Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Evaluation of Islington's Choice and Control intervention

December 2018

Camden and Islington Public Health
Ester Romeri ester.romeri@islington.gov.uk
Minkyoung Choi minkyoung.choi@islington.gov.uk

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

PH Intelligence Team and Acknowledgements

Analysis and report writing

Ester Romeri - Intelligence and Information Public Health Analyst

Minkyoung Choi - Intelligence and Information Public Health Officer

Review

David Clifford - Principal Public Health Intelligence Specialist

Acknowledgements

Hamza Ali - Islington CCG Intelligence Analyst NEL Commissioning Support Unit

Sarah Hodel – Islington CCG Locality Development Officer Integrated Care

Clare Lindop – Islington CCG Choice and Control Manager – Adult

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Choice and Control evaluation: Key messages

Wellbeing analysis (questionnaire)

- About **one quarter** of the pilot patients (52 out of 183) participated in patient surveys and self care management (PAM score)
- Overall, pilot patients with **better health-related quality of life** score had both **higher attendance** and **cost of A&E** compared to pilot patients with a worse score.
- Patients with **better self-rated health state** had a **higher number of outpatient first attendance**, on average
- Patients with **better PAM score** had **three times as many outpatient follow-up attendances** than those with a lower score.
- These findings may indicate that pilot patients are getting more help from health professionals to manage their conditions, hence better self-rated confidence and wellbeing.

Recommendations

- Significantly higher pre-intervention primary and secondary care usage, and related costs, among pilot patients compared to the control groups suggest that pilot patients may be sicker. More could be done to improve matching control group using risk scores recorded before the intervention (instead of the latest score recorded) and/or clinical markers (not currently available).
- It is perhaps too early to evaluate the impact of the intervention (i.e. only 5 months follow up so far). Repeating the same analysis allowing a longer lag (9-12 months) may see more significant change in the primary and secondary health care usage.

Economic analysis

Descriptive analysis (Test validity of control group)

- Both pilot patients and control group matched for age (average) and on the length of follow-up period (158 days on average).
- However, a significantly **higher average risk score** is found among pilot patients (26) compared to the control group (18) implying that pilot patients may be sicker.
- **Higher hospital admissions** (all types), **A&E attendances** and **GP appointments** are found among pilot patients compared to the control group, before and after the intervention.
- A significantly **higher average cost** per admission (all types) is also found among pilot patients compared to the control groups.
- Overall, the findings suggest that **pilot patients may suffer from a larger number of long term conditions, or from more severe long term conditions.**

Main analysis (Evaluating the effect of the intervention)

- A regression model showed that the intervention had a positive **effect on outpatient follow up attendances;** there was a 21% reduction in the pilot group, post-intervention.
- There was also a marginal effect on **cost of outpatient (first) attendances** with a **10% reduction** among the pilot group.
- No significant effect was found for all other elective, non-elective, A&E admissions (both number and cost) or GP attendances.

Background

What is the intervention?

- As part of NHS England's Personalised Care Programme, Islington Clinical Commissioning Group is testing a new personalised care 'Choice & Control intervention (C&C)' in recognition of the increasing number of patients with a range of long term conditions, mental health and social care needs.
- The services offers up to 10 sessions with a peer coach to focus on what is important for them and how they want to improve their health and well being.
- It also offers a personal health budget that can be used to work towards their well being goals by accessing different types of care and support instead of using traditional NHS services (for example, physiotherapy, acupuncture, gym memberships etc.)

Background

The aim of this pilot intervention

- The aim is to support people with complex health issues, and help their carers and families to take a more active role in their health care and wellbeing, offering a better integration of health, social care, education, and the voluntary and community sector.

The aim of this evaluation

- The hypothesis to test was whether the Choice & Control intervention leads to:
  - better outcomes for patients
  - improved wellbeing
  - a system that is more financially efficient, leading to cost savings

- The overall aim of this analysis is to evaluate the effect of the intervention on pilot patients compared to the matched group looking at several outcomes (i.e. reduction of hospital utilisation, GP appointment and related cost)

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Choice and Control evaluation: overview

The Choice & Control Pilot Evaluation has two major themes of enquiry:

Wellbeing analysis

Aim: to assess if mental health wellbeing and self-reported health and quality of life, prior to intervention, had an association with the use and cost of health care services (for example, lower hospital utilisation, cost or GP appointment) (descriptive and regression analysis).

Wellbeing measures: Patient Surveys and PAM Scores: baseline only (pre-intervention).

Source: Data provided by National NHSE evaluation (January 2018 – October 2018).

