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# **An Evaluation of Leeds CCG Vulnerable Populations Health Improvement Projects**

Final Report April 2019

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## Executive Summary

### Background

The Health Improvement Project is a grant scheme funded by Leeds CCG. It provides additional capacity in four organisations (referred to as 'delivery partners' from now on) to support vulnerable population's healthcare needs. The four vulnerable groups are:

- Gypsies and Travellers (supported by Leeds GATE)
- Homeless individuals (supported by St. George's Crypt)
- Ex-Offenders (supported by West Yorkshire Community Chaplaincy Project or WYCCP)
- Sex-workers (supported by Basis)

The Centre for Health Promotion Research evaluated this intervention from the start of its delivery until the end of February 2019.

### Key Findings

- On average individuals used the services 14 times with each interaction lasting 45 minutes.
- The majority of service users were between 24 and 44 years old (57%) and male (61%). Nearly all were registered to a GP (92%) but less than half were recorded as having a good level of literacy (42%). Almost half of the service users were homeless (43%).
- The health issues experienced across the vulnerable populations are complex and are situated within a range of difficult social circumstances determining health.
- Professionals from all four delivery partners noted that building relationships and trust with vulnerable populations are essential prerequisites for engagement.
- The flexibility offered by each delivery partner in their approach to working with vulnerable populations enables them to meet the needs of their service users. The combination of out-reach and in-reach work is important as a model of service delivery for these populations.
- The work of the delivery partners had enabled appropriate access to health services and increased awareness of service availability. Advocacy work by professionals was needed for service users across all four vulnerable populations.

- Service users reported very positive experiences of the practical and emotional support that they received. For some it was life-changing.
- From a service user point of view, trusting the delivery partner staff and being listened to are important components for success.

## **Outcomes**

### ***Quantitative – based on the combined service user data from all four delivery partners***

- There was a significant change (from pre to post intervention) in service users' responses to almost all questions from the EQ-5D-L (quality of life) scale. The highest improvement was found in 'Anxiety/Depression,' followed by 'Usual activities' and 'Mobility'. No statistically significant change was found for 'Self-care'.
- There was a significant change (from pre to post intervention) in service users' responses to the NDT chaos index. The highest improvement was found in terms of 'Housing' followed by strong improvements in 'Stress and anxiety', 'Risk from others', 'Unintentional self-harm', and 'Engagement with frontline services'. No statistically significant change was found in terms of 'Social effectiveness' and 'Alcohol/Drug abuse'.
- There was a significant improvement in service users' overall health (self-reported) after the intervention.

### ***Qualitative***

- A wide range of positive outcomes were described by service users, including; better use of appointments, improvements in lifestyle behaviours, better accommodation, feeling more in control of their lives and improved confidence and independence.
- Many service users described improvements in their mental health such as feeling calmer, less worried, having reduced anxiety and feeling less depressed.
- Service users reported accessing existing health care provision more frequently following support from their worker, growing satisfaction with such services and increased confidence in asking for help.
- Improvements in the wider determinants of health were also noted by service users with support provided in relation to housing, benefit provision and associated finance.

## **Key Recommendations**

- Consider the particular needs of the different vulnerable groups as they are not homogenous. For example, there are different challenges working with women compared to men. There are also variations in terms of how cohesive each community are, for example, the sex-worker group a disparate collection of individuals effectively in competition with one another, rather than a cohesive community.
- Retain these projects, and their outreach model, in the medium term to enable further engagement with additional community members in Leeds. Longer-term planning for work with vulnerable populations is required.
- Allow time for relationships and connections to build between services and service users.
- Embed peer support opportunities into future delivery, to facilitate shared learning between delivery partner staff and to maximise impact.

## **How we did the evaluation**

Using a theory of change, the evaluation team supported internal monitoring data collection, and conducted a range of interviews with stakeholders, and service users. The evaluation team also analysed data from two validated questionnaires. Qualitative and quantitative methods were used to strengthen findings and allow some triangulation between different data sources.

## **Contact/Further Information**

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# 1: Introduction

## 1.1 The Vulnerable Populations Project

The Health Improvement Project is a grant scheme funded by Leeds CCG. It provides additional capacity in four organisations (referred to as ‘delivery partners’ from now on) to support vulnerable population’s healthcare needs. The four vulnerable groups are:

- Gypsies and Travellers (supported by Leeds GATE)
- Homeless individuals (supported by St. George’s Crypt)
- Ex-Offenders (supported by West Yorkshire Community Chaplaincy Project or WYCCP)
- Sex-workers (supported by Basis)

These four initiatives were chosen by the commissioners following a prioritisation process when Leeds CCG was established from a number of separate CCGs. Addressing health inequalities is a strategic priority, this project therefore directly meets this requirement. The aim is to reduce the barriers to access experienced by the identified groups.

The delivery partners chosen each have a deep understanding of the specific needs of the communities they are working with and strong existing relationships. These are key to providing appropriate support. The populations vary in terms of why they are vulnerable – however they experience some common issues including low levels of literacy, managing healthcare without an address plus stigma within the health service and society in general.

The commissioners took a flexible, co-production approach, enabling each delivery partner lead to develop a project that, based on their experience, best meets the needs of their service users. All four projects developed combine outreach and in-reach. The former brings services into the communities, the latter brings members of the community into mainstream services. For a description of this approach see the model developed by the four delivery partners – Appendix 8.

Table 1.1. provides background detail about the remit of each delivery partner and the vulnerable population that they were commissioned to support.

