

Perspectives in Public Health

Special Issue: Co-production

- Bringing lived experience into research: good practices for public involvement in research
- Exploring the mental health effects of Universal Credit
- "Community reporting": an insight-generating approach for local authority physical activity provision
- System resilience and neighbourhood action on social determinants of health inequalities

A journal of the Royal Society for Public Health

July 2022 Vol 142 No 4



<http://pph.sagepub.com>

RSPH
ROYAL SOCIETY FOR PUBLIC HEALTH
VISION, VOICE AND PRACTICE



Article

Healthcare Equity and Commissioning: A Four-Year National Analysis of Portuguese Primary Healthcare Units

António Pereira ^{1,2,3,*} , André Biscaia ^{3,4} , Isis Calado ⁵, Alberto Freitas ³ , Andreia Costa ^{6,7,8}
and Anabela Coelho ^{9,10,11}

- ¹ Family Health Unit, Unidade de Saúde Familiar Prelada, ACES Porto Ocidental, 4250-113 Porto, Portugal
 - ² PHC—Commissioning Department, Northern Regional Administration of Health, 4000-447 Porto, Portugal
 - ³ CINTESIS—Center for Health Technology and Services Research, Faculty of Medicine, University of Porto, 4200-319 Porto, Portugal
 - ⁴ Family Health Unit, Unidade de Saúde Familiar Marginal, ACES Cascais, ARS Lisboa e Vale do Tejo, 2765-618 São João do Estoril, Portugal
 - ⁵ University College London Medical School, London WC1E 6DE, UK
 - ⁶ Nursing Research, Innovation and Development Centre of Lisbon (CIDNUR), Nursing School of Lisbon (ESEL), 1600-096 Lisbon, Portugal
 - ⁷ Católica Research Centre for Psychological, Family and Social Wellbeing, Faculdade de Ciências Humanas, Universidade Católica Portuguesa, 1649-023 Lisbon, Portugal
 - ⁸ Instituto de Saúde Ambiental (ISAMB), Faculdade de Medicina, Universidade de Lisboa, 1099-085 Lisbon, Portugal
 - ⁹ Comprehensive Health Research Centre (CHRC), Nursing Department, University of Évora, 7004-516 Evora, Portugal
 - ¹⁰ H&TRC—Health & Technology Research Center, ESTeSL—Escola Superior de Tecnologia da Saúde, Instituto Politécnico de Lisboa, 1990-096 Lisbon, Portugal
 - ¹¹ Global Health and Tropical Medicine, Instituto de Higiene e Medicina Tropical, Universidade NOVA de Lisboa, 1349-008 Lisbon, Portugal
- * Correspondence: antonio.l.pereira@arsnorte.min-saude.pt



Citation: Pereira, A.; Biscaia, A.; Calado, I.; Freitas, A.; Costa, A.; Coelho, A. Healthcare Equity and Commissioning: A Four-Year National Analysis of Portuguese Primary Healthcare Units. *Int. J. Environ. Res. Public Health* **2022**, *19*, 14819. <https://doi.org/10.3390/ijerph192214819>

Academic Editor: Paul B. Tchounwou

Received: 13 October 2022
Accepted: 8 November 2022
Published: 10 November 2022

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

Abstract: Equal and adequate access to healthcare is one of the pillars of Portuguese health policy. Despite the controversy over commissioning processes' contribution to equity in health, this article aims to clarify the relationship between socio-economic factors and the results of primary healthcare (PHC) commissioning indicators through an analysis of four years of data from all PHC units in Portugal. The factor that presents a statistically significant relationship with a greater number of indicators is the organizational model. Since the reform of PHC services in 2005, a new type of unit was introduced: the family health unit (USF). At the time of the study, these units covered 58.1% of the population and achieved better indicator results. In most cases, the evolution of the results achieved by commissioning seems to be similar in different analyzed contexts. Nevertheless, the percentage of patients of a non-Portuguese nationality and the population density were analyzed, and a widening of discrepancies was observed in 23.3% of the cases. The commissioning indicators were statistically related to the studied context factors, and some of these, such as the nurse home visits indicator, are more sensitive to context than others. There is no evidence that the best results were achieved at the expense of worse healthcare being offered to vulnerable populations, and there was no association with a reduction in inequalities in healthcare. It would be valuable if the Portuguese Government could stimulate the increase in the number of working USFs, especially in low-density areas, considering that they can achieve better results with lower costs for medicines and diagnostic tests.

Keywords: primary healthcare; health equity; commissioning; family health units; community health; health policy; socio-economic factors; community-based health financing; community health services

1. Introduction

1.1. Health Equity in the Portuguese Context

Portugal has marked socio-economic inequalities, having one of the most unequal income distributions in Europe [1]. The Portuguese Constitution (1976) outlines that the state should, “ensure all citizens have access to preventive, curative and rehabilitative healthcare services, regardless of their socio-economic condition” [2], and this commitment is strengthened by the 1990 Health Act, which declares that ensuring equity in the distribution of resources and the use of services is a fundamental goal of the country’s health system [3]. Despite this, socio-economic disparities continuously translate into health inequalities. Determinants such as low income, lower educational attainment, female gender and migrant status have been linked to worse health outcomes in conditions such as obesity [4–7], mental health problems [8,9] and cardiovascular disease [10,11]. In addition, Portugal presents disparities between the rich and the poor in the ability to access both specialist and primary healthcare consultations [12,13]. These disparities are also seen in ambulatory care-sensitive conditions, suggesting worrisome inequalities in the access to early and high-quality primary healthcare [14].

The concept of health equity was brought into the mainstream of national health policy through the 2015–2020 National Health Plan [15], following a WHO evaluation that identified a concerning policy gap in the area of health inequalities in previous plans [16]. The 2015–2020 plan defines equitable and adequate access of healthcare as one of the four cornerstones of the national health policy, proposing, among other strategies, the articulation of national and local health policy through commissioning processes in primary healthcare (PHC) [15].

1.2. The Portuguese Primary Healthcare System

In 2005, the Portuguese Government launched a country-wide reform of primary healthcare services, introducing a new type of PHC unit, the family health unit (“USFs”—*Unidades de Saúde Familiar*). USFs are public, self-managed primary healthcare units formed by a self-selected group of general practitioners (GPs), PHC nurses and administrative staff, with functional and technical autonomy to organize the delivery of health services [17]. All USFs can access the government’s PHC incentive scheme, which rewards good practices with grants that may be used to fund training and research activities for the PHC teams. USFs are further divided into two organizational models, A and B, where model B USFs have an additional pay-for-performance scheme to financially reward individual professionals according to workload and their team’s performance, a design that rewards quality of care and promotes teamwork [18].

The PHC reforms in Portugal can be also analyzed within their organizational framework. Before PHC reform, the predominant model was the classical management model of control with the modest involvement of professionals, based on a bureaucratic model with a hierarchical structure [19]. With the creation of the USF, a participatory management model is proposed that extensively involves all professionals (general practitioners, nurses and administrative staff) and has more organizational autonomy with the purpose of motivating the group to achieve common and commissioned goals [20]. Total quality management [21] and clinical governance [22] also contribute to the organizational model of the USF, involving several professionals in the pursuit for better quality. The three organizational models that currently coexist in Portugal (Table 1: Cf organizational models/type of unit) have different degrees of organizational maturation: UCSP is an organizational model with less autonomy that is closer to the existing model before the reform; the USF A model is an autonomous model in an early stage of organizational maturation (a model of learning and preparation) and a fixed salary; and the USF B model has the same degree of autonomy as model A, but is more mature and has a payment scheme sensitive to workload and performance.

Table 1. Description of commissioning indicators for Portuguese PHC units (2014–2016), socio-economic determinants analyzed and Portuguese PHC type of units.

Commissioning Indicators for Portuguese PHC Units (2014–2016)	Description
Medication expenditure per patient	Average total cost of subsidized medicines prescribed by PHC doctors per patient registered at the PHC unit.
Diagnostic test expenditure per patient	Average total cost of diagnostic test ordered by PHC doctors per patient registered at the PHC unit.
Proportion of users with DM2 with a last HbA1c recorded less than or equal to 8%	Proportion of DM patients whose last Hb1Ac measure was less than 8% (64 mmol/mol).
Proportion of hypertensive patients under 65 years of age with blood pressure below 150/90 mmHg	Proportion of hypertensive patients aged 65 years or above whose last blood pressure measurement was less than 150/90 mmHg.
Proportion of elderly patients not on any antianxiety, sedative or hypnotic medications	Proportion of patients aged 65 or older who were not prescribed antianxiety, sedative or hypnotic medications during the period of analysis in the past year.
Proportion of patients aged 14 or older with regular registered smoking habits	Proportion of patients aged 14 or older with regular smoking habits registered over the past 36 months.
Proportion of nurse-led home visits	Number of home visits carried out by PHC nurses per 1000 patients registered at the practice.
Proportion of patients with appropriate maternal health follow-up	Index accounting for the number of medical and nurse follow-up appointments, mandatory screening tests and diagnostic tests.
Proportion of pediatric patients with appropriate follow-up during the first year of life	Index accounting for the number of medical and nurse follow-up appointments, mandatory screening tests and completion of the national vaccination schedule in the first year of life.
Proportion of child-bearing-age women with appropriate family planning support	Index accounting for medical and nurse family planning appointments, as well as appropriate cervical cancer screening.
Socio-economic Determinants	Description
Percentage of elderly patients	Proportion of patients aged 65 years and older.
Percentage of users holding Portuguese nationality	Percentage of users with Portuguese nationality.
Percentage of users in economic deprivation	Households in which average monthly income, divided by the number of people responsible for the household, does not exceed 1.5 times the value of the indexing of social support (which, in 2019, was EUR 653.64).
Population density	The intensity of settlement expressed as the ratio between (total) population and surface (land) area (usually expressed as the number of inhabitants per square kilometer).
Unemployment rate	Rate that defines the relationship between the unemployed population and the labor force.
School dropout rate before mandatory education completed	Population aged between 10 and 15 years who dropped out of school without completing 9th grade—compulsory schooling.
Organizational Models/Type of Unit	Description
USF Model B	Self-organized group of professionals, with a practice's financial incentives schemes linked to overall team achievement plus pay-for-group performance for each doctor, nurse and administrative staff group.
USF Model A	Self-organized group of professionals, with a practice's financial incentive schemes linked to overall team achievement.
USCP	Traditional model without financial incentive schemes or pay-for-performance scheme.
USF Model C	Experimental model regulated by a special law that is not yet implemented, but is meant to complement eventual shortcomings in the National Health Service. Model C comprises USFs from the social, cooperative and private sectors in conjunction with the health center, but with no hierarchic dependency. Their activity is based on a contract signed with the regional health administration.

In December 2016, 41.9% of the Portuguese population were enrolled in UCSP, 27% in USF model A and 31.1% in USF model B [23].

The 2005 reform also relaunched the commissioning processes, which are used to plan and deliver services for all types of units in the country. Our analysis of all PHC units in Portugal during the period of 2013–2016 found that, after the 2005 PHC reform, the quality indicators included in the commissioning process improved. This improvement was not associated with a detrimental effect on noncommissioned indicators and there was a general improvement in the quality of PHC services [17].

1.3. Commissioning and Equity: Theory and Evidence

Commissioning is formally defined as a process of procuring health services based on the assessment of the population's needs [24]. On a practical level, it creates a separation between the provider and purchaser of services [25], which improves priority settings and service integration for population groups in need [26], thus optimizing the way services are delivered and contributing to health equity [27]. However, commissioning processes may also generate a conflict between the goals of efficiency and equity, such that more cost-effective services are procured, jeopardizing the services required by vulnerable populations [28].

The available evidence on commissioning has increased in recent years, as more countries implement such processes. Nonetheless, the extent to which these processes contribute to health equity is controversial. A review of 27 studies on the effect of the UK's commissioning scheme, the Quality of Outcomes Framework (QOF), concluded that the scheme is overall beneficial to the improvement of equity in treatment access and intermediate treatment outcomes, but that the extent to which different patient groups benefit from this improvement highly depends on the quality indicators and service users under study [29]. Although some of the studies included in the review demonstrated a clear reduction in the attainment gap between socially deprived and advantaged groups in areas such as blood pressure monitoring [30], others highlighted how some groups of patients remain at a disadvantage despite improvements in other groups [31]. Another study assessing the general achievement of quality indicators for 7637 UK primary healthcare practices and found that the introduction of financial incentive schemes led to a significant decrease in disparities in the delivery of PHC services related to area deprivation over a period of 3 years [32]. Similarly, a recent study from Brazil also concluded that the introduction of a pilot quality improvement commissioning process in over 13,934 health teams successfully eliminated income inequalities in the delivery of PHC services [33].

The present study aims to explore the relationship between the commissioning processes and health equity in Portuguese primary healthcare services, with two main objectives: (1) to understand whether the evolution in primary healthcare quality indicators is associated with specific socio-economic context factors in which PHC units are inserted; and (2) to understand if the introduction of commissioning processes leads to an attenuation in the outcome disparities between primary healthcare units in the most and least deprived contexts.

2. Materials and Methods

This study used the results of PHC performance indicators from units across mainland Portugal published by the Portuguese Central Administration of the Health System (ACSS—Administração Central do Sistema de Saúde) from 2013 to 2016. This includes data from the period where the indicators were used as targets in the commissioning process (2014–2016) and the year prior to this change (Table 1: commissioning indicators for Portuguese PHC units (2014–2016)).

Indicators were determined for every PHC unit, and each unit was characterized according to its organizational model as UCSP, USF Model A, or USF Model B.

Six socio-economic determinants (Table 1: socio-economic determinants) were also used to characterize the PHC units' populations. The percentage of elderly patients,

percentage of users with Portuguese nationality and percentage of users in economic deprivation were calculated based on the ACSS per unit considering the information of each user enrolled in this unit. The unemployment rate, population density and school dropout rate before completing mandatory education are averages for the area in which the PHC unit is inserted [34].

All units that ceased to function or changed their organizational models during the study period were excluded from the analysis. According to this criterion, of the initial 1104 PHC units, 378 were excluded. The remaining 726 units accounted for 8,519,723 users out of a total of 10,664,898 SNS users (79.9%).

A descriptive analysis was performed for each indicator by year, by model and globally.

The exploratory factor analysis (EFA) technique [35] was used to analyze the evolution of the results in different socio-economic contexts before and after commissioning. The study, for the analysis of the adequacy of the factors, used the Kaiser–Meyer–Olkin (KMO) test, whose value should be greater than 0.5, and Bartlett’s sphericity test, which indicates the adequacy of the data for a factor analysis. These tests analyzed the total variance explained by the results.

Indexes of context variables were created to identify the factors underlying the context of the functional units, and these factors were used to divide the units into groups. The groups were created by dividing each factor into terciles and the number of factors were defined by Pearson’s criterion ($\geq 80\%$). Bartlett’s sphericity test and the KMO test were applied.

To analyze whether the evolution of commissioning indicators is related to the PHC units’ socio-economic context variables, the generalized estimating equation model was used. Using the quasi-likelihood under the independence model criterion (QIC) and corrected quasi-likelihood under the independence model criterion (QICC) analysis, a two-point analysis (2013 and 2016) was chosen. To analyze whether there is an attenuation of differences in the results in different socio-economic contexts before and after commissioning, a factor analysis was used.

The SPSS 26 (IBM Corp. Armonk, NY, USA) software was used for data analysis.

This article was the result of a research protocol approved by the North ARS Ethics Committee (CES 4/2017).

3. Results

3.1. Relationship between Context Factors and Evolution of the PHC Indicator Results (Table 2)

The context factors that showed a statistically significant association with the evolution of the results of a larger number of indicators were:

- The organizational model of the units (all indicators);
- The percentage of users with Portuguese nationality (eight indicators);
- The unemployment rate, percentage of elderly and population density (six indicators).

Those with a statistically significant association with the results of a smaller number of indicators were:

- The school dropout rate before mandatory education is completed and the percentage of users in economic deprivation (four indicators).

The indicators with an evolution that showed a statistically significant association with a greater number of context variables were:

- The proportion of hypertensive patients under 65 years of age and with blood pressure below 150/90 (five context variables);
- The proportion of patients aged 14 or older with regular smoking habits registered (five context variables);
- The proportion of child-bearing age women with appropriate family planning support (five context variables).

The indicators with an evolution that showed a statistically significant association with a smaller number of context variables were:

- The proportion of users with DM2 with the last HbA1c recorded less than or equal to 8% (three context variables);
- The proportion of elderly patients not on any antianxiety, sedative or hypnotic medications (two context variables).

Table 2. Relationship between context factors and evolution of the PHC indicator results (*p*-value).

	Type of Unit	Population Density (Average)	School Dropout Rate before Mandatory Education Completed (Average)	Unemployment Rate (Average)	Percentage of Elderly Patients (Average)	Percentage of Users in Economic Deprivation (Average)	Percentage of Users Holding Portuguese Nationality (Average)
Medication expenditure per patient	<0.01	0.52	0.78	0.01	<0.01	0.55	0.01
Diagnostic test expenditure per patient	<0.01	0.02	0.01	0.20	<0.01	0.88	0.20
Proportion of users with DM2 with a last HbA1c recorded less than or equal to 8%	<0.01	<0.01	0.27	0.29	0.68	0.85	<0.01
Proportion of hypertensive patients under 65 years of age with blood pressure below 150/90	<0.01	0.03	0.37	0.21	0.06	0.00	<0.01
Proportion of elderly patients not on any antianxiety, sedative or hypnotic medications	<0.01	0.24	0.96	0.00	0.33	0.93	<0.01
Proportion of patients aged 14 or older with regular registered smoking habits	<0.01	<0.01	0.09	0.01	0.96	0.00	<0.01
Proportion of nurse-led home visits	<0.01	<0.01	0.05	0.04	<0.01	0.01	<0.01
Proportion of patients with appropriate maternal health follow-up	<0.01	0.09	<0.01	0.02	<0.01	0.06	0.08
Proportion of pediatric patients with appropriate follow-up during the first year of life	<0.01	0.06	<0.01	<0.01	0.08	0.06	<0.01
Proportion of child-bearing-age women with appropriate family planning support	<0.01	0.02	0.67	0.92	0.01	0.01	<0.01

3.2. Differences in Results in Distinct Socio-Economic Contexts before and after Commissioning

The results of the Kaiser–Meyer–Olkin (KMO) test (KMO measure of sampling adequacy = 0.6) and Bartlett’s sphericity test ($\chi^2 = 6206.926$, $p < 0.001$) indicated that the data were suitable for factor analysis.

The study of communalities presents values higher than 0.728, indicating that all variables contained in the study are explained by the extracted components and the percentage of the total explained variance was 82%.

After factorial analysis, three factors were obtained, and each factor can be mainly explained by two variables (Figure 1):

- Factor 1: correlated with the variables of unemployment rate (positive) and percentage of elderly patients (negative);
- Factor 2: correlated with the variables of school dropout rate before mandatory education completed (positive) and percentage of users in economic deprivation (positive);

- Factor 3: correlated with the variables of population density (negative) and percentage of users with Portuguese nationality (positive).

	UCSP			USF-A			USF-B		
	F1	F2	F3	F1	F2	F3	F1	F2	F3
Medication expenditure per patient	<>	=	<>	<>	=	<>	<>	=	=
Diagnostic test expenditure per patient	<>	<>	=	=	=	=	=	=	=
Proportion of users with DM2 with a last HbA1c recorded less than or equal to 8%	<>	<>	<>	=	=	↑	<>	<>	<>
Proportion of hypertensive patients under 65 years of age and blood pressure below 150/90	=	<>	<>	↓	<>	↑	<>	<>	<>
Proportion of elderly patients not on any anti-anxiety, sedative, or hypnotic medications	=	=	<>	=	↑	<>	<>	↑	=
Proportion of patients aged 14 or older with regular smoking habits registered.	=	↑	↑	↓	↑	↓	<>	↑	↑
Proportion of nurse-lead home visits	<>	<>	<>	=	<>	↑	↑	<>	=
Proportion of patients with appropriate maternal health follow-up	=	↓	<>	=	=	↑	<>	<>	<>
Proportion of paediatric patients with appropriate follow-up during the first year of life	<>	<>	<>	=	=	<>	<>	<>	<>
Proportion of child-bearing age women with appropriate family planning support	=	<>	<>	<>	<>	=	<>	<>	↑

Figure 1. Summary of differences in results in distinct socio-economic contexts before and after commissioning by factors and indicators. Legend: <> differences before commissioning remain equal; = the absence of differences before commissioning remains; ↓ differences before commissioning decrease; ↑ differences before commissioning increase.

Analyzing the cluster that grouped the context characteristics of “unemployment rate” and “percentage of elderly patients” (F1), the discrepancies in the results were attenuated in the “proportion of hypertensive patients under 65 years of age and blood pressure below 150/90” and “proportion of patients aged 14 or older with regular smoking habits registered” following the commissioning of these indicators in USF-A-type units (change from $p > 0.05$ in 2013 to $p < 0.05$ in 2016).

In the cluster that grouped “school dropout rate before mandatory education completed” and “percentage of users in economic deprivation” (F2), the discrepancies in the results were attenuated for the “proportion of patients with appropriate maternal health follow-up” indicator after it was commissioned, but this was only verified in USCP-type units (change from $p > 0.05$ in 2013 to $p < 0.05$ in 2016).

In the cluster that grouped “population density” and “percentage of users holding Portuguese nationality” (F3), the discrepancies in results were attenuated for the “proportion of patients aged 14 or older with regular smoking habits registered” indicator after it was commissioned, but this was only verified in USF-A-type units.

3.3. Analysis Based on Organizational Model

We found that, in general, USFs are implemented in places with a higher average population density, a lower rate of school dropout before the end of compulsory education, a higher unemployment rate, fewer elderly people, fewer users in economic deprivation and fewer non-Portuguese users (Table 3).

Table 3. Results of context factors by PHC unit type (averages).

Type of Unit	Population Density	School Dropout Rate before Mandatory Education Completed	Unemployment Rate	Percentage of Elderly Patients	Percentage of Users in Economic Deprivation	Percentage of Users Holding Portuguese Nationality
UCSP	864.78	57.96	6.71	25.26	52.48	96.74
USF-A	1621.71	51.15	7.54	21.49	51.39	97.76
USF-B	1559.54	49.72	8.04	19.45	50.83	98.59
Average	1250.63	53.80	7.33	22.52	51.70	97.57

In 2016, the USFs had better results in all analyzed health indicators and had a lower average cost of expenses for medicines and diagnostic tests (Table 4).

Table 4. Indicator results (2016) by PHC unit type.

2016 Results	UCSP	USF-A	USF-B	Average
Medication expenditure per patient	195.07	162.72	137.54	168.94
Diagnostic test expenditure per patient	64.77	55.27	48.69	57.38
Proportion of users with DM2 with a last HbA1c recorded less than or equal to 8%	48.19	67.51	76.88	61.83
Proportion of hypertensive patients under 65 years of age with blood pressure below 150/90	37.55	58.43	72.51	53.66
Proportion of elderly patients not on any antianxiety, sedative or hypnotic medications	65.04	64.26	63.55	64.37
Proportion of patients aged 14 or older with regular registered smoking habits	47.18	69.75	77.61	62.05
Proportion of nurse-led home visits	155.7	134.17	146.82	148.49
Proportion of patients with appropriate maternal health follow-up	0.56	0.75	0.86	0.7
Proportion of pediatric patients with appropriate follow-up during the first year of life	0.73	0.86	0.93	0.83
Proportion of child-bearing-age women with appropriate family planning support	0.51	0.69	0.79	0.64

4. Discussion

Previous studies showed the relationship between health outcomes and population context [36], and the 2015–2020 Portuguese National Health Plan defines equitable and adequate access to healthcare as one of its four cornerstones, proposing, among other strategies, the articulation of national and local health policy via commissioning processes in primary healthcare. However, commissioning processes may also generate a conflict between the goals of efficiency and equity, such that more cost-effective services may jeopardize the services required by vulnerable populations [37–40].

This article aims to clarify the relationship between the context and the results of commissioning indicators in PHC units in Portugal.

The results of this study show that the evolution observed in the results of the commissioning indicators is statistically related to the studied context factors, and that some PHC performance indicators are more sensitive to context than others. Furthermore, the organizational model of the unit is the factor that presents a statistically significant association with a greater number of indicators (9 out of 10 indicators). Additionally, better results were achieved by the Model B USFs, followed by Model A USFs, and then, UCSPs.

This suggests that the organizational model and payment system [41,42] may have an impact on performance. Self-selected groups with higher functional autonomy (the USFs) and, within these, those with a pay-for-performance system (Model B USFs) appear to perform better than others, reinforcing the need for further investigating the link between financial incentives and quality of care. This also highlights the importance of increasing the number of working USFs.

In the factorial analysis, three factors were obtained. Factor (F) 1 could be linked to the active population and employment as it is positively correlated with the variables “unemployment rate” and negatively correlated with the “percentage of the elderly population”. F2 relates to the poverty cycle as it is positively correlated with the variables “school dropout rate before mandatory education completed” and “percentage of users in economic deprivation”. F3 is linked to territorial attractiveness, as it is negatively correlated with the variables “Population density” and positively with the “percentage of users holding Portuguese nationality”.

Overall, the differences or similarities existing before commissioning remain unchanged in more than 80% of cases, but it is important to note that, in F1, the absence of an association between the commissioning process and the results obtained by the PHC units is observed in 90% of cases; in F2, this value reaches 80%, and in F3, it is 63.3%. This means that commissioning may have a greater impact on (both improving and worsening) the performance of PHC quality indicators in contexts with a higher percentage of patients of non-Portuguese nationality and a lower population density.

The implementation of commissioning processes was demonstrated to attenuate context-related discrepancies in 6.7% of the cases in cluster F1 and 3.3% in clusters F2 and F3. However, there is a widening of the discrepancies after commissioning in 3.3% of the cases in cluster F1, 16.7% in cluster F2, and 23.3% in cluster F3. These results show that the influence of the commissioning process on the results of the activity of PHC units could differ with different context characteristics [31].

Commissioning seems to be an important tool to attenuate context-related discrepancies in PHC performance results when these are related to “active population and employment” (F1 cluster) characteristics, but it is less effective when the discrepancies are related to nationality and population density. This suggests PHC teams can improve in adapting their care to patients of non-Portuguese nationality and work towards delivering culturally sensitive care [42]. However, it is also pertinent to note that there are fewer USFs in areas with a greater non-Portuguese population and in areas with a lower population density partly because, under the conditions at the time of the study, to implement an USF there was only required for a minimum number of users, making this more difficult to achieve in low-density population areas. This may also contribute to this result, as we know that commissioning is more effective in USF-type units (compared to the traditional USCP models). Nonetheless, primary healthcare services may be improved by, for example, embedding meaningful co-production approaches [43] into the commissioning process and involving patients of non-Portuguese nationality in the needs assessment and service planning and delivery stages of commissioning [44].