Economic analysis

Aim: The analysis is divided in two parts:

1. Test validity of control group (descriptive analysis) to check if outcomes of pilot patients and control groups matched before intervention.
2. Evaluate the effect of the intervention after 5 months (average) :

   I. Reduction of Choice & Control Patient cohort's use of health care services over time (regression analysis)

   II. Reduction of health care service costs over time (regression analysis).

Source: Data provided by NEL CSU (January 2018 – October 2018).

Methodology

- **Target population for C&C intervention**
  - About 180 out 214,473 (0.1%) adults aged 18 and over registered in Islington GP practices in October 2018.
- **Eligible population**
  - Top 2% at risk of hospital or long-term care admission (using the Combined Predictive Model tool) and with a range of long term conditions, mental health and social care needs.
  - The Choice and Control programme is no longer accepting referrals for personal health budgets, as agreed in November's steering group meeting (2018). The final number of referrals for the Choice and Control service together was 288 in November 2018, higher than our original target.

WELLBEING ANALYSIS

This section is divided in two parts:

1. Descriptive analysis - to assess the patients' perceptions of their health and wellbeing state.

2. Regression analysis - to evaluates if mental health wellbeing and self-reported health and quality of life among pilot patients, prior to intervention, had an association with the use and cost of health care services (i.e. lower hospital utilisation, cost or GP appointment) around the time of intervention start.

Wellbeing analysis: data & method

- About **a quarter** (28%; 52 out of 183) of the pilot patients participated in the following patient surveys on mental wellbeing and quality of life:
  a. **Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS-14)** includes 14 questions, which are all positive statements about mental wellbeing.
  b. **EuroQoL 5-Dimension 5-Level (EQ-5D-5L)** is a standardized instrument for measuring generic health status combined with the quality-adjusted life year (QALY) which is a generic measure of disease burden, including both the quality and the quantity of life lived.
  c. **Adult Social Care Outcomes Toolkit (ASCOT)** is a multi-attribute utility index (9 questions) designed for the evaluation of long-term social care services and quality of life.
  d. **Patient Activation Measure (PAM)** helps to measure the spectrum of skills, knowledge and confidence in patients and captures the extent to which people feel engaged and confident in taking care of their condition.
- Full descriptions of the questionnaires are shown in the Appendix.

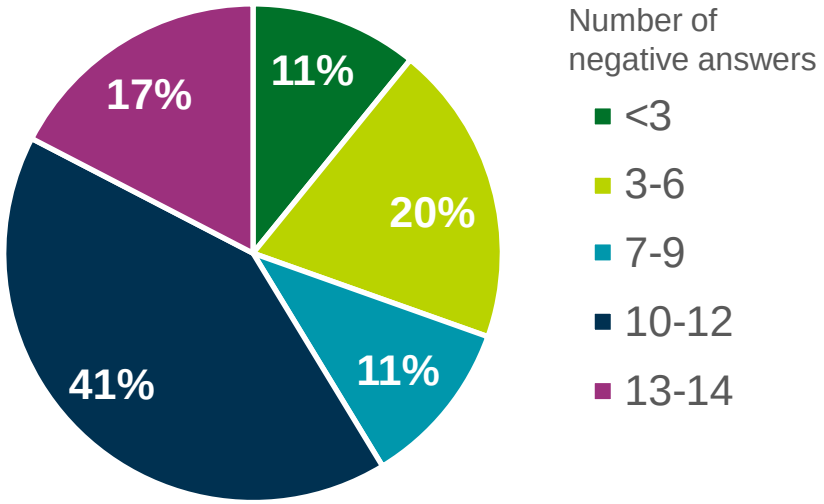
Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Wellbeing analysis – Descriptive analysis

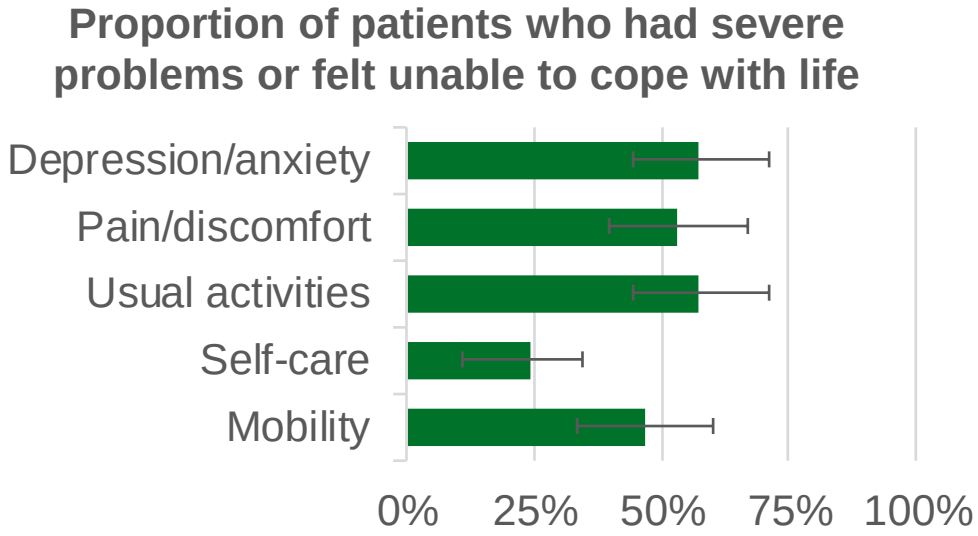
- The survey participants had a similar distribution of age, risk score before intervention and length of follow-up period compared to the whole pilot patients.
- **About 40%** patients answered **negatively** (“Rarely” and “None of the time”) to **most of the questions (10 -12 questions)**.
- Their average **mental wellbeing** score was **lower than the London average** (30.6 vs 50.7).