**Table 1.1 The remit of each project**

<b>Leeds GATE</b>	<b>St. Georges Crypt</b>	<b>WYCCP</b>	<b>Basis</b>
A third sector organisation working with Gypsies and Travellers.  In 2016 an Outreach Nurse was appointed to work with the community on Cottingley Springs (a council run Gypsy	A third sector organisation in Leeds providing housing and services to homeless and vulnerable people suffering from addiction.  This project funded an Occupational Therapy (OT) role located on	A resettlement organisation for ex-offenders, which aims to reduce re-offending and contribute to building safer and stronger communities across West Yorkshire.	A third sector organisation providing advocacy for sex-workers in the Leeds area.  The organisation has a non-judgmental approach. There is no pressure on service users to exit sex-work, instead the emphasis is on

<p>and Traveller site). See Warwick-Booth et al 2018 for the evaluation of this role). The role has received continued funding since.</p> <p>This project funding supported an advocate role. This delivers one to one support to Leeds GATE members – either face to face or telephone appointments. The post works around members’ priorities – often a broad range of issues.</p>	<p>site to support service users to perform activities that are motivating and meaningful to them.</p>	<p>This project, in existence since 2005, provides holistic support for men with the aim of reducing reoffending.</p> <p>The CCG funding enabled the project to continue to work with the community of male ex-offenders. It is a self-referral service, working with service users according to their own needs assessment.</p>	<p>building trusting relationships so service users can be honest, and therefore be provided with optimal support for their health issues.</p> <p>The CCG funding was used to support staffing costs.</p> <p>Basis is an all women environment.</p>
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## 1.2 Context

Public health evidence demonstrates that people with the greatest healthcare needs often use healthcare services the least. Therefore, providing intense support to the most vulnerable individuals in society is identified as a way to gain the most benefit. The most vulnerable and excluded populations, who experience higher levels of social and health inequalities include people with experiences of drug use, imprisonment, homelessness and sex work (Luchenski et al 2018). There is also significant evidence detailing the health needs and inequalities associated with Gypsy and Traveller communities. The 2011 Census included Gypsies and Travellers as an ethnic category for the first time and found that Gypsy and Irish Travellers across England and Wales had the lowest proportion of people who rated their general health as good: only 70% compared to 81% of the general population (ONS 2014). All of these vulnerable populations have common adverse life experiences and risk factors which lead to poorer health, multiple morbidity and early morbidity (Aldridge et al 2017). An overview of the health needs of these vulnerable populations is illustrated in table 1.2.

**Table 1.2 Health Needs of Vulnerable Populations**

Vulnerable Community	Health needs
Gypsies and Travellers	The Gypsy and Traveller community has significant healthcare needs with extremely low life expectancy, mental health issues, high suicide rates, loss of children and infants, and diabetes (Cemlyn et al 2009).



<b>Homeless</b>	There are many identified health needs within the homeless population including multiple chronic conditions, such as persistent and severe mental illness, depression and substance misuse (Chambers et al 2013). Serious mental health issues exacerbate other health conditions and in combination often end in adverse health outcomes, given a lack of treatment adherence amongst the homeless community. Homeless people are more likely to die at a younger age when compared to the general population. Homeless men have an average age of death of 47 years old and this is even lower for homeless women at 43 (Thomas 2012).
<b>Ex-Offenders</b>	Many ex-offenders have been intravenous drug users, have Deep Vein Thrombosis, abscesses, conditions leading to amputations that cause social care problems, experience strokes, hepatitis, liver disease, and other conditions related to alcohol and substance misuse. The health of offenders is usually significantly worse than that of the general population particularly in terms of mental health problems, addictions and blood borne virus. The health of female offenders is particular poor (Lewis and Scott-Samuel 2012).
<b>Sex Workers</b>	Street workers have a high risk of health problems, for example, sexually transmitted infections. They also experience long term conditions such as diabetes and back pain, mental illness. High rates of drug and alcohol dependency disorders are also common within the sex working community (Howard 2018). Such workers are at a high risk of experiencing violence.

Common across all of these vulnerable groups is a combination of extreme need and a history of not accessing health services until crisis point. Therefore, these groups usually attend emergency services considerably more frequently than the general population. Existing literature identifies several barriers to accessing health care for all of these vulnerable populations. These are summarized in table 1.3.

**Table 1.3 Barriers to accessing healthcare**

<b>Vulnerable Community</b>	<b>Identified barriers</b>
<b>Gypsies and Travellers</b>	Fear, mistrust, and lack of confidence are key barriers to accessing healthcare services for these communities. A major issue is not being aware of local services or not being registered with GPs (due to travelling and not being settled). Studies confirm literacy and language as barriers to accessing health services, as well as discrimination and economic disadvantage (Siebelt et al 2017).
<b>Homeless</b>	Many homeless people do not access mainstream health care provision as they feel uncomfortable, for a variety of reasons, including negatively 'standing out'. Perceptions of not being treated equally compared to the general population, in certain health care settings, are

	also documented in the literature. Some studies suggest that homeless people prefer environments where they know they are welcome (Bradley 2018).
<b>Ex-Offenders</b>	Connecting released offenders with community health services as a health excluded group in need of tailored support is often not prioritized (Eshareturi et al 2014). Furthermore, offenders on release in England and Wales tend to use health services only when experiencing a crisis. They remain socially excluded and hard to reach (Byng et al 2014). Imprisonment exacerbates health problems because many offenders lose their accommodation and/or employment whilst in prison (Lewis and Scott-Samuel 2012).
<b>Sex Workers</b>	Stigma, both real and perceived, is a significant barrier for sex-workers in accessing healthcare (Howard 2018). Another is that sex workers don't prioritise their own health due to lifestyle factors and poor levels of self-esteem.

## 2: Evaluation Methodology

### 2.1 Evaluation Aims and Objectives

**Objective 1:** to examine the reach and impact of the Health Improvement project

**Objective 2:** to examine the personal health outcomes of each of the vulnerable populations from the viewpoint of service users

**Objective 3:** To evaluate professional's perceptions of the interventions

### 2.2 Approach

The evaluation placed the delivery partner's staff, other stakeholders and service users at the centre of the investigation. To ensure rigour we used a Theory of Change (TOC) to provide an overall framework for the evaluation (Judge and Bauld, 2001) - this helped make explicit the links between project goals and the context in which it was being implemented. Our previous work shows how important it is to appreciate the context in which programmes operate as this can be critical for success – or otherwise (South et al., 2012). The detailed Theory of Change is in Appendix 9. Qualitative and quantitative methods were used to strengthen findings and allow some triangulation between different data sources.

