. As a consequence, this programme is now integral to the North Tyneside's multisector falls pathway [E1, E8].

These innovative approaches to integrating health and care services with housing to address falls within the older population have led to the development of a third service. Eleanor Binks, Senior Manager (Integration, Transformation and Social Care, NTC), stated '*Involvement in the NTC/NU KTP influenced the decision to collaborate with North East Ambulance service...[in piloting]...an alternative response to ambulance in the event of a non-injurious fall*' [E1]. Consequently, NTC now collaborates with the North East Ambulance service, with North Tyneside's Care Call service responding to calls that are triaged through the 111/999 system as 'non-injurious falls' (46% of all calls for patients over 65 who have fallen). This alternative response service has reduced 'long-lies' and has, in turn, led to an 83% reduction in admission

to hospital for non-injurious fallers over 65 [E1, E8]. In 2018, this alternative response to ambulance service received recognition in the MJ (Municipal Journal, the management journal for local authority business) Achievement Awards [E1, E8] and has subsequently been rolled out to five localities in Northern England [E1] (County Durham [excluding Darlington], Gateshead, Hartlepool, Newcastle, Stockton-on-Tees and Sunderland). These collective approaches to early intervention enable older people to live independently in their own homes rather than move to long term care environments. By 2015 the KTP-driven changes in service delivery led to an estimated cost saving of GBP620,018 from the public services budget for long term care, and maximising of rental income to NTC through tenants remaining in their sheltered housing accommodation [E9, p5].

The KTP research demonstrated how early intervention and integrated care services can help reduce urgent and emergency admission to hospital and improve outcomes. In response, and building on the sheltered housing referral pathways, a Safe and Healthy Homes (SHH) service was established in 2015 for older and disabled residents living in private housing [E1, E2]. This new service adopted the core principles of integrated health, care services and housing that were produced during the KTP. This facilitated home improvements for those with housing issues exacerbating or causing health problems, as well as providing rehabilitation and early interventions by health and care services [E1].

SHH is available across North Tyneside to older and disabled people, and during the period 2014-2019 an estimated 2.2% of households in the Borough used the service (N=1,855) [E1]. The service addressed health-related housing issues such as cold (22%), damp and mould (18%), the removal of home hazards (38%) or electrical or heating issues (26%) [E1, E2]. As well as home improvements, SHH staff also refer to a range of health and wellbeing services resulting in transformational living conditions for some clients:

'Ms F's concerns about falls and cold have been reduced, and she now has more opportunity to engage in the community and become more active. In her review questionnaire, the client claimed that she had felt suicidal before the team's involvement and stated that her Safe and Healthy Homes Officer saved her life' [E7, p11].

SHH interventions are estimated to have prevented falls for 18% of people referred to the service [E1].

4.2 Impact on alternative housing options for older people

Those involved with housing planning have not traditionally worked in collaboration with health and social care services during planning applications. IDpartnership (architect) and Plan B (social housing consortium) drew on the outcomes of the KTP and learning from the pilot interventions and research to include prevention and enablement features and services in the design of a village outline planning application (South Seaham) [E3, p54, p72; E4]. The proposed 1,500-household village includes: a health and wellbeing hub, with the potential to link the village digitally with primary and community care services; indoor/outdoor space and walkways to promote physical activity to reduce falls; 5G on-site to support use of telehealthcare and the inclusion of adaptable homes.

Outline planning permission was obtained from Durham County Council in November 2018 for South Seaham, and it was also granted 'Garden Village' status by the Government in 2019 [E3, E4]. Since outline planning was granted, Northumbria researchers have worked with the master planners to embed the principles of integration of housing with health and care in this village. Funding has been secured from the Innovate UK healthy ageing catalyst to co-design (with older people, health and care professionals) seven experimental homes to provide prototypes of adaptable, connected (with health and care services) homes, for future development in the village. Northumbria researchers continue to work with the master planners to embed the principles of integration of housing with health and care in this village, with construction due to start in 2021 [E4].

4.3 Impact on public policy

The North of Tyne devolved authority is a partnership of three local authorities: Newcastle, North Tyneside, and Northumberland. The Combined Authority Housing and Land Board seeks to drive forward the accelerated delivery of new homes to improve the housing offer in the North of Tyne area. The KTP outcomes were cited as evidence for integrated housing, health and care within the accelerated delivery model, and have informed the Innovation Plan for the Combined Authority with respect to housing for an ageing population [E5, p16, p23, p59].

The Centre for Ageing Better creates change in policy and practice informed by evidence, working with partner organisations across England. It aims to improve employment, housing, health and communities as part of the Government's "What Works Network". The Centre drew on Northumbria research [R5] as part of their evidence that increased central spending on the disabled facilities grant by GBP55,000,000 from 2017/19 and a further 8% [E10] (GBP37,000,000) to a final total of GBP505,000,000 in 2019/20. The additional funds have enabled councils across the UK to invest in home adaptations for older and disabled people (e.g., GBP500,000 in Milton Keynes) [E10]. Northumbria's research was also cited as evidence in a House of Commons report on housing for older people [E6, p73].

While the initial KTP research was focused in one locality in sheltered housing services, the underlying principles have led to new ideas that have had a direct impact on the services that older people, living in all tenures of housing, can now access across the region. Subsequently this has expanded into the policy and practice of housing developers, influencing how they work with health and care services, and also steering housing policy makers in how they serve the needs of this population [E4].

5. Sources to corroborate the impact (indicative maximum of 10 references)

Ref.	Source of corroboration	Link to claimed impacts
E1	Testimonial - Roy Marston, Head of Housing Strategy and Support and Eleanor Binks, Head of Service Integration, North Tyneside Council	Provides service data demonstrating reduction in hospital admissions and improved support enabling older people to remain at home. Confirms Municipal Journal Award win
E2	Safe and Healthy Homes Year One report	Demonstrates the breadth and detail of activity of Safe and Healthy Homes service
E3	South Seaham Development Prospectus	Demonstrates Northumbria University and Home group collaboration in village development. Northumbria's work mentioned p54, p72
E4	Testimonial - Mark Massey, Senior Partner, IDPartnership	Confirms securing of planning permission and 'Garden Village' status for South Seaham and Northumbria's continued involvement in project
E5	North of Tyne Combined Authority Housing and Land Board: Meeting Minutes (6 July 2018) and Homes England Report (23 Nov 2018)	KTP outcomes cited (p14, p21) as evidence for integrated housing, health, and care within accelerated delivery model, and the current innovation plan (p59)
E6	House of Commons evidence: Housing for Older People	Shows that Northumbria research was used in the report – evidence #64 (HOP0038), p73
E7	Glenda Cook et. al. (2016) Housing LIN case study report. Also R3	Confirms outcomes of health living falls programme and SHH scheme
E8	'Final Falls First Responder Service' MJ Award submission documents	Confirms the drop in wait times due to the alternative response to ambulance service
E9	North Tyneside/Northumbria University KTP (No: KTP008717) report (30 January 2015)	Confirms estimated cost savings from North Tyneside's public services budget and reduction in hospital admissions
E10	Testimonial - Rachel Docking, Senior Programme Manager, Centre for Ageing Better	Confirms Disabled Facilities Grant pledge and investment from Milton Keynes Council