Proportion of patients by number of questions patients answered negatively



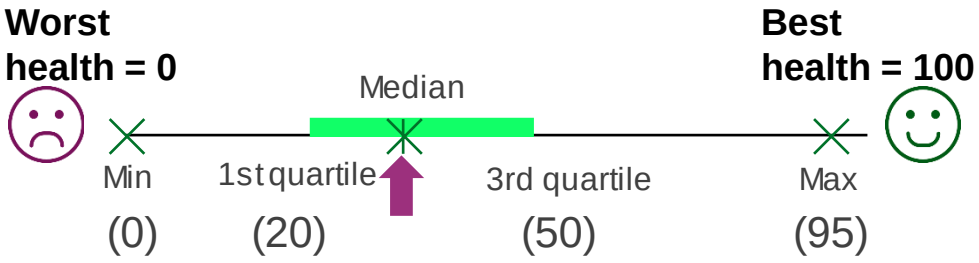
Wellbeing analysis – Descriptive analysis

- Health-related quality of life (EQ-5D-5L)



- **More than half of the patients had severe problems or felt unable to cope** with life for their mood (depression/anxiety), pain and usual activities.
- **One in seven** (14%) reported they had severe problems or felt unable to cope with life for all five dimensions.

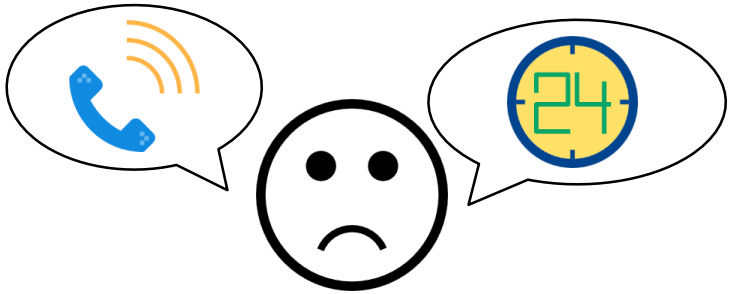
- Health state (EQ-5D-5L VAS)



- On average the participants rated their **health state relatively low** (**37 out of 100).**

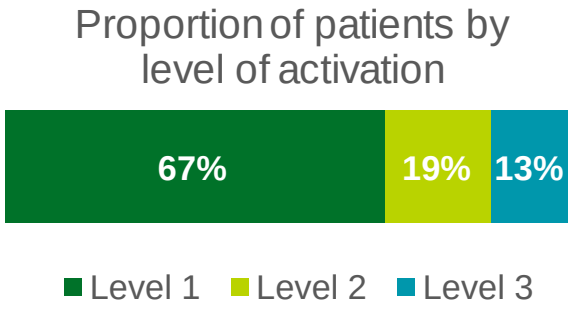
Wellbeing analysis – Descriptive analysis

- Social care-related quality of life



- More than 90% of the patients thought the amount of **social contact** and **time management** undermined their feelings about themselves.

- Patient activation level



- The **majority** of the participants (67%) tended to be **disengaged** from the care of their own health and feel **overwhelmed** (**level 1**).
- The highest activation level among the patients was **level 3**: taking action (No responses recorded for level 4: maintaining behaviours and pushing further).

Wellbeing analysis – Regression models (Table 1)

- Patients with **better health-related quality of life score** (EQ-5D-5L index score) had a **higher number and costs of A&E attendances**.
- A **better self-rated health state** (EQ-5D-5L VAS score) was related to a **higher number of outpatient first attendances**.
- Patients with a **better activation level (PAM level 3)** had **three times higher number of outpatient follow-up attendances** than those with the lowest activation level (PAM level 1).