### 2.3 Evaluation Methods

#### Monitoring data

The first set of analyses relied on monitoring data. This was supplied by project workers from the four delivery partners. It included data on 148 service users – from the four delivery partners of Basis, Chaplaincy, Leeds GATE, and St. George's Crypt. The datasets include information collected between July 2018 and the end of February 2019 about the number and length of interactions, age, gender, GP registration, level of literacy, and place of residence<sup>1</sup>. The template for the monitoring data is in appendix 1.

#### Service User Case Studies

For a more in-depth perspective delivery partner staff completed case-studies of some of the service users that they had worked with. This included information on how the interaction came about, the individual's circumstances, the intervention itself plus benefits for the individual and project learnings. See Appendix 2 for the template. Delivery partners were asked to complete between 4 and 6 case studies.

#### Learning Log

Staff across all four delivery partners were supplied with a learning log template, so that

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<sup>1</sup> The four monitoring datasets contain further information about the intervention, such as primary and secondary reason for advocacy, main referral and main signposting as well as whether any cancer screening was suggested. Due to the high heterogeneity of responses and missing data, the analysis of those variables would generate a large amount of descriptive outputs, which would compromise the economy and readability of the report. Therefore, it was decided to exclude them from this analysis.

they could keep a record of activities undertaken and reflect upon their role, should they wish to. See Appendix 3 for the template. Completing this was voluntary.

### **Qualitative interviews**

The evaluation team undertook semi-structured interviews with service users and stakeholders.

- **Stakeholders**

Qualitative interviews with stakeholders captured learning related to service delivery, project progress and perceived user outcomes. See Appendix 4 for the interview schedule. Participants were sampled purposively based on their role in, and contribution to, the project. The evaluation team worked with the CCG to identify these individuals. Interviews took place either face-to-face or via telephone.

- **Service Users**

The team conducted interviews with service users from each delivery partner. To capture their experiences and views of the projects. See appendix 5 for the interview schedule. This perspective was crucial to determining the personal outcomes associated with each intervention.

### **Questionnaire data**

The delivery partners used two questionnaires. The first, namely, the New Directions Team Assessment (NDT) chaos index, was developed as part of the Adults Facing Chronic Exclusion (ACE) national programme to measure users' engagement with frontline services, multiple exclusion, chaotic lifestyles and negative social outcomes for themselves, families and communities (Rinaldi, Linnell, & Clenaghan, 2008). The tool comprises 10 questions, with answers rated on a 4-point Likert scale. Delivery partner staff completed these questionnaires during their interactions with service users. One of the delivery partners identified this tool as being particularly suitable for data collection with vulnerable populations.

The EuroQol group (2009) developed the second instrument, namely the EQ-5D-5L, as a general measure of health, and its validity and reliability were tested by Janssen and colleagues (2013). The tool comprises five dimensions, namely: mobility, self-care, usual activities, pain/discomfort and anxiety/depression. The answers to the EQ-5D-5L are rated on a 4-point Likert scale ranging from having no problem or discomfort to extreme problem or being unable to carry out activities. In addition, the tool includes an overall assessment of health, rated on a continuous scale ranging from 0 to 100. This questionnaire is self-reported. The CCG and evaluation team agreed to use this tool to see if it was useful in demonstrating change and if it was suitable for use with vulnerable populations.

Both questionnaires are available in Appendix 6.

**Table 2.1: Evaluation data collected and analysed**

<b>Data type</b>	<b>Number</b>
<b>Service User Monitoring Data</b>	<p>Delivery partners populated an Excel spreadsheet – the template, was co-designed with the evaluation team to capture the reach of each intervention, and service user demographics.</p> <p>Data was derived from 148 service users. 17 from Basis, 17 from WYCCP, 33 from Leeds GATE, and 81 from St. George’s Crypt.</p>
<b>Service User Case Studies</b>	27 in total. 3 from Basis, 6 from WYCCP, 12 from Leeds GATE and 6 from St George’s Crypt.
<b>Delivery Partner Staff Learning Logs</b>	4 in total. 3 from St George’s Crypt and 1 from WYCCP
<b>Interviews with stakeholders</b>	15 in total. 3 from Basis, 3 from WYCCP, 2 from Leeds GATE and 7 from St George’s Crypt
<b>Interviews with Service Users</b>	15 in total. 1 from Basis, 2 from WYCCP, 3 from Leeds GATE and 2 from St George’s Crypt
<p><b>Questionnaires</b></p> <p>The majority of responses are from St George’s Crypt and Leeds GATE. When questionnaire data is collated, the results are therefore biased towards the service users of these particular delivery partners.</p>	<p>All delivery partners submitted service user questionnaires.</p> <p><b>EQ-5-DL</b> – 40 people provided answers to the pre and post questionnaire.</p> <p>Basis = 5 pre and post questionnaires  Chaplaincy = 5 pre and post questionnaires – 5 only pre questionnaires  Leeds GATE = 11 pre and post questionnaires – 2 only pre questionnaires  St George’s Crypt = 19 pre and post questionnaires</p> <p><b>NDT</b> – 44 people provided answers to the pre and post questionnaire.</p> <p>Basis = 11 pre and post questionnaires  Chaplaincy = 5 pre and post questionnaires – 6 only pre questionnaires  Leeds GATE = 11 pre and post questionnaires – 2 only pre questionnaires  St George’s Crypt = 17 pre and post questionnaires – 22 only pre questionnaires</p>

## 2.4 Ethics

The evaluation was given ethical approval through Leeds Beckett University ethics procedures. The following practices were adhered to ensure ethical rigour:

- Informed consent. This was attained from all interview participants – due to low literacy levels amongst some service users verbal consent was accepted, as opposed to written. The information sheet for service users was adapted to take low literacy levels into consideration. See Appendix 6.
- Confidentiality and anonymity – no personal identifying information was used in reporting data;
- Secure information management – security was maintained through password protected university systems.