The evolution of the results of the nurse home visits indicator is statistically related to all the context factors analyzed. We emphasize the fact that it is an indicator in which health services meet people in a domestic setting. Therefore, this may reveal the way that they live, reducing social and cultural barriers and improving their health-related outcomes or care needs [45,46].

The indicators related to expenses of medicines and diagnostic tests, as well as the indicator of appropriate follow-up during the first year of life, did not show any increase in the differences in the results related to the context. This could mean that family doctors were not conditioned by commissioning in their prescriptions, regardless of the context in which they worked.

When analyzing cluster F3, which is related to nationality and population density, we see that there was an increase in discrepancies for the “proportion of patients with appropriate maternal health follow-up” in USF-A units. This may be due to the fact that many pregnant women of non-Portuguese nationality live abroad and only move to Portugal at a late stage of pregnancy [47]. In contrast, “appropriate follow-up in the first year of life”, which refers to child surveillance, shows no context-related discrepancies, which might be because there is already an established contact between the mother and the health unit, and teams are able to proactively invite newborn children to the Child Health Program consults.

5. Limitations and Suggestions for Future Research and Actions

This study has a few limitations that should be highlighted for the benefit of future research. The same target (control or number of consultations) was used for all patients, when health needs may often be different. It would also be relevant to analyze satisfaction and impact indicators.

The results of the KMO test show that it may be useful to deepen the investigation by including more variables.

The analysis is based on the results of indicators and deserves to be re-evaluated, taking into account its limitations [48].

For future studies and actions, we recommend exploring data per user regarding their use of services and health outcomes.

6. Conclusions

The trends observed in the results of the commissioning indicators are statistically related to the studied context factors, and the PHC unit organizational model is the most significant context factor in this regard. Therefore, it is important to encourage the implementation of a greater number of USFs, especially in low-density areas. Furthermore, regardless of the context, USFs have better results with lower costs for medicines and diagnostic tests.

The results for PHC indicators used in the commissioning processes were improved [17], and there was no evidence that the better results exhibited were achieved at the expense of a detrimental healthcare offered to vulnerable populations, but this was not associated with a reduction in healthcare inequalities. The differences in performance among PHC units in different contexts remained the same after the implementation of the commissioning process in 80% of the cases.

Commissioning processes should be adapted to better satisfy the needs of patients without Portuguese nationality and those living in low-density population areas. Further research could focus on understanding the challenges of delivering care among these populations.

Author Contributions: Conceptualization, A.P., A.F. and A.B.; methodology, A.P., A.F. and A.B.; validation, A.B., A.C. (Anabela Coelho) and A.C. (Andreia Costa); formal analysis, A.P.; investigation, A.P.; data curation, A.P.; writing—original draft preparation, A.P., I.C. and A.B.; writing—review and editing, A.P., I.C., A.C. (Anabela Coelho) and A.B.; supervision, A.F. and A.B. All authors have read and agreed to the published version of the manuscript.

Funding: We thank all the support given by the project “1st.IndiQare—Quality indicators in primary health care: validation and implementation of quality indicators as an assessment and comparison tool” (POCI01-0145-FEDER-030766) and the project “Contracting in primary health care in Portugal: Research and practice” (INSA/2011EXT554). I.C. thanks the Laidlaw Foundation for their financial support as part of the UCL Laidlaw Research and Leadership programme.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki, and the research protocol was approved by the North ARS Ethics Committee (CES 4/2017).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Arnold, J.M.; Rodrigues, F.C. *Reducing Inequality and Poverty in Portugal*; OECD: Paris, France, 2015.
2. Portugal. *Constituição da República Portuguesa de 2 de Abril de 1976, Revista Pelas Leis Constitucionais Nos. 1/82, 1/89, 1/92 E 1/97: Lei Do Tribunal Constitucional*; Coimbra Editora: Coimbra, Portugal, 1997.
3. Assembleia da República. *Lei 48/90: Lei de Bases da Saúde*; I Série (195); Diário da República: Lisbon, Portugal, 1990.
4. Bingham, D.D.; Varela-Silva, M.I.; Ferrão, M.M.; Augusta, G.; Mourão, M.I.; Nogueira, H.; Marques, V.R.; Padez, C. Socio-demographic and behavioral risk factors associated with the high prevalence of overweight and obesity in Portuguese children. *Am. J. Hum. Biol.* **2013**, *1*, 733–742. [[CrossRef](#)] [[PubMed](#)]
5. Camões, M.; Lopes, C.; Oliveira, A.; Santos, A.C.; Barros, H. Overall and central obesity incidence in an urban Portuguese population. *Prev. Med.* **2010**, *50*, 50–55. [[CrossRef](#)]
6. Nogueira, H.; Ferrão, M.; Gama, A.; Mourão, I.; Marques, V.R.; Padez, C. Perceptions of neighborhood environments and childhood obesity: Evidence of harmful gender inequities among Portuguese children. *Health Place* **2013**, *19*, 69–73. [[CrossRef](#)] [[PubMed](#)]
7. Nogueira, H.; Gama, A.; Mourao, I.; Marques, V.; Ferrão, M.; Padez, C. The associations of SES, obesity, sport activity, and perceived neighborhood environments: Is there a model of environmental injustice penalizing Portuguese children? *Am. J. Hum. Biol.* **2013**, *25*, 434–436. [[CrossRef](#)] [[PubMed](#)]
8. Neto, F. Predictors of mental health among adolescents from immigrant families in Portugal. *J. Fam. Psychol.* **2009**, *23*, 375. [[CrossRef](#)]

9. Carvalho, M.; Matos, M.G.; Team, S.A.P. Psychosocial determinants of mental health and risk behaviours in adolescents. *Glob. J. Health Sci.* **2014**, *6*, 22. [CrossRef]
10. Ferreira-Pinto, L.M.; Rocha-Gonçalves, F.; Teixeira-Pinto, A. An ecological study on the geographic patterns of ischaemic heart disease in Portugal and its association with demography, economic factors and health resources distribution. *BMJ Open* **2012**, *2*, e000595. [CrossRef]
11. Bettencourt, P.; Lourenço, P.; Azevedo, A. Influence of socioeconomic status on therapy and prognosis after an acute heart failure episode. *Int. J. Cardiol* **2013**, *168*, 4985–4987. [CrossRef]
12. Van Doorslaer, E.; Masseria, C. *Income-Related Inequality in the Use of Medical Care in 21 OECD Countries*; OECD: Paris, France, 2004.
13. Bago d’Uva, T.; Jones, A.M.; van Doorslaer, E. Measurement of horizontal inequity in health care utilisation using European panel data. *J. Health Econ.* **2009**, *28*, 280–289. Available online: <https://www.sciencedirect.com/science/article/pii/S016762960800132X> (accessed on 13 September 2022). [CrossRef]
14. Dimitrovová, K.; Costa, C.; Santana, P.; Perelman, J. Evolution and financial cost of socioeconomic inequalities in ambulatory care sensitive conditions: An ecological study for Portugal, 2000–2014. *Int. J. Equity Health* **2017**, *16*, 145. [CrossRef]
15. Direção-Geral de Saúde. *Plano Nacional de Saúde. Revisão e Extensão a 2015*; Direção-Geral de Saúde: Lisboa, Portugal, 2015.
16. World Health Organization. *WHO Evaluation of the National Health Plan of Portugal (2004–2010)*; WHO: Geneva, Switzerland, 2010.
17. da Luz Pereira, A.; Ramalho, A.; Viana, J.; Pinto Hespanhol, A.; Freitas, A.; Biscaia, A. The effect of commissioning on Portuguese Primary Health Care units’ performance: A four-year national analysis. *Health Policy* **2021**, *125*, 709–716. Available online: <https://www.sciencedirect.com/science/article/pii/S0168851021000518> (accessed on 13 September 2022). [CrossRef] [PubMed]
18. de Almeida Simões, J.; Augusto, G.F.; Fronteira, I.; Hernández-Quevedo, C. Portugal: Health System Review. *Health Syst. Transit.* **2017**, *19*, 1–184. [PubMed]
19. Kruse, F.M.; Ligtenberg, W.M.R.; Oerlemans, A.J.M.; Groenewoud, S.; Jeurissen, P.P.T. How the Logics of the Market, Bureaucracy, Professionalism and Care Are Reconciled in Practice: An Empirical Ethics Approach—BMC health Services Research. *BioMed Central*. BioMed Central. 2020. Available online: <https://bmchealthservres.biomedcentral.com/articles/10.1186/s12913-020-05870-7> (accessed on 30 October 2022).
20. Santana, P.; Almendra, R. The health of the Portuguese over the last four decades. *Méditerranée* **2018**, *130*, 7. [CrossRef]
21. Donabedian, A. The quality of medical care. *Science* **1978**, *200*, 856–864. [CrossRef] [PubMed]
22. Macfarlane, A.J.R. What is clinical governance? *BJA Educ.* **2019**, *19*, 174–175. [CrossRef] [PubMed]
23. SPMS, ACSS, USF-AN. *Bilhete de Identidade do Cuidados de Saúde Primários 2017*. Available online: <https://bicsp.min-saude.pt/> (accessed on 13 September 2022).
24. Faculty of Medical Leadership and Management. *Commissioning: What’s the big deal?* *NHS Engl.* **2015**, *130*, 1. Available online: <https://www.nhs.uk/NHSEngland/thenhs/about/Documents/Commissioning-FINAL-2015.pdf> (accessed on 13 September 2022).
25. Checkland, K.; Harrison, S.; Snow, S.; Mcdermott, I.; Coleman, A. Commissioning in the English National Health Service: What’s the problem? *J. Soc. Policy* **2012**, *41*, 533. [CrossRef]
26. Robinson, S.; Dickinson, H.; Durrington, L. Something old, something new, something borrowed, something blue? Reviewing the evidence on commissioning and health services. *Aust. J. Prim. Health* **2016**, *22*, 9–14. Available online: <https://pubmed.ncbi.nlm.nih.gov/27469049> (accessed on 13 September 2022). [CrossRef]
27. Escoval, A. O processo de contratação na saúde em Portugal (1996–2005). *Rev. Port. Saúde Pública* **2010**, *9*, 7–24.
28. Henderson, J.; Javanparast, S.; MacKean, T.; Freeman, T.; Baum, F.; Ziersch, A. Commissioning and equity in primary care in Australia: Views from Primary Health Networks. *Health Soc. Care Commun.* **2018**, *26*, 80–89. [CrossRef]
29. Boeckstaens, P.; Smedt, D.D.; Maeseener, J.D.; Annemans, L.; Willems, S. The equity dimension in evaluations of the quality and outcomes framework: A systematic review. *BMC Health Serv. Res.* **2011**, *11*, 209. [CrossRef]
30. Ashworth, M.; Medina, J.; Morgan, M. Effect of social deprivation on blood pressure monitoring and control in England: A survey of data from the quality and outcomes framework. *BMJ* **2008**, *29*, a2030. Available online: <http://www.bmj.com/content/337/bmj.a2030.abstract> (accessed on 12 October 2022).
31. McGovern, M.P.; Williams, D.J.; Hannaford, P.C.; Taylor, M.W.; Lefevre, K.E.; Boroujerdi, M.A.; Simpson, C.R. Introduction of a new incentive and target-based contract for family physicians in the UK: Good for older patients with diabetes but less good for women? *Diabet Med.* **2008**, *25*, 1083–1089. [CrossRef] [PubMed]
32. Doran, T.; Fullwood, C.; Kontopantelis, E.; Reeves, D. Effect of financial incentives on inequalities in the delivery of primary clinical care in England: Analysis of clinical activity indicators for the quality and outcomes framework. *Lancet* **2008**, *372*, 728–736. Available online: <https://www.sciencedirect.com/science/article/pii/S014067360861123X> (accessed on 13 September 2022). [CrossRef]
33. Kovacs, R.; Maia Barreto, J.O.; da Silva, E.N.; Borghi, J.; Kristensen, S.R.; Costa, D.; Bezerra Gomes, L.; Gurgel, G.D.; Junior Sampaio, J.; Powell-Jackson, T. Socioeconomic inequalities in the quality of primary care under Brazil’s national pay-for-performance programme: A longitudinal study of family health teams. *Lancet Glob. Health* **2021**, *9*, e331–e339. Available online: <http://ovidsp.ovid.com/ovidweb.cgi?T=JS&PAGE=reference&D=medl&NEWS=N&AN=33607031> (accessed on 13 September 2022). [CrossRef]

34. Biscaia, A.; Pereira, A.; Antunes, A.; Machaqueiro, S.; Rosa, M.; Nogueira, P.; Lapão, L. *Contratualização nos Cuidados de Saúde Primários: Investigação e Prática—Uma Abordagem Conjunta*; INSA/2011EXT554; Ministério da Saúde/INSA IP: Lisboa, Portugal, 2016.
35. Watkins, M.W. Exploratory factor analysis: A guide to best practice. *J. Black Psychol.* **2018**, *44*, 219–246. [[CrossRef](#)]
36. Buja, A.; Solinas, G.; Visca, M.; Federico, B.; Gini, R.; Baldo, V.; Francesconi, P.; Sartor, G.; Bellentani, M.; Damiani, G. Prevalence of Heart Failure and Adherence to Process Indicators: Which Socio-Demographic Determinants Are Involved? *Int. J. Environ. Res. Public Health* **2016**, *13*, 238. [[CrossRef](#)]
37. McGovern, M.P.; Boroujerdi, M.A.; Taylor, M.W.; Williams, D.J.; Hannaford, P.C.; Lefevre, K.E.; Simpson, C.R. The Effect of the UK Incentive-Based Contract on the Management of Patients with Coronary Heart Disease in Primary Care. *Fam. Pract.* **2008**, *25*, 33–39. [[CrossRef](#)]
38. Simpson, C.R.; Hannaford, P.C.; Lefevre, K.; Williams, D. Effect of the UK Incentive-Based Contract on the Management of Patients with Stroke in Primary Care. *Stroke* **2006**, *37*, 2354–2360. [[CrossRef](#)]
39. Ashworth, M.; Seed, P.; Armstrong, D.; Durbaba, S.; Jones, R. The Relationship between Social Deprivation and the Quality of Primary Care: A National Survey Using Indicators from the UK Quality and Outcomes Framework. *Br. J. Gen. Pract. J. R. Coll. Gen. Pract.* **2007**, *57*, 441–448.
40. Doran, T.; Kontopantelis, E.; Fullwood, C.; Lester, H.; Valderas, J.M.; Campbell, S. Exempting Dissenting Patients from Pay for Performance Schemes: Retrospective Analysis of Exception Reporting in the UK Quality and Outcomes Framework. *BMJ* **2012**, *344*, e2405. [[CrossRef](#)]
41. Millett, C.; Netuveli, G.; Saxena, S.; Majeed, A. Impact of Pay for Performance on Ethnic Disparities in Intermediate Outcomes for Diabetes: A Longitudinal Study. *Diabetes Care* **2008**, *32*, 404–409. [[CrossRef](#)] [[PubMed](#)]
42. Muggah, E.; Dahrouge, S.; Hogg, W. Access to Primary Health Care for Immigrants: Results of a Patient Survey Conducted in 137 Primary Care Practices in Ontario, Canada. *BMC Fam. Pract.* **2012**, *13*, 128. [[CrossRef](#)] [[PubMed](#)]
43. Hart, F. Is commissioning the enemy of co-production? *Perspect. Public Health* **2022**, *142*, 191–192. [[CrossRef](#)] [[PubMed](#)]
44. Loeffler, E.; Bovaird, T. Co-commissioning of public services and outcomes in the UK: Bringing co-production into the strategic commissioning cycle. *Public Money Manag.* **2019**, *39*, 241–252. [[CrossRef](#)]
45. Ergin, E.; Akin, B.; Kocoglu-Tanyer, D. Effect of Home Visits by Nurses on the Physical and Psychosocial Health of Older Adults: A Systematic Review and Meta-Analysis. *Iran. J. Public Health* **2022**, *51*, 733–745. [[CrossRef](#)]
46. Marcus-Varwijk, A.E.; Peters, L.L.; Visscher, T.L.S.; Smits, C.H.M.; Ranchor, A.V.; Slaets, J.P.J. Impact of a Nurse-Led Health Promotion Intervention in an Aging Population: Results From a Quasi-Experimental Study on the “Community Health Consultation Offices for Seniors”. *J. Aging Health* **2020**, *32*, 83–94. [[CrossRef](#)]
47. Tasa, J.; Holmberg, V.; Sainio, S.; Kankkunen, P.; Vehviläinen-Julkunen, K. Maternal Health Care Utilization and the Obstetric Outcomes of Undocumented Women in Finland—A Retrospective Register-Based Study. *BMC Pregnancy Childbirth* **2021**, *21*, 191. [[CrossRef](#)]
48. Bowen, S.; Kreindler, S.A. Indicator Madness: A Cautionary Reflection on the Use of Indicators in Healthcare. *Healthc. Policy* **2008**, *3*, 41–48. [[CrossRef](#)]



Le Gouais, A., & Peake-Jones, S. (2022). Researchers-in-Residence to facilitate co-production: the TRUUD project. *Perspectives in Public Health*, 142(4), 193-195. <https://doi.org/10.1177/17579139221103183>

Publisher's PDF, also known as Version of record

License (if available):
CC BY

Link to published version (if available):
[10.1177/17579139221103183](https://doi.org/10.1177/17579139221103183)

[Link to publication record in Explore Bristol Research](#)
PDF-document

This is the final published version of the article (version of record). It first appeared online via Sage at <https://doi.org/10.1177/17579139221103183>. Please refer to any applicable terms of use of the publisher.

University of Bristol - Explore Bristol Research

General rights

This document is made available in accordance with publisher policies. Please cite only the published version using the reference above. Full terms of use are available: <http://www.bristol.ac.uk/red/research-policy/pure/user-guides/ebr-terms/>

In Practice

Researchers-in-Residence to facilitate co-production: the TRUUD project

A Le Gouais 

Senior Research Associate, Population Health Sciences, Bristol Medical School, University of Bristol, 1–5 Whiteladies Road, Bristol BS8 1NU, UK
Email: Anna.legouais@bristol.ac.uk

S Peake-Jones

Research Fellow, Planning and Environment Management, The University of Manchester, Manchester, UK

Corresponding author:

Anna Le Gouais, as above

URBAN ENVIRONMENT DECISION-MAKING AND HEALTH OUTCOMES

We know that the built environment impacts on population health and wellbeing, particularly non-communicable diseases.¹ For example, having safe walking or cycling routes will affect levels of physical activity and associated health outcomes,^{2,3} while access to urban greenspace is associated with physical and mental health.⁴

The burden of disease and financial costs associated with unhealthy urban environments is significant, for example, poor air quality alone is estimated to cost the UK over £20 billion annually.⁵ Despite the negative health impacts of certain

environments, urban development decision-makers tend to come from non-health sectors and have non-health priorities when it comes to areas such as transport, urban planning or property development.

The burden of disease and financial costs associated with unhealthy urban environments is significant... poor air quality alone is estimated to cost the UK over £20 billion annually

The system of urban development decision-making is complex, involving many stakeholders with competing priorities and influences. The TRUUD ('Tackling Root causes Upstream of Unhealthy Urban Development') project was established to try to untangle those influences that can result in unhealthy place-making and find ways to influence healthy decision-making. It is a 5-year research project (October 2019 to September 2024) involving around 40 researchers with diverse expertise including public health, transport, urban development, economics, policy studies, public involvement and systems engineering.

TRUUD'S RESEARCHER-IN-RESIDENCE MODEL

A core facet of the TRUUD research is co-production of interventions with the public and our practice partners. A cornerstone to this is the inclusion of two Researchers-in-Residence (RIRs) embedded in partner local authorities: Anna Le Gouais is seconded into Bristol City Council part time and Sian Peake-Jones works with Greater Manchester Combined Authority.



These roles started in 2020 and will continue until 2024.

Embedded research is a methodological approach that includes observing, influencing and participating through being a 'sounding board, knowledge broker, facilitator, capacity builder and catalyst for change and improvement'

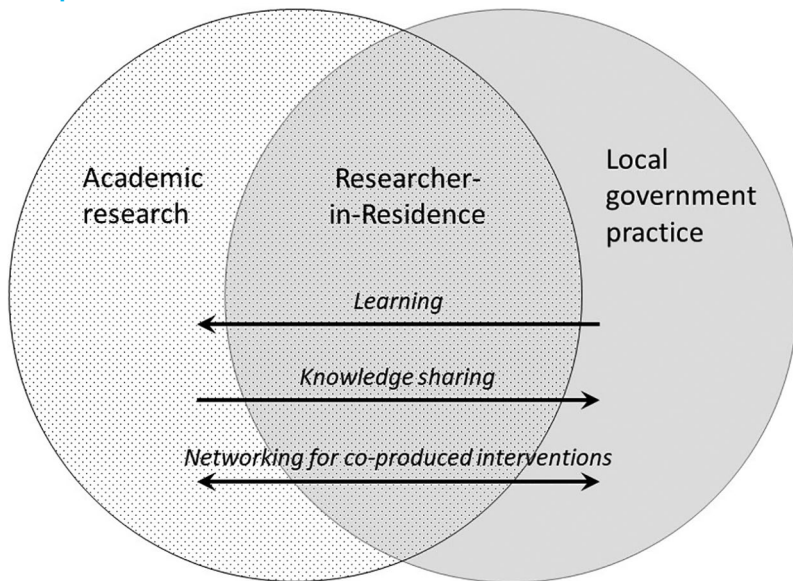
Embedded research is a methodological approach that includes observing, influencing and participating through being a 'sounding board, knowledge broker, facilitator, capacity builder and catalyst for change and improvement'.⁶ It has been shown to facilitate timely and

relevant research⁷ and is increasingly being used within local authority public health teams to support service improvement. However, to understand the complex system of urban development decision-making, the TRUUD RIRs sit outside of public health teams, instead working directly within urban development and transport policy teams.

BUILDING PARTNERSHIPS TO UNDERSTAND A COMPLEX SYSTEM

Building trust is an important element of embedded research which takes time.

Figure 1

The multiple roles of a Researcher-in-Residence

This is crucial to gain exposure to key events and people that influence decision-making for urban development and facilitate understanding of organisational culture, norms and political realities,⁶ all of which affect decision-making for policy and practice. The time taken to develop trust is particularly important because of the confidentiality issues involved in sharing information between organisations and the potential political, reputational and commercial risks associated with this research. One way we have addressed this is to co-produce working protocols with our local authority partners, such as data management agreements around consent that are both reflexive and informed,⁸ ensuring the role of the researcher is overt and communicated clearly.

Forming relationships with colleagues and becoming accepted within our local government organisations have been slower due to the COVID-19 pandemic – ideally, we would have been sitting with local government colleagues at least a couple of days a week, but instead the majority of interactions have been online as people have predominantly worked from home (although not exclusively). Despite these

challenges, we have both become embedded in our partner organisations with strong trusted working relationships, although forging connections between local government colleagues and the wider multi-disciplinary academic team is ongoing.

CO-PRODUCING PRAGMATIC INTERVENTIONS

RIRs act as a bridge between research and practice, to ensure that pragmatic research is conducted that is relevant and useful for the partner organisation. As RIRs we are therefore not simply observers or knowledge brokers but are seeking to gain and use knowledge and relationships to facilitate co-produced interventions or service improvements that will have demonstrable impact in practice for healthier environments.

The RIR role supports the co-production of TRUUD interventions through day-to-day engagement with actors involved in decision-making for urban development, based on the principle that those who will be delivering a service or intervention are best placed to help design it. Through close working relationships, we can ensure that

interventions are relevant, deliverable and impactful.⁹ This may involve elements of serendipity, where opportunities arise to influence policy and practice that were not identified a priori, and may take advantage of 'windows of opportunity'.¹⁰

The co-production of TRUUD interventions is ongoing as the project seeks to influence multiple leverage points across the complex urban development system. An early example of facilitating co-production with local government partners is development of health economic models to demonstrate the economic impact of features of the built environment associated with health and wellbeing outcomes. As RIRs we are connecting our local government and transport authority colleagues with TRUUD researchers to work together to develop practical tools to influence healthy urban development decision-making. This is being done separately in Bristol and Greater Manchester, for property development and transport, respectively. We will be able to support the use of these tools in every day practice and use our embedded roles to evaluate how influential they could be to support healthy urban development by learning from our local government colleagues, with opportunity for iterative feedback and improvement.

THE MULTIPLE ROLES OF RIRs

The RIR role includes multiple dimensions (Figure 1). In our local authority roles, we may act as a researcher, observing situations to learn about urban development processes and practices to inform the wider TRUUD research project; as a knowledge broker, sharing research findings with practitioners across disciplines; as a networker or facilitator, connecting local government colleagues with TRUUD researchers to discuss potential opportunities for co-produced interventions; or simply as a colleague, working together to implement and evaluate projects. This is all alongside our researcher roles as part of the wider TRUUD project team, where we can act as a constant reminder to our academic

colleagues of the need for pragmatic, relevant and impactful research.

SUMMARY

We have described the approach of TRUUD's RIRs, working with non-health colleagues in two local government organisations in England. This embedded research model includes observing, influencing and participating to support co-production of interventions that target urban environment decision-making for healthier place-making. This has been facilitated by building trusted relationships with partners to understand a complex system. Through primary data collection, knowledge brokerage, networking and facilitation, RIRs can help large project teams to develop pragmatic co-produced interventions for impactful research.

ACKNOWLEDGEMENTS

The authors thank their local government and academic colleagues for their involvement and support in the TRUUD project. The authors gratefully acknowledge feedback on the manuscript by Dr Judi Kidger.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

ETHICAL APPROVAL

Ethical approval for this study was received from the University of Bristol's Faculty of Health Sciences Research Ethics Committee (reference 94162).

FUNDING

The author(s) disclosed receipt of the following financial support for the

research, authorship and/or publication of this article: This work was supported by the UK Prevention Research Partnership (award reference: MR/S037586/1), which is funded by the British Heart Foundation, Cancer Research UK, Chief Scientist Office of the Scottish Government Health and Social Care Directorates, Engineering and Physical Sciences Research Council, Economic and Social Research Council, Health and Social Care Research and Development Division (Welsh Government), Medical Research Council, National Institute for Health Research, Natural Environment Research Council, Public Health Agency (Northern Ireland), The Health Foundation and Wellcome.