Wellbeing analysis (regression) – summary table

- Table 1 - Incidence rate ratio (IRR) by questionnaire and outcome

Questionnaire	Outcome	IRR	P value	95% confidence interval	
Health-related quality of life *(per 0.01 point increase in EQ-5D-5L Index score)*	**A&E attendances**	***1.04***	*<0.001*	*1.02*	*1.06*
	A&E attendance costs	***1.12***	*0.021*	*1.02*	*1.24*
Self-rated health state *(per one point increase in EQ-5D-5L VAS score)*	**Outpatient first attendances**	***1.03***	*0.011*	*1.01*	*1.06*
Activation level *(PAM level 3 compared to level 1)*	**Outpatient follow-up attendances**	***3.07***	*0.039*	*1.06*	*8.92*

Key for p value: Statistically significantly different

Note: Because of the small number of participants, most of the results were not statistically significant and not shown here.

Economic analysis

This section is divided in two parts:

1. Descriptive analysis - to test validity of the match with the control group. The analysis will compare outcomes (average) between pilot and control groups to check if these outcomes matched before the intervention.

2. Regression analysis - to look for changes in the Choice & Control cohort's use of, and cost to, health care services, post-intervention. This section looks at the following outcomes:

a. Number of GP appointments
b. Non-elective and elective admissions to hospital
c. Outpatient admissions (both first and follow-up)
d. A&E attendances
e. Activity costs related to A&E, elective/ non-elective, outpatient admissions

Economic analysis: data & method

Data cover period between January 2018 and October 2018 (data extraction in October 2018)

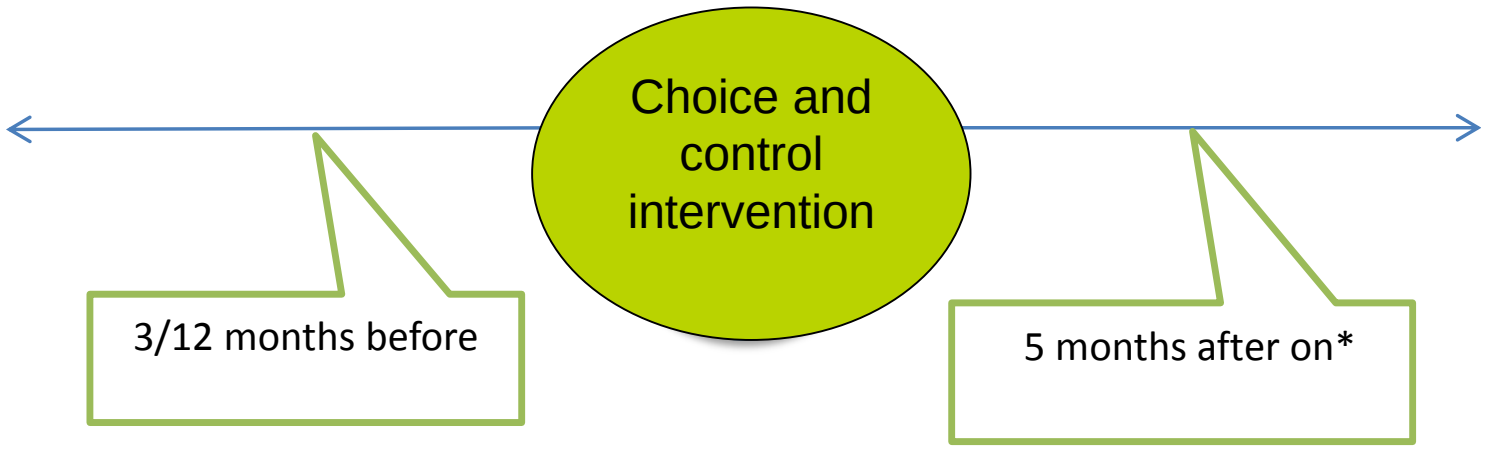
- Islington CCG selected a control group: patients within the top 2% from practices not engaging in the choice and control intervention and matched against the pilot patients for:
  - age (+/-10 years)
  - risk score (within 0.2 or 0.5 standard deviations, and within 10% of risk score)
  - whether or not they have 1+ physical health long term condition (LTC)*
  - whether or not they have 1+ mental health long term condition (LTC)**
- This generated an anonymised dataset covering activity and cost for pilot patients (183) and matched controls (701).

*Physical health (PH) LTCs used are Asthma, Cardiac conditions, Diabetes, COPD, CLD (Chronic Liver Disease), CKD (Chronic Kidney Disease), Cancer, Osteoporosis, Learning Disabilities, Epilepsy and Stroke, Heart failure, Atrial fibrillation, Chronic heart disease and Hypertension.