## 2.5 Analysis

### Qualitative

Interviews were transcribed verbatim and analysed using thematic analysis methods (Braun & Clarke, 2006). This method is used for identifying, analysing and reporting patterns (themes) within data. Cross cutting themes are described and reported using direct quotations from the participants to illustrate them.

### Quantitative

The statistical software package SPSS v.24 was used to analyse both the monitoring and survey data. For clarity, majority of responses on which analyses are based is provided in percentages and frequency count for categorical data (e.g. age, gender etc.), whereas mean and standard deviation are used to describe continuous data (e.g. number of appointments, overall health etc.). In some cases, percentages may not add up to exactly 100% due to rounding. Inferential statistical analyses were run to test for statistically significant differences between pre and post intervention. In particular, we used non-parametric tests (e.g. Wilcoxon Signed Rank test) to analyse any change in those responses given to the NDT and EQ-5D-5L that are measured on a Likert scale. We also ran a series of parametric tests (e.g. Repeated Measure MANOVA and Repeated Measure MANCOVA) to test whether the interventions have made any significant change in the participants' overall health whilst also testing whether there are significant differences between delivery partners, age groups, genders, literacy level, and place of residence.

For most of the inferential analyses, we reported significance level, also known as p value, and confidence intervals<sup>2</sup>. The p value gives an indication of whether any change between pre and post intervention is due to chance. The accepted threshold of p value in social sciences is .05; values above this cut-off point indicate that the results - even when they show an improvement in people's conditions after the intervention - might be due to chance. Confidence intervals provide further indication of the range within which the true effect of the change between pre and post intervention is likely to be. Smaller range are considered indication of greater accuracy. In addition, confidence intervals that do not cross 0 are

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<sup>2</sup> Given the non-normality of the overall health variable, confidence intervals were obtained through sample Bias corrected accelerated (BCa) 1000 bootstrapped samples

indicative of a statistically significant change.

In some cases, we also reported the value of effect sizes<sup>3</sup>. For this study, effect sizes provide important information about the strength of change between pre and post intervention. According to Cohen (1988), there are three levels to interpret effect size, namely small, medium, and large. A technical note is available in appendix 7.

## 2.6 Limitations

One overall limitation is that it was difficult to ‘untangle’ the intervention that was funded by this project from the normal work of the four delivery partners. Service users in particular will be unaware that the staff member they were seeing is funded by this project -they will therefore tend to conflate their experiences of the organisation in general with the particular support they are receiving. The results therefore may not be specific to this particular pot of funding.

Another limitation relates to the nature and size of the sample. From a quantitative point of view, the monitoring data provided by delivery partners such as Basis and WYCCP contain a relatively small number of cases. These become even less when we analysed the NDT chaos index and the EQ-5D-5L scale. The small amount of cases available affected, in some cases, the statistical significance of our analysis. In addition, they pose limitations to the generalisation of the results to all the service users attending the services under study. For example, the questionnaire data is biased towards St George’s Crypt and Leeds GATE service users as they returned the most questionnaires, similarly the monitoring data is biased towards St George’s Crypt.

The sample is also sometimes unbalanced in terms of demographic characteristics such as age groups, genders, literacy level, and place of residence. Although we are conscious that in some delivery partners it is likely that a higher percentage of users belong to certain categories (e.g. homeless people at St. George’s crypt, and women at Basis), this poses limitations to the quality of our final results.

We should also be mindful that some of the analyses we carried out have considered all the delivery partners together as one group. This was necessary due to the limitations of the sample size outlined above. However, we should bear in mind that the four delivery partners work with very different people, who have specific conditions and needs. Likewise, they have put in place different interventions and strategies of actions, which might have generated a variety of results. Therefore, the findings presented here should be interpreted in the context of these limitations.

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<sup>3</sup> Dependent on the analysis we ran, we used three different measures of effect size. For Wilcoxon signed rank test we used ‘r’, whereas for Paired sample t test we used ‘d’. The first measure’s cut-off points are .1, .3, and .5 for small, medium, and large effect size respectively. The second measure relies on the following cut-off points: .2, .5, and .8 for small, medium, and large effect size respectively. Regarding Repeated Measure MANOVA/MANCOVA we used partial eta square ( $\eta^2$ ). The commonly accepted cut-off points for this effect size are .01, .06, and .14 for small, medium, and large effect size respectively.

Lastly, we should consider that some of the changes analysed in this report have been assessed after a relatively limited time between the pre and post intervention. For some aspects associated to the service users' health and relationship to their services, a longer time might be needed before being able to detect any statistically significant change.



### 3: Evaluation Findings

In this section the evaluation findings are presented in the following order:

- Monitoring data
- Service user data - questionnaires, interviews and case studies
- Stakeholder interview data

#### 3.1 The reach and impact of each project (evaluation objective 1)

This section presents descriptive statistics of the monitoring data collected from a total of 148 service users attending Basis, Chaplaincy, Gate advocacy, and St. George’s Crypt.

The first two tables include information about the users’ demographic characteristics. Table 3.1 below shows their age and gender

**Table 3.1 Participants age and gender<sup>4</sup>**

Delivery Partner	Age	Gender
Basis n = 17	16-24 years = 12% <b>25-44 years = 88%</b>	<b>Female = 100%</b>
WYCCP n = 17	16-24 years = 6% 25-44 years = 41% <b>45-64 years = 47%</b> 65+ = 6%	<b>Male = 100%</b>
Leeds GATE n = 33	16-24 years = 12% 25-44 years = 36% <b>46-64 years = 39%</b> 65+ = 6% Not reported = 6%	Male = 30% <b>Female = 70%</b>

<sup>4</sup> Since participants have been seen multiple times, the values reported in this table represent grand means for number of appointments and length of appointments. Regarding frequencies, in case of multiple responses we chose the most recent recorded for the variables age, gender, registration to GP, and homelessness, whereas the ones with highest frequency for the variable level of literacy.