ORCID ID

Anna Le Gouais  <https://orcid.org/0000-0002-3800-2090>

References

- Dahlgren G, Whitehead M. *Policies and strategies to promote social equity in health*. Stockholm: Institute for Future Studies; 1991. Available online at: https://ideas.repec.org/p/hhs/ifswps/2007_014.html (last accessed 20 December 2021).
- Department of Health & Social Care. *UK Chief Medical Officers' physical activity guidelines*. London: Department of Health & Social Care; 2019. Available online at: <https://www.gov.uk/government/publications/physical-activity-guidelines-uk-chief-medical-officers-report> (last accessed 25 January 2022).
- Cavill N, Davis A, Cope A *et al*. *Active travel & physical activity evidence review*. Loughborough: Sport England; 2019.
- WHO Regional Office for Europe. *Urban green spaces and health*. Copenhagen: WHO Regional Office for Europe; 2016.
- Royal College of Physicians. *Every breath we take. The lifelong impact of air pollution, 2016*. Available online at: <https://www.rcplondon.ac.uk/projects/outputs/every-breath-we-take-lifelong-impact-air-pollution>
- Cheetham M, Wiseman A, Khazaeli B *et al*. Embedded research: a promising way to create evidence-informed impact in public health? *J Public Health* 2018;**40**:i64–70.
- Gradinger F, Elston J, Asthana S *et al*. Reflections on the Researcher-in-Residence model co-producing knowledge for action in an Integrated Care Organisation: a mixed methods case study using an impact survey and field notes. *Evid Policy* 2019;**15**(2): 197–215.
- Eyre L, George B, Marshall M. Protocol for a process-oriented qualitative evaluation of the Waltham Forest and East London Collaborative (WELC) integrated care pioneer programme using the Researcher-in-Residence model. *BMJ Open* 2015;**5**(11):e009567.
- O'Cathain A, Croot L, Duncan E *et al*. Guidance on how to develop complex interventions to improve health and healthcare. *BMJ Open* 2019;**9**:e029954.
- Kingdon J. *Agendas, alternatives and public policies* 2nd edn. Harlow: Longman Classics; 2010.

In Practice

'Valued and listened to': the collective experience of patient and public involvement in a national evaluation

K Clare

Obesity Institute, Leeds Beckett University, School of Health, Leeds Beckett University, Leeds, UK
Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK
Obesity U, Southport, UK

A Ojo

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK

J Teke

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK

M Willis

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK

G Akhtar

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK

B Clegg

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK
Obesity UK, Southport, UK

C Goddard

Re:Mission Patient and Public Involvement Group, Obesity Institute, School of Health, Leeds Beckett University, Leeds, UK
Obesity UK, Southport, UK

C Freeman

Obesity Institute, Leeds Beckett University, School of Health, Leeds Beckett University, Leeds, UK

KJ Drew

Obesity Institute, Leeds Beckett University, School of Health, Leeds Beckett University, Leeds, UK

D Radley

Obesity Institute, Leeds Beckett University, School of Health, Leeds Beckett University, Leeds, UK

C Homer

Sport and Physical Activity Research Centre, Sheffield Hallam University, Olympic Legacy Park, 2 Old Hall Road, Sheffield S9 3TU, UK.
Email: c.homer@shu.ac.uk

L Ells

Obesity Institute, Leeds Beckett University, School of Health, Leeds Beckett University, Leeds, UK

Corresponding author:

Catherine Homer, as above

This article provides an account of the positive contribution of a patient and public involvement (PPI) team involved

in research evaluating the National Health Service (NHS) in England's low-calorie diet pilot aiming to reduce levels of type-2 diabetes. The article has been co-written by the PPI team and academics from the Re:Mission study. The PPI team members' voice and experiences are included throughout the article and are reflected using terms 'our' and 'we'.



THE RE:MISSION STUDY

Obesity and type-2 diabetes (T2D) are both prevalent non-communicable diseases in the United Kingdom, which can significantly impact people's health and wellbeing, while leading to significant costs to the NHS and wider

economy. Recent systematic review¹ and clinical trial² evidence shows that for some people living with, or at risk of obesity and T2D, a low-calorie diet achieved by total diet replacement (TDR), can lead to clinically significant weight loss, support remission of T2D and improve quality of life. The NHS long-term plan,³ therefore, made a

Recent systematic review and clinical trial evidence shows that for some people living with, or at risk of obesity and T2D, a low-calorie diet achieved by total diet replacement (TDR), can lead to clinically significant weight loss, support remission of T2D and improve quality of life

commitment to pilot an NHS low-calorie diet programme delivered through TDR, for people living with excess weight and T2D. In 2020, the National Health Service in England (NHSE) identified 10 initial pilot sites to test the NHS low-calorie diet programme, delivered using one of three different behaviour change support models: one to one, group or digital.

The Re:Mission study (www.remission.study) was commissioned by the National Institute for Health Research to deliver a co-produced, comprehensive qualitative and economic evaluation of the NHS low-calorie diet pilot, that will be integrated with the NHSE quantitative analyses, to provide an enhanced understanding of the long-term cost-effectiveness of the programme and its implementation, equity, transferability and normalisation across broad and diverse populations.⁴ PPI is central to the Re:Mission study, from the preparation of the initial funding proposal, through to the study design, delivery and dissemination.

WHAT IS PPI IN RESEARCH?

PPI is research conducted ‘by’ or ‘with’ members of the public rather than ‘for’, ‘to’ or ‘about’ them.⁵ This can involve contributing to the entire research process from design to the dissemination.⁶ PPI members provide important insights based on their lived experience that researchers may not have considered, but are critical to the end user⁷ and the research process. Without appropriate PPI, resources can be wasted on research that is ultimately not beneficial to end users. Consequently, research funders, such as the National Institute for Health Research, now require PPI as a condition of funding.

DIVERSITY IN PPI AND RESEARCH

The involvement of members of the public in research is vitally important and should never be seen as a ‘tick box exercise’. Ensuring equality, diversity, inclusion and bringing research to underserved communities is critical, and part of the National Institute for Health Research strategy to achieve ‘the best research for best health’.⁸ As people from diverse ethnic groups are often less likely to take part in clinical research,⁹ it is important to ensure their voice is heard in PPI activity. The Re:Mission study PPI group is an ethnically diverse group, which has been fundamental in the co-development of culturally sensitive research materials, a targeted recruitment process and an inclusive

study website. Diversity includes other factors, and the group includes male and female members of different ages and work status from across England.

OUR PPI ROLE IN THE RE:MISSION STUDY

The level of engagement of our PPI group can be described as a blend of collaboration (an ongoing partnership with members of the public in the research process) and co-production (a sharing of power and responsibility between researchers and PPI members throughout the study). As PPI members on the Re:Mission study, we were given the opportunity to make comments on anticipated and unanticipated issues that may or may not have been considered by the research team. At the initial design stage, we provided insights into the feasibility of the study, identified potential barriers and facilitators to recruitment, and made suggestions for recruiting ethnically diverse participants and least heard populations. We were able to ensure that the methods selected were appropriate for patients: reviewing and commenting on proposed questionnaires and interview guides, and assisting in the development of study materials. Even the name of the study was suggested and agreed with the involvement of all PPI members.

During the data collection phase, we helped formulate the recruitment strategies and study communications plan, which included visual aids and a short video to inform the public about the study. We have been involved in building the content of the website (www.remission.study), to ensure it meets the diverse needs of the target population and have co-written blogs to communicate research updates. We have all been trained to co-lead participants’ interviews alongside the researchers and will be involved in analysing transcripts to develop the study findings. As PPI members, we

have also presented at conferences and seminars, and have been provided with opportunities to co-author journal articles for publication.

WHAT HAS INVOLVEMENT IN THE STUDY MEANT FOR US?

Our contribution has been made possible because there has been mutual respect within the PPI group and the research team. Collectively being part of the PPI group has given us a sense of belonging and fulfilment, and a great opportunity to be part of the team. One of the key aspects of working as part of the Re:Mission project has been how we were immediately accepted as valued team members, and how our diverse

experiences as patients and stakeholders were recognised as of value. We achieved this despite COVID-19 and all discussions occurring via video conferencing. We quickly forged a positive relationship enabling us to

One of the key aspects of working as part of the Re:Mission project has been how we were immediately accepted as valued team members, and how our diverse experiences as patients and stakeholders were recognised as of value

make a tangible contribution that we feel has enhanced the project, particularly where participant-focused. For instance, contributions include the improvement of questionnaire response rates by optimising the flow of the questions and their perceived relevance.

Members have contributed both individually and collectively at all stages of the project. Some points have been immediately accepted by the project team, but on other occasions, we have had to argue the case for changes we recommend, all healthy discussions of course! We have been far from ‘box-tickers’.

Being involved so closely in a fast-paced real-world evaluation has provided us with intellectual stimulation beyond normal working experience or retirement. At all times, we have been thanked for our

contributions and have been compensated for our time with prompt payment via gift vouchers, which has been much appreciated!

WHAT NEXT ...

Leeds Beckett University's Obesity Institute is working in collaboration with the Association for the Study of Obesity and Obesity UK, to continue developing the fantastic contribution PPI makes to improving the impact and reach of research. As such, they are developing a new PPI hub, which will provide an inclusive, supportive and collaborative environment to ensure that PPI is central to all future obesity-related research.

ACKNOWLEDGEMENTS

This publication has been written by members of the Re:Mission PPI team with academics acting as editors.

The Re:Mission study includes a multi-disciplinary team of academics from across the North of England. The authors would like to acknowledge all members of the team including: Dr Jamie Matu, Prof Jim McKenna, Dr Susan Jones, Pat Watson, Dr Maria Maynard, Dr Simon Rowlands, Dr Tanefa Apekay, Dr Stuart Flint, Prof Janet Cade, Dr Samuel Fempong, Dr Adam Martin, Dr Maria Bryant, Jordan Marwood, Dr Tamara Brown, Dr Wendy Burton, Mick Martson, Pooja Dhir, Tamla Evans and Dr Jenifer Logue. They would also like to acknowledge all members of the steering and oversight groups who are involved in the Re:Mission study.

CONFLICT OF INTEREST

The author(s) declared the following potential conflicts of interest with respect to the research, authorship and/or publication of this article: Editorial panel for the journal but this article has been reviewed by other members of the panel.

FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: This work was supported by the National Institute for Health Research, Health Services and Delivery Research [NIHR 132075]. Additional funding was provided by Leeds Beckett University to fund two PhD studentships to work alongside the programme.

The NHS England Low-Calorie Diet Pilot is funded by NHS England.

ETHICAL APPROVAL

The Re:Mission study was approved by Health Research Authority on 5 July 2021, REC ref: 21/WM/0136 and Leeds Beckett University Local Research Ethics committee ref 80438.

ORCID ID

Catherine Homer  <https://orcid.org/0000-0003-2571-6008>

References

1. Astbury NM, Piernas C, Hartmann-Boyce J *et al.* A systematic review and meta-analysis of the effectiveness of meal replacements for weight loss. *Obes Rev* 2019;**20**(4):569–87.
2. Lean MEJ, Leslie WS, Barnes AC *et al.* Durability of a primary care-led weight-management intervention for remission of type 2 diabetes: 2-year results of the DIRECT open-label, cluster-randomised trial. *Lancet Diabetes Endocrinol* 2019;**7**(5):344–55.
3. NHS. The NHS long term plan, 2019. Available online at: <https://www.longtermplan.nhs.uk/>
4. Ellis L, Flint S, Martin A *et al.* A coproduced mixed method evaluation of the NHS England Low-Calorie Diet implementation pilot, 2021. Available online at: <https://fundingawards.nihr.ac.uk/award/NIHR132075>
5. Authority HR. Public involvement, 2022. Available online at: <https://www.hra.nhs.uk/planning-and-improving-research/best-practice/public-involvement/> (Last accessed 17 January 2022).
6. Edelman N, Barron D. Evaluation of public involvement in research: time for a major re-think? *J Health Serv Res Policy* 2016;**21**(3):209–11.
7. Gordon L, Dickinson A, Offredy M *et al.* A research note on the benefit of patient and public involvement in research: the experience of prostate cancer patients regarding information in radiotherapy. *Radiography (Lond)* 2017;**23**(2):167–70.
8. NIHR. Best research for best health: the next chapter, 2021. Available online at: <https://www.nihr.ac.uk/documents/best-research-for-best-health-the-next-chapter/27778> (Last accessed 17 January 2022).
9. Osuafor CN, Golubic R, Ray S. Ethnic inclusivity and preventative health research in addressing health inequalities and developing evidence base. *Eclinicalmedicine* 2021;**31**:100672.

In Practice

‘Community reporting’: an insight-generating approach for local authority physical activity provision

AJ Potts 

Institute for Sport, Physical Activity, and Leisure, Leeds Beckett University, Leeds LS6 3QS, UK.

Email: A. Potts@leedsbeckett.ac.uk

J McKenna

Institute for Sport, Physical Activity, and Leisure, Leeds Beckett University, Leeds, UK

C Webber

Institute for Sport, Physical Activity, and Leisure, Leeds Beckett University, Leeds, UK

Corresponding author:

Alexandra J Potts, as above

INTRODUCTION

Research into physical activity (PA) promotion often takes a top-down approach, meaning that it overlooks the experiences of local people.¹ Recently research has acknowledged the importance of community-informed research as critical for understanding local contexts and for exploring health disparities and inequalities.² Community insights are important for shedding light on how intrapersonal factors (e.g. self-concept), dynamic interpersonal relationships (e.g. friends, colleagues) and the local environment (e.g. parks and green spaces, workplaces) can influence PA both independently and in combination with other factors.³ However, community insights are often elusive using traditional research methods which typically involve interviews⁴ or focus groups.⁵ The potential of such methods is often undermined by local people being guarded about discussing personal and/or sensitive information with someone outside of their community.⁶

Previous literature highlights the challenges facing ‘out-group’ researchers – individuals regarded as ‘different’ due to their education, research expertise, race and/or socioeconomic status that may denote a more elevated privilege and power within society.⁷ While ‘out-group’ researchers may be objective and emotionally distant from the research process, they may find it difficult to gain access to research participants.⁸ ‘Out-group’ researchers may lack underpinning local knowledge, which often reduces empathy and the potential for research participants to experience the psychological safety needed to disclose their experiences.⁹

In light of these potential shortcomings, this article presents a novel approach to gaining community insight called ‘community reporting’ (CR). CR can provide an opportunity to engage with local residents who may otherwise be reluctant to share their experiences with ‘outsiders’. It is essential these experiences are captured to help develop case study examples to inform policy recommendations and action when creating healthy environments. This approach can go beyond being just ‘practical examples’ and instead influence decision making and, by using local context, can help to convince decision makers.¹⁰



IN PRACTICE

Case study: Active Calderdale

Drawing on the insight-gathering work of the Sport England funded Local Delivery

Pilot (LDP) ‘Active Calderdale’, which is using a whole-systems approach to PA promotion across the Borough, CR was identified as a functional and sensitive approach. CR was piloted in one locality to develop an understanding of the key organisations and services that were influential in directing

PA behaviour. To maximise learning, the CR approach was one of a number of innovative approaches used within the larger evaluation and insight work of Active Calderdale. This process was instigated and delivered by an embedded researcher (AP) within Active Calderdale.

Identifying community reporters

Following institutional ethical approval, community reporters were recruited through a Community Engagement Coordinator (CEC) who works for a local community anchor organisation

Previous literature highlights the challenges facing ‘out-group’ researchers – individuals regarded as ‘different’ due to their education, research expertise, race and/or socioeconomic status that may denote a more elevated privilege and power within society

partnered with Active Calderdale. Using their local knowledge, the CEC identified residents who were not only actively involved with community-based initiatives but also well connected to residents with limited social networks. These residents were approached individually to engage in the task.

Workshops to train community reporters

A workshop was used to train the Community reporters, which took a four-step approach to the training:

1. Introduction (30 min)

The Community reporters were briefed on Active Calderdale and the insight-gathering task. This involved presenting the aims of Active Calderdale, the aims of the insight-gathering task and the proposed approach. The Community reporters had time to discuss Active Calderdale and ask any pertinent questions (e.g. how will the information gathered from this task be used?); it was important they fully understood the strategy and the task before proceeding.

2. Training and ethical considerations (30 min)

Next, AP familiarised the Community reporters with the conversation brief to be used with residents. It was important that these conversations were unstructured and followed the flow of conversation, rather than following a set agenda. They were encouraged to revert to the brief when conversation was beginning to tire. For example, topics pertinent to this project are related to (1) daily, weekly and monthly contacts to understand key influencers (e.g. can you tell me about who you speak to on a daily basis in the community?), (2) methods of travel in the area (e.g. can you tell me how you get to your local shop?) and (3) weekly work and/or leisure schedules (e.g. can you talk me through what your working week looks like?). To illustrate how the conversation might

progress, AP and the CEC engaged in a role-play task. The Community reporters were also made aware of key ethical procedures that required adherence, such as confidentiality, the process of gaining consent and information about the location of each conversation.

3. Practice (45 min)

An essential part of the workshop was ensuring the opportunity to become fluent using the conversation brief. Community reporters took turns using the brief with fellow Community reporters, receiving constructive feedback from AP, the CEC and the other Community reporters in the group. Feedback typically revolved around how to initiate (e.g. can you tell me about local community groups you engage with?), develop (e.g. can you tell me a bit more about that?) and build (e.g. that's interesting, do you notice other people in the community who influence your behaviour?) on the conversation. Rounds of practice conversations offered Community reporters the opportunity to refine their skills and approach until we were all comfortable with the task.

4. Final review and distribution of conversation materials (15 min)

The Community reporters had the opportunity to ask questions before being given information sheets, a link to the online consent form and a Dictaphone. Contact details for AP and the CEC were also provided, and AP ensured the Community reporters were competent in collecting stories and addressed any final questions.

Anecdotal reflections

This CR approach generated important insights on local PA provision. For example, we discovered how small

changes would expand the numbers of South-East Asian women using leisure provision and the importance of providing female deliverers of a similar cultural background to engage these women (e.g. by having only women lifeguards present at women only swimming sessions). Furthermore, the Community reporters revealed the importance of day-to-day social processes and how the essential role social networks play in validating involvement in PA (e.g. local parent groups organising postschool drop-off walking or running groups). Activating these social local influences will be essential when considering locally driven PA provision.

CONCLUSION

In this article, we introduce and describe CR as an approach to gaining insight on local context from local residents. This may be useful for researchers, evaluators and practitioners working to understand local contexts and underserved groups. The CR approach offers an opportunity to work with community-based individuals to generate insights into local priorities and concerns. These issues can help address inequalities

and should be considered by those who devise policies and strategies, and those working on delivering PA provision.

The CR approach offers an opportunity to work with community-based individuals to generate insights into local priorities and concerns

DECLARATION OF CONFLICTING INTERESTS

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FUNDING

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID ID

Alexandra J Potts  <https://orcid.org/0000-0002-0882-9900>

References

- Ribera AP, McKenna J, Riddoch C. Physical activity promotion in general practices of Barcelona: a case study. *Health Educ Res* 2006;**21**(4):538–48.
- Brooks MJ, Fields EL. Community partnered participatory research methods as tools for racial justice and health equity. *Perspect Public Health* 2021;**141**(5):261–2.
- Spence JC, Lee RE. Toward a comprehensive model of physical activity. *Psychol Sport Exer* 2003;**4**:7–24.
- Mama SK, McCurdy SA, Evans AE *et al.* Using community insight to understand physical activity adoption in overweight and obese African American and Hispanic women: a qualitative study. *Health Educ Behav* 2015;**42**(3):321–8.
- Groshong L, Wilhelm Stanis SA, Kaczynski J *et al.* Exploring attitudes, perceived norms, and personal agency: insights into theory-based messages to encourage park-based physical activity in low-income urban neighbourhoods. *J Phys Act Health* 2016;**14**:108–16.
- Sixsmith J, Boneham M, Goldring JE. Accessing the community: gaining insider perspectives from the outside. *Qual Health Res* 2003;**13**(4):578–89.
- Wallerstein N, Duran B. The theoretical, practical, and historical roots of CBPR. In: M Minkler, N Wallerstein (eds) *Community-based participatory research for health: from process to outcomes*. San Francisco, CA: Jossey-Bass; 2008. pp. 25–46.
- Chawla-Duggan R. Breaking out, breaking through: accessing knowledge in a non-Western overseas educational setting – methodological issues for an outsider. *Compare* 2007;**37**:185–200.
- Cheek NN, Shafir E. The thick skin bias in judgments about people in poverty. *Behav Publ Pol. Epub ahead of print* 14 August 2020. DOI: 10.1017/bpp.2020.33.
- Le Gouais A, Foley L, Oglvie D *et al.* Sharing believable stories: a qualitative study exploring the relevance of case studies for influencing the creation of healthy environments. *Health Place* 2021;**71**:102615.

RSPH eLearning

RSPH
ROYAL SOCIETY FOR PUBLIC HEALTH
VISION, VOICE AND PRACTICE

Arts, Culture and Heritage: Understanding their complex effects on our health

RSPH and University College London (UCL), supported by the MARCH Network have developed this course to increase knowledge and understanding of how community resources, including arts, culture and heritage activities can improve our physical and mental health and wellbeing.

UCL and RSPH are providing a limited number of free course accounts to ECRs. To access the course for free please fill out the form at the bottom of this page: www.rsph.org.uk/our-services/e-learning/courses/arts-culture-and-heritage.html

For more information please contact our eLearning team at learn@rsph.org.uk or call 020 7265 7372

 **UCL**

Bringing lived experience into research: good practices for public involvement in research

Woodward et al. present this article as an example of good practice and reflection on the current development of a public involvement group.

S Fowler Davis

Associate Professor, Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), Sheffield, UK

C Woodward

Public Involvement in Research Group (PIRG) Co-ordinator, Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK.
Email: c.woodward@shu.ac.uk

B Greenfield

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

C Homer

Early Career Researcher, Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), Sheffield, UK

K Williams

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

W Hameed

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

B Riley

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

D Roberts

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

G Bryan

PIRG Member Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University (SHU), 2 Old Hall Road, Sheffield S9 3TU, UK

Corresponding author:

Claire Woodward, as above

The benefits of public involvement and engagement in research have been widely reviewed in health and care,^{1,2} with benefits that include the experience and worth gained by participants^{3,4} and the benefits to the research community.⁵ There is a growing awareness of the benefits of patient and public involvement (PPI) in research across disciplines, and acknowledgement of the need to address power inequities and a lack of diversity and inclusion.² Innovative approaches to public involvement in multidisciplinary research are evolving and gaining more organisational commitment⁶ with researchers becoming better at accommodating public involvement and identifying engagement opportunities.

These considerations have been central to an organisational commitment at the Advanced Wellbeing Research Centre (AWRC), Sheffield Hallam University, where a new Public Involvement in Research Group (PIRG)⁵ was set up in July 2020. The vision to improve the health and wellbeing of the population was specifically focused on research and innovations that help people move, and the co-design of meaningful and high-quality research into physical

activity. This article presents the process of setting up a PIRG within a research centre at a large academic institution. The article highlights the values of a PIRG and presents the areas identified by the members to develop the group and future impact. The article is co-authored by the public involvement group members and academic coordinators.

The key features of the PIRG member activity are bullet pointed below:

- 24 members of the public, two being co-chairs who attend internal governance meetings;
- A mixed approach to the review of research proposals: remote paper based and online live reviews;
- Quarterly members' meetings, to provide updates on the research centres' activity, progress on developments, feedback on previous reviewed bids;
- Selected co-applications, lay advisors and participation in research delivery;
- Periodic reviews of themes and programme and selected (optional) engagement in surveys, wider engagement with other PPI activity and business proposals.

Our aim was to recruit a varied individual contribution and to sustain membership of the PIRG to engage fully with the new research centre. Higher education innovation funding (HEIF) was used to enable a funded partnership with Healthwatch UK⁷ and a planned recruitment across the city. The collaboration enabled us to access a wide range of communities, voluntary sector and statutory organisations, to promote the opportunity to be involved with the AWRC. The initial recruitment

Bringing lived experience into research: good practices for public involvement in research

sought to reflect local populations and communities while remaining 'generic' in research focus, that is, inclusive of the widest range of values and opinions associated with wellbeing and long-term conditions, prevention and management. By working in partnership and addressing the equality and diversity constraints that are known to limit the range of perspectives for research,⁹ the partnership sought to build on a commitment to be inclusive in hearing from different groups and enabling participation in research.⁹

A coordinator was recruited from the AWRC researcher community and the AWRC Board^d recognised how the PIRG would amplify a user perspective in the AWRC with this statement included in the terms of reference:

Public involvement is seen as a valuable and essential part of the way research is prioritised, designed, run and shared. It is seen to improve the quality and running of research projects, inform the exchange of knowledge between researchers and practice, and drive the translation of research and its positive impact on people beyond the academic community.

The operational processes have been set up with specific projects to ensure the security of member's personal data, a standardised method for payment and an induction programme that enables experienced and less experienced members to contribute fully. These processes are important and by clarifying the support for members, the potential imbalances of power are addressed and access to support is made clear.

The impact of the PIRG has recently been evaluated¹⁰ through a series of online and face-to-face events and engaging in 'learning conversations'.¹¹ These were designed to enable open communication, make people feel comfortable to speak and to encourage participation in planning, with a view to planning further recruitment. The outcomes of these sessions help the organisation to deepen the engagement and involvement, and learning has been grouped into 'themes of concern'.

1. *Creating a space for safe involvement*: The membership, now 24 individuals, has remained consistent since the start, and members have valued the structure and the administrative support that enables their voluntary contribution. The comments included, it's 'well set up, enough members and good staff support'. There is a respect for different ways that individuals participate. 'I don't always contribute but when I do I feel that I am being listened to which is important'. Some members found that there was 'way too much talking to each other and administration in the meetings and far too little of what I am interested in' and so a couple of members have elected to just review research proposals and not to participate in meetings. Others see themselves as 'team players with researchers' and actively respond. It has been important to the group to check the level of confidentiality required for individual projects, which is regularly communicated by the researcher and transferred via the coordinator.
2. *Reward and purpose*: Both PIRG members and researchers have commented on the value of participation: 'From my own point of view, I am finding my involvement both thought-provoking and rewarding, and believe we are helping the AWRC to be effective as a national research centre, but also as a focus for the wellbeing of the surrounding community'. Members have attended AWRC Board meetings and have absorbed the mission to engage in applied research as a core purpose of the AWRC: 'I like to think the PIRG reviewer can help the translational process, taking good ideas from pure research to an applied solution that can be deployed in the real world'. Many researchers are unfamiliar with sharing their research ideas with lay members but have also

responded well, commenting on the feedback they receive: 'ensuring we have the public voice to check, challenge and improve the research we undertake is so important. I look forward to taking the next steps to PI and including PIRG members as co-applicants on our bids'. PIRG members often make constructive suggestions about patient facing documents and try to ensure good use of plain English. Another frequent area of scrutiny is how patient data are to be safeguarded and kept anonymised. Both types of involvement reinforce the need for researchers to follow best practice.

3. *Equality, diversity and inclusion*: As a core value of the PIRG, the lived experience is always the rationale and often the motivation to become and remain a member of the group. Members review draft research proposals, responding to researcher's ideas from a personal perspective. The range and demographic of the membership are diverse in age, gender and cultural perspective, but there is an ongoing desire to extend the breadth of experience.¹¹ 'One of the challenges is having good representation within the group of the community around us, the people we aim to help with our research, the real-life experiences to challenge the academics thinking'. Current membership is supported by some members who represent themselves and others from their networks and communities and this has enabled a wide range of opinion

and diversity of views. Examples include 'walking groups', ethnically diverse third-sector organisations and underrepresented communities, that is, young carer services. A key advantage of this

approach is that working-age people are involved alongside those who are retired and not in formal employment. Several PIRG members are also expert patients and so have useful

'I like to think the PIRG reviewer can help the translational process, taking good ideas from pure research to an applied solution that can be deployed in the real world'

Bringing lived experience into research: good practices for public involvement in research

insight into how health services are currently provided and, for example, how patient organisations like the British Heart Foundation (BHF) encourage cardiology patients to exercise safely, even during periods of lockdown.