**Severe mental illness, anxiety / depression and dementia.

Economic analysis: data & method

- Benchmarking ‘against the individual’. We compared the same outcomes in the pilot group against the matched group (or within the same groups) for:



* Follow up is of 158 days on average

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Descriptive analysis

testing validity of matching group

Descriptive analysis: data & method

- Wilcoxon-Mann-Whitney U test was used to compare differences in age and outcomes (i.e. risk score, follow up period, number and cost of admissions/A&E and GP attendances) in 3 different points of time: 12 months and 3 months before intervention and after intervention (5 months on average).
- **Descriptive analysis**: compare outcomes in the pilot group with the matched control group for different points of time. Some examples of the analytical outputs are shown in the Appendix.

Descriptive analysis – key findings

- Both pilot patients and control group matched for age (average) and on the length of follow-up period (158 days on average).
- However, a significantly **higher average risk score** is found among pilot patients (26) compared to the control group (18) implying that pilot patients may be sicker.
- **Higher hospital admissions** (all types), **A&E attendances** and **GP appointments** are found among pilot patients compared to the control group, before and after the intervention.
- A significantly **higher average cost** per admission (all types) is also found among pilot patients compared to the control groups.
- Overall, the findings suggest that **pilot patients may suffer from a larger number of long term conditions, or from more severe long term conditions.**

Main analysis

Evaluating the effect of the intervention

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Main analysis: stage of the intervention

Pilot patient		
Stage of intervention	**Number**	**%**
1. Referrals	183	100%
2. Sent to peer coaching	177	97%
3. First peer coach session	118	64%
4. First navigator meeting	80	44%
5. Support plan agreed	42	23%
6. Direct payment made	39	21%

First analysis

Second analysis

- The first analysis (not shown) looked at the pilot patients (Total 183) at the time of their referral, but the findings were not statistical significant (no effect of the intervention on all outputs).
- A second analysis was repeated at a later stage when pilot patients had their ‘first peer coach session’ to allow for a greater ‘exposure’ to the Choice & Control intervention.

Main analysis: data & method

- Negative binomial regression modelling* was used to analyse and compare effect of intervention between pilot and matched control groups on the following outcomes:
  - Number and cost of elective, non-elective and outpatients (first and follow up) admissions
  - Number and cost of A&E attendances
  - Number of GP attendances

* The regression model controlled for pre-hospital utilisation/cost and GP attendances (12 and 3 months before intervention), risk score prior to intervention, length of follow-up period since intervention (months) and age.

Key findings: hospital and GP activity

- A regression model (Table 1) showed that the intervention had a positive **effect on outpatient follow up attendances with a 21% reduction** in the pilot group, post-intervention (Incident Rate Ratio (IRR) = -0.79, P value: 0.044).

- A significantly higher rate of outpatient (follow-up) and A&E attendances are found among pilot patients when compared to the control group:
    - In Table 1, pilot patients have about 7 more time as many outpatient (follow-up) attendances and A&E than the control group after the intervention (IRR= 6.7 and IRR= 7.1 respectively).
    - In Table 2, pilot patients have 3 times as many outpatients (follow-up) than the control group when the regression model was adjusted for 12 months pre – activity (IRR=3.2).

Key findings: hospital-related cost

- From the negative binomial regression modelling (Table 3), it was also found that the intervention had a marginal effect on **cost of outpatient (first) attendances** with a **10% reduction** among the pilot group (Incident Rate Ratio (IRR) = -0.90, P value: 0.061).

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Effect of the intervention: hospital and GP activity

Table 1 – Adjusted for 3 month pre-activity

Outcomes	Measures	IRR	P value	95% confidence interval	
GP appointments	Pilot activity	*1.45*	*0.519*	*0.47*	*4.52*
	Effect of the intervention per month	*-0.96*	*0.724*	*0.76*	*1.21*
Outpatient Hospital admissions (first)	Pilot activity	*3.11*	*0.105*	*0.79*	*12.24*
	Effect of the intervention per month	*-0.98*	*0.904*	*0.75*	*1.28*
Outpatient Hospital admissions (follow-up)	Pilot activity	*6.76*	*0.002*	*2.05*	*22.31*
	Effect of the intervention per month	*-0.79*	*0.044*	*0.63*	*0.99*
Non - Elective Hospital admissions	Pilot activity	*3.68*	*0.198*	*0.67*	*34.88*
	Effect of the intervention per month	*-0.88*	*0.437*	*0.63*	*1.22*
Elective Hospital admissions	Pilot activity	*1.95*	*0.668*	*0.09*	*41.92*
	Effect of the intervention per month	*1.10*	*0.743*	*0.62*	*1.95*
A&E attendances	Pilot activity	*7.11*	*0.014*	*1.49*	*33.86*
	Effect of the intervention per month	*-0.83*	*0.219*	*0.63*	*1.11*

NOTE: If p value is less than 0.05 this means that the pilot activity or the effect of the intervention is statistically significant.