St George's Crypt n = 81	16-24 years = 10% <b>25-44 years</b> = 59% 46-64 years = 28% 65+ = 4%	Female = 21% <b>Male</b> = 79%
Total N = 148	16-24 years = 8% <b>25-44 years</b> = 57% 46-64 years = 30% 65+ = 4% Not reported = 1%	Female = 39% <b>Male</b> = 61%

Table 3.2 presents information about GP registration, literacy levels and place of residence for service users.

**Table 3.2 Service Users GP registration, literacy level, and place of residence**

Delivery Partner	GP registration	Literacy level	Residence
Basis n = 17	<b>Yes</b> = 100%	Some = 12% <b>Good</b> = 88%	Homeless = 6% Hostel = 6% <b>LA Housing</b> = 53% Private housing = 35%
WYCCP n = 17	<b>Yes</b> = 94% No = 6%	No lit. = 12% Some = 35% <b>Good</b> = 47% Unsure = 6%	LA housing = 18% <b>Private housing</b> = 65% Other = 12% Not reported = 6%
Leeds GATE n = 33	<b>Yes</b> = 91% Not reported = 3% Unsure = 6%	<b>No lit.</b> = 55% Some = 18% Good = 9% Unsure = 9% Not reported = 9%	Homeless = 3% LA housing = 18% Roadside traveller = 15% <b>Traveller site (LA)</b> = 33% Traveller site (Private) = 15% Other = 3% Not reported = 12%
St George's Crypt n = 81	<b>Yes</b> = 90% No = 1% Unsure = 9%	No lit. = 1% Some = 22% <b>Good</b> = 44% Unsure = 32%	<b>Homeless</b> = 75% Hostel = 7% LA housing = 11% Other = 4% Not reported = 2%

Total N = 148	<b>Yes</b> = 92% No = 1% Unsure = 6% Not reported = 1%	No lit. = 14% Some = 22% <b>Good</b> = 42% Unsure = 20% Not reported = 2%	<b>Homeless</b> = 43% Hostel = 5% LA housing = 18% Private housing = 11% Traveller = 14% Other = 4% Not reported = 4%
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Lastly, Table 3.3 reports information about the service user's relationship with the delivery partner in terms of number and length of appointments.

**Table 3.3 Service User's interaction with delivery partners**

Delivery Partner	Number of appointments	Length of appointments <sup>a</sup>
Basis n = 17	Average = 25 Standard deviation = 22 Min = 1 Max = 83	Average = 54 Standard deviation = 23 Min = 29 Max = 122
WYCCP n = 17	Average = 14 Standard deviation = 15 Min = 1 Max = 56	Average = 45 Standard deviation = 11 Min = 23 Max = 65
Leeds GATE n = 33	Average = 7 Standard deviation = 5 Min = 1 Max = 22	Data not available
St George's Crypt n = 81	Average = 5 Standard deviation = 6 Min = 1 Max = 29	Average = 39 Standard deviation = 19 Min = 10 Max = 120
Total N = 148	Average = 15 Standard deviation = 10	Average = 46 Standard deviation = 8

<sup>a</sup> average values expressed in minutes

Overall, the four delivery partners under study have had 148 service users. The number of times that the same person has attended one of the services varies from a minimum of 1 visit to a maximum of 83 visits with an average of about 15 times and a spread of people around the mean (standard deviation) of about 10. Length of appointments also varies, from a minimum of about 38 minutes to a maximum of 54 minutes, with an average time per visit of about 45 minutes and a standard deviation (SD) of 8.

### **Basis**

Basis collected monitoring data from a total of 17 service users. The number of times they have attended the service varies from a minimum of 1 visit to a maximum of 83 visits from the same person. The average number of appointments is about 25, with a spread of people around the mean (standard deviation) of about 22, indicating that about 68% of the sample has attended the service between 3 and 47 times. Length of appointments also varies, from a minimum of about 29 minutes to a maximum of 122 minutes, with an average time per visit of about 54 minutes (SD = 23.014).

The majority of people using Basis are between 25 and 44 years old (88.23%); only 2 people are between 14 and 24 years (11.76%) and there is no record of people aged beyond 45. There is no record of male service users. All are registered to a GP. Their level of literacy ranges between 'some (12%) and 'good (88%). Their current place of residence is, in the majority of cases, a LA house (53%), followed by a private house (35%). Of the two remaining people one is living in hostel and one is homeless.

### **WYCCP**

This delivery partner collected monitoring data from 17 service users. The number of times they have attended the service varies from a minimum of 1 visit to a maximum of 56 visits. The average number of appointments is about 14 with a spread of people around the mean (standard deviation) of about 15. Length of appointments varies, from a minimum of about 22 minutes to a maximum of 65 minutes, with an average time per visit of about 45 minutes (SD = 10.91).

The age of service users is mostly distributed between 25-44years (41%) and 45-64 years (14%). Only one person declared to be between 16-24 years and one to be 65 years or over, together accounting for 12% of the whole sample. All services users are men, nearly all registered to a GP (94%), except for one case (6%). Their level of literacy ranges between 'some (35%) and 'good (47%), Only 2 people (12%) report 'no literacy' and 1 (6%) unsure. Their current place of residence is, in the majority of cases, a private house (65%), followed by LA housing (18%). 2 people reported another non-specified form of residence (12%) and in one case data were missing (6%).

### **Leeds GATE**

Leeds GATE collected monitoring data from a 33 service users. The number of times they have attended the service varies from a minimum of 1 to a maximum of 22. The average number of appointments is about 6, with a spread of people around the mean of about 5, indicating that about 68% of the sample has attended the service between 1 and 11 times.

The age of Leeds GATE advocacy's service users is mostly distributed between 25-44years (36%) and 45-64 years (39%). 4 people are between 16 and 24 years (12%), 2 are 65 years old or over (6%) and for 2 people we lack data on their age. In terms of gender, the sample at Leeds GATE advocacy is unbalanced towards female service users, which account for 70%. Most service users are registered to a GP (91%), with only 2 being 'unsure' (6%) and 1 unreported case.