Experiences of exercise programmes vary between members, from positive applications in accelerated recovery programmes following surgery to less positive experiences of graded exercise therapy (GET). These perspectives are helpfully shared with researchers to consider when shaping their studies. The same is true of diet regimes; some members understand through their own experience how to incentivise people to lose weight in practical ways and others have strong views about how people from different cultural backgrounds may need tailored approaches to managing body shape and healthier weight through exercise.

Actions from the discussion have been used to formulate a range of improvement activity that will be undertaken with the group members and across the AWRC. The most pressing is the continued active involvement of all researchers, particularly those in disciplines that are unfamiliar with exposing their research ideas to feedback from individuals and communities. We are encouraging 'early enthusiasts' to share their experience: 'We received lots of detailed feedback. I was grateful to see how much time and effort the reviewers had put into assessing our proposal. I would definitely bring future projects to PIRG for review'.

The other ongoing commitment is to build continuous improvement in representation and diversity. Members are already trying to ensure that those who have less ability to engage with research are invited to participate. Strengthening public involvement and engagement¹² is often associated with training and development, particularly for those who are new to research and to framing feedback. Reporting the

impact of PPI in research should include how people with highly embedded and relevant experience are identified and supported.¹³ The goal of the formal PPI group is to enable detailed insights to inform the research and provide researchers a real opportunity to learn through lived experience of different populations, reporting this alongside key research findings.¹⁴

By working with a subset of the group, a development plan for 2022 is now in place to

1. Enhance the offer to academics by way of sharing learning from previous reviews, increasing access to and awareness of the group to enhance their research, increasing diversity within the group to bring a wider range of lived experience.
2. Enhance the experience for the members of public by way of improving communication channels within the group, informing them about wider activity of the Research Centre and College which it sits, supporting with training for those new to PPI, ensuring the group and review methods are accessible to all.

SUMMARY

Innovation in public involvement is based on continuous improvements to processes and systems that enable a sustained infrastructure that allows members to offer feedback to researchers about their research. Engagement requires continuous learning and development with the existing group and with the researchers undertaking complex multidisciplinary studies. Our PIRG evaluated activity after 18 months of

Innovation in public involvement is based on continuous improvements to processes and systems that enable a sustained infrastructure that allows members to offer feedback to researchers about their research

operating, and this article reports on the value of developing a safe infrastructure to support, develop and grow collaborations, and methods of enabling all PIRG members to focus on the impact of the studies in improved health and wellbeing outcomes.

Due to positive experience of public involvement shaping research projects for the better, the AWRC is not only seeking to make the work of the PIRG more widely accessible to researchers but also to ensure PIRG continues to engage with relevant, underrepresented health service user groups.

ACKNOWLEDGEMENTS

This article has been co-written between staff at the Advanced Wellbeing Research Centre and members of the public who form part of the Public Involvement in Research Group.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FUNDING

The author(s) received no financial support for the research, authorship, and/or publication of this article.

ORCID IDS

Claire Woodward  <https://orcid.org/0000-0001-9814-8617>

Catherine Homer  <https://orcid.org/0000-0003-2571-6008>

NOTE

- i. The Board of the Advanced Wellbeing Research Centre (AWRC) is the senior group responsible for the governance of the research.

Bringing lived experience into research: good practices for public involvement in research

References

1. Brett J, Staniszewska S, Mockford C *et al.* Mapping the impact of patient and public involvement on health and social care research: a systematic review. *Health Expect* 2014;**17**(5):637–50
2. Ocloo J, Garfield S, Franklin BD *et al.* Exploring the theory, barriers and enablers for patient and public involvement across health, social care and patient safety: a systematic review of reviews. *Health Research Policy and Systems* 2021;**19**(1):1–21
3. Gordon J, Franklin S, Eltringham SA. Service user reflections on the impact of involvement in research. *Res Involv Engagem* 2018;**4**: 11–6
4. Reynolds J, Ogden M, Beresford R. 'Something quite special'? Understanding PPI experiences over time, and in the context of health research systems. Sheffield: Sheffield Hallam University; 2021.
5. Public engagement. Sheffield Hallam University. Available online at: shu.ac.uk
6. Birch R, Simons G, Wähämaa H *et al.* Development and formative evaluation of patient research partner involvement in a multi-disciplinary European translational research project. *Research Involvement and Engagement* 2020;**6**:6–14
7. What we do. Healthwatch. Available online at: <https://www.healthwatch.co.uk/what-we-do>
8. Mertens D. Research and evaluation in education and psychology. *Integrating diversity with quantitative, qualitative and mixed methods* (5th ed.). 2020. Sage
9. Davis SF, Silvester A, Barnett D *et al.* Hearing the voices of older adult patients: processes and findings to inform health services research. *Res Involv Engagem* 2019;**5**:11–9
10. Green G. Power to the people: to what extent has public involvement in applied health research achieved this? *Res Involv Engagem* 2016;**2**:28
11. Stevenson T. Anticipatory action learning: conversations about the future. *Futures* 2002;**34**(5):417–25
12. Reynolds J, Ogden M, Beresford R. Conceptualising and constructing 'diversity' through experiences of public and patient involvement in health research. *Res Involv Engagem* 2021;**7**:53. DOI: 10.1186/s40900-021-00296-9.
13. Staniszewska S, Brett J, Mockford C *et al.* The GRIPP checklist: strengthening the quality of patient and public involvement reporting in research. *Int J Technol Assess Health Care* 2011;**27**(4):391–9
14. Jones J, Cowe M, Marks S *et al.* Reporting on patient and public involvement (PPI) in research publications: using the GRIPP2 checklists with lay co-researchers. *Res Involv Engagem* 2021;**7**(1):1–13

NEW RSPH Qualification

Level 2 Encouraging Vaccination Uptake

RSPH
ROYAL SOCIETY FOR PUBLIC HEALTH
VISION, VOICE AND PRACTICE

The objective of this qualification is to provide learners with the knowledge and understanding to promote the importance of vaccination programmes and to use behaviour change models and motivational techniques to support individuals in making a decision to receive a vaccination.

The qualification will enable learners to understand the importance of vaccination programmes, as well as key sources of vaccine concern and vaccine hesitancy. It will support learners to develop their knowledge of behaviour change models and ways in which they can be applied in conversations and consultations with individuals and groups around vaccination programmes.

For more information please contact our qualifications team at training@rsph.org.uk or call 020 7265 7300

Exploring the mental health effects of Universal Credit: a journey of co-production

This article offers reflections and experiences of public engagement in a National Institute for Health Research funded study about the mental health effects of Universal Credit.

M Cheetham 

Research Fellow, National Institute for Health and Care Research (NIHR), Applied Research Collaboration North East and North Cumbria (NIHR200173), based at Department of Nursing, Midwifery and Health, Northumbria University, Coach Lane Campus East, Room H213, Newcastle-u-Tyne, NE7 7XA, UK
Email: Mandy.cheetham@northumbria.ac.uk

PJ Atkinson

Public contributor, UK Poverty Truth Network

M Gibson

Investigator Scientist, MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

SV Katikireddi

Professor of Public Health & Health Inequalities, MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

S Moffatt

Professor of Social Gerontology, Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle-upon-Tyne, UK

S Morris

Post Doctoral Research Associate, Population Health Sciences Institute, Faculty of Medical Sciences, Newcastle University, Newcastle-upon-Tyne, UK

L Munford 

Senior Lecturer in Health Economics, Division of Population Health, Health Services Research & Primary Care,

School of Social Sciences, University of Manchester, Manchester, UK

F Shenton

Public Involvement and Community Engagement Manager, National Institute for Health and Care Research (NIHR), Applied Research Collaboration North East and North Cumbria (NIHR200173), based at CNTW NHS Foundation Trust, St Nicholas' Hospital, Newcastle Upon Tyne, NE3 3XT, UK

S Wickham

Wellcome Trust Research Fellow, Department of Public Health, Policy & Systems, Institute of Population Health, University of Liverpool, Liverpool, UK

P Craig

Professor of Public Health Evaluation, Inequalities and Health, MRC/CSO Social and Public Health Sciences Unit, University of Glasgow, Glasgow, UK

Corresponding author:

Mandy Cheetham, as above

PJ's poem powerfully illustrates his experiences of Universal Credit (UC). In this article, we outline our approach to public involvement and engagement (PIE) in a mixed-method, multi-site study about the mental health effects of UC

funded by the National Institute for Health Research (NIHR).

Public involvement in research is defined by NIHR as 'an active partnership between members of the public and researchers in the research process'. We view public engagement as a social practice of dialogue and learning between researchers and the public;¹ at its heart is the core value of social justice, shaped by wider societal developments towards realising citizen empowerment.² We adopted the term PIE in preference to the more commonly used patient and public involvement, given that our study involves

We view public engagement as a social practice of dialogue and learning between researchers and the public; at its heart is the core value of social justice, shaped by wider societal developments towards realising citizen empowerment

citizens/people with experience of UC and staff supporting them. Deciding who our relevant 'publics' are, and how we meaningfully involve them in the research is evolving over time. Here, we describe and reflect on the ongoing process of PIE in the context of this four-year research project.

BACKGROUND AND INTRODUCTION

This study began in May 2021, but the public involvement process started long before in 2016 in North East England when the public, voluntary sector staff and elected members in local government began voicing concerns about the rollout of UC and its consequences for citizens and services. This coincided with MC working as an embedded researcher in Gateshead Council Public Health team

Exploring the mental health effects of Universal Credit: a journey of co-production

Box 1. A poem by PJ.

The Road

Why does my benefit ... CRUSH down.
 The road to employed is a steep enough hill, why place a mountain to defeat my will.
 Why does my benefit ... CRUSH down.
 The road to good health, is long and hard to chart, why place a minefield to blow me apart.
 Why does my benefit . . . CRUSH down.
 The road to inclusion is digital only, why place obstacles to hinder and goad me.
 Why does my benefit . . . CRUSH down
 The road out of poverty is a torrid time, why do I feel I did a crime.
 Why does my benefit ... CRUSH down.
 The road they built doesn't care or feel, I'm not a problem I'm just real.
 Why does my benefit . . . CRUSH ME DOWN.

who, in response to these concerns, commissioned qualitative research that subsequently reported negative experiences of UC.³ Inspired by powerful narratives of people claiming UC, including PJ, MC developed links with Gateshead Poverty Truth Commission (GPTC). Their approach centred on building connections between people with lived experience and those in positions of power to affect change. Collaboration between academics with a strong track record of previous work highlighting the health impacts of UK welfare reforms over the last decade,⁴⁻⁹ enabled a successful application to NIHR's call for research on changes to the welfare system (19/106). Long-standing partnerships between the research team, citizens and staff in voluntary organisations and local government informed the application.

WHO IS INVOLVED?

Research team members drew on existing links with stakeholders and UC claimants in North East England, Liverpool and Glasgow whose knowledge and lived experience were valued equally. We anticipated input would benefit the research in multiple ways: help prioritise the questions we ask in the research, identify outcomes of interest, and enhance the quality and relevance of the findings. Although we took a rights-based approach, and were aware of NIHR's emphasis on paid involvement as a research funder,¹⁰ we were (and remain) concerned about the practical and personal risks for UC claimants, including on entitlement, eligibility and conditionality. These risks, which we have discussed with colleagues in the Department for Work and Pensions (DWP), are outlined in Box 2.

OUR APPROACH TO PIE

We set out our approach to PIE in a jointly agreed values statement (see Supplementary Material 1). We used the Public Involvement Impact Assessment Framework¹² to stimulate discussions about the aims and intended impact of public involvement in each work package. Recognising the need for flexibility, we are working with UC claimants and stakeholders to explore how they want to be involved and to date have captured these in a menu of options (see practical activities in Supplementary Material 1). We discussed these with the Department for Work and Pensions (DWP) and support organisations in efforts to reduce the potential risks of PIE activities. We obtained letters explaining public involvement that UC claimants can use if questioned by Job Centre staff or work coaches. Our budget included payment for public involvement activities according to the NIHR guidance. A set of payment options was offered to minimise the risks for UC claimants who chose to be involved. Guided by advice from Citizens Advice and DWP, we included options to receive expenses only, or payments to be made to voluntary and community sector (VCS) organisations (a copy of our PIE payment policy is available in Supplementary Material 2).

Early on, we consulted UC claimants, advice workers, public involvement leads and Universal Credit Essentials (UCE; an

Box 2. Risks of public involvement and engagement for Universal Credit claimants.

Universal Credit claimants may already be navigating complex Department for Work and Pensions (DWP) rules about payments and conditionality. A principle of conditionality holds that that access to publicly funded welfare benefits, like Universal Credit, should be dependent on an individual agreeing to meet particular obligations.¹¹ Universal Credit claimants are required to undertake set amounts of work search activities each week. Claimants can face sanctions (where their benefit is stopped temporarily) for perceived breaches of the claimant commitment negotiated with their work coach. Public involvement and engagement activity could affect actual or perceived availability for work. Our previous research showed variability in enforcement/interpretation of Universal Credit rules, resulting in unpredictable decision-making with serious potential consequences for claimants. Tensions exist between Universal Credit rules and NIHR requirements to pay public contributors set amounts for public involvement activities. We found it is important to distinguish between vouchers given for participation in research interviews versus reimbursement of expenses versus remuneration for public involvement and engagement activities. Payments for public involvement activities could count as earned income and could affect Universal Credit entitlement. We advised claimants to seek independent advice about their specific circumstances from welfare rights services. The perception of claimants' involvement in 'paid work' (public involvement and engagement activities) could threaten their Universal Credit entitlements more broadly, or claimants previously assessed as having 'limited capability for work' could be seen as 'fit for work' following engagement in public involvement activity.

Exploring the mental health effects of Universal Credit: a journey of co-production

Box 3. PJ's thoughts on co-production.

After a second relapse of my mental health in 2019, one of the main attributes of my improvement had been my joining the Poverty Truth Commission in Gateshead, as a community or life experience commissioner, relaying my story of my interactions with Universal Credit. This had culminated in a high point when we had our launch event in March 2020. The offer to take part in co-production of the Universal Credit research project was therapeutic, but also made me feel useful. I have not worked for seven years, so the keeping of diaries, attending meetings, helping shape the questionnaire and being on the recruitment panel for the North East researcher made me feel my lived experience felt both important and valued, and I felt better in myself. This has led me to feel very strongly on the value of co-production, and the effort it requires to do it properly. Taking information from people who are vulnerable, lack confidence, are suffering mental health, addiction or are of poor education requires patience and empathy, but the information received is 'pure gold'. Only a person living in their situation can give the insight that they bring. Being part of the recruitment panel allowed me to offer a non-professional, or technical view; was the person warm and nice to speak to, would I want to tell them my story? Did they listen well and understand how they were going to approach this qualitative research and were they open to co-producer's input?

education and advice charity started and run by current and former UC claimants). UCE had input during the proposal development process, including commenting on the overall research plan as described in the plain language summary. We simplified qualitative fieldwork documents following advice from public partners and welfare rights colleagues and augmented the written materials with a short film, co-produced with public engagement partners.

Our public contributors encouraged us to revise the Privacy Notice, to improve accessibility generally and specifically to ensure clarity on the nature of harms that may require confidentiality to be breached and what action would be taken in that event. The process of ratifying the new version with University colleagues responsible for data protection and ethics seems to have highlighted the value of public engagement and may lead to some changes at an institutional level to ensure the accessibility of public documents. Our discussions with colleagues in finance as a result of public involvement have resulted in changes to claims forms to ensure they are fit for purpose.

Our public involvement activities included an opportunity to be involved in the recruitment and selection panel for a new researcher working on the study. Following his involvement, PJ offers his thoughts on co-production in Box 3.

HOW OUR APPROACH IS EVOLVING

We are at the beginning rather than the end of the journey and anticipate public

involvement activities will continue to develop throughout the study, across all workstreams. PIE is a standing item at monthly team meetings, and all researchers are encouraged to keep an impact log. One of our aims is to open up the possibilities of PIE, and we continue to reflect on our efforts. We are adapting our approach to PIE to take account of people's needs and concerns about digital exclusion during COVID. Sometimes this means taking a walk in the park instead of organising an online meeting.

The research team are listening, learning and creating opportunities for others to hear about the effects of UC through poetry, conversation and continual dialogue. We are hoping to change assumptions, narratives and perspectives along the way. We remain alert to differences between stated policy and on-the-ground implementation, particularly following conversations with UCE that Scottish Choices Universal Credit payment arrangements and Alternative Payment Arrangements in the rest of the UK are not markedly different and are often dictated by work coaches at local level.

Our PIE payment processes have been developed in conjunction with public contributors, to establish their preferred methods of payment using guidance about how different kinds of payment will be assessed and taken into account by DWP/Job Centre staff. Colleagues operating university payment and claims systems are open to adapting systems so that they fit the specific requirements of our study public partners. The research team are committed to sharing our learning throughout the study, including

developing a publication policy to reflect our learning of co-authoring papers in collaboration with public contributors.

REFLECTIONS AND RECOMMENDATIONS FOR RESEARCHERS AND RESEARCH FUNDERS

We are aware that there are limits to the changes that can occur as a result of PIE (e.g. study design approved by funders and requirements for inclusion of material on information leaflets). We aim to be transparent about the limits of influence in the study. Members of the research team built on our previous relationships with practitioners, policy-makers and people with experience of UC. The study benefitted from this early engagement. However, challenges remain in offering meaningful PIE opportunities *before* formal research funding begins. Pump priming funding for researchers to have capacity to start these processes before an application/award begins would be beneficial. Time is needed for meaningful co-production to be factored into research designs. Our experience has demonstrated the immense contributions of voluntary and community organisations that provide support for people involved in research.

Working together on a Public Involvement and Engagement Values Framework helped build trust and shared understanding between team members, stakeholders and public contributors. Anticipating potential risks of harm added layers of complexity.¹³ Paying close attention early on to remuneration issues helped reduce potential adverse impact on

Exploring the mental health effects of Universal Credit: a journey of co-production

UC claimants. We remain concerned that, depending on UC claimants' circumstances, NIHR recommended payment rates could cause significant harm

to some of the people we most want to engage in research. For this reason, we remain vigilant about the potential costs to public partners,¹⁴ and seek ways to reduce the possibility of involvement exacerbating/widening existing health inequalities.

Public involvement enhanced the researcher recruitment and selection process in this study and should become routine practice in university appointments for publicly funded research. We acknowledge the structural difficulties of sharing power in the context of the existing research hierarchy within which co-production commonly takes place.¹⁵ Our experience has shown that PIE can disrupt taken for granted assumptions, values and norms if people are open to change and differing perspectives. Capturing these outside our multi-disciplinary research team is not straightforward.¹⁶

CONCLUSION

Undertaking research on UC requires a focus on the perspectives of communities

Undertaking research on UC requires a focus on the perspectives of communities most at-risk

most at-risk.² None of the research team members consider themselves experts in public involvement or co-production. Our approach has been characterised by humility and a willingness to try new approaches, build new relationships, listen and learn from experience. PIE is firmly established in our ongoing research, which enables regular reflection as well as acknowledging and addressing the possibilities of unintended consequences. We anticipate more bumps in the road. While hopefully we may have contributed by outlining our approach, we are aware that the existing 'hierarchies of academic knowledge production'¹⁷ make it challenging to fully realise the transformative potential of publicly engaged research.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.


FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship and/or publication of this article: This study was funded by the National Institute for Health Research (NIHR Project:

NIHR131709 – Evaluation of the health impacts of Universal Credit: a mixed-methods study). The views expressed are those of the authors and not necessarily those of the NIHR or the Department of Health and Social Care. P.C., M.G. and S.V.K. acknowledge funding from the UK Medical Research Council (MC_UU_00022/2) and the Scottish Government Chief Scientist Office (SPHSU17). S.V.K. acknowledges funding from an NHS Research Scotland (NRS) Senior Clinical Fellowship (SCAF/15/02). M.C. and F.S. acknowledge funding from the NIHR Applied Research Collaboration (ARC) North East and North Cumbria (NENC). Public involvement and engagement in this study is supported by F.S. and M.C. whose posts are funded by the NIHR ARC NENC. L.M., is partially funded by the NIHR Applied Research Collaboration Greater Manchester (ARC-GM; reference NIHR200174). The views expressed in this publication are those of the author(s) and not necessarily those of the National Institute for Health and Care Research or the Department of Health and Social Care.

ORCID IDS

Mandy Cheetham  <https://orcid.org/0000-0002-2616-9205>

Luke Munford  <https://orcid.org/0000-0003-4540-6744>

SUPPLEMENTAL MATERIAL

Supplemental material for this article is available online.

References

1. Staley K, Barron D. Learning as an outcome of involvement in research: what are the implications for practice, reporting and evaluation. *Res Involv Engagem* 2019; **5**:14–9.
2. Leese J, Garraway L, Li L *et al*. Adapting patient and public involvement in patient-oriented methods research: reflections in a Canadian setting during COVID-19. *Health Expect* 2021; **25**(2):477–81.
3. Cheetham M, Moffatt S, Addison M *et al*. Impact of Universal Credit in North East England: a qualitative study of claimants and support staff. *BMJ Open* 2019; **9**:e029611.
4. C Bamba (ed.). *Health in hard times: austerity and health inequalities*. Bristol: Policy Press; 2019.
5. Barr B, Taylor-Robinson D, Stuckler D *et al*. 'First, do no harm': are disability assessments associated with adverse trends in mental health? A longitudinal ecological study. *J Epidemiol Community Health* 2016; **70**(4):339–45.
6. Katikireddi SV, Molaodi OR, Gibson M *et al*. Effects of restrictions to Income Support on health of lone mothers in the UK: a natural experiment study. *Lancet Public Health* 2018; **3**(7):e333–40.
7. Moffatt S, Lawson S, Patterson R *et al*. A qualitative study of the impact of the UK 'bedroom tax'. *J Public Health* 2016; **38**(2):197–205.
8. Simpson J, Albani V, Bell Z *et al*. Effects of social security policy reforms on mental health and inequalities: a systematic review of observational studies in high-income countries. *Soc Sci Med* 2021; **272**:113717.
9. Wickham S, Bentley L, Rose T *et al*. Effects on mental health of a UK welfare reform, Universal Credit: a longitudinal controlled study. *Lancet Public Health* 2020; **5**(3):e157–64.
10. NIHR. *UK standards for public involvement – UK public involvement standards development partnership*; 2019. Available online at: <https://www.invo.org.uk/wp-content/uploads/2019/11/UK-standards-for-public-involvement-v6.pdf>
11. WelCond Project Team. *What is welfare conditionality?* University of York. Available online at: <http://www.welfareconditionality.ac.uk/about-our-research/what-is-welfare-conditionality/>
12. J Popay, M Collins (eds); PiiAF Study Group. *The public involvement impact assessment framework guidance*; 2014. Available online at: <https://piaf.org.uk/documents/piaf-guidance-jan14.pdf>
13. Madden M, Morris S, Ogden M. Producing co-production: reflections on the development of a complex intervention. *Health Expect* 2020; **23**:658–68.
14. Oliver K, Kothari A, Mays N. The dark side of coproduction: do the costs outweigh the benefits for health research? *Health Res Policy Syst* 2019; **17**(1):33.
15. Pearce C. The complexities of developing equal relationships in patient and public involvement in health research. *Soc Theor Health* 2021; **19**:362–79.
16. Russell J, Fudge N, Greenhalgh T. The impact of public involvement in health research: what are we measuring? Why are we measuring it? Should we stop measuring it? *Res Involv Engagem* 2020; **6**:63.
17. Heney V, Poleykett B. The impossibility of engaged research: complicity and accountability between researchers, 'publics' and institutions. *Sociol Health Illness*. Epub 2021 December 7. DOI: 10.1111/1467-9566.13418.

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

Authors

J Popay

Professor, Division of Health Research, Lancaster University, Lancaster, UK

H Kaloudis

Senior Research Associate, Division of Health Research, Lancaster University, Bailrigg, Lancaster LA1 4YE, UK
Email: h.kaloudis@lancaster.ac.uk

L Heaton

Senior Manager CLAHRC Legacy Project, Division of Health Research, Lancaster University, Lancaster, UK

B Barr

Professor, Department of Public Health, Policy and Systems, University of Liverpool, Liverpool, UK

E Halliday

Senior Research Fellow, Division of Health Research, Lancaster University, Lancaster, UK

V Holt

Senior Research Associate, Division of Health Research, Lancaster University, Lancaster, UK

K Khan

Senior Research Associate, Division of Health Research, Lancaster University, Lancaster, UK

A Porroche-Escudero

Senior Research Associate, Lancaster

Environment Centre, Lancaster University, Lancaster, UK

A Ring

Research Associate, Institute of Population Health, University of Liverpool, Liverpool, UK

G Sadler

Senior Research Associate, Division of Health Research, Lancaster University, Lancaster, UK

G Simpson

Research Fellow, Faculty of Medicine, University of Southampton, Southampton, UK

F Ward

Senior Research Associate, Division of Health Research, Lancaster University, Lancaster, UK

P Wheeler

EPBHC Theme Manager, Division of Health Research, Lancaster University, Lancaster, UK

Corresponding author:

Harris Kaloudis, as above

Keywords

neighbourhood resilience; social determinants of health inequalities; community control; collective action; place-based public health

Abstract

Aims: This article seeks to make the case for a new approach to understanding and nurturing resilience as a foundation for effective place-based co-produced local action on social and health inequalities.

Methods: A narrative review of literature on *community resilience* from a public health perspective was conducted and a new concept of *neighbourhood system resilience* was developed. This then shaped the development of a practical programme of action research implemented in nine socio-economically disadvantaged neighbourhoods in North West England between 2014 and 2019. This Neighbourhood Resilience Programme (NRP) was evaluated using a mixed-method design comprising: (1) a longitudinal household survey, conducted in each of the Neighbourhoods For Learning (NFLs) and in nine comparator areas in two waves (2015/2016 and 2018/2019) and completed in each phase by approximately 3000 households; (2) reflexive journals kept by the academic team; and (3) semi-structured interviews on perceptions about the impacts of the programme with 41 participants in 2019.

Results: A difference-in-difference analysis of household survey data showed a statistically significant increase of 7.5% (95% confidence interval (CI), 1.6 to 13.5) in the percentage of residents reporting that they felt able to influence local decision-making in the NFLs relative to the residents in comparator areas, but no effect attributable to the NRP in other evaluative measures. The analysis of participant interviews identified beneficial impacts of the NRP in five resilience domains: social connectivity, cultural coherence, local decision-making, economic activity, and the local environment.

Conclusion: Our findings support the need for a shift away from interventions that seek solely to enhance the resilience of lay communities to interventions that recognise resilience as a whole systems phenomenon. Systemic approaches to resilience can provide the underpinning foundation for effective co-produced local action on social and health inequalities, but they require intensive relational work by all participating system players.

