

<b>Institution:</b> University of Plymouth		
<b>Unit of Assessment:</b> UoA4		
<b>Title of case study:</b> Person Centred Coordinated Care: Reforming National Health Policy and Accelerating National and International Care Delivery		
<b>Period when the underpinning research was undertaken:</b> 2015-2018		
<b>Details of staff conducting the underpinning research from the submitting unit:</b>		
<b>Name(s):</b>  Dr Helen M Lloyd Dr James Close	<b>Role(s) (e.g. job title):</b>  Associate Professor, Psychology Research Fellow, Psychology	<b>Period(s) employed by submitting HEI:</b>  April 2014 – present 2016 - present
<b>Period when the claimed impact occurred:</b> 2015-2020		
<b>Is this case study continued from a case study submitted in 2014?</b> N		
<p><b>1. Summary of the impact</b> (indicative maximum 100 words)</p> <p>Dr Lloyd and colleagues have developed a model of person centred and coordinated care (P3C) and a toolkit to implement it for the benefit of patients, healthcare providers, and health systems. P3C responds to the needs of people with long-term conditions more effectively than existing models by changing behaviour at organisational, professional, and patient levels. P3C views patients as people with capabilities that can be harnessed through personalised goal setting to improve self-management and self-efficacy. Goals are then used to drive coordinated service responses. Conceptualising patients in this way and representing it through targeted implementation tools is the key to driving behavioural change across multiple levels within health systems. Through the development and use of such tools, Lloyd and her team have significantly shaped changes in changes in UK general practice policy through the national Quality Outcomes Framework (QOF) and supported the implementation of P3C using the toolkit in the UK (South West) and Australia (Melbourne).</p>		
<p><b>2. Underpinning research</b> (indicative maximum 500 words)</p> <p>Increases in life expectancy have resulted in greater numbers of older people living with long-term and multiple long-term conditions (LTCs &amp; MLTCs). This has created increased demand on healthcare services when UK healthcare costs are rising faster than GDP. Integrated and effective healthcare - often considered as the solution to this - remains a global challenge due to the longstanding fragmentation of health and social care services. This has resulted from increasing specialisation and a single-disease focus. These siloes of practice create barriers to therapeutically beneficial person-centred care (PCC) and exert the greatest burden on people with MLTCs. P3C approaches report cost reductions (such as reduced bed days and readmission rates) and improved outcomes for patients (such as increased wellbeing, self-efficacy, and reductions in pain and fatigue). However, knowledge of how to implement it for people with MLTCs is lacking. Lloyd led a team to develop a model, toolkit and guidance to implement P3C in the NHS using evaluation data from patients, practitioners, and organisations to improve care and outcomes for MLTCs.</p> <p><b>P3C Model, Measurement Toolkit and Implementation Guide</b></p> <p>Person-centeredness (PCC) is promoted as part of a turn towards more participatory health care, with patients viewed as people, not just the biomedical features embodied in the role of 'patient'. This view of 'Personhood' values the individual's capacity and preferences to co-create their own health, and encourages self-responsibility in the management of long-term illness. Person-centred care has been operationalised through 3 core routines (Ekman et al. 2011): Initiate a partnership with a patient by eliciting a narrative, work the partnership through shared decision-making, and safeguard the partnership by documenting it in a care plan. The Person-Centred Coordinated Care model developed by Lloyd and her team identifies the core domains of person-centred care and relates these to care coordination, which they add as a necessary 4<sup>th</sup> routine for MLTCs in the UK.</p> <p>To develop the <b>P3C model</b>, evidence from literature reviews and qualitative methods were combined with stakeholder engagement and subject to Realist evaluation. Causal chains of context-mechanism-outcome formations (CMOs) were used to create logic</p>		

models [3.1], which were later refined [2] to develop an evidence-based P3C delivery model [3.3]. Lloyd, supported by Sugavanam, conceived the first iteration of the P3C model and Lloyd subsequently led the development of the P3C implementation model through development of the P3C-OCT working closely with Horrell. The model was subsequently refined and developed with Lloyd, Horrell, Wheat, and Close [3.5]. The resulting P3C model consists of the following 5 primary process and outcome domains: goals and outcomes, care planning, transitions, decision-making and Information and communication.

The **P3C toolkit** forms part of an implementation package to develop and measure P3C based on the model. It consists of the P3C-OCT (Organisation Change Tool), Patient Experience Questionnaire (P3C-EQ), an implementation guide and a compendium on how to use metrics and measures to implement P3C.