The most common literacy level is 'no literacy' (55%), with 'some' being the next most common category (18%). Only 9% have 'good' literacy. The most common place of residence was a Traveller Site (33%), followed by LA housing (18%), private traveller site (15%) and roadside (15%).

### **St. George's Crypt**

St. George's Crypt collected monitoring data from 81 service users. The number of times they have attended the service varies from a minimum of 1 visit to a maximum of 29 visits. The average number of appointments is about 5, with a spread of people around the mean of about 6. The age of St. George's Crypt's service users is mostly distributed between 25-44 years (59%) and 46-64 years (28%), 8 people (10%) are between 16 and 24 years, and 3 people (4%) are 65 years old or over. In terms of gender, the sample at St. George's Crypt is unbalanced towards male service users, which account for 79%. Most service users are registered to a GP (90%), with only 1 being not registered and 7 being unsure. Their level of literacy ranges between 'some' (22%) and 'good' (44%). A high percentage is also unsure of their literacy level (32%) and 1 person declared to have 'no literacy'. In terms of place of residence, majority of service users are homeless (75%), followed by users living in LA housing (11%), 6 living in a hostel (7%), 3 who declared another form of accommodation and 2 cases unreported.

#### **Summary of monitoring data**

- Regardless of the delivery partner, the majority of people had used one of the services on average 14 times.
- Each visit lasted about 45 minutes on average.
- The majority of service users are between 24 and 44 years old (57%)
- The majority of service users are male (62%).
- Most service users are registered to a GP (92%)
- Less than half of the service users are recorded as having a good level of literacy (42%).
- Almost half of the service users reported being homeless as their current residential status (43%)

## 3.2 The personal outcomes of each of the vulnerable populations – service use questionnaire data (evaluation objective 2)

### EQ-5D-L

This section reports the results of pre and post intervention changes in the participants' answers to the EQ-5D-L scale. Depending on the variable analysed, a total of between 39 and 40 people provided answers to the questionnaire. The results of the analyses are reported below.

Table 3.4 displays negative ranks, which indicate the number of cases that have reported a lower value after the intervention, compared to their pre-intervention score. Conversely, positive ranks show the number of responses that increased in value after the intervention, compared to the score reported before the intervention. Lastly, ties represent the number of responses that have not changed between pre and post intervention. In this case, negative ranks indicate a decrease of problems related to the participants' health. Therefore, a high number of negative ranks are an indication that people's health-related features has improved following the intervention.

As we can see from the table, the majority of people have reported a statistically significant positive change in their conditions, with the number of negative ranks always exceeding the number of positive ranks. The strongest improvement is reported for 'Anxiety/depression', with a highly significant reduction in its level ( $p < .001$ ) and close to large effect size ( $r = .473$ ), which has been confirmed by the improvement reported by 30 participants, against only two who have reported a deterioration of their condition. A highly significant positive change is also reported for 'Usual activities',  $p < .001$ , with a medium effect size ( $r = .464$ ).

However, for other variables such as 'Pain/Discomfort' and 'Mobility' the improvement is less significant,  $p = .002$  and  $p = .016$  respectively, with medium effect size,  $r = .335$  and  $.209$  respectively. In one case in particular, namely self-care, the high number of ties (29) coupled with a small sample size, might have affected the significance level,  $p = .51$ , raising it beyond the accepted threshold of .5. Therefore, in this case, we cannot be confident enough that the improvement in self-care reported by 9 people against the deterioration reported by 2 is not due to chance. In addition, the small effect size,  $r = .209$ , indicates that the change between pre and post intervention for the variable 'self-care' is not very strong.

**Table 3.4 Pre and post intervention changes in responses to EQ5DL scale**

NDT items	Ranks	N	Sig.	Effect size (r) <sup>i</sup>
EQ5DL Mobility pre and post intervention	Negative Ranks	11 <sup>a</sup>	.016	.257
	Positive Ranks	1 <sup>b</sup>		
	Ties	28 <sup>c</sup>		
	Total	40		
EQ5DL Self-care pre and post intervention	Negative Ranks	9 <sup>d</sup>	.051	.209
	Positive Ranks	2 <sup>e</sup>		
	Ties	29 <sup>f</sup>		
	Total	40		
EQ5DL Usual activities pre and post intervention	Negative Ranks	26 <sup>g</sup>	<.001	.464
	Positive Ranks	3 <sup>h</sup>		
	Ties	10 <sup>i</sup>		
	Total	39		
EQ5DL Pain/Discomfort pre and post intervention	Negative Ranks	17 <sup>j</sup>	.002	.335
	Positive Ranks	2 <sup>k</sup>		
	Ties	20 <sup>l</sup>		
	Total	39		
EQ5DL Anxiety/Depression pre and post intervention	Negative Ranks	30 <sup>m</sup>	<.001	.473
	Positive Ranks	2 <sup>n</sup>		
	Ties	8 <sup>o</sup>		
	Total	40		

The following graphs show visually the changes reported by participants. The dark purple coloured bars indicate the percentages of responses given after the first administration of the EQ5DL scale (pre-intervention) whereas the light purple bars show the percentages of responses given after the second administration of the survey (post intervention).

As we can see from Fig. 3.1, an 11.49% drop in severe problems in walking about shows the most relevant change in mobility (see arrow). However, it is worth pointing out that there has been an increase from 8.05% before the intervention to 14.94% after the intervention in 'moderate problems in walking about' and a slight decrease from 14.94% before the intervention to 13.79% after the intervention in 'no problems in walking about'. All the other areas of 'Mobility' show a smaller, but steady improvement.