MAIN POINTS IN PAPER

What do we already know?

Action to 'build community resilience' is a prominent component of place-based initiatives that aim to reduce social and health inequalities.

Definitions of community resilience lack clarity, but the primary focus is on resilience understood as the property of people who live in a particular geographical area, with external agencies and professionals in a supporting and nurturing role.

Definitions of resilience also lack clarity, but there is a broad consensus that it includes the ability to adapt positively to change and adversity and that at a collective level, these capacities emerge from social relationships between people.

The emerging new 'community paradigm' approach to place-based initiatives seeks to devolve decision-making to residents of particular places and open up new opportunities for community control of local services.

There is evidence that initiatives that devolve responsibility down to residents may be less beneficial in the most disadvantaged areas and risk increasing inequalities.

Co-production can be an effective approach to local action on social and health inequalities, but it requires residents to work as equals with staff in the public, civil society and private sectors to develop a 'credible commitment to one another' and to share responsibility for designing and implementing actions.

What does this paper add?

A new concept of *neighbourhood system resilience* moving away from the myopic focus on residents in places refers to the collective capacity of all individuals and agencies, living, working, and operating within a place, to adapt positively to change and adversity. It explicitly recognises and foregrounds the fundamental interdependence of all system players.

This paper also adds evidence demonstrating the positive impact of a place-based programme that aimed to increase neighbourhood system resilience to improve social determinants of health inequalities amenable to local action. Key points include:

The central importance of equitable collaborative relationships between all system players with the shared aim of addressing local problems.

The impact of this model of co-production and of shifting power dynamics on levels of perceived influence among residents. Inclusive governance spaces can engage everyone with a stake in the neighbourhood.

How increased social connectivity across a neighbourhood system can impact on the development of new shared identity, increase the use and integration of diverse types of knowledge, and deliver modest improvements in economic and environmental conditions.

INTRODUCTION

Persistent and enduring inequalities in health outcomes are found in all countries. In some, including the USA and the UK, they have been widening as increases in life expectancy have stalled and, for some groups, reversed.^{1,2} Despite many national public health strategies focusing on individual behaviours, there is consistent, robust evidence that health inequalities are driven by inequalities in people's living and working conditions, the material resources they have access to, and the degree of control they have in their lives.^{3,4} The COVID-19 pandemic is occurring against this backdrop, creating what Bambra and Smith⁵ describe as 'a syndemic of COVID-19, inequalities in chronic disease and the social and commercial determinants of health' (p. 7).

Place-based initiatives are a prominent feature of policies aimed at tackling social inequalities, although improving health is not always an explicit aim.⁶ These initiatives are often 'hyper' local being implemented in small

neighbourhoods and a central feature is the involvement of people who live in the area – typically understood as the local 'community'.^{7,8} Over time, there has been an increasing adoption of strength-based approaches that seek to identify, enhance and work with the 'assets' and 'competencies' of local people – or communities – in the pursuit of positive outcomes.⁹ Most recently, as the global recession and now the COVID pandemic have exacerbated inequalities, policy makers and practitioners in the public and third sectors have increasingly focused on how to nurture the resilience of communities bearing the brunt of social inequalities – their collective capacity *to endure, adapt and generate new ways of thinking and acting* in the face of these adversities. In this context, a new 'community paradigm' has emerged, involving approaches that devolve decision-making to people who live in particular places and opening up opportunities for *community* control of local services.¹⁰ In this model, communities are to be given direct control over financial resources to

implement their collective decisions, supported by the civil society sector, with a 'soft' enabling rather than leadership role for the local state and other actors.

Research has shown that interventions that increase the collective control communities of interest or place have over decisions and actions impacting on their lives can have positive impacts on health.^{11,12} However, evaluations of neighbourhood initiatives have also shown that the type and degree of control communities are 'given' in these interventions vary and that the conditions and resources they need to exercise control over decisions/actions are unequally distributed.¹³ As Baba et al.¹³ note,

Thus, community engagement processes can be inadequately specified, producing weaknesses in the process and its aftermath, or narrowly proscribed such that they are unable to respond to variations in circumstances faced by communities living in different places. The result is that individual residents may not derive a sense of empowerment from

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

either their participation in, or the ripple effects of, collective community engagement processes. (p. 1631)

This raises the possibility that neighbourhood initiatives aiming to enhance resilience and involve residents in local action to address social and health inequalities could be *'imposing greater risks and responsibilities upon more disadvantaged communities in return for lower levels of power'*.¹⁴ There is also evidence that the individual benefits of involvement in neighbourhood initiatives may be unequally distributed and that there can be negative impacts on the health and wellbeing of residents who get involved.^{15,16}

Though not always explicit, co-production is an underpinning principle of many of these neighbourhood initiatives. According to the originator of the concept, the political scientist Elinor Ostrom,¹⁷ co-production is a process that enables the knowledge and skills of citizens to be utilised to transform services and goods. By definition it can give greater control over decisions and actions to local communities *but* as Wilton¹⁸ notes *'it does not mean letting communities fend for themselves'* (p. 79). Rather it works best in the context of equal partnerships between local people, the local state and other actors. However, as Ostrom¹⁷ noted, creating the conditions for *'successful co-productive strategies is far more daunting than demonstrating their theoretical existence'* (p. 1080). Many writers since have identified systematic barriers, including dysfunctional leadership styles, perverse incentives, limited resources and lack of trust, that work against the development of genuine co-productive relationships. But perhaps the most important prerequisite if community members and staff in the public, civil society and private sectors are to work together as equals is for them to build a *'credible commitment to one another'* (p. 1083).¹⁷

In this article, we argue that local place-based initiatives that nurture *resilience* can create the conditions for effective co-produced action to reduce some of the social inequalities that drive health inequalities, but we also argue that

this requires a different understanding of resilience. To this end, in the first section we briefly review the literature on *community resilience* from a public health perspective, concluding that understanding resilience as a potential property of neighbourhood systems rather than of the people who live in a particular area offers greater analytical and practical advantages for the design of place-based initiatives. We then describe how this approach was operationalised in nine socio-economically disadvantaged neighbourhoods in North West England and present an overview of key findings from an evaluation of this Neighbourhood Resilience Programme (NRP). Finally, the implications for public health policy and practice are discussed.

COMMUNITY RESILIENCE: AN INADEQUATE FRAMEWORK FOR LOCAL ACTION TO REDUCE INEQUALITIES

The COVID-19 pandemic has reinvigorated a long-standing policy and research interest in community resilience as a potential mechanism for local action to deliver greater social and health equity.^{19–21} Prior to the pandemic, Ziglio et al.²² argued that *'if we are to foster lasting and meaningful action to strengthen resilience to improve health and wellbeing ... it is more vital than ever to be clear about its particular significance'* (p. 789). However, achieving clarity about the 'community resilience paradigm' is a formidable challenge.

First, resilience in general, and community resilience in particular, have been under-theorised. Definitions are frequently ambiguous, using the term to describe (as a metaphor), to explain (as an independent variable, a model, or a paradigm), as a normative goal for policy or combinations of these.^{23–28} The 'characteristics' of resilience are typically presented as a mix of qualities such as robustness, adaptability, and transformability. Definitions rarely elaborate these qualities, which can seem inherently contradictory: never satisfactorily explaining how resilience can encompass both social stability and social transformation.²⁹

Cutter³⁰ argues that this definitional 'muddiness' makes the concept's application to practical initiatives problematic and does little to address inequalities. Research on community resilience as a component of responses to major events such as natural disasters, terrorist attacks, or political violence illustrates this muddiness. Reviewing this literature, Patel et al.²⁷ identified more than 50 unique definitions of community resilience to disasters, which they grouped into those focusing on resilience as: (1) a process of change and adaptation, (2) the absence of adverse effects, and/or (3) a set of traits or attributes – with some definitions including all three approaches. Where resilience properties are 'located' is also typically obtuse. For example, although describing *community centred public health* as a *whole-system* approach, South et al.²¹ argue that it involves *'the public health system supporting the least advantaged communities to become more resilient'* (p. 306) rather than focusing on action to strengthen the resilience of the 'whole system' in which residents and other actors are co-located.

Second, whether as a normative policy goal or the potential outcome of interventions, resilience has been criticised as a component of particular political modes of neoliberal governance.^{31,32} These modes of governance are argued to legitimise the rolling back of collective state provision of goods and services, promote personal responsibility for health and wellbeing, and prioritise interventions that aim to enhance self-reliance and self-sufficiency through local community action. These resilience-informed interventions are disproportionately targeted at communities of interest or place that are bearing the brunt of social and health inequities and as a result may be less able to benefit (p. 16).¹⁴

Third, the design of many community resilience focused interventions in the health field compounds these limitations by adopting an 'inward gaze' on psychosocial dynamics within disadvantaged communities and on actions to improve health-related behaviours and proximal neighbourhood conditions. As South et al.²¹ argue in the context of the unequal

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

impact of the COVID pandemic, creating community resilience is ‘*what public health systems can do to strengthen protective factors, such as strong social networks, which will aid people and communities to manage, adapt, and ultimately recover well*’ (p. 305). Social networks are important protective factors. However, a narrow inward gaze on relationship in communities diverts attention from the arguably more important ‘outward gaze’ on collective action in the pursuit of transformative structural changes to deliver greater equity. Although currently neglected, this outward gaze was enshrined in key global consensus public health statements on community-based public health such as the Ottawa Charter.^{9,33}

In response to these and other criticisms, Welsh³⁴ highlights a growing stream of work rehabilitating resilience as ‘*an analytical framework for examining [and as a means of mobilising] change*’ (p. 22) towards more equitable and ecologically sustainable social and economic systems. Similarly, Hart et al.³⁵ have developed a formulation of resilience in the context of psychological services for children and young people that integrates with social justice approaches. Alternative framings have also been proposed that move away from understanding resilience as a property of a ‘community’ defined as the people who live in a particular place. The Canadian Centre for Community Renewal,³⁶ for example, proposes a place-based system perspective defining: ‘*[r]esilient neighbourhoods [as] those that take action to enhance the personal and collective capacity of citizens and institutions to respond to and influence the course of social, economic and environmental change*’ (p. 5).

These attempts to reconceptualise resilience through the prism of equity and systems-thinking go some way to deliver a potentially more useful framework for local action to address structural drivers of health inequalities. Building on this foundation, we designed a place-based intervention around the concept of *neighbourhood system resilience* and implemented and evaluated this in nine neighbourhoods in North West England. In the rest of this article, we describe the

concept, the action research programme in which it was embedded, and key findings from an evaluation of this programme.

NEIGHBOURHOOD SYSTEM RESILIENCE: A PUBLIC HEALTH CONCEPT FIT FOR PURPOSE

The concept of *Neighbourhood system Resilience (NR)* directs attention away from a narrow focus on the resilience of people living in disadvantaged places and on a ‘supporting’ role of external agencies and professionals. Instead, resilience is understood to be the collective capacity of all individuals and agencies, living, working, and operating within a neighbourhood to adapt positively to change and adversity. This collective capacity emerges primarily from social connections and governance processes that engage everyone with a stake in a neighbourhood. In turn, these connections and processes enable adaptive capacities and resources to be activated, shared, and used to co-produce action for greater social and health equity. The term ‘adaptive capacities’ refers to the tangible and intangible resources available to be modified or transformed by the actions of system players.²⁶

More equitable and inclusive social connectivities and governance processes can only emerge, if traditional power dynamics are challenged and changed. In particular, imbalances in the power local communities and civil society have compared to other players in the public and private sectors need to change. Governance processes need to include and value all system players, building trust between them. Key to this is the harnessing and sharing of all forms of knowledge, particularly the knowledge emerging from lived experience, to co-produce a holistic picture of the drivers of social and health disadvantage locally, and effective action to address these.

Hyper-local places, such as neighbourhoods, have a unique combination of factors including local histories, contemporary economic, social and environmental conditions, cultural norms, and participatory structures and processes. These combine to shape local

patterns of inequalities, the actions that are possible, and the impacts these actions will have. Every neighbourhood also has a unique group of system players that live, work, and operate there. At this granular geographical level, all system players can in principle debate, agree, and own a common goal of tackling specific structural determinants of health inequalities that are amenable to local action.

THE NEIGHBOURHOOD RESILIENCE PROGRAMME

The NRP sought to operationalise the concept of neighbourhood system resilience and evaluate the impacts.^{37–39} The NRP was developed by partners in the Collaboration for Leadership in Applied Health Research and Care in the North West Coast region of England (CLAHRC NWC) between 2014 and 2019. It was funded by the English National Institute for Health Research and CLAHRC NWC partners and implemented in nine Neighbourhoods For Learning (NFLs). Populations in the NFLs ranged from 5000 to 10,000. The neighbourhoods were all in the bottom 15% on the index of multiple deprivation, had relatively poor health indicators, and no previous experience of a major place-based initiative.

The neighbourhood resilience framework: adaptive capacities for action

The first step in designing the NRP was to identify the resilience-related adaptive capacities the programme would seek to nurture and/or release. Five such capabilities were identified through a rapid review of resilience-related initiatives being implemented by local government agencies across England in 2014/2015. These included capacities related to:

- (a) Inclusive neighbourhood governance: structures and processes that enable people to collectively influence decisions that affect the conditions in which they live and work, and how available resources are allocated.
- (b) Social connectivity: opportunities and spaces that enable people who live and work in a neighbourhood to

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

- deepen and extend existing connections and forge new ones to improve information flow and communication, and create opportunities for collective action.
- (c) Cultural coherence: emerges from the recognition of shared interests among diverse system players and a shared confidence in their ability to act collectively to improve local conditions.
 - (d) The living environment, encompassing the availability, accessibility, and quality of indoors and outdoors spaces, such as community hubs, housing, transport, parks, and so on.
 - (e) The economic system, comprising policies and services that enable people to engage in meaningful work, promote financial security, reduce indebtedness, and so on.

The Neighbourhood Resilience Programme infrastructure

The NRP infrastructure was established across all nine neighbourhoods to support local implementation and strategic governance. It comprised four main elements and a number of key roles.

A Programme Management Group (PMG) was responsible for overall governance. It included a representative from each Local Authority partner and senior academics. As members of the PMG, *Local Authority Leads* were the link between local authority partners and the NRP. They could also be directly involved in local programme implementation. The PMG produced the system resilience framework, selected the neighbourhoods in which the programme was to be implemented, and had oversight of the evaluation. As the programme evolved, development events brought together members of the PMG and local players, including residents from across the neighbourhoods, to share learning and enable collaborative problem solving to contribute to the further development of local programmes.

The Community Research and Engagement Network (COREN) comprised local residents supported by a group of third sector organisations.

These organisations were contracted to employ *COREN facilitators* who recruited and support residents to get involved in the NRP locally as *Resident Advisers*. The COREN also operated as a source of support and learning across the neighbourhoods contributing to local programme development and to the PMG. The COREN facilitators (who were often local residents) were supported by a *COREN Manager*. The *Resident Adviser* role gave local residents actively engaged with the NRP equal standing with representatives from the public, private, and civil society sectors; formal recognition of their contribution; financial compensation for their time and work; and opportunities to develop new skills and acquire new employment-related experiences.

Knowledge mobilisation processes evolved over time. Initially, the research team conducted reviews of resilience-related initiatives in English local authorities and those already underway in the 'programme' neighbourhoods. These reviews informed the development of the neighbourhood resilience concept and aspects of the programme infrastructure. The design and implementation of local programmes, described in more detail in the next section, were supported by a range of knowledge mobilisation mechanisms. These included resident-led enquiries and researcher-led rapid reviews, which provided evidence on locally prioritised issues. Key findings from these activities were then used to trigger change in the system by, for example, influencing the perceptions of professionals working in the neighbourhoods. The NRP took an inclusive approach to knowledge, utilising evidence from peer-reviewed journal articles, grey literature, websites, and lived experience from community members and other local players.

The Programme Research Team contributed to the design and implementation of the programme centrally and in neighbourhoods, undertook systematic rapid reviews of evidence to support local work, some of which were published,⁴⁰ and conducted the evaluation. The team lead was a senior academic and there were two deputies: one responsible for evaluation

and the other for project management. Other team members operated as 'academic leads' for a neighbourhood, supporting the local programme including co-producing resident-led enquiries and acting as a link to the PMG.

Local design and implementation

Within the framework described above, and following a common albeit non-linear process, local programmes were designed and implemented in nine Neighbourhoods for Learning (NFLs). Key elements of the implementation included establishing a space for inclusive collective governance; working with the COREN to recruit and support resident advisers and other system players; getting started by bringing the 'whole system' together to discuss and decide on a local priority for action; undertaking local enquiries; and acting for change.

Spaces for collective governance

In each NFL, programme governance rested with a Local Oversight Group (LOG) with members from across the 'neighbourhood system' including local residents. The LOG was responsible for designing, implementing, and overseeing action to address a local issue that was negatively impacting on population health in the area. Drawing inspiration from the Habermasian 'ideal speech situation',⁴¹ LOGs sought to create the conditions in which diverse knowledges and voices were treated as equal. In addition to formal governance, they were spaces in which all system players could be engaged in collective sense making, consensus building, learning, and improvisation. In addition, the LOGs convened and facilitated transient spaces for collaborative deliberation and problem-solving. These typically took the form of public events in which diverse system players were invited to voice their perspectives, hear those of others, attempt to find common ground, and make shared decisions.

Recruiting resident advisers and working with the COREN

In each area, a civil society organisation was funded to employ a COREN facilitator. They were in post as local

Table 1

Focus of action in the neighbourhoods for learning

Blackpool	Improving privately rented accommodation
Liverpool	Rethinking the role of the High Street and taking action on air pollution
Knowsley	Community cohesion & environmental quality
Cumbria	Job searching and barriers to employment
Preston	Healthy streets and play places
Haslingden	Social cohesion and reduced social isolation
Ellesmere Port	Improving the quality of public spaces and increasing safety
Blackburn with Darwen	Housing and living environment
Sefton	Improving access to debt advice and support, increasing financial knowledge amongst young people

implementation began and their first task was to recruit local people as Resident Advisers (RAs). Together with the COREN organisation and supported by the COREN facilitator, RAs participated in the LOG and other discussions, contributing knowledge about the neighbourhood including previous and existing community-based initiatives, the community's strengths, and the social, economic, and environmental risks to health locally. The COREN facilitators and RAs were key players in the collation of evidence about local issues and in the design and delivery of action for change.

Getting started and deciding the focus

Work in all the NFLs started with a public event that sought to bring people across the neighbourhood system together to discuss the aims of the NRP. Participants also began to consider which of the social determinants of health inequalities amenable to local action should be prioritised as a focus for change within the lifetime of the NRP. The NRP framework served to focus local programmes on the five domains – social, economic, environmental, cultural, and governance – in which resilience capabilities needed to be enhanced and structural adversities needed to be addressed. These early phases of implementation embodied a commitment to shifting power dynamics: residents and other system players were engaged in participative governance spaces in

which discussion and debate were supported, different voices were heard, and diverse evidence was valued.

Typically, the final decision on the issues to be prioritised for local action was taken by a small number of system players including residents, but subsequently, involvement in evidence collection and action was widened. A list of the focus for action in the nine NFLs is provided in Table 1. They included the experience of social isolation and cohesion; local employment prospects: air pollution; the quality of local streets and the neighbourhood environment; the availability of debt advice and awareness of gambling and debt in schools; and local transport.

Resident-led enquiries and acting for change

Once a priority for action had been identified, rapid reviews of research sources and resident-led, participatory enquiries provided evidence on the current 'state' of the issue and potential action for change. The resident-led enquiries involved residents working as 'peer researchers' alongside the NFL Academic Leads and sometimes the COREN facilitator. Enquiry methods were diverse. They included working with a graphic artist to produce illustrated booklets and commissioning drama workshops, alongside more traditional methods, such as surveys, face-to-face, and group interviews. Findings fed directly into the design of local actions for

change which were typically small scale and involved modest additional financial resources, often depending primarily on people's commitment of time. On some occasions, enquiry findings were a key component of local action for change. For example, in one neighbourhood, the information collected was produced as a local exhibition and shared with several large local employers to inform and strengthen their social impact policies and to address some of the practical problems experienced by employed and unemployed people in the area.

**WHAT WAS ACHIEVED:
EVALUATING THE NRP
Evaluation design**

Programme evaluation comprised three components: a longitudinal household survey; reflexive journals kept by the academic team, focused on implementation processes; and qualitative interviews exploring perceptions about the impacts of the programme among those involved. The findings reported draw on the survey and interview data only.

The longitudinal Household Health Survey was conducted in each of the NFLs and nine comparator areas to provide a baseline and assess impacts. The first wave was carried out between August 2015 and January 2016 before the local programmes were implemented and repeated between July 2018 and January 2019 at the completion of the

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

NRP. The survey was completed at each phase by approximately 3000 households. The primary outcome was the percentage of the population reporting that they could influence decisions affecting their local area. Secondary outcomes included composite measures of social, economic, and environmental determinants and measures of depression and anxiety. A difference-in-difference analysis was conducted to investigate whether outcomes had improved to a greater extent in the intervention areas compared to the comparator area. Ethical approval for the survey was obtained from the University of Liverpool (Reference: RETH000836). Details of methods are provided elsewhere.⁴²

The qualitative research, conducted between November 2018 and September 2019, explored subjective perceptions of programme impacts and pathways to these. Semi-structured interviews were conducted with 8 COREN facilitators, 19 Resident Advisers, and 14 representatives from local authorities, civil society organisations, and the private sector. The interviews were recorded, transcribed, and imported into NVivo12. Data were coded separately by three researchers, using initial themes from the interview schedule. The researchers then discussed their findings and agreed on a consensual set of themes. In subsequent analyses, individual researchers explored the relationships between themes, and developed narratives that sought to account for the emergent findings on impacts. The researchers then collaboratively compared and contrasted their individual analyses and arrived on a common descriptive and explanatory narrative. The Lancaster University Ethics Committee provided ethical approval in November 2018 (Reference: FHMREC16016).

Resident advisers and others involved in the programme contributed to the analysis process via a series of interpretation workshops where emerging findings were discussed. These took place in December 2018, June 2019, and August 2019. The latter two sessions focused on two main themes,

social connectivity, and local governance. A fourth interpretative session took place with COREN facilitators in September 2019. Key findings are presented below. Where illustrative quotes are used, research participants are identified by their role (Resident Adviser or Local Authority Professional) and an area ID.

FINDINGS

The quantitative impacts

Findings from the household survey show that over 4 years, the percentage of people responding affirmatively (with a '1-Definitely agree' or '2-Tend to agree') on a Likert-type scale of 1 to 4 to the survey question 'Do you agree or disagree that you can influence decisions affecting your local area?' had increased by four percentage points in the NRP areas while in the comparator areas the same percentage had fallen by three points. Relative to what would have been expected had the NRP not taken place, the impact of the NRP on this dimension can therefore be quantified as an overall increase of 7.5% (95% confidence interval (CI), 1.6 to 13.5). Before the intervention, the NRP areas reported lower levels of perceived influence than the comparator areas. There was also a weak effect of the intervention associated with a reduction of the proportion of the population reporting symptoms of anxiety by five percentage points on average, although the confidence intervals on this estimate are very wide (95% CI, 0.08 to 10.1). Conversely, there was no evidence of any intervention effects on the proportion of residents reporting symptoms of depression or on the set of social, environmental, and economic indicators included in the household survey.

The qualitative findings

In contrast to the survey results, participants in the qualitative research highlighted positive impacts in all five of the adaptive capacities of the NRP framework – social, cultural, economic, environment, and governance – with those in the social and cultural realms being more pronounced. The accounts provided also highlighted how action in one domain could trigger changes in another.

Governance

The survey findings suggested that the programme had succeeded in increasing the proportion of people in the NRP neighbourhoods who felt that they could have real influence on decisions in their area. The qualitative findings illuminate people's lived experience of these shifting power dynamics. As these participants illustrate, these shifts could mean that residents felt empowered to speak out in venues where they would not previously have done so. They also felt their contribution was valued and that institutions opened their formal governance spaces to local people:

I think having the Resident Advisers being strong enough to stand up to directors of the big company, to stand up to councillors in the council, and to stand up at housing conferences, to be able to stand and tell our story.
(Resident Adviser A)

it's something that we would quite like to see rolled out in the other four areas because we now have at least one of the Resident Advisers comes along to our community partnership and updates us on what they're doing, which has been great for our councillors and the police and the other people there because I think there's been a better dialogue between everybody and a better understanding of who's doing what.
(Professional A)

However, despite the positive impact on residents' sense of control over decisions impacting on their lives demonstrated in both the survey and qualitative findings, there were some residents who felt that power dynamics had been resistant to change:

but you're just reminded subtly that you are a mouse, and they are not; and when you hear along the grapevine that, oh we decided on that a few months ago. It was like 'did you!' No one told us that, and it's that feeling of being reminded that you do not possess the same influence and power that these big stakeholders do.
(Resident Adviser B)

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

I: *And do you think resident Advisers have had enough influence on the work?*

R: *No, definitely they are not, because at the end of the day they don't have the authority, they don't have the power. Because they are only like voice of others.* (Resident Adviser C)

Social connectivity

Participants described how local programme activities had contributed to the creation of new social connections, strengthened existing connections, and repaired ruptured relationships across the neighbourhood system. As the quotes below illustrate, diverse system players argued that these changes had enabled the creation of new networks, initiated new conversations, increased sharing of information, knowledge, and skills between players, and broke down barriers to collaborative actions for change:

... people that we wouldn't normally have communicated with [...] we have become friends with, not just communicate with, but we have actually become friends with [...] I would never have had any reason to speak to the local councillor or the mayor or even [name of Academic Lead], I would never have reason to meet them, but it's, yes, we have met people. (Resident Adviser D)

It has really encouraged or increased the amount of interactions the Public Health team have with our Environment team and our relationship improves because of that, which then has other spin-offs in terms of other pieces of work. (Professional B)

So, this kind of, it could have broken the community but I think because the [NRP] came along around the same time, this was being very much a healing process for, and again, people started to trust the housing association again. (Resident Adviser E)

Cultural coherence

There were many accounts of how the NRP had fostered recognition of shared

interests and a shared belief among neighbourhood system players in their ability to act collectively for change. In three areas, for example, residents worked with COREN facilitators and academic leads to co-create stories capturing people's past and current experience of trying to find employment, of loneliness and exclusion, and of problems with local services. The stories took different forms – videos, illustrated booklets, and verbal testaments¹ – and were themselves interventions that resisted deficit-based narratives and shaped the agendas of organisations and institutions. This Resident Adviser described how the process had started new conversations that could in turn open up new possibilities for change:

... we are very hopeful about this animation that is coming out. We will present it to residents and local authorities and everybody. There is a conversation that has started. We are sure. We know that nothing is going to happen overnight but there is a conversation that has started, people have come and talked about their issues and problems, and I think that is a good thing. (Resident Adviser F)

Diverse forms of communication also allowed these stories to be heard in ways that opened up new directions for action. These included public exhibitions, festivals, mediated conversations with local politicians and local businesses, and representations to a regional Air Quality Steering Group and the management board of a housing association.