Key for p value: Statistically significantly different Not statistically significantly different

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Effect of the intervention: hospital and GP activity

Table 2 – Adjusted for 12 month pre-activity

Outcomes	Measures	IRR	P value	95% confidence interval	
GP appointments	Pilot activity	*1.07*	*0.906*	*0.37*	*3.05*
	Effect of the intervention per month	*1.01*	*0.938*	*0.82*	*1.24*
Outpatient Hospital admissions (first)	Pilot activity	*2.12*	*0.344*	*0.45*	*10.05*
	Effect of the intervention per month	*1.00*	*0.993*	*0.73*	*1.37*
Outpatient Hospital admissions (follow up)	Pilot activity	*3.22*	*0.047*	*1.02*	*10.19*
	Effect of the intervention per month	*-0.86*	*0.175*	*0.69*	*1.07*
Non - Elective Hospital admissions	Pilot activity	*4.23*	*0.160*	*0.57*	*31.63*
	Effect of the intervention per month	*-0.92*	*0.663*	*0.62*	*1.35*
Elective hospital admissions	Pilot activity	*1.11*	*0.946*	*0.05*	*24.61*
	Effect of the intervention per month	*1.19*	*0.559*	*0.66*	*2.16*
A&E attendances	Pilot activity	*4.78*	*0.083*	*0.82*	*27.95*
	Effect of the intervention per month	*-0.87*	*0.409*	*0.63*	*1.21*

NOTE: If p value is less than 0.05 this means that the pilot activity or the effect of the intervention is statistically significant.

Key for p value: Statistically significantly different Not statistically significantly different

Effect of the intervention: hospital-related cost

Table 3 – Adjusted for 3 month pre-cost

Outcomes	Measures	IRR	P value	95% confidence interval	
Outpatient Hospital admissions (first)	Pilot activity	*1.58*	*0.115*	*0.89*	*2.80*
	Effect of the intervention per month	*-0.90*	*0.061***	*0.81*	*1.01*
Outpatient Hospital admissions (follow-up)	Pilot activity	*2.87*	*0.495*	*0.14*	*59.55*
	Effect of the intervention per month	*-0.95*	*0.881*	*0.51*	*1.80*
Non - Elective Hospital admissions	Pilot activity	*-0.43*	*0.200*	*0.12*	*1.56*
	Effect of the intervention per month	*1.20*	*0.119*	*0.95*	*1.50*
Elective Hospital admissions *	Pilot activity	*n/a*	*n/a*	*n/a*	*n/a*
	Effect of the intervention per month	*n/a*	*n/a*	*n/a*	*n/a*
A&E attendances	Pilot activity	*-0.73*	*0.438*	*0.34*	*1.60*
	Effect of the intervention per month	*1.03*	*0.667*	*0.76*	*1.19*

***** Model not significant. ****** Marginally significant (close to p value 0.05).

NOTE: If p value is less than 0.05 this means that the pilot activity or the effect of the intervention is statistically significant.

Key for p value: Statistically significantly different Not statistically significantly different

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Effect of the intervention: hospital-related cost

Table 4 – Adjusted for 12 month pre-cost

Outcomes	Measures	IRR	P value	95% confidence interval	
Outpatient Hospital admissions (first)	Pilot activity	*1.38*	*0.306*	*0.75*	*2.55*
	Effect of the intervention per month	*-0.92*	*0.168*	*0.81*	*1.04*
Outpatient Hospital admissions (follow-up)	Pilot activity	*3.08*	*0.509*	*0.11*	*86.47*
	Effect of the intervention per month	*-0.96*	*0.912*	*0.48*	*1.92*
Non - Elective Hospital admissions	Pilot activity	*1.98*	*0.470*	*0.31*	*12.56*
	Effect of the intervention per month	*-0.92*	*0.600*	*0.68*	*1.25*
Elective Hospital admissions *	Pilot activity	*n/a*	*n/a*	*n/a*	*n/a*
	Effect of the intervention per month	*n/a*	*n/a*	*n/a*	*n/a*
A&E attendances	Pilot activity	*-0.78*	*0.605*	*0.30*	*2.00*
	Effect of the intervention per month	*-0.99*	*0.949*	*0.84*	*1.18*

***** Model not significant.

NOTE: If p value is less than 0.05 this means that the pilot activity or the effect of the intervention is statistically significant.