A scoping exercise identified a lack of tools to benchmark and measure organisational development for P3C [3.1]. Guided by the P3C model Lloyd et al identified organisational activities that could be used to implement P3C. These were then formed into questions and validated through iterative cycles of review and stakeholder input. The **P3C-OCT** tool consists of 29 questions across four operational levels: Person-Practitioner Interactions (11 questions); measuring aspects such as communication with patients to help them set and plan their goals. Practitioner-Practitioner Interactions (four questions); measuring aspects such as internal coordination of patient-centred care and relationships with other organisations. Organizational Systems & Support (12 questions); aspects such as staff training and measurement of patient experience. Information systems/IT tools (four questions): aspects such as IT systems and telemedicine. Question response codes provide examples of how P3C can be implemented. The P3C-OCT has been validated with health care professionals, is conceptually reliable and is able to detect change over time [3.6].

The **P3CEQ** [2, 4] measures P3C from the patient's perspective to assess the effectiveness of healthcare delivery. A literature review and co-design workshops with patients and professionals identified questions to probe P3C. The P3CEQ contains 10 core questions that cover relational aspects of care (e.g. did you discuss what is important to you? were you involved in decisions about your care etc.), and care coordination (e.g. do you have to repeat information? is your care joined up?). The P3C-EQ was tested and validated to check that it was acceptable to patients and conceptually robust [3.2 & 3.4].

Lloyd et al. [3.5 & 3.6] systematically identified measures of person-centred and coordinated care by searching existing compendiums, peer-reviewed and grey literature, and through stakeholder engagement. Identified measures were used to populate a freely-available, user-friendly web-based compendium (<http://p3c.org.uk/>). Sixty-three measures met the eligibility criteria for shortlisting against the P3C model. Tools that covered aspects of P3C were assessed for content validity as an outcome measure for P3C care. The compendium is supported by a guidance document ([http://p3c.org.uk/P3C\\_CommissionersGuide\\_Navigation.pdf](http://p3c.org.uk/P3C_CommissionersGuide_Navigation.pdf)) informed by a rapid review of implementation and evaluation methods for P3C. The guidance provides a framework of support to implement P3C at multiple health system levels.

The evaluation and implementation toolkit described above is the first in the world to be based on an evidence-based model. The toolkit provides robust quantitative methods for analysis and mechanisms to target improvement of health care delivery. It can also be used by patient organisations to evaluate care services and understand their role in the patient-provider partnership. Prior to the launch of the compendium and guidance, this knowledge was dissipated and complicated to access, making it difficult for commissioners of care services to find the tools they needed to improve and evaluate packages of care.

Collaborators include: Professor Jose Valderas (Exeter) who collaborated on the compendium and toolkit guide. Professor Nicky Britten (Exeter), Professor Richard Byng (Plymouth), and Dr Mark Pearson (Hull) helped critically reflect on the findings and took part in stakeholder engagement activities and theory development. Professor Rod Sheaff, Professor Inger Ekman (Gothenburg) and Professor Jenny Billings (Kent) were part of our wider collaborative network.

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

The P3C team have presented their work at international conferences (International Primary Care Reform Conference, Brisbane, Australia, 2016; Society for Academic Primary

Care, Oxford, 2015; EuroHeart, Jonkoping, Sweden; International Conference for Integrated Care, Utrecht, 2018), and published in high quality journals (5-year impact factors in order of citation: 3.0, 2.4, 1.9, 5.0, 2.4). The P3C programme was supported by The National Institute for Health Research (NIHR) Applied Research Collaboration (ARC) South West Peninsula, and by grants from the National Health Service for England (NHSE: Integrated Care Pioneers in Somerset, Torbay and Exeter, PI Lloyd; £480,000. 2014-2018), The Department of Health/NHSE: Long Term Conditions Directorate, PI Lloyd; £100,000. 2016-2017), The Swedish Government (Gothenburg Centre for Person Centred Care, PI Lloyd; £176,000. 2017-20120) and the National Institute for Health Research (NIHR: Programme Development Grants, PI Lilford, £100,000. 2016-2017, Health Services Research and Delivery programme, PI Sheaff, £100,00. 2016-2018).