The local environment

Four neighbourhoods chose to focus on improving the local environment, including traffic safety, the quality of public spaces, the availability of play spaces for children and of green spaces for recreation. Another neighbourhood focused on the quality of housing in the private rented sector. Accounts demonstrated how these activities had led to new partnerships and opened up formal governance spaces to more inclusive participation. For example, one neighbourhood established a partnership

with the British Lung Foundation, the Lancaster University Environment Centre, the City Council's Environmental Unit, and the Public Health team to carry out a participatory, resident-led enquiry on air pollution that involved local schools through a 'citizen science' model. As a result of their work with the NRP, two residents were invited to join the steering Group of the Liverpool Combined Region Air Pollution Study.

Collaborative, local action on the environment also restored and reinvigorated local spaces and as this resident comments, improved safety:

The road had bumps and they repaired those as a result of the programme. Pavement tiles and children that were falling, we kept telling them, and they even sorted them out. It feels like slowly as the project goes on things are happening and the programme is working. (Resident Adviser G)

The local economy

Three neighbourhoods prioritised the local economy as a focus of action with initiatives addressing a range of issues. Several neighbourhoods succeeded in bringing in additional external funding for local projects. These initiatives were often led by residents. In one case, for example, as this local authority officer comments:

the Resident Advisers came up with a project around social isolation and got £8,000 of funding from the council to run mental health coffee mornings with therapy sessions running alongside them ... they applied for the funding themselves and got it themselves and that's the first time that's ever happened for that particular group. (Professional C)

In another case, two Resident Advisers obtained external funding to expand a lunch club they ran to reduce social isolation among older residents to another location:

it was ten thousand pound not pennies and it's said you have got the grant [for the lunch club] ... But if that

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

hadn't been for [NRP] I would not have got that grant. (Resident Adviser H)

In other neighbourhoods, the action aimed to raise awareness of economic problems. In one area, for example, the NRP LOG worked with the local Council, a local Migrant Workers Community Group, the National Illegal Money Lending Team (IMLT) in England, and Handstead Films to co-produce a short video to raise awareness of the risks involved in getting money from illegal lenders ('loan sharks'). The video is available in six languages and can be viewed on video-sharing platforms.⁴³ With funding from the Stop Loan Sharks Community Fund of the IMLT, the same LOG supported the creation and delivery of a school-based drama workshop exploring the risks of gambling and of receiving loans from loan sharks.

Some actions aimed to revive the local economy and build a stronger *sense of community*. For example, in one area two residents started a community magazine as a platform for local businesses and third sector organisations to promote their services. The magazine⁴⁴ was launched at the beginning of 2018 with an initial print run of 8000 copies. Its production and distribution carried on past the end of the NRP and was only stopped by the COVID-19 pandemic:

... we both identified that [the area] doesn't have a dedicated community news magazine whereas more leafy suburbs generally do. We have the skill set to make it happen, so we put our heads together and made it happen. And we have been going for a year now we have a print run of ten thousand copies which we run quarterly, we have got a team of about thirty volunteers who hand deliver them to every home in the ward. (Resident Adviser I)

This local authority worker in another area described how the work in their local programme had led to the establishment of an intersectoral group to identify solutions to local employment concerns:

we have a new network that [local authority officer] leads on [...] called the Working Skills network, which is obviously all the people involved in the local area who either deliver training or skills or employment or whatever, but all around that topic [...] I honestly don't think that group would have come together so quickly or been set up in the way that it has if we hadn't have done this work in [the NFL]. (Professional D)

DISCUSSION

We have argued that place-based initiatives in the health field need to replace the dominant focus on nurturing and/or building resilience among local residents as a mechanism for local action on social and health inequalities with a focus on system resilience.

Understanding resilience as the property of a neighbourhood system rather than a resident community isn't just a language change. It is a mindset change that can transform local action on social and health inequalities. It requires place-based initiatives to activate, share, and use the *collective adaptive capacities* of all individuals and agencies, living, working, and operating within a neighbourhood working in equal partnerships towards achieving a common goal. A prerequisite for this form of co-production is that all players in a system have a '*credible commitment to one another*' (p. 1083),¹⁷ which in turn requires significant shifts in the power dynamics usually operating between resident communities and other players in neighbourhood systems. It also requires the active participation of, rather than support from, workers in the public and third sector.

We have described the NRP implemented in NW England that sought to 'test' a system resilience approach to co-producing action on social determinants of health in nine relatively disadvantaged neighbourhoods. In assessing the impact of the NRP, it is important to remember that the programme was implemented during a period of significant cuts in public spending on services, tightened eligibility for welfare benefits and increasing

economic insecurity. All of which would have been felt more sharply in the disadvantaged areas in which the NRP was implemented. In addition, the programme involved relatively modest new resources in cash and kind: on average around £50,000 p.a. per neighbourhood excluding the evaluation costs, plus around ½ day a week in-kind contribution from local agencies.

A key aim of the NRP was to establish and nurture more inclusive governance spaces and greater social connectivity to engage everyone with a stake in the neighbourhood and enable their adaptive capacities and resources to be activated, shared, and used for the common good. These spaces needed to enable residents to have real influence over actions that impacted on their lives and to work in equal partnerships with other neighbourhood system players. Quantitative findings show that the programme was effective at increasing levels of perceived influence among residents in the programme neighbourhoods compared to comparator areas, and it may have contributed to a reduction in anxiety at a population level.

The qualitative findings illuminate the pathways through which the quantitative impacts were likely to have been achieved and also suggest that the people involved in the programme perceived the impacts to have been more pervasive than the survey findings suggest. The programme was reported to have enabled diverse system players in these relatively disadvantaged neighbourhoods to craft a new shared identity as an intentional, purposeful, and self-defined collectivity, to increase the breadth and depth of connections between them, to utilise and integrate diverse types of knowledge (ranging from research evidence to stories of lived experience), and to deliver improvements (albeit modest) in economic and environmental conditions.

The most significant influence on the capacity for effective, co-produced action in the NRP neighbourhoods was the increased social connectivity that was created (see Townsend et al.⁴⁵ for a similar finding in the evaluation of a large, place-based, community initiative). The

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

structures and processes put in place to support the delivery of the NRP facilitated the creation and development of these new connections and the repair of ruptured connections. These included the LOGs, local meetings and events, and the range of activities (including the resident-led enquiries) that brought people together. The expansion of social connectedness relied on intensive 'relational work'⁴⁶ performed by a range of players involved in the NRP: the Resident Advisers, the COREN facilitators, the COREN Manager, Academic Leads, and the Local Authority Leads.

A key implication of a system resilience approach to place-based programme design is the strong focus on supporting the development of collaborative and equitable relationships between all system players with the shared aim of addressing local problems. Such relationships are supported by investing time and resources in facilitating and sustaining formal and informal opportunities for dialogue across the system; building trust; developing a shared understanding of the issues to be addressed and a vision for future collective action; exploring ways to align goals, resources, priorities, and actions; supporting the active involvement of local people working as equals alongside other system players; integrating different types of knowledge whether professional, experiential, or

research-based; and finally, recognising that key players with power in the system may be located outside the neighbourhood.

The COVID-19 pandemic has made visible in the most pressing way that public health is a collective 'commons' whereby the disadvantages burdening some sections of the population ultimately impact negatively on the health and wellbeing of the entire population.^{47–49} In contrast to 'community resilience', the concept of neighbourhood system resilience explicitly recognises and foregrounds this fundamental interdependence of everyone with a stake in a particular place. Initiatives informed by this concept would seek to create the practical framework required to support inclusive equitable collaborative efforts to address the social determinants of health inequalities that are amenable to local action.

ACKNOWLEDGEMENTS

The views expressed in this paper are those of the authors team and not necessarily those of the NIHR or the Department of Health and Social Care or other funders. The authors wish to thank the Public Advisers, local authority staff and COREN facilitators and all the other local workers who contributed to the design, delivery and evaluation of the Neighbourhood Resilience Programme. They are too numerous to list here but their names and descriptions of their work can be found on the NRP website and in particular on NRP case studies (<https://neighbourhoodresilience.uk/knowledge-to-action/>).

We are also grateful to the support of academic colleagues including in particular Professor Mark Gabbay Director of the CLAHRC NWC/ARC NWC and Jane Cloke the CLAHRC/ARC manager.

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The Neighbourhood Resilience Programme (NRP) was funded by the National Institute of Health Research (NIHR) and the academic, local authority and university partners in the NIHR Collaboration for Applied Health Research & Care, now the NIHR Applied Research Collaboration for the Northwest Coast.

ORCID ID

Harris Kaloudis  <https://orcid.org/0000-0002-0606-6292>

NOTE

- i. Examples of these can be found here: <https://neighbourhoodresilience.uk/coren-and-the-nrp-members-experiences-and-outputs/>

References

1. Institute of Health Equity. *Health equity in England: The Marmot review 10 years on*. London: Institute of Health Equity; 2020.
2. Zimmerman FJ, Anderson NW. Trends in health equity in the United States by race/ethnicity, sex, and income, 1993-2017. *JAMA Netw Open* 2019;**2**(6):e196386.
3. Marmot M. *Fair Society, Healthy Lives: The Marmot Review – Strategic Review of Health Inequalities in England Post-2010*, 2010. Available online at: <https://www.parliament.uk/globalassets/documents/fair-society-healthy-lives-full-report.pdf>
4. Wallerstein N. *What is the evidence on effectiveness of empowerment to improve health? Health evidence network report*. Geneva: Regional Office for Europe, World Health Organisation; 2016.
5. Bamba C, Smith KE. The syndemic pandemic: Covid-19 and social inequality. In: GJ Andrews, VACJR Pearce. JP Messina (eds) *COVID-19 and similar futures: pandemic geographies*. Cham: Springer; 2021, pp. 147–54.
6. McCartney G, Hearty W, Taulbut M *et al*. Regeneration and health: a structured, rapid literature review. *Public Health* 2017;**148**: 69–87.
7. Lawless P, Pearson S. Outcomes from community engagement in urban regeneration: evidence from England's new deal for communities programme. *Plann Theor Pract* 2012;**13**(4):509–27.
8. Sullivan H, Judge K, Sewel K. 'In the eye of the beholder': perceptions of local impact in English Health Action Zones. *Soc Sci Med* 2004;**59**(8):1603–12.
9. Friedli L. 'What we've tried, hasn't worked': the politics of assets based public health. *Crit Public Health* 2013;**23**(2):131–45.
10. Kruger D. *Levelling up Our Communities: Proposals for a New Social Covenant – A Report for Government by Danny Kruger MP*, 2020. Available online at: <https://www.dannykruger.org.uk/files/2020-09/Kruger%202.0%20Levelling%20Up%20Our%20Communities.pdf>
11. Pennington A, Orton L, Nayak S *et al*. The health impacts of women's low control in their living environment: a theory-based systematic review of observational studies in societies with profound gender discrimination. *Health Place* 2018;**51**:1–10.
12. Pollard G, Studdert J, Tiratelli L. *Community power: the evidence*. London: New Local; 2021.
13. Baba C, Kearns A, McIntosh E *et al*. Is empowerment a route to improving mental health and wellbeing in an urban regeneration (UR) context? *Urban Stud* 2016;**54**(7): 1619–37.
14. Rolfe S. Governance and governmentality in community participation: the shifting sands of power, responsibility and risk. *Soc Pol Soc* 2018;**17**:579–98.

System resilience and neighbourhood action on social determinants of health inequalities: an English Case Study

15. Ahtkar N, McGowan C, Halliday E *et al.* Community empowerment and mental wellbeing: longitudinal findings from a survey of residents involved in the Big Local place-based initiative in England. *J Public Health* (under review).
16. Popay J, Halliday E, Mead R *et al.* Communities in control: a mixed method evaluation of the Big Local community empowerment initiative in England. *Public Health Res* (under review).
17. Ostrom E. Crossing the great divide: coproduction, synergy, and development. *World Dev* 1996;**24**(6):1073–87.
18. Wilton C. Coproduction and partnership with people and communities. *BMJ Lead* 2021;**5**:79–82.
19. Essien UR, Corbie-Smith G. Opportunities for improving population health in the post-COVID-19 era. *J Hosp Med* 2021;**16**(1):53–5.
20. The King's Fund. *Covid-19 Recovery and Resilience: What Can Health and Care Learn From Other Disasters?* 2021. Available online at: <https://www.kingsfund.org.uk/publications/covid-19-recovery-resilience-health-and-care> (last accessed 21 December 2021).
21. South J, Stansfield J, Amlôt R *et al.* Sustaining and strengthening community resilience throughout the COVID-19 pandemic and beyond. *Perspect Public Health* 2020;**140**(6):305–8.
22. Ziglio E, Azzopardi-Muscat N, Briguglio L. Resilience and the 21st century public health. *Eur J Public Health* 2017;**27**(5):789–90.
23. Davidson JL, Jacobson C, Lyth A *et al.* Interrogating resilience: toward a typology to improve its operationalization. *Ecol Soc* 2016;**21**(2):27.
24. Castleden M, McKee M, Murray V *et al.* Resilience thinking in health protection. *J Public Health* 2011;**33**(3):369–77.
25. Mitchell R, Gibbs J, Tunstall H *et al.* Factors which nurture geographical resilience in Britain: a mixed methods study. *J Epidemiol Community Health* 2009;**63**(1):18–23.
26. Norris FH, Stevens SP, Pfefferbaum B *et al.* Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *Am J Community Psychol* 2008;**41**(1–2):127–50.
27. Patel SS, Brooke Rogers M, Amiot R. What do we mean by 'community resilience'? A systematic literature review of how it is defined in the literature. *PLoS Curr* 2017;**1**(9): ecurrents.dis.db775aff25efc5ac4f0660ad9c9f7db2.
28. Ungar M. Systemic resilience: principles and processes for a science of change in contexts of adversity. *Ecol Soc* 2018;**23**(4):34.
29. Olsson L, Jerneck A, Thoren H *et al.* Why resilience is unappealing to social science: theoretical and empirical investigations of the scientific use of resilience. *Sci Adv* 2015;**1**(4):e1400217.
30. Cutter SL. Resilience to what? Resilience for whom? *Geogr J* 2016;**182**(2):110–3.
31. Bottrell D. Responsibilised resilience? Reworking neoliberal social policy texts. *M/C J* 2013;**16**(5). <https://doi.org/10.5204/mcj.708>
32. Joseph J. Resilience as embedded neoliberalism: a governmentality approach. *Resilience* 2013;**1**:38–52.
33. Popay J, Whitehead M, Ponsford R *et al.* Power, control, communities and health inequalities I: theories, concepts and analytical frameworks. *Health Promot Int* 2021;**36**(5):1253–63.
34. Welsh M. Resilience and responsibility: governing uncertainty in a complex world. *Geogr J* 2013;**180**(1):15–26.
35. Hart A, Gagnon E, Eryigit-Madzwamuse S *et al.* Uniting resilience research and practice with an inequalities approach. *SAGE Open* 2016;**6**(4):1–13.
36. Collusi M. The community resilience manual: a resource for rural recovery and renewal. Port Alberni, British Columbia: The Canadian Centre for Community Renewal; 2000.
37. *Neighbourhood Resilience: Tackling Local Drivers of Health Inequalities*. Available online at: <https://neighbourhoodresilience.uk/>
38. Popay J, Simpson G, Ring A *et al.* Improving health and reducing health inequalities through a systems resilience approach. *Morecambe Bay Med J* 2018;**7**(12):292–4.
39. Popay J, Porroche-Escudero A. Supporting local systems to tackle the social determinants of health inequalities. In: E Ziglio (ed.) *Health 2020 priority area four: creating supportive environments and resilient communities – a compendium of inspirational examples*. Geneva: World Health Organisation; 2018, pp. 122–33.
40. Mosedale SS, Popay G, McGill J *et al.* Tackling vulnerability to debt – affordable funding alternatives and financial education: an evidence review. *J Poverty Soc Just* 2018;**26**(3):315–33.
41. Habermas J. An interview with Jürgen Habermas. In: A Bächtiger, JS Dryzek, J Mansbridge *et al.* (eds) *The Oxford handbook of deliberative democracy*. Oxford: Oxford University Press; 2018, pp. 871–82.
42. Giebel C, McIntyre JC, Alfirevic A *et al.* The longitudinal NIHR ARC North West Coast Household Health Survey: exploring health inequalities in disadvantaged communities. *BMC Public Health* 2020;**20**:1257.
43. *Stop Loan Leeches – English*. Vimeo. Available online at: <https://vimeo.com/161895506>; YouTube. Available online at: www.youtube.com/watch?v=ZHqMU0nvMDo
44. *Old Swan Alive*. Available online at: <https://www.oldswanalive.co.uk/>
45. Townsend A, Abraham C, Barnes A *et al.* 'I realised it weren't about spending the money. It's about doing something together': the role of money in a community empowerment initiative and the implications for health and wellbeing. *Soc Sci Med* 2020;**260**:113176.
46. Zelizer VA. How I became a relational economic sociologist and what does that mean? *Polit Soc* 2012;**40**(2):145–74.
47. Marmot M. *The health gap: the challenge of an unequal world*. London: Bloomsbury; 2015.
48. Smith-Nonini S. Conceiving the health commons: operationalising a 'right' to health. In: DM Nonini (ed.) *The global idea of 'the commons'*. New York: Berghahn Books; 2007, pp. 115–35.
49. Wilkinson R, Pickett K. *The spirit level: why equality is better for everyone*. London: Penguin; 2010.

Challenges and opportunities of remote public involvement and community engagement during a pandemic: refining the MapMe childhood healthy weight intervention

Authors

L McSweeney 

Population Health Sciences
Institute, Newcastle University,
Framlington Place, Newcastle
upon Tyne, UK.
Email: lorraine.mcsweeney@ncl.ac.uk

B Arnott

Population Health Sciences
Institute, Newcastle University,
Newcastle upon Tyne, UK

A Jones

Population Health Sciences
Institute, Newcastle University,
Newcastle upon Tyne, UK

G Cain

Public and Involvement Group
Parent Representative

J Jenkins

Public and Involvement Group
Parent Representative

A Andras

Public and Involvement Group
Parent Representative

A Adamson

Population Health Sciences
Institute, Newcastle University,
Newcastle upon Tyne, UK

Corresponding author:

Lorraine McSweeney, as
above

Keywords

child health; obesity; public
health

Abstract

Aims: Including parents and other stakeholders in the development of interventions to address the sensitive public health issues such as childhood obesity, through public involvement is critical. However, the Covid-19 pandemic has created a challenge for public involvement and engagement activities (PICE). The aim of this paper is to describe the process and challenges of setting up, maintaining, evaluating, and recording impact of three public and stakeholder groups via remote methods in the context of the MapMe2 study during the Covid-19 pandemic. Parental reaction to result letters received as part of the National Child Measurement Programme (NCMP) informing parents of their child's overweight status is often one of hostility or disbelief. As a result, parents often do not act on these letters to address child overweight. The MapMe2 study is working in collaboration with the NCMP and local authorities, building on previous work (MapMe) and aims to support parents of primary school-aged children to recognise and maintain a healthy weight in their child. The existing MapMe Intervention includes an enhanced NCMP child weight result letter, supplemented with Body Image Scales (BIS), and an intervention website with material to support healthy eating, physical activity, and signposting supporting information. The intervention was to be refined and the evaluation informed with PICE input.

Methods: Covid-19 restrictions meant that planned face-to-face PICE methods had to be altered with all recruitment, all correspondence, and activities taking place remotely. A Parent Involvement Panel (PIP), a child panel, and an expert panel were established. Several adaptations were made to accommodate a new way of involving the public in research.

Results/Conclusions: Working remotely created many challenges and was a learning experience for all involved. However, an active group was successfully established. Using continuous assessment and evaluation methods, we were able to demonstrate successful involvement and engagement in the refinement of the MapMe2 study. Through the sharing of PICE methods practice, this paper adds to the literature, the value of partnership working.

BACKGROUND

Childhood obesity (OB) is both a national and international public health priority.^{1–3} Data from the National Child Measurement Programme (NCMP; a national mandated programme led by Public Health England (PHE)) shows that in 2020–2021,

27.7% of children in England enter primary school at the age of 4–5 years with either overweight (OW) or OB with prevalence increasing to 40.9% in those children aged 10–11 years, in their final year of primary education.⁴ The prevalence of OB has been found more than twice as high in the

most deprived areas compared to the least deprived areas.⁵ An increase in the deprivation gap for OW/OB has been observed between 2006–2007, when annual monitoring began, and most recent measures in 2020–2021; this disparity was particularly apparent for those children in the older age group. The prevalence of childhood OW/OB and the evidence of widening inequalities are alarming; having OW/OB during childhood can adversely impact both short- and long-term physical and psychosocial outcomes since excess weight is known to track across the life course.^{1,6,7}

In England, the NCMP reports the weight status of 4- to 5- and 10- to 11-year-olds to parents via letter.⁸ Parents do not always recognise OW in their child⁹ and are often surprised by and mistrust the result.^{10,11} They perceive advice given in the NCMP letter to seek medical help from a GP for their child's OW as inappropriate, and may not take action.¹² Receiving OW feedback can be dismissed by parents or perceived as an issue for other families.¹⁰ Given that the NCMP will continue as a monitoring device¹² and that results will continue to be fed back to parents, it is essential that appropriate interventions are developed to enhance and supplement the letter to support families to take action to maintain a healthy weight in their child. Involvement and engagement activities are critical to the development and evaluation of interventions. For the purposes of this article, we discuss public involvement and stakeholder engagement, the former referring to lay individuals and the latter to practice partners and/or public health professionals. These activities are summarised under the term Public Involvement and Community Engagement (PICE).

In the UK, the National Institute for Health and Care Research (NIHR) highlights active PICE as an important component of research studies and state that patient and public involvement (PPI; part of PICE activity) 'can improve the quality and relevance of research, as well as serving the broader democratic principles of citizenship, accountability and transparency'.¹³ Involvement is an

active partnership between patients, carers, and members of the public with researchers that influences and shapes research.¹³ INVOLVE, a UK-based public participation charity,¹⁴ condensed Arnstein's ladder of participation¹⁵ into three steps: 'consultation', 'collaboration', and 'lay control'.¹⁶ Public PICE contributors can be conceptualised into several types,¹⁷ including:

- The expert in lived experience (through their lived experience of a condition or situation, PICE contributors are able to consider the acceptability and feasibility of research methods);
- The bridge (bridges the communication gap between researchers and the public making research more relevant and accessible);
- The motivator (PICE contributors increase researchers' motivation/enthusiasm by emphasising how the research will benefit people);
- The passive presence (PPI contributors can change the way that professionals think just by being present at meetings).

PICE is an activity that young people and children can also contribute to, especially if the research will directly impact them. Children can contribute as researchers or as members of an advisory panel member.¹⁸ Children may see things differently and ask questions that an adult has not considered.¹⁹ Involving children in research can provide many benefits, such as, improving the suitability of research tools for use with other children. Taking part in research may increase children's self-confidence, self-esteem, and problem-solving skills.²⁰

While it is increasingly accepted that PICE is an essential aspect of research with numerous benefits, a lack of understanding, support, funding, and time may impact the researchers' motivation and ability to meaningfully incorporate PICE activities.^{21,22} Some researchers report apprehension in involving the public and stakeholders, due to uncertainty of new ways of working²¹ and increased workloads.²² Careful planning, training, a clear definition of roles, and adequate

funding may improve the success of PICE.²³ It is also important to evaluate and demonstrate the impact PICE has on the research. The research team roles, process of PICE implementation, and research teams' values of PICE should also be appraised and reported.²³ These reports can be used to share best practices wider within the research community²⁴ and inform of the complexities of evaluating PICE.²³ A key limitation of the PICE evidence base is described as the poor quality of reporting impact.²⁵

Evaluating and recording impact also aids provision of feedback to PICE contributors, which they report being an important aspect of involvement. Children too request that feedback of the impact of their involvement is provided, to show their involvement is worthwhile.²⁶ 'Simple feedback between PICE contributors and researchers can improve the involvement process, spur mutual learning, and change researchers' mindsets and future practice'.²⁷

Restrictions during the Covid-19 pandemic have greatly increased the challenges in involving and engaging the public and stakeholders in research. When conducting remote PICE through digital meetings, there is a need to be aware that digital communication, such as the use of video platforms, poses a different set of challenges than in-person communication. Additional efforts are required from researchers, to reach the same level of input, information sharing, and collaboration.²⁸ However, given the high prevalence of childhood OW and OB with prediction this will have increased following the Covid-19 pandemic,^{4,29} parental, child, and stakeholder input and action is essential and cannot be postponed at this point in time.

The aim of this paper is to describe the setting up, maintenance, evaluation and recording impact of involvement with three remote PICE groups for the MapMe2 study during the Covid-19 pandemic. These comprised a Parent Involvement Panel (PIP), a child involvement panel, and an 'expert' stakeholder engagement group. The paper describes individual group recruitment, how communication and engagement was initiated and

maintained, how challenges were resolved, the level of involvement, how data were gathered and utilised from each group, and the impact on the MapMe intervention development. The MapMe2 study methods are briefly described; detail will be published separately.

METHODS

Refinement of existing intervention

The original 'MapMe' intervention developed in previous work³⁰ includes Body Image Scales (BIS) of known weight status, showing images of underweight to very OW children of NCMP age, to help parents recognise child weight status. In addition, the intervention included information on healthy eating, physical activity, consequences of child OW, and further support, and was developed in paper- and web-based formats. MapMe was tested in a preliminary study with ~300 OW/OB children. Children whose parents had access to MapMe showed improved body mass index (BMI) Z scores after 1 year.³¹ A definitive trial, working with the NCMP and nine local authorities (LAs), is now underway to confirm these findings in a larger study: The MapMe2 study is funded by the NIHR (<https://fundingawards.nihr.ac.uk/award/NIHR127745>). As part of this definitive trial, the plan was to refine and update the intervention, and to evaluate its effectiveness and cost-effectiveness. To understand how the intervention works and to inform future implementation, a sub-study was also being conducted.

Incorporating PICE into the MapMe2 study

All PICE activities were co-ordinated by a PICE co-ordinator and a research associate assigned to work solely on the day-to-day running of the study PICE activities, analysis of feedback, reporting of results, and dissemination. A budget for the three PICE groups including remuneration purposes and training was included in the study costs.

PICE recruitment

PIP: comprising parents/carers of primary school-aged children who were

recruited through social media, University staff webpages, ethnic minority groups, a group for parents who had a child with OW, and through known contacts.

A child involvement panel: 10- to 11-year-olds were recruited; as part of the MapMe2 sub-study, 10- to 11-year-olds will independently complete questionnaires and dietary intake diaries. Children were recruited through known staff contacts, a necessarily pragmatic decision, because at the time, schools and children's groups were closed due to Covid-19.

An 'expert' stakeholder panel: Public health practitioners, academics, school nurses, and LA/government stakeholders identified through known contacts, public health colleagues, and practice partners were invited to form an 'expert' panel.