Key for p value: Statistically significantly different Not statistically significantly different

Potential issues for discussion: wellbeing analysis

- Pilot patients with a better self-reported health-related quality of life or emotional well-being had higher hospital utilisation or GP attendances than patients with a lower scores.
- Based on the available data, it is not possible to identify whether this is because patients with better self-reported health are more engaged in their own care, or that these patients have better self-reported health because they have been seeking more help from professionals.
- Further investigation using data with a longer follow-up period, and with follow-up survey data would help to unpack the association between these factors.

Potential issues for discussion: Economic analysis

- The pilot patients might be sicker than the control patients:
  - **Higher Risk score** before and after the intervention (descriptive analysis)
  - **Higher pre-intervention** primary and secondary care usage, and related costs, among pilot patients compared to the control groups (descriptive analysis)
  - **Higher Outpatient/non-elective and A&E attendance** among pilot patients after the intervention (regressions analysis). Higher outpatient attendances may suggest that patients are receiving more help from professionals and clinicians.
- Further investigation may be required. Improving matching method using matching on pre-intervention risk score and /or clinical markers (not currently available).

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Potential issues for discussion: Economic analysis

Pilot patients			
Stage of intervention	**Number**	**%**	**Follow up (day average)**
1. Referrals	183	100%	158
2. Sent to peer coaching	177	97%	156
3. First peer coach session	118	64%	146
4. First navigator meeting	80	44%	132
5. Support plan agreed	42	23%	100
6. Direct payment made	39	21%	56

- The Choice & Control service might be at **a *very early* stage** to expect to see any impact of the intervention. Only few patients reached later stages (4,5 and 6) of the intervention. Sample sizes were too small to draw significant conclusions (between 39 and 80 patients).
- The follow up period (i.e. average number of day since the start of each stage of the intervention) is relatively short to evaluate the impact of the intervention (i.e. 2 to 5 months only).
- Perhaps it would be worth repeating the analysis allowing a longer lag (for example 9-12 months) to see whether the variation in cost and attendance is due to due to random variation.

APPENDIX

Examples of analysis outcomes & questionnaire

Camden ISLINGTON
Working in partnership

NHS Islington Clinical Commissioning Group

Descriptive analysis

The descriptive statistics show that there is no significant difference in age or follow up between pilot patients and control patients.

1. Age

	Pilot patients	Control patients	P for difference between means (used parametric test)
Number of people	181	701	
Average	53.80	54.35	
Standard deviation	14.16	14.90	
1st quartile	45	45	
Median	53	54	0.657
3rd quartile	62	64	

2. Follow up period

	Before Intervention		
	Pilot patients	Control patients	P for difference between groups (used non parametric test)
Number of people	183	701	
Average	157.7	158.1	
Standard deviation	62.51	60.85	
1st quartile	105	111	
Median	160	161	0.900
3rd quartile	203	203	

Key for p value: Statistically significantly different Not statistically significantly different

Camden ISLINGTON
Working in partnership

NHS Islington Clinical Commissioning Group

Descriptive analysis (cont.)

The average risk score for the pilot patients is significantly higher than that of the control group before and after the intervention.

3. Risk score

	Before Intervention			After intervention		
	Pilot patients	Control patients	P for difference between groups (used non parametric test)	Pilot patients	Control patients	P for difference between groups (used non parametric test)
Number of people	179	600		178	494	
Average	25.70	18.13		26.34	15.69	
Standard deviation	25	23.24		26	20.09	
1st quartile	7.71	4.475		7	4.42	
Median	14.68	7.575	0.000	14.3	7.26	0.000
3rd quartile	31.8	17.965		38.83	16.18	

Key for p value: Statistically significantly different Not statistically significantly different

Questionnaire

Questionnaire	Description	Item	Answer option
Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS-14)	The Warwick-Edinburgh Mental Well-being Scale is for measure of **mental well being** in the general population. It is a 14 item scale with 5 response categories, summed to provide **a single score ranging from 14-70**. The items are all worded positively and cover both feeling and functioning aspects of mental wellbeing.	1. I've been feeling optimistic about the future	1. None of the time
		2. I've been feeling useful	2. Rarely
		3. I've been feeling relaxed	3. Some of the time
		4. I've been feeling interested in other people	4. Often
		5. I've had energy to spare	5. All of the time
		6. I've been dealing with problems well	
		7. I've been thinking clearly	
		8. I've been feeling good about myself	
		9. I've been feeling close to other people	
		10. I've been feeling confident	
		11. I've been able to make up my own mind about things	
		12. I've been feeling loved	
		13. I've been interested in new things	
		14. I've been feeling cheerful	

Questionnaire (cont.)