**Fig. 3.1 Change in Mobility between pre and post intervention**

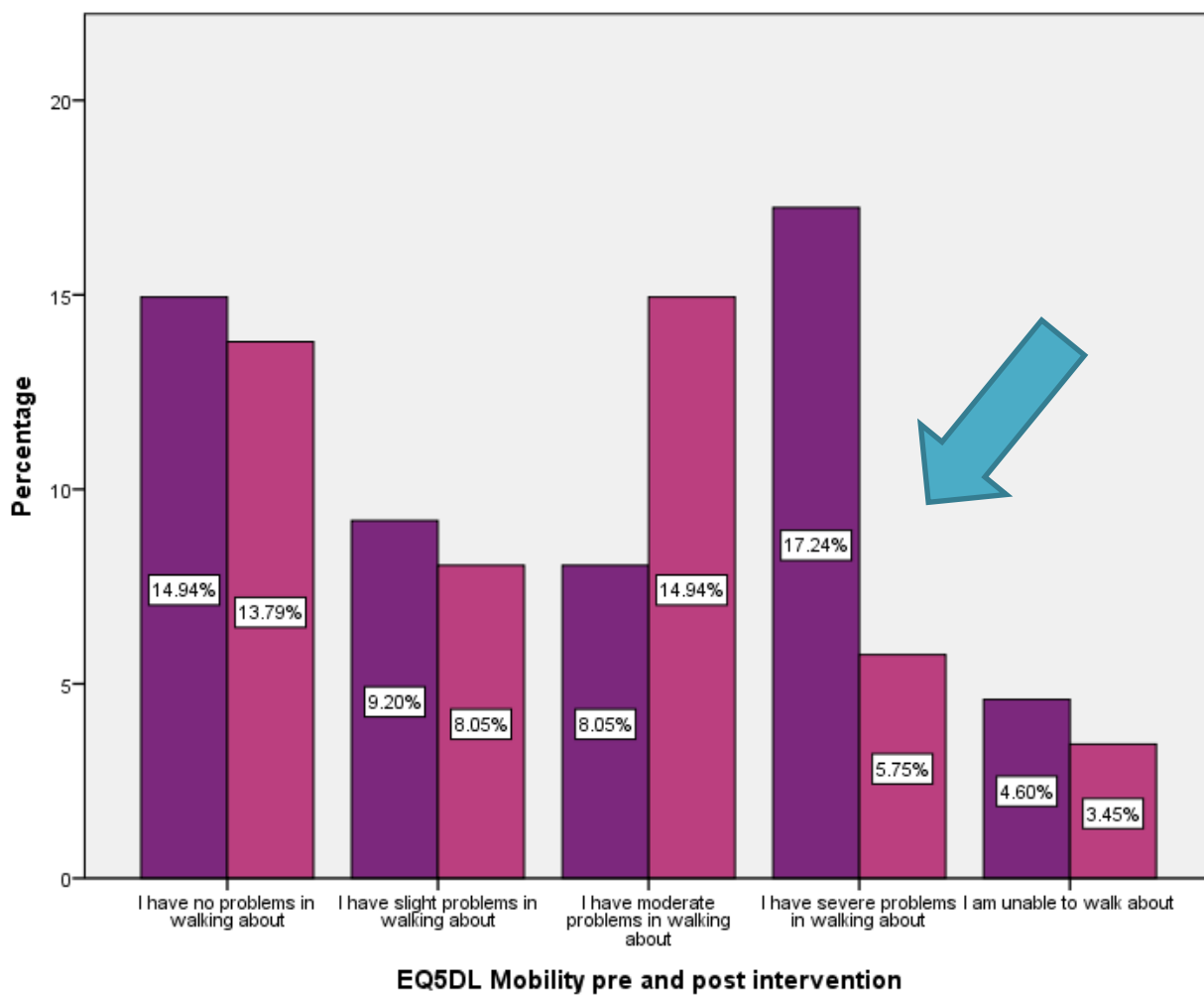




Figure 3.2 shows a small but consistent improvement in each area of 'Self-care'. The most relevant change is found to the answers to 'problems in washing and dressing', which dropped from 10.34% before the intervention to 5.75% after the intervention (see arrow). In addition, the percentage of people reporting 'no problems in washing and dressing' increased from 22.99% before the intervention to 25.29% after the intervention. However, as mentioned above, the high amount of 'ties' between pre and post intervention, and the relatively small sample size might have affected the statistical significance of the results, hence suggesting that the reported improvements in self-care might be due to chance.

**Fig. 3.2 Change in Self-care between pre and post intervention**

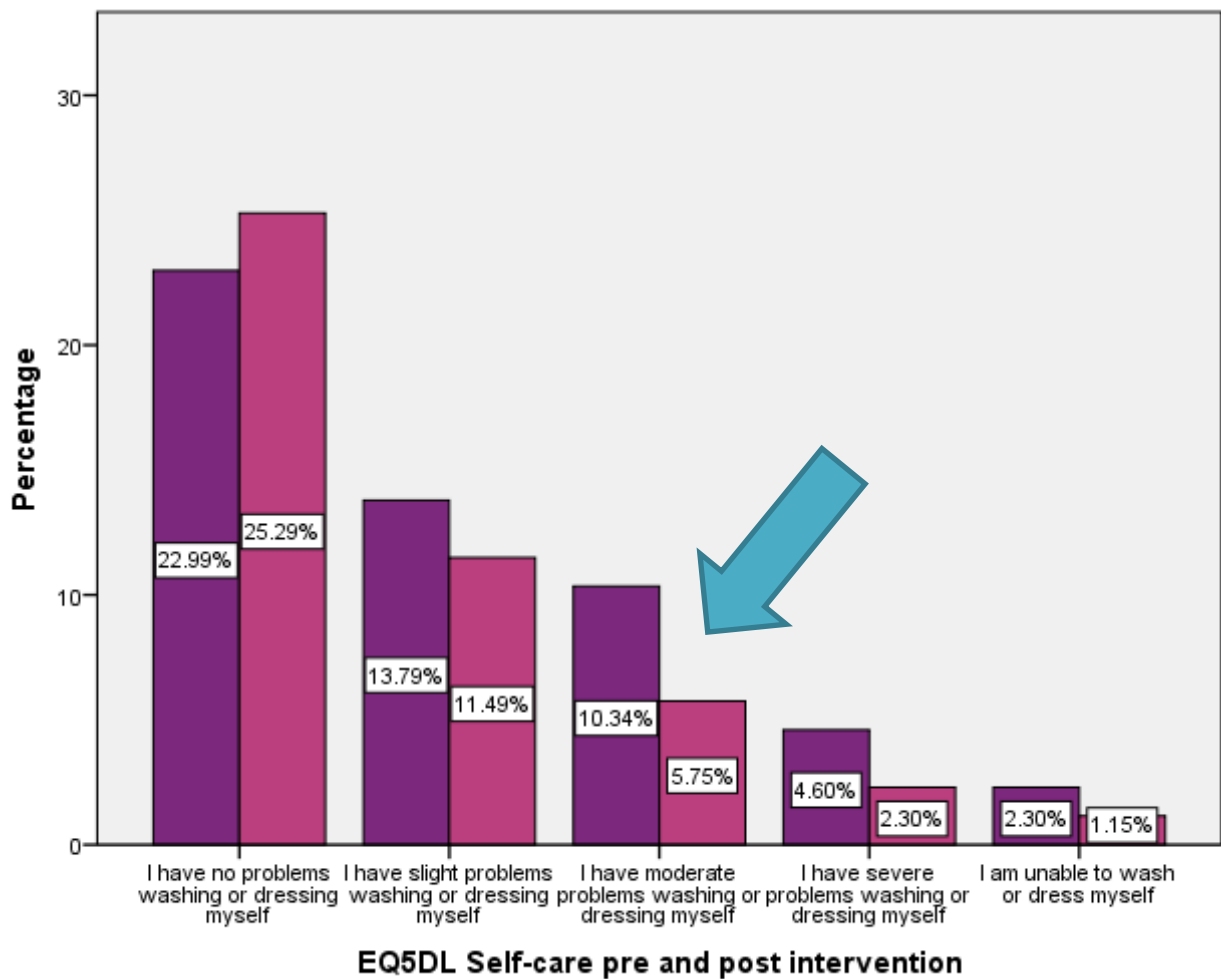
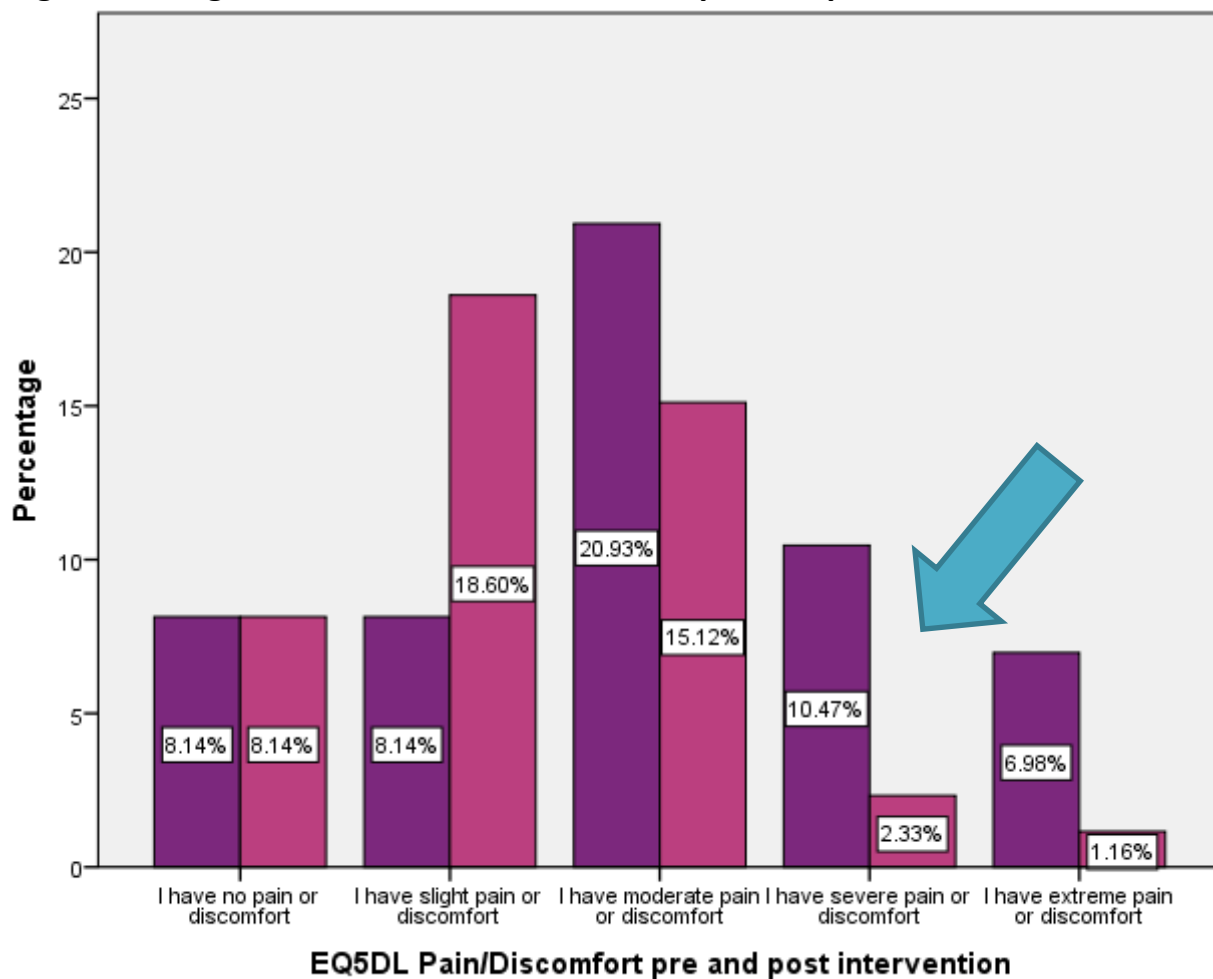