Recognition of involvement

To acknowledge PICE members' input, using the NIHR Payment guidance for researchers and professionals,³² the PIP were provided alternative ways in which to be remunerated; these included shopping vouchers, making a donation to charity, a certificate of achievement, a reference for a job/college application, and opportunities to take part in PPI training. Children were offered online shopping vouchers for their time.

Communication methods and materials

The pandemic meant that traditional PICE methods, such as face-to-face meetings and focus groups, were not possible; therefore, all correspondence and meetings took place remotely.

PIP: As parents are actively involved in all aspects of the project throughout and not just the refinement stage, they were consulted on how best to be involved. Methods suggested included email, Zoom meetings, WhatsApp, text, and telephone. A mobile phone was purchased for the research team to facilitate requests. To allow a range of information and communication methods to be accessed, a PIP 'Welcome and Training Pack' was developed in both digital and paper formats. Furthermore, a series of short, animated training videos and research team-presented study

information videos were developed and shared.

Child panel: The child panel was involved on two occasions and communication was through their parents, with contact made by email.

Expert panel: Panel members were consulted several times during the study and communicated with researchers and other panel members via email and Zoom.

PICE activities

The PIP was involved directly throughout the research cycle, providing input into the direction of the study, refining methods of data collection, contributing to funder reports, informing refinement and evaluation of the intervention, and dissemination. Representatives also attended the Trial Steering Committee meetings (remotely). Regular newsletters with study updates and information of how PIP input shaped the study development were distributed quarterly to PIP members. The Child and Expert panel were consulted periodically, when required, to advise on certain study aspects, such as, the questionnaires to be completed by children in the sub-study (child panel) and the NCMP enhanced result letters (expert panel).

Meetings by Zoom, attended by adults only, were video and audio recorded (with permission) to assist researchers with meeting recall and deleted after the transcriptions were downloaded. Transcriptions were anonymised, as was feedback and comments received by email. Commonalties and divergences from feedback and discussions were identified by the PICE researcher and coordinator.

PICE activities evaluation

Continuous evaluation of activities to facilitate understanding of the impact of the PICE activities and to recognise what worked and what could be improved was implemented using the School for Primary Care Research record of involvement and engagement activities template.²⁴ The template helps to detail PICE activities, outlines who was involved, what actions were taken, the impact of the involvement, and how challenges were dealt with.

Also utilised was the Public Involvement Impact Assessment Framework (PiiAF)³³ as recommended by NIHR²⁴; this enables researchers to think about values, approaches, research focus, and practical issues which may impact PICE activities.

To evaluate the groups' involvement at an individual level, the PIP and child panel were invited to complete a survey about their involvement. To ascertain views of the expert stakeholder group and the research team, they were invited to participate in an involvement values task³³ using the interactive platform Padlet.³⁴

PICE EVALUATION RESULTS

Planning and assessment of PICE

The process of planning for PICE, the challenges faced, and how impact would be identified using PiiAF³³ is given in Supplemental Appendix 1. The main component impacting PICE for the MapMe2 study was the global Covid-19 pandemic which affected recruitment and communication methods. The research team were mindful that during the UK lockdowns, when schools were closed, some parents were working from home, home-schooling children and coping with the impacts of Covid-19. The research team tried to ensure the PIP group was ethnically diverse and that inequalities in participation by digital access were addressed by using a variety of remote methods.

PICE membership

PIP: Following the advertisement of the involvement opportunity in June 2020, we recruited 21 members; this included 19 females and 2 males, 2 members were known to be from ethnic minority backgrounds. Successful recruitment was mainly achieved through social media (Facebook) posts and Newcastle University staff webpages. Of those recruited, 11 members responded to one request for task participation/feedback, with 7 members responding/contributing on more than one occasion. In January 2021, we contacted PIP members who were not responding to determine if they still wanted to be involved. Members were asked to opt-in if they wished to remain; eight members requested to remain. We

retained the two male parents/carers, but the ethnic diversity decreased. We advertised for more members throughout, with particular focus on links/contacts to increase our membership diversity and to include parents who had received an NCMP result letter stating their child was OW/VOW. Between January and August 2021, we recruited two more female members, one of whom had received an OW NCMP letter.

Child panel: We involved six 9-year-old children to help/advise with tasks.

Expert panel: 13 expert members contributed to the study refinement on four occasions. Supplemental Appendix 2 illustrates the numbers and sex mix of each group and the professional roles of the expert panel.

Level of PICE involvement

Most involvement for the MapMe2 study was in the form of 'consultation', that is, seeking members' views to inform decision making. However, 'collaboration' (an active ongoing partnership between PICE and research team members) was also apparent with several PIP members remaining active throughout and co-writing/contributing to the study update report and this publication. Members contributed their lived-in experiences, which was crucial for the development of the MapMe2 study and materials. Furthermore, as described by Oliver et al.,¹⁶ the PICE groups could be described as also contributing to the study in the roles of 'bridger', 'motivator', and as a 'passive presence'¹⁶ (Supplemental Appendix 3). The PIP had mixed methods of involvement, whereas the child panel's level of involvement was consultation only, and the expert panel involvement was both, consultation and collaboration.

PICE and record of impact

As demonstrated in Supplemental Appendix 4, PICE contributed to study team decisions and final study methods in substantial ways. The PIP contributed to the study throughout, with an average of 2–3 members involved in each task, mostly by email. The child panel were involved at two time points, June 2020 ($n=5$) and March 2021 ($n=4$), by email.

The 13 expert panel members contributed on four occasions, 9 December 2020 ($n=5$) 17 December 2020 ($n=3$), both meetings using the Zoom online platform. Feedback by email was received in January 2021 ($n=3$) and June 2021 ($n=3$).

All groups were asked to provide feedback of their PICE experience and involvement with the study. Seven parents responded – in the main, parents were happy with the communication methods and the amount of information shared by the team, only one parent felt too much information was provided. The tasks were reported as being easy to understand (6/7) with one parent commenting on how much they enjoyed being part of the study.

Four children completed the online survey, they all stated being happy to help with the research and found involvement interesting. They also stated that researchers should contact schools or use social media to encourage more young people to be involved in research.

The research team/expert panel PICE evaluation feedback was limited. However, those that were able to contribute rated study PICE highly. The importance of involving parents in the development of the study was deemed essential. Also highlighted was the need of public and stakeholders to feel the research was being conducted ethically, which would then resonate its findings/outcomes with the parents/families for whom the research was about.

Supplemental Appendix 4 summarises the three groups' involvement, which tasks they contributed to, the numbers involved, the timeline of the involvement/contribution, challenges encountered, action taken, impact of involvement, and method of feedback to PICE group. The challenges of remote working predictably included issues with Internet connections and changes to recruitment methods. However, the need for more clarity in describing instructions for certain tasks, which would have been easier to do face-to-face, was made apparent.

The main impact findings were:

1. The study materials (questionnaires, Body Image Scales etc.) were revised, in light of involvement, to

- be more appropriate, acceptable and user-friendly.
2. Communication methods, following PICE feedback, were revised to be more accessible and to enhance remote working.
 3. The intervention (NCMP letter and intervention website) was revised following involvement, to be more acceptable and clearer.
 4. Study governance (Steering Group committee) revised to ensure remote involvement was accessible.
 5. Dissemination – methods were adapted to ensure accessibility.

DISCUSSION

This paper describes the process and challenges of setting up, maintaining, evaluating, and recording the impact of PICE in the MapMe2 study during the Covid-19 pandemic. Effective PICE was achieved using remote methods, although some methods needed to be adapted; a high level of involvement, as demonstrated in our study, was possible.

Public and stakeholder input for the MapMe2 study was crucial for intervention development, refinement, and planning for evaluation; intervention effectiveness is strongest when people with lived experiences are involved as research partners.²⁷ Parental involvement in health research not only ensures the research is more relevant and meaningful but is also empowering and may increase awareness of health issues and the likelihood of making changes in the area of focus,³⁶ in this case, maintenance of a healthy weight in their child.

Despite concerns about having to rely solely on remote methods due to the pandemic, we acknowledged the importance of adaptation. We created online and paper welcome/information packs, recording study/training information videos, and provided alternative communication methods. While using remote methods generated many challenges, including learning 'Zoom culture', reliance on good Wi-Fi networks,³⁷ and risk of reducing diversity of participation by parents, such as those from low-income backgrounds,³⁸ there were some positives of remote contact/communication. Parents could contribute

from any location in their own time³⁷ without having to travel,³⁹ which for those juggling home-working and child care was beneficial. Also, as the pandemic progressed and people became more accustomed to using online platforms, they may have felt more comfortable being able to contribute from home.³⁷ Notwithstanding these additional challenges, we recruited and maintained a core number of parents in the PIP which we attribute to regular communications with the PIP group. Parents were contacted at regular intervals to assist/work on study tasks, while being mindful of not overly burdening; we sent task reminders (parental request). Feedback was sent to PIP members quarterly to inform of their contributions and outcomes of their contributions. This, we trusted, helped parents feel part of the team and involved in study progress despite not meeting in person. We understood this to be one of the most important aspects of PICE for contributing members.^{17,26} Although the child panel was consulted on only two occasions, four of the children completed the involvement feedback survey and responded positively to being involved.

For the research team and expert panel too, the benefits of parental and stakeholder involvement are numerous; PICE can help identify issues and details that researchers may not have been aware of³⁶; for example, in this study, context and use of language concerned with child OW and ways in which sensitive information should be presented to parents/families. Also, an increased pool of expertise and opinions leading to greater rigour in decision making and overall quality of results which may increase credibility of the research with other professionals.³⁶ We provided the research team and expert group an opportunity to participate in the values based online exercise based on the PiiAF³³; however, participation was low. Reasons for this are likely to be due to lack of time and not having opportunities to meet face-to-face as opposed to not valuing PICE. It was apparent that PICE was valued in the MapMe2 study being fully funded and including dedicated staff resource.

It should be noted that ongoing PICE throughout a study is challenging and takes time, resources, and energy. This study was fortunate in that, adequate funding was costed for PICE with allocated team members responsible for the implementation, and a payment policy and remuneration funds for contributors. This is contrast to the past when PICE was perhaps often at risk of being a 'tick-box' exercise and reflects that the value of public and stakeholder recognition is increasingly being acknowledged.

However, although PICE recognition is growing, evaluation and reporting of impact is still lacking²⁵ with no standard method for capturing and reporting impact.⁴⁰ We were mindful that continuous monitoring and evaluation would allow us to systematically record the data/feedback received and observe how PICE contributions were impacting development of the MapMe2 study. Such information is important for reports and feedback to funders; however, the NIHR highlights the need for tools that will not only collect feedback and capture impact of involvement, but will also share learning, which is focused on improving, rather than just justifying the value of partnership (PICE) working.⁴⁰

STRENGTHS AND LIMITATIONS

Several strengths can be highlighted. Two research team members were funded to focus on PICE. Different perspectives were well represented by three different groups, that is, parents, children, and professional stakeholders. The research team were mindful of the quality of reporting impact and planned for this accordingly. We were able to maintain regular communication with PICE members by providing alternative methods and provided feedback on a regular basis.

Limitations include the following: lack of face-to-face meetings may have impacted the level of involvement from the PICE groups. Being able to establish a group rapport with PICE and research members may have encouraged a greater level of confidence and involvement than was achieved. There was a lack of formal collection of PICE

members' ethnic background which would help to ensure transparency and promote future reproducibility.³⁸ We were unable to access child panel members through usual channels, and the pragmatic approach used might mean these children were from better-educated families and so not a representative sample. Finally, having to adapt quickly to using remote methods, we may have unintentionally excluded parents from a wider sample due to digital poverty/exclusion.

WHAT WE LEARNED ABOUT REMOTE PICE ACTIVITIES

- Have a named PICE person/contact;
- Ensure adequate time and resources are allocated;
- Provide alternative methods of communication/feedback;
- Ask contributors how they would like to be remunerated for their time;
- Make sure task instructions are clear; you may need to provide more guidance using remote methods;
- Encourage PICE contributors to seek help/ask questions if they are unsure;
- Provide regular feedback; let

members know what they have achieved and the impact they have had on the study;

- Have several methods for researchers/professionals to provide evaluation feedback.

FUTURE WORK

The MapMe2 study commenced the trial with nine LAs, schools, families, and the NCMP in November 2021. At the time of writing, the PICE groups continue to be part of the process, working remotely, and will be involved in data analysis, intervention monitoring, and dissemination activities.

CONCLUSION

Despite the challenges issued by the Covid-19 pandemic, we successfully established and engaged with three PICE groups. By taking on board the feedback from our PICE panels, adapting to remote methods, and by using appropriate evaluation and recording of impact methods, we are able to demonstrate successful involvement and engagement in the refinement of the MapMe2 study. We have committed considerable time

and resources to achieve this remotely, but we are assured that PICE is thoroughly embedded within the project and having a positive impact.

FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The MapMe2 study is funded by the National Institute for Health and Care Research [NIHR127745] Trial ID: ISRCTN12378125. A.A. is supported by the NIHR as a NIHR Senior Investigator.

ORCID ID

Lorraine McSweeney  <https://orcid.org/0000-0003-1044-6201>

SUPPLEMENTAL MATERIAL

Supplemental material for this article is available online.

NOTES

- Note, 2020–2021 figures are based on a weighted sample due to a smaller sample of measurements being collected in comparison to previous years due to the Covid-19 pandemic.

References

- Doak CM, Visscher TL, Renders CM *et al*. The prevention of overweight and obesity in children and adolescents: a review of interventions and programmes. *Obes Rev* 2006;**7**(1):111–36.
- NCD-RisC NRFC. Worldwide trends in body-mass index underweight overweight obesity from 1975 to 2016: a pooled analysis of 2416 population-based measurement studies in 128.9 million children, adolescents, and adults. *Lancet* 2017; **390**:2627–42.
- Reilly JJ, Methven E, McDowell ZC *et al*. Health consequences of obesity. *Archives of Disease in Childhood* 2003; **88**:748–52.
- Lifestyles Team NHS Digital. National Child Measurement Programme: England 2020/21 school year. In: NHS (ed.) *NHS Digital*, 2021. Available online at: <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2020-21-school-year>
- NHS Digital. National Child Measurement Programme England 2018/19 school year. In: Programme NCM (ed.) *NHS Digital*, 2019. Available online at: <https://digital.nhs.uk/data-and-information/publications/statistical/national-child-measurement-programme/2018-19-school-year>
- Public Health England. Changes in the weight status of children between the first and final years of primary school: a longitudinal analysis of data from the National Child Measurement Programme in four local authorities in England between 2006/07 and 2014/15. In: PHE (ed.) 2017. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/609093/NCMP_tracking_report.pdf
- Singh AS, Mulder C, Twisk JW *et al*. Tracking of childhood overweight into adulthood: a systematic review of the literature. *Obes Rev* 2008;**9**(5):474–88.
- GOV.UK. *National child measurement programme 2020*. In: GOV.UK (ed.) 2020, National child measurement programme - GOV.UK (www.gov.uk).
- Rietmeijer-Mentink M, Paulis WD, van Middelkoop M *et al*. Difference between parental perception and actual weight status of children: a systematic review. *Matern Child Nutr* 2013;**9**(1):3–22.
- Gainsbury A, Dowling S. 'A little bit offended and slightly patronised': parents' experiences of National Child Measurement Programme feedback. *Publ Health Nutr* 2018;**21**(15):2884–92.
- Gillison F, Beck F, Lewitt J. Exploring the basis for parents' negative reactions to being informed that their child is overweight. *Public Health Nutr* 2014;**17**(5):987–97.
- Nyanzi LA, Summerbell CD, Ells L *et al*. Parental response to a letter reporting child overweight measured as part of a routine national programme in England: results from interviews with parents. *BMC Publ Health* 2016;**16**:846.
- National Institute for Health Research. *Briefing Notes for Researchers: Public Involvement in NHS, Health and Social Care Research*, 2021. Available online at: <https://www.nihr.ac.uk/documents/briefing-notes-for-researchers-public-involvement-in-nhs-health-and-social-care-research/27371>
- INVOLVE 2021, About Involve | involve.org.uk.
- Arnstein SR. A ladder of citizen participation. *J Am Inst Plan* 1969;**35**:216–24.
- Oliver SR, Rees RW, Clarke-Jones L *et al*. A multidimensional conceptual framework for analysing public involvement in health services research. *Health Expect* 2008;**11**(1):72–84.
- Crocker JC, Boylan AM, Bostock J *et al*. Is it worth it? Patient and public views on the impact of their involvement in health research and its assessment: a UK-based qualitative interview study. *Health Expect* 2017;**20**(3):519–28.
- Turtle K, McElearney A, Scott J. Involving children in the design and development of research instruments and data collection procedures: a case study in primary schools in Northern Ireland. *Child Care Pract* 2010;**16**:57–82.
- Kellett M. *Children as active researchers: a new research paradigm for the 21st century?* Swindon: ESRC National Centre for Research Methods: Economic and Social Research Council; 2005.

20. Bird D, Culley L, Lakhanpaul M. Why collaborate with children in health research: an analysis of the risks and benefits of collaboration with children. *Arch Dis Child Educ Pract Ed* 2013;**98**(2):42–8.
21. Thompson J, Barber R, Ward PR *et al*. Health researchers' attitudes towards public involvement in health research. *Health Expect* 2009;**12**(2):209–20.
22. Boylan AM, Locock L, Thomson R *et al*. 'About sixty per cent I want to do it': health researchers' attitudes to, and experiences of, patient and public involvement (PPI) – a qualitative interview study. *Health Expect* 2019;**22**(4):721–30.
23. Brett J, Staniszewska S, Mockford C *et al*. A systematic review of the impact of patient and public involvement on service users, researchers and communities. *Patient* 2014;**7**:387–95.
24. NIHR School for Primary Care Research. *Patient and Public, Resources for Researchers: Evaluating and Reporting*. Available online at: <https://www.spcr.nihr.ac.uk/PPI/resources-for-researchers/evaluating-and-reporting> (2021, last accessed 23 April 2021).
25. Mockford C, Staniszewska S, Griffiths F *et al*. The impact of patient and public involvement on UK NHS health care: a systematic review. *Int J Qual Health Care* 2011;**24**:28–38.
26. INVOLVE. *Involving children and young people in research: top tips and essential key issues for researchers*. Eastleigh: INVOLVE; 2016.
27. Boivin A, Richards T, Forsythe L *et al*. Evaluating patient and public involvement in research. *BMJ* 2018;**363**:k5147.
28. Lampa E, Sonnentheil B, Tökés A *et al*. What has the COVID-19 pandemic taught us about conducting patient and public involvement remotely? Insights from a series of digital meeting observations. *Res Involv Engagem* 2021; **7**:73.
29. Patterson R, Sornalingam S, Cooper M. Consequences of COVID-19 on the childhood obesity epidemic. *BMJ* 2021;**373**:n953.
30. Jones AR, Tovée MJ, Cutler LR *et al*. Development of the MapMe intervention body image scales of known weight status for 4-5 and 10-11 year old children. *J Publ Health* 2018;**40**:582–90.
31. Jones AR, Cutler LR, Parkinson KN *et al*. Testing a new visual intervention to improve parental recognition of childhood overweight: The 4 & UPP study. In: International congress on obesity (ICO) 2016, Vancouver, BC, Canada, 1–4 April 2016, *Obesity Reviews*, 17(suppl), pp. 91–151.
32. National Institute for Health Research (NIHR). Payment guidance for researchers and professionals. In: NIHR (ed.) *NIHR*, 2021. Available online at: <https://www.nihr.ac.uk/documents/payment-guidance-for-researchers-and-professionals/27392>
33. Popay J, Collins M PiiAF Study Group. *The Public Involvement Impact Assessment Framework*. Available online at: <http://piiaf.org.uk/> (2014, last accessed 10 August 2021).
34. Goel N, Piyush P. *Padlet* 2021, Padlet: You are beautiful.
35. Rosenbaum P. Family-centred research: what does it mean and can we do it. *Dev Med Child Neurol* 2011;**53**(2):99–100.
36. Shen S, Doyle-Thomas KAR, Beesley L *et al*. How and why should we engage parents as co-researchers in health research? A scoping review of current practices. *Health Expect* 2017;**20**(4):543–54.
37. Dodds S, Hess AC. Adapting research methodology during COVID-19: lessons for transformative service research. *J Serv Manag* 2020;**32**:203–17.
38. Lourenco SF, Tasimi A. No participant left behind: conducting science during COVID-19. *Trends Cogn Sci* 2020;**24**(8):583–4.
39. Clark M, van Vliet E, Collins M. Reflections from the COVID-19 pandemic on inequalities and patient and public involvement and engagement (PPIE) in social care, health and public health research. *Health Expect* 2021;**24**(5):1547–50.
40. National Institute for Health Research. Next steps for partnership working with patients and the public: engagement report. In: NIHR (ed.) *Department of Health and Social Care*, 2021. Available online at: <https://www.nihr.ac.uk/documents/next-steps-for-partnership-working-with-patients-and-the-public-engagement-report/28566>

'You're not going to give a monkey's chuff': exploring co-production in the design of services for women who have experienced sexual violence

'You're not going to give a monkey's chuff': exploring co-production in the design of services for women who have experienced sexual violence

Authors

L Warwick-Booth 

Centre for Health Promotion
Research, Leeds Beckett
University, City Campus, 519
Portland Way, Leeds LS1
3HE, UK
Email: l.warwick-booth@
leedsbeckett.ac.uk

R Cross

Centre for Health Promotion
Research, Leeds Beckett
University, Leeds, UK

S Coan

Centre for Health Promotion
Research, Leeds Beckett
University, Leeds, UK

P Fisher

Centre for Health Promotion
Research, Leeds Beckett
University, Leeds, UK

Corresponding author:

Louise Warwick-Booth, as
above

Keywords

co-production; evaluation;
service design; sexual
violence

Abstract

Aims: Co-production is an emerging field in public health practice. We aim to present evidence of what works well to support co-production and what can be improved based upon learning from our evaluation of a co-production project implemented by Rape Crisis England and Wales (RCEW). RCEW designed and delivered a national co-production project called Weaving the Web, to inform the development of an online support service for women who have experienced sexual violence.

Methods: We qualitatively evaluated the RCEW co-production approach. The specific objectives of our evaluation were to assess the increased role and voice for women and girls in co-producing services and provide better quality of evidence for what works in empowering women and girls. The evaluation was conducted in two phases: Phase 1 was the observation of co-production events ($n=8$), with findings from this used to develop an interview schedule for Phase 2, where semi-structured interviews ($n=26$) were conducted with a range of stakeholders (staff, partners and service users).

Results: Staff supporting the co-production project were highly committed to the work, investing time, money, and preparation, and having a good understanding of co-production. Service users were less familiar with the approach and felt alienated by some of the language used. Most service users described participation as empowering and, in some instances, important in their own recovery. They were keen to stay involved beyond the creation of the online resource.

Conclusion: The data from our evaluation illustrate that co-production on a national level is challenging. While RCEW used values-based practice, and provided a supportive culture to underpin the co-production of their online service, transformative engagement and true participation were not achieved. Learning from this project is drawn out here to outline transferrable lessons for practitioners intending to use models of co-production in other public health settings.

INTRODUCTION

The academic literature contains much about the definition of co-production in both service design and research. There is also much discussion about the theory and principles underpinning co-production, but there is less evidence about what it looks like in practice, the realities of

delivering it, and the challenges that it can encompass.¹ This may include expressions of indifference from some participants, as referenced in the quotation included in the title of this article. 'Monkey's chuff' is a slang term from the north of England, used to convey a lack of concern and indifference.

The literature describes benefits for all parties engaging in co-production with 'intrinsic value' for individuals from being connected and valued, and an 'increased capacity and impact' for services.² The UK government guidance for services relating to violence against women and girls (VAWG) states 'good commissioning should begin with an understanding that VAWG survivors are experts in their own lives and are integral to the design of services'. Equally, specialist service providers have a breadth of expert knowledge and experience to draw on. Involving survivors and specialist service providers in the whole commissioning process by way of co-production brings a range of benefits for all of those involved.³ As voluntary organisations deliver a range of public services, it is important to evaluate how they incorporate co-production into their work, in particular what works and for whom.

There is often a focus on volunteers as participants in third sector research on co-production, so there is a need to investigate the experience of user involvement in service design. Research suggests that co-production in the third sector is more likely to have an impact on participants when led informally and less bureaucratically. Organisations that present opportunities for service users to be involved and make decisions at a local level, without authorisation from layers of management, have more success.⁴

There are examples in mental health services of co-production leading to more culturally appropriate provision with greater reach to Black, Asian and Minority Ethnic service users⁵ and for individuals who have experienced mental illness, there is evidence that co-production approaches improve wellbeing, reduce stigma and build people's agency and skills.² For victims of sexual violence, the benefits of involvement can go further still. People who have experienced sexual violence often experience shame and exclusion as a result of harmful societal narratives, but 'co-production offers survivors the possibility of re-authoring the narratives that hinder change [...] and thereby challenging the othering of victim-survivors'.⁶

A trauma-informed approach to co-production in this context views people as assets (not passive recipients) and supports their development and empowerment.⁶ However, in VAWG services in particular, some analysis shows that the co-production employed in developing services is consultation rather than transformatory.⁷ Barriers to co-production in the third sector overlap with those seen in public sector work, particularly around resistance from staff, limited resources and use of jargon, and even if the principles are adopted initially, it is difficult to sustain the practice.⁴

This article considers findings from the evaluation of a voluntary sector organisation's (Rape Crisis England and Wales (RCEW)) approach using national co-production in the design of services for women and girls who have experienced sexual violence. RCEW wanted the specialised online provision to help to reduce waiting times for support and also to be able to reach women not able to access services in person. In March 2016, the average wait for face-to-face support was 5–6 months, and there were more than 4000 people on the waiting list.⁸

The organisation was committed to working with survivors (this is their choice of language) and staff to develop the platform through co-production events. Co-production was chosen so that stakeholders would have shared ownership of the process of design and delivery of the new online services, with an emphasis on the importance of lived experience informing how services can best meet diverse needs.

The project involved women-only co-production events with staff members and survivors. Specific events were facilitated by specialist partners aimed at reaching underserved groups including Black, Asian and Minority Ethnic women, disabled women, lesbian, gay, bisexual, transgender, queer and intersex (LGBTQI+) women, older women, women from working class backgrounds and young women. There were also online surveys for women and girls, and staff members.

Women and girls' organisation has a strong track record of service user involvement in the development of

support, but as with many attempts at co-production, it usually peaks at intermediate engagement with more buy in needed at a higher level to share power and resources so that it becomes transformative.⁷ This article discusses findings from the evaluation, aiming to provide evidence about what works for co-production to empower women and girls. The authors will examine how the co-production activity was organised and discuss where this fits into the three levels of engagement (descriptive, intermediate and transformative)⁹ and the impact that participation had on the contributors.