Questionnaire	Description	Item	Answer option
EQ-5D-5L	**EQ-5D** is a standardized instrument for measuring generic health status. The health status measured with EQ-5D is used for estimating preference weight for that health status, then by combining the weight with time, **quality-adjusted life year (QALY)** can be computed. In evaluation part, the respondents evaluate their overall health status using the visual analogue scale (**EQ-VAS**). Visual analogue scale is the second part of the questionnaire, asking to mark health status on the day of the interview on a 20 cm vertical scale with end points of 0 ("the worse health you can imagine") and 100 ("the best health you can imagine").	1. Mobility (walking around)	1. No problems
		2. Self-care (washing or dressing themselves)	2. Slight problems
		3. Usual activities	3. Moderate problems
		4. Pain/discomfort	4. Severe problems
		5. Anxiety/ depression	5. Unable
		EQ-VAS: A number between 0 (worst health that can be imagined) to 100 (best health that can be imagined)	

Questionnaire (cont.)

Questionnaire	Description	Item	Answer option
Adult Social Care Outcomes Toolkit (ASCOT SCT4)	The ASCOT-SCT4 is a multi-attribute utility index designed for the evaluation of long-term social care services. The measure comprises eight/nine attributes that capture aspects of **social care-related quality of life (SCRQoL)**.	1. Which of the following statements best describes how much control you have over your daily life?	1. I think and feel better about myself
		2. Thinking about keeping clean and presentable in appearance, which of the following statements best describes your situation?	2. Does not affect how I think and feel
		3. Thinking about the food and drink you get, which of the following statements best describes your situation?	3. Sometimes undermines the way I think/feel
		4. Which of the following statements best describes how safe you feel?	4. Completely undermines the way I think/feel
		5. Thinking about how much contact you have with people you like, which of the following statements best describes your social situation?	
		6. Which of the following statements best describes how you spend your time?	
		7. Which of the following statements best describes how clean and comfortable your home is?	
		8. Which of these statements best describes how having help to do things makes you think and feel about yourself?	
		9. Which of these statements best describes how the way you are helped and treated makes you think and feel about yourself?	

Questionnaire (cont.)

Questionnaire	Description	Item	Answer option
Patient Activation Measure (PAM)	The PAM helps to measure the spectrum of **skills, knowledge and confidence in patients** and captures the extent to which people feel engaged and confident in **taking care of their condition**. Individuals are asked to complete a short survey and based on their responses, they receive a PAM score (between 0 and 100). The resulting score places the individual at one of four levels of activation, each of which reveals insight into a range of health-related characteristics, including behaviours and outcomes. • **Level 1** (≤ 47): Individuals tend to be passive and feel overwhelmed by managing their own health. They may not understand their role in the care process. • **Level 2** (47.1-55.1): Individuals may lack the knowledge and confidence to manage their health. • **Level 3** (55.2-72.4): Individuals appear to be taking action but may still lack the confidence and skill to support their behaviours. • **Level 4** (≥ 72.5): Individuals have adopted many of the behaviours needed to support their health but may not be able to maintain them in the face of life stressors.	1. I am the person who is responsible for taking care of my health	1. Agree Strongly
		2. Taking an active role in my own health care is the most important thing that affects my health	2. Agree
		3. I am confident I can help prevent or reduce problems associated with my health	3. Disagree
		4. I know what each of my prescribed medications do	4. Disagree Strongly
		5. I am confident that I can tell whether I need to go to the doctor or whether I can tak care of a health problem myself	
		6. I am confident that I can tell a doctor or nurse concerns I have even when he or she does not ask	
		7. I am confident that I can carry out medical treatments I may need to do at home	
		8. I understand my health problems and what causes them	
		9. I know what treatments are available for my health problems	
		10. I have been able to maintain lifestyle changes, like health eating or exercising	
		11. I know how to prevent problems with my health	
		12. I am confident I can work out solutions when new problems arise with my health	
		13. I am confident that I can maintain lifestlye changes, like healthy eating and exercising, even during times of stress	

Camden ISLINGTON
Working in partnership

NHS
Islington
Clinical Commissioning Group

Further information and feedback

This analysis has been created by Ester Romeri (Public Health Intelligence and Information Analyst), Minkyoung Choi (Public Health Intelligence and Information Officer), and approved for publication by David Clifford (Principal Public Health Intelligence Specialist).

For further information please contact Ester Romeri Tel: 020 7527 1810 Email: publichealth.intelligence@islington.gov.uk

We would also very much welcome your comments on this analysis and how it could better suit your individual or practice requirements, so please contact us with your ideas.