- 5.1 Horrell, J., **Lloyd, H.**, Sugavanam, T., Close, J., & Byng, R. (2018). Creating and facilitating change for Person-Centred Coordinated Care (P3C): The development of the Organisational Change Tool (P3C-OCT). *Health expectations: an international journal of public participation in health care and health policy*, 21(2), 448–456. <https://doi.org/10.1111/hex.12631>
- 5.2 Sugavanam T, Fosh B, Close J, Byng R, Horrell J, **Lloyd H.** Codesigning a Measure of Person-Centred Coordinated Care to Capture the Experience of the Patient: The Development of the P3CEQ. *J Patient Exp.* 2018 Sep;5(3):201-211. <https://doi.org/10.1177/2374373517748642>
- 5.3 **Lloyd, H.M.**, Pearson, M., Sheaff, R. et al. Collaborative action for person-centred coordinated care (P3C): an approach to support the development of a comprehensive system-wide solution to fragmented care. *Health Res Policy Sys* 15, 98 (2017). <https://doi.org/10.1186/s12961-017-0263-z>
- 5.4 **Lloyd, H., et al (2018).** Validation of the person-centred coordinated care experience questionnaire (P3CEQ). *International Journal for Quality in Health Care*, <http://dx.doi.org/10.1093/intqhc/mzy212>
- 5.5 **Lloyd H**, Wheat H, Horrell J, Sugavanam T, Fosh B, Valderas JM, Close J. Patient-Reported Measures for Person-Centered Coordinated Care: A Comparative Domain Map and Web-Based Compendium for Supporting Policy Development and Implementation. *J Med Internet Res.* 2018 Feb 14;20(2):e54. <https://doi.org/10.2196/jmir.7789>
- 5.6 Close, J et al. **Lloyd, H** et al. (2019). Longitudinal evaluation of a countywide alternative to the Quality and Outcomes Framework in UK General Practice aimed at improving Person Centred Coordinated Care. *BMJ Open*, 2019; 9: e029721. doi:[10.1136/bmjopen-2019-029721](https://doi.org/10.1136/bmjopen-2019-029721)

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

The impact of this work is evidenced through changes in national health policy [see below 1, 2, 3, 4] and improvements to the delivery of health care in the UK [1, 2, 5, 6] and overseas [7] by changing organisational, professional and patient behaviour using the P3C toolkit. These changes have created the conditions for improved patient experience of care [5] and improved health and wellbeing by elevating the collective 'patient voice' as a mechanism to challenge and improve care services [5, 7].

#### **Policy Impact:**

Using the P3C toolkit, Lloyd et al. have contributed to National Health Service for England (NHSE) policy changes for UK General Practice [1, 2 & 3]. The P3C toolkit has also featured in policy guidance and strategic recommendations by the Social Care Institute for Excellence (SCIE) [4].

#### National Health Service England (NHSE) General Practice Policy

Over a period of three years (2015-2018), Lloyd et al. worked with the Somerset healthcare system to facilitate a system-level NHS policy change aimed at relaxing the requirement for GPs to report pay-4-performance statistics (Quality Outcomes Framework (QOF)). The Somerset Practice Quality Scheme (SPQS) was established as an alternative to QOF because GPs, Commissioners, and the Local Medical Committee

believed that QOF was a barrier to P3C for people with LTCs because it incentivised care delivery on a single diseased based model. The P3C toolkit, supported by NHSE, evaluated SPQS across 55 general practices, serving approximately 440,000 people.

The evaluation revealed that relaxing QOF requirements did not result in adverse outcomes such as increased hospital admissions for people with long-term conditions. The P3C-EQ revealed positive care experiences. The P3C-OCT revealed statistically significant improvements in person-centred coordinated care in a cohort of 2636 people with long-term conditions whose GP practices signed up to the new scheme [5]. Care delivery was improved by creating stronger agreements across and between general practices to create informal work networks to enhance multidisciplinary working, share resources and change the structure and timings of GP appointments to better support patient need. Importantly, the SPQS scheme leveraged time savings and reduced administrative burden from QOF which enabled practices to develop improved care for people with LTCs by developing complex care hubs [5]. The Associate Director of Primary Care in Somerset, Michael Bainbridge, reported that *“the Somerset scheme (with the three other alternative pilot sites) led to significant changes to the national requirement for QOF. These were taken directly from SPQS”*. The subsequent contractual amendments to QOF at a national level made a formal requirement for GPs to undertake quality improvement activities to deliver person-centred and coordinated care across the UK [1, 2]. Furthermore, national QOF indicators were reformed to include ‘a personalised care adjustment’ to reflect the following three broad categories: care described as unsuitable for patient because [medication intolerance or allergy], patient chose not to receive care [e.g. after a shared decision making discussion], or patient did not respond to offers of care [2]. This reform in indicator response is significant as it acknowledges the role of patients in decision-making discussions about their care with GPs. This indicator response did not exist prior to work of Lloyd and others. Under the old QOF scheme, patient decisions and preferences were not counted, thus not incentivised as an expectation of GP care. In summary, the P3C toolkit as used in Somerset provided the necessary quality assurances and evidence of P3C implementation to justify the above changes in policy.

#### Social Care Institute for Excellence (SCIE) & National Health Service for England (NHSE) Policy

Lloyd et al’s work has informed SCIE and NHSE policy recommendations for the measurement of person centred coordinated care. In an email to Dr Lloyd, Deborah Rozansky (SCIE) outlined how the work of the P3C team had informed national policy recommendations: *“The research you led about measuring person-centred coordinated care influenced SCIE’s work with the Department of Health and Social Care and a cross-government Integration Board (of Senior policymakers) during 2018-19”*. She further added *“The online compendium of P3C measures influenced SCIE’s and DHSC understanding of available measures, the international evidence underpinning them and tools that could be used to generate real-time data”*[4]. Web links to the P3C compendium and website developed by Lloyd et al were included in reports and presentations and the P3C-EQ was recommended for capturing information about people’s experiences of integrated care in social care settings. SCIE also produced a series of webinars and seminars about how to measure the outcomes of integrated care, featuring the P3C tool. The two full day events on measuring the outcomes of integrated care had 25 attendees each; the two Better Care Fund Support Team’s regional events had 40 attendees each; and the two webinars had up to 100 attendees representing integration leads/managers and commissioners from local authorities and the NHS from across the UK [4].

The NHSE have also used the work produced by Lloyd et al to inform their national policies on personalised care and care for people with Long-term conditions [3]. Prof Alf Collins, Clinical Director for Personalised Care, NHS England and NHS Improvement commented that *“the quality of their (Lloyd et al’s) outputs and the relevance and importance of these means that they are one of a small handful of research organisations that I follow. Measurement in person centred approaches has become much more important over the last 5-10 years and*

*NHS England and NHS Improvement have been guided by the outputs of the P3C team when considering evaluation, monitoring, accountability and incentive frameworks* [3].

### **Impact on Health Care Delivery: Implementing P3C**

The P3C toolkit has been used to develop P3C interventions through changing professional behaviour that drives interventions to improve care experiences and outcomes for people with multiple long-term conditions in the UK [6, 7] and Australia [8].

#### UK Regional Implementation of P3C: Test and Learn Complex Care Hubs

In July 2014 three complex care hubs were launched in Somerset to implement person centred and coordinated care for people with three or more long-term conditions. This was made possible by the policy changes to the QOF contract facilitated by Lloyd et al described above. These hub-based models aimed to link networks of services across health and social care in the South (Yeovil), North East (Frome and Mendip) and the West of the county (Taunton). The results of the final evaluation [5, 6] demonstrated how changes in professional practice driven by an increased understanding of P3C improved patient care. For example, staff engaged in more person centred care planning and goal setting with patients. Patients reported better care coordination and more person-centred care planning, including the identification of personal health goals [6]. Approximately 1500 patients received care through the hubs during 2015-2017 during which time Lloyd's team supported the implementation and development of the hub's P3C models. The hubs are now fully developed and operational. Michael Bainbridge commented *"the conceptual model of person-centred co-ordinated care was and remains a helpful structure as we try to develop more integrated care"* [1].

#### International Implementation of P3C: Australia

In 2019, the Australian government commissioned general practice to implement care coordination in the Melbourne region. The P3C toolkit was used to assess system performance and implementation over a 1-year period. The P3C-OCT has been used to implement care across 30 practices and the P3CEQ has been used to collect data on 1078 patients to evaluate care delivery from their perspective. Results show a correlation between OCT scores and P3CEQ scores with practices scoring higher on relational care. Higher scores are driven by efficient use of information systems and technology [8]. Evaluation lead Dr Jennifer Hester reported that GP practices are changing care processes in response to using the toolkit for implementation [8]. For example, after completing the P3C-OCT a practice manager reported *"We are definitely at the beginning.. but it (the toolkit) has helped me realise how far we have to go. We will improve our documentation and templates regarding patient decision making/goal setting/care planning"* [8].

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

#### **Policy Impact:**

- 5.1 Email testimonial from Michael Bainbridge, Associate Director of Primary Care, Somerset, UK
- 5.2 NHSE Doc supporting the above <https://www.england.nhs.uk/wp-content/uploads/2018/07/05-a-i-pb-04-07-2018-qof-report.pdf>
- 5.3 Email testimonial from Prof Alf Collins FRCA FRCP FRCGP (Hons) Clinical Director for Personalised Care, NHS England and NHS Improvement"
- 5.4 Email testimonial from Deborah Rozansky, Social Care Institute for Excellence (SCIE)

#### **Implementation Impact:**

- 5.5 Close, J et al. Lloyd, H et al. (2019). Longitudinal evaluation of a countywide alternative to the Quality and Outcomes Framework in UK General Practice aimed at improving Person Centred Coordinated Care. BMJ Open, 2019; 9: e029721. doi:10.1136/bmjopen-2019-029721
- 5.6 Evaluation reports for Test and Learn, Somerset
- 5.7 Excerpts from patient care plans from Test and Learn evidencing personalised care planning and goal setting
- 5.8 Email testimonial from Dr Jennifer Hester, Evaluation Lead, Melbourne, Australia