METHODS

An external all-female evaluation team was commissioned and funded by RCEW to evaluate their model of co-production from March to June 2017. Our evaluation aimed to evidence the effectiveness of co-production for different groups of women. Our evaluation reported evidence about the increased role and voice for women and girls in co-producing services, as well as reporting upon what works to empower them. Using a qualitative approach, we combined observations and interviews in a phased approach to data generation. Phase 1 was observational. We observed a variety of co-production events in person and online for survivors and stakeholders (internal staff and external partners). During the observations, we used a semi-structured schedule to document the ways in which participants engaged and contributed, as well as the usefulness of the information gathered for the development of online services. We also considered the extent to which the event appeared to provide participants with an 'enriched environment' characterised by features such as security, purpose and belonging.

SUMMARY OF OBSERVATIONS

In total, we observed 8 co-production events, with 65 women in attendance. We made notes about each observational setting, guided by our schedule. These notes were thematically analysed, with key themes reviewed and agreed by the research team. On the

'You're not going to give a monkey's chuff': exploring co-production in the design of services for women who have experienced sexual violence

Table 1

Regional events held by RCEW

Participants	Date	Location	Number of participants
Service user only event	9 May	Newcastle	3
Mixed (stakeholders and services users)	9 May	Newcastle	10
Mixed	11 May	Cambridge	14
Mixed	20 May	Exeter	17
Service user only event	20 May	Exeter	15

RCEW: Rape Crisis England and Wales.

Table 2

Co-production events held by partner organisations

Demographic	Date	Location	Number of participants
Women from working class backgrounds	13 June	London	12
Disabled service users	14 June	Online	2

basis of the analysis of these events, interview schedules were developed in discussion with RCEW staff for use within Phase 2 (semi-structured interviews). Interview schedules were tailored to participant characteristics. Service users were asked about their involvement, contributions to the development of the online platform and their understandings of co-production. Staff and stakeholders were asked about their involvement in the development of online services, their experiences of the project and understandings of co-production. The recruitment of the participants was undertaken by regional Rape Crisis Centres and partner organisations (Tables 1, 2 and 3).

A total of 26 interviews were conducted, 21 with staff and 5 with service users (Table 4). Interviews were recorded and transcribed for thematic analysis, with findings again agreed within the research team.

Our evaluation received ethical approval through Leeds Beckett University. To ensure ethical rigour, we used informed consent, securing written or verbal consent from all participants.

Confidentiality and anonymity were guaranteed in our reporting, and we securely managed information through password protected university systems.

RESULTS

For the purposes of this article, the data from both phases of the evaluation have been synthesised and brought together under four key themes as follows: (1) understandings of co-production, (2) the value of co-production, (3) what works in co-production and (4) challenges in co-production.

Theme 1: understandings of co-production

Understandings about co-production varied across the different stakeholder groups. The staff team's understanding was more apparent. They had experience of working in co-productive ways and were cognisant of the values underpinning these:

We've got a history really of doing bits of co-production. Not necessarily referring to them as co-production but

working with service users [...] it's an integral part of the work that [we] do.
(Staff team member)

In contrast, the service users were less familiar with the term, sometimes expressing feeling alienated by some of the terminology that was used. However, one of the service users, who had been involved with the organisation before, described co-production as follows:

It kind of means [...] there are multiple people working on the same team and there are a lot of different ideas and things that are brought together.
(Service user)

The stakeholders' knowledge of co-production was well developed. In addition, one of them was keen to point out what co-production is not:

Bad co-production is when you allow someone to believe that it's co-production and it isn't. Or [...] their views and decisions are only somewhat respected or upheld.
(Stakeholder)

Table 3

External events for women who had not previously accessed rape crisis services

Demographic	Event date	Location	Number of participants
Women who had experienced sexual violence	24 June	Online	2

Table 4

Overview of interviews

Interviews with ...	Number of interviews conducted
Interviews with RCEW (Weaving the Web team)	4
Interviews with partner organisations	5
Interviews with centre staff	12
Interviews with service users	5

RCEW: Rape Crisis England and Wales.

Stakeholder definitions of co-production emphasised the necessity for representation from diverse stakeholders, having shared objectives, trusting the other people involved, working together on an equal footing and removing hierarchy, and giving a voice to those who do not have one. These, in turn, resonate with the values that underpin co-production in practice. During the observations, we also watched how the participants dealt with differences of opinion; while there was implicit agreement at the co-production events that different approaches were needed, there was no significant variance in their delivery, limiting the ways in which spontaneous discussion and disagreement could be used for learning.

Theme 2: the value of co-production

The process of co-production (being involved) was empowering, and the service users felt proud to participate allowing them to voice their opinions and learn from each other:

I mean if people can listen to one another then there's usually something to learn about that other person or sometimes about yourself. (Service user)

We bring all our ideas and put it into one basket. (Service user)

For some service users, partaking in the co-production activities was an additional form of support:

I felt [...] talking is a massive therapy [...] so being able to, it felt quite good to be able to tell people exactly what personally I would have wanted. (Service user)

The staff and stakeholders were also satisfied that the service users had enjoyed the events and were able to positively contribute generating new ideas:

From the feedback we've had ... they enjoyed the event. I thought the events had a really good feel to them. (Staff team member)

I think they felt that this was a space where they could speak, and they did contribute. (Stakeholder)

We observed that RCEW created dedicated spaces for alternative and minority perspectives with specific events

hosted for women with stated characteristics. Furthermore, the stakeholders felt that their own expertise had also been valued in the project and that the principles of co-production had been enacted in the approach taken – 'we were contacted for our expertise' and 'we have been listened to and very much respected' (various stakeholders).

Theme 3: what works in co-production

During the observations, we considered if the participants felt able to express their views openly and honestly. The environment appeared to support openness in the co-production sessions. Body language was generally relaxed and open; in some sessions, service users felt able to disclose their experiences of sexual violence. Interview data confirmed our observations:

To make the environment as welcoming, as friendly [...] just acknowledging that people were doing a favour basically, and that was really valuable. (Stakeholder)

The content of the co-production events had been generated through lengthy research and discussion with stakeholders, including service users, prior to the events themselves. This demonstrates the process of learning and education that is often required in co-productive working with an emphasis on bringing people together:

They've learnt about the project ... and everyone now is at that same point of the journey and I think that's the huge things about co-production is making everyone equal. (Staff team member)

Staff had primed the service users in advance to consider themselves 'experts

by experience' (Staff team member). The service users who took part contributed their ideas to the process demonstrating that they had been well-informed and had been prepared to take part. The importance of power sharing was emphasised:

I think the thing with co-production ... is about sharing the power of it. The power of knowledge of being able to define terms ... being able to define what is talked about, what is permissible, what is not ... (Stakeholder)

Theme 4: challenges in co-production

During the observation of events, we considered the extent to which participants felt able to take a fluid approach, enabling them to revise views. There were no obvious occasions pointing to changes in views. The format of the day was highly structured - more opportunities for spontaneous and unstructured talk might have been helpful.

Our observational data also noted that while participants from all stakeholder groups engaged positively with the process, staff were sometimes more vocal than service users. We observed that attendance at some of the service user events was low, particularly online, despite the fact that RCEW provided high-quality preparatory material. This may be related to geographic obstacles and possibly point to some of the challenges of co-ordinating co-production at local and national levels. For many service users, taking part was not a priority as they have multiple challenges to deal with, so the likelihood is that 'you're not gonna give a monkey's chuff' (Stakeholder) about contributing to a project such as this.

Challenges also arise when people are unfamiliar with ways of working and 'weren't really at the point' (Staff team member) where they are able to work in fully co-productive ways. One of the challenges for the service users included time. For some, the event felt rushed, and they would have liked more time for reflection:

It would be been interesting to have been a bit more leisurely, had a bit of discussion ... I think we could have

gone a bit more deeply ... it was too rushed. (Service user)

Time was an issue also picked up by the stakeholders but in a different way. Concerns were expressed about the amount of time and resources needed for co-production working which is seen as a time-consuming and lengthy process 'we feel like it has been a long time ... when is it going to start?' (Stakeholder).

Another service user perceived something of a power imbalance in the way that the events were organised:

It just felt like being in a classroom to be honest. (Service user)

In addition, the structured format to the event days that we observed limited the extent to which the service users could dictate the course of events and how things could progress. In a few cases, the expertise of the participants may have been overlooked. Finally, service users were keen to be involved more in future but had not been given information about how to be.

DISCUSSION

This evaluation adds evidence to the existing co-production literature by further illustrating the worth of such approaches for participants, as they can be valuable in terms of the positive outcomes that arise.^{2,3} In this instance, participation was, in many cases, empowering and made the service users feel valued, a potentially important contribution to their recovery from experiences of sexual violence.⁶

In order to be successful, co-production is recognised in the literature as requiring an authentic form of engagement that emanates from a particular set of values.¹ In this example, the staff team's long-standing attachment to the principles and practices of co-production was important in engaging service users, and capturing their views. The model of co-production used by RCEW is a good example of the adoption of a bespoke, flexible, partnership approach focusing upon the proactive inclusion of underserved groups. There

was also evidence of RCEW creating a supportive enriched environment¹⁰ through a carefully researched and planned approach to the co-production events. RCEW ensured that women felt safe in the events, essential for those who have experienced sexual assault to be able to contribute. Evidence suggests that supportive cultures in which people feel secure and have a sense of belonging are important underpinnings of successful co-production.⁹ However, despite this supportive culture, fewer service users and women who had experienced sexual violence were involved than RCEW intended. While co-production is assumed to always be good in principle, the reality is that the process and associated expectations do not always marry with what service users want, particularly where experiences of trauma may be revisited.

Co-production in this example was further enabled by an ethos of ongoing learning, and openness to revising positions among the professionals involved. There was, however, tension here between the encouragement of diverse expertise (including different groups of women) and the management of a national co-production project requiring some degree of uniformity to ensure its successful completion.

Further challenges arose in the disconnect between the language of professionals and service users, which can be alienating for participants, and cause discomfort in instances where language is perceived to be inaccessible. While events enabled the mutual sharing of information and learning, they were led using a structured didactic approach, which is at odds with the principles of co-production. Therefore, the full principles of co-production were not met in the RCEW approach. There is evidence of the RCEW co-production model encompassing shared decision-making (descriptive level) as well as acknowledging contributions from clients (intermediate level).⁹ However, the transformatory level of relocating power and control, with significant shaping by service users, is not evident in our evaluation data. Applying a ladder of participation approach¹¹ to the RCEW

approach, this work was more in line with consultation rather than being located higher up the ladder. Therefore, despite staff commitment to and investment in co-production, RCEW used a model which limited power sharing because professionals ultimately remained in control of both the process and events. There may have been missed opportunities for increased service user ownership of the process and events in line with notions of power sharing.¹² Those with power should use it to support marginalised populations by providing an environment that enables change.¹² Finally, there are many models that practitioners can use beyond what is described in this article (events), for example, steering groups or co-leadership designs, which may, in part, address criticisms of tokenism, enhance power sharing and increase participation.

CONCLUSION

In summary, there are several transferrable lessons that can be drawn

from the RCEW approach to co-production, which are useful for public health practitioners implementing similar work. What worked well for RCEW was their values-based practice, their creation of a supportive environment and their inclusive approach. However, challenges arose as a result of the scale of the work. Co-production on a national level is complicated, and does not always sit neatly with local practice and approaches. Thus, national co-production needs to be recognised as more difficult to implement when compared to local approaches.

While certain guidelines and principles are common to all forms of co-production, it is highly context dependent; therefore, practitioners need to account for the context in which they are working. For co-production to flourish, the environment in which it takes place has to be secure and enabling so that people feel able to contribute. The relational elements of co-production should not be overlooked as all of those involved need to feel

valued, have a definition of co-production to work with and be able to use their assets within the process. Parity of expertise is important in addressing power imbalances between professionals and other community members involved, because all knowledge has to be valued.


CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

FUNDING

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: The evaluation was funded by RCEW as stated in the methods section of the paper. So change the statement to: The evaluation was funded by RCEW, but the authors are independent evaluators.

ORCID ID

Louise Warwick-Booth  <https://orcid.org/0000-0002-7501-6491>

References

- Warwick-Booth L, Bagnall AMB, Coan S. *Creating participatory research. Principles, practice and reality*. Bristol: Policy Press; 2021.
- NEF. *Co-production in mental health: a literature review*. London. Available online at: https://neweconomics.org/uploads/files/ca0975b7cd88125c3e_ywm6bp3l1.pdf (last accessed 11 January 2022).
- UK Home Office. *Violence against women and girls services supporting local commissioning*. London; 2016. Available online at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/576238/VAWG_Commissioning_Toolkit.pdf (last accessed 7 January 2022).
- Benjamin LM, Brudney JL. What do voluntary sector studies offer research on co-production? In: LM Benjamin, JL Brudney (eds) *Co-production and co-creation*. London: Routledge; 2018, pp. 49–60.
- Hatzidimitriadou E, Mantovani N, Keating F. *Evaluation of coproduction processes in a community-based mental health project in Wandsworth*. London: Kingston University/St George's University of London; 2012.
- Fisher P, Balfour B, Moss S. Advocating co-productive engagement with marginalised people: a specific perspective on and by survivors of childhood sexual abuse. *Br J Social Work* 2018;**48**(7):2096–113.
- McCarry M, Larkins C, Berry V *et al*. The potential for co-production in developing violence against women services in Wales. *Soc Pol Soc* 2017;**17**(2):193–208.
- RCEW. *Weaving the web tender: external evaluation partner of co-production – women only*. London: Rape Crisis England and Wales; 2017.
- Needham C, Carr S. *SCIE research briefing 31: co-production: an emerging evidence base for adult social care transformation*, 2009. Available online at: <https://www.scie.org.uk/publications/briefings/briefing31/> (last accessed 28 January 2022).
- Nolan M, Grant G, Keady J *et al*. New directions for partnerships: relationship-centred care. In: M Nolan, U Lundh, G Grant *et al*. (eds) *Partnerships in family care: understanding the caregiving career*. Maidenhead: Open University Press; 2003, pp. 257–291.
- Arnstein S. A ladder of citizen participation. *J Am Plan Assoc* 1969;**35**(4):216–24.
- Laverack G. *Health promotion practice: power and empowerment*. London: Sage; 2004.

The value of qualitative methods to public health research, policy and practice

Authors

T Stickley 

Institute of Mental Health,
University of Nottingham
Faculty of Medicine and
Health Sciences, Triumph
Road, Nottingham NG7
2UH, UK.

Email: theo.stickley@gmail.com

A O'Caithain

The University of Sheffield,
Sheffield, UK

C Homer 

Sheffield Hallam University,
Sheffield, UK

Corresponding author:

Theodore Stickley, as above

Keywords

public health; qualitative
methods; publishing

Abstract

This article reviews the role and use of qualitative methods in public health research.

'Signs of quality' are introduced to help guide potential authors to publish their qualitative research in public health journals. We conclude that high-quality qualitative research offers insights that quantitative research cannot. It is time for all public health journals to recognise the value of qualitative research and increase the amount that they publish.

INTRODUCTION

In this article, we briefly review the role and use of qualitative methods in public health research and its significance for research, policy and practice. Historically, public health research has been largely dependent on quantitative research rooted in medical science. Qualitative research approaches, however, are able to provide the 'lived experience' perspective of patients, practitioners and the public on any aspect of public health.

To inform this article, we searched the most recent original research articles published in ten of the most widely cited public health journals in the world (generally those with the highest impact factor, including *Perspectives in Public Health*). The list of journals can be found in Table 1.

We examined 100 of the most recently published original research articles (10 from each journal up until May, 2021) to discover how many of these reported qualitative methods. The findings from this quick review can be found in Table 1 below. The review revealed that 85 articles reported quantitative methods, 11 reported mixed-methods, and only 4 reported qualitative methods. In our review, we deliberately did not include one public health journal, *Critical Public Health* because it specialises in publishing qualitative public health research studies. With only four qualitative research papers out of the most recent 100 public health original research articles published in the top journals, we have decided to publish this article first to encourage

qualitative research practices in public health, second to highlight the value of qualitative research, third to briefly identify what makes 'good qualitative research' and finally to promote increased submissions of original qualitative research in this and other public health journals.

REPORTING QUALITATIVE HEALTH RESEARCH

Qualitative research has its origins in Interpretivism. As such, it has been widely used in the social sciences, in contrast to the medical sciences that historically have largely embraced the positivist tradition. Typically, public health research has followed the positivist tradition although qualitative research methodology appears more often in public health journals than top medical journals. For example, a cursory examination of the *Lancet* indicates that it does not appear to publish any qualitative research and the *British Medical Journal (BMJ)* rarely does so. In 2016, the *BMJ* published an open letter from 76 senior academics from 11 countries inviting its editors to: '... reconsider their policy of rejecting qualitative research on the grounds of low priority. They challenge the journal to develop a proactive, scholarly, and pluralist approach to research that aligns with its stated mission'.¹ Included in their support for qualitative research articles in the *BMJ*, they observe that many of the journal's top papers have been qualitative studies. This letter

Table 1

The methods used in 100 recently published original research articles in 10 public health journals

Journal	Quantitative	Mixed-methods	Qualitative
<i>American Journal of Public Health</i>	10	0	0
<i>Annual Review of Public Health</i>	10	0	0
<i>BMC Public Health</i>	9	0	1
<i>European Journal of Public Health</i>	10	0	0
<i>Frontiers in Public Health</i>	6	3	1
<i>International Journal of Public Health</i>	8	1	1
<i>Journal of Public Health</i>	7	3	0
<i>Perspectives in Public Health</i>	8	1	1
<i>Public Health</i>	7	3	0
<i>The Lancet Public Health</i>	10	0	0
TOTAL	85	11	4

has been cited 250 times in the literature, largely supportive of their views. In their reply to the letter, Editors of the *BMJ* acknowledge that: ‘... we agree they can be valuable, and recognise that some research questions can only be answered by using qualitative methods’.²

In so much as we can tell to date, the *BMJ* has not changed its practice. Fortunately, published accounts of qualitative research in various other health disciplines flourishes, for example, there are now at least two health journals that are exclusively designed for this purpose (*Qualitative Health Research* and *International Journal of Qualitative Studies on Health and Well-being*).

THE VALUE OF QUALITATIVE HEALTH RESEARCH

The following quotation succinctly argues the need for qualitative research methods in public health:

Public health, we believe, needs both epidemiology and qualitative research. Without epidemiology we cannot answer questions about the prevalence of and association between health determinants and outcomes. Without qualitative enquiry, it is difficult to explain how individuals

*interpret health and illness in their everyday lives, or to understand the complex workings of the social, cultural and institutional systems that are central to our health and wellbeing.*³

In particular, given a situation with complex phenomena involving human experience and behaviour, quantitative research may equally excel in finding out ‘what and when?’, but qualitative research may equally be needed to find out ‘why, how and how come?’. Green and Britten⁴ summarise the role of qualitative research in health, and we have adapted their key points to apply to public health:

- Qualitative methods can help bridge the gap between scientific evidence and public health policy and practice by investigating human perceptions and experiences.
- Recognising the limits of quantitative approaches and that different research questions require different kinds of research.
- Qualitative research findings provide rigorous and firsthand accounts of public health educational, promotional and clinical practices in everyday contexts.

- Qualitative research can be used to help inform individual health choices and health promotion initiatives within communities.

DOING HIGH-QUALITY QUALITATIVE RESEARCH

Quality is unlikely to be the only reason that so little qualitative research finds its way into public health journals; even research articles of the highest quality may be met with resistance from reviewers and editors. Nonetheless it is important to attend to quality. Articles using qualitative methods require the same rigour as articles reporting quantitative methods; however, the criteria for assessing rigour are different. When assessing qualitative articles, we need to remember that what is considered rigorous in the social sciences is not necessarily the same as what is considered rigorous in the medical sciences and vice versa. Either way, what is important is that public health journals publish high-quality research studies, whatever methodology is employed. The following quotation is helpful in focusing on the need for rigour in qualitative approaches to healthcare research:

The value of qualitative methods to public health research, policy and practice

*The use of qualitative research in health care enables researchers to answer questions that may not be easily answered by quantitative methods. Moreover, it seeks to understand the phenomenon under study in the context of the culture or the setting in which it has been studied ... (however this) ... requires researchers in health care who attempt to use it, to have a thorough understanding of its theoretical basis, methodology and evaluation techniques.*⁵

As quoted above, Al-Busaidi,⁵ asserts that qualitative health researchers need an appreciation of theory and methodologies and use of both in all research and evaluation studies. What is most important in any qualitative study is that the research question is clear and the method is appropriate to answer the research question. We can therefore begin to ask critical questions of any qualitative article submitted for publication in public health journals:

- Is the research question clear?
- Is the method appropriate for addressing the research question?
- Is there an explanation as to how and why this method is appropriate?
- What are the theories referred to in this study and how are these applied?
- Are these theories consistent throughout the study?
- Has the sample been critiqued to make readers aware of who is not included and how this might affect findings?
- Is the analysis grounded in the data?
- Does the analysis address questions of the data so that insights are identified that go beyond simply describing what participants have said?
- Are there clearly articulated implications for public health practice?

In addition to these fundamental questions, to help researchers report qualitative research, there are two frameworks that help to maintain standards for the conduct and reporting

of the method. The first is COREQ (Consolidated criteria for reporting qualitative research).⁶ This is a 32-point checklist of three domains: research team and reflexivity, study design and analysis and findings. The second is Standards for Reporting Qualitative Research (SRQR),⁷ which is a 21-point check-list following the same format. Together, these are both useful tools for helping researchers think about what they need to consider when conducting qualitative research and for helping reviewers assess articles using qualitative methods. We are not suggesting that qualitative researchers should use these frameworks as tick-box checklists, although they may be used to enable researchers to think through important elements of qualitative research that may be otherwise overlooked. At the end of this article, we supply weblinks to enable the reader to inspect these two frameworks.

'SIGNS OF QUALITY' FOR REPORTING QUALITATIVE PUBLIC HEALTH RESEARCH

Rather than leave the reader baffled by frameworks and checklists, we propose a number of 'signs of quality' that we would expect to see when reviewing articles submitted to this or any other high-quality public health journal.

Focussed

The research question is clearly identified and clearly related to public health policy or practice and the chosen method is appropriate for answering that question. A rationale is offered to justify the study and the methods used.

Ethical

Ethical questions are considered, the study has been conducted and reported in an ethical manner, and ethical approval has been granted from a recognised ethics committee.

Clear

How the study was implemented needs to be reported as clearly as possible including: how access to participants was achieved, what questions were

asked, and how the analysis was conducted.

Consistent

The study needs to be both theoretically and practically consistent. For example, if the study claims to be narrative research, did the questions elicit stories and is narrative theory used in analysis?

Collaborative

In recent years, health services in many countries have embraced patient and public involvement and co-production in both research and practice. Such initiatives are designed to draw our attention to service users' views, needs and desires. This agenda sits very well with qualitative research methodologies.

Contribution

Every research study needs to make a contribution to the body of knowledge concerning the subject under investigation. If there is theoretical and practical consistency throughout the study and it has been competently conducted and analysed, the reader should come away with a sense of learning something new on the topic. This insight should be easy for a reader to take away from each article and the easiest way to do this is to articulate it clearly in the conclusion in the abstract as well as the conclusion in the body of the paper. Conclusions of 'it's complex' or 'there were five issues affecting this phenomenon' fail to offer useful insights. They may be a signal of an under-analysed study. It will be much more helpful to readers to state a single key issue that adds to the evidence base and that helps members of the population, policy-makers, or practitioners to understand the phenomenon under study or take action on it.

EXAMPLES OF GOOD QUALITATIVE RESEARCH FROM THIS JOURNAL

In order to exemplify the principles, we espouse in this article, we refer to two recent articles published in *Perspectives in Public Health* that use qualitative methods. First, Lozano-Sufrategui et al.⁸

The value of qualitative methods to public health research, policy and practice

aimed to ‘... *understand the behaviour changes men who attended a weight loss programme engage in during weight maintenance ...*’. To achieve this aim, the research team encouraged men on a weight loss programme to keep photo-diaries of themselves and to talk about their progress with the researchers. The research is innovative in its approach and uniquely reports the participants’ thoughts, feelings and behaviours. It highlights the importance of drawing on the diversity of methods that exist beyond face-to-face interviews. The second example is Eley et al.⁹ who conducted interviews and focus groups in four countries in order to ‘... *explore school educators’ attitudes, behaviours and knowledge towards food hygiene, safety and education.*’ Using this approach, they were able to explore individual and group views on this subject thus identifying not only the need for more educational resources but barriers and opportunities in the process. While reading these articles, it becomes immediately apparent that these studies

were able to gain insight into the respective topics that quantitative methods could never achieve. What qualitative research facilitates is the human connection between interviewer and interviewee and in that process, together with the guarantee of confidentiality, people are able to speak in-depth about their experiences and perceptions, from which much can be learned. In these two examples, the qualitative findings give insights into the thoughts and feelings of the participants and enable a greater understanding of how the researchers were able to draw their conclusions from the research.

CONCLUSION

A review of top public health journals identified that the vast majority of research that is being currently published in high-ranking public health journals use quantitative methods. High-quality qualitative research offers insights that quantitative research cannot. It is time for all public health journals to recognise the

value of qualitative research and increase the amount of high-quality qualitative research that they publish.

COREQ link:

http://cdn.elsevier.com/promis_misc/ISSM_COREQ_Checklist.pdf

SRQR link:

https://onlinelibrary.wiley.com/pb-assets/assets/15532712/SRQR_Checklist-1529502683197.pdf

CONFLICT OF INTEREST

The author(s) declared no potential conflicts of interest with respect to the research, authorship and/or publication of this article.

FUNDING

The author(s) received no financial support for the research, authorship and/or publication of this article.

ORCID IDS

Theodore Stickley  <https://orcid.org/0000-0002-7464-8219>

Catherine Homer  <https://orcid.org/0000-0003-2571-6008>

References

- Greenhalgh T, Annandale E, Ashcroft R *et al.* An open letter to The BMJ editors on qualitative research. *BMJ* 2016;**352**:i563.
- Loder E, Groves T, Schroter S *et al.* Qualitative research and The BMJ. *BMJ* 2016;**352**:i641.
- Isaacs AN. An overview of qualitative research methodology for public health researchers. *Int J Med Publ Health* 2014;**4**(4):318–23.
- Green J, Britten N. Qualitative research and evidence based medicine. *BMJ* 1998;**316**(7139):1230–2.
- Al-Busaidi ZQ. Qualitative research and its uses in health care. *Sultan Qaboos Univer Med J* 2008;**8**(1):11.
- Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. *Int J Qual Health Care* 2007;**19**(6):349–57.
- O'Brien BC, Harris IB, Beckman TJ *et al.* Standards for reporting qualitative research: a synthesis of recommendations. *Acad Med* 2014;**89**(9):1245–51.
- Lozano-Sufrategui L, Pringle A, Carless D *et al.* A qualitative study of men's behavioural changes during weight loss maintenance. *Perspect Public Health* 2020;**140**(6): 317–26.
- Eley C, Lundgren PT, Kasza G *et al.* Teaching young consumers in Europe: a multicentre qualitative needs assessment with educators on food hygiene and food safety. *Perspect Public Health*. Epub 2021 January 18. DOI: 10.1177/1757913920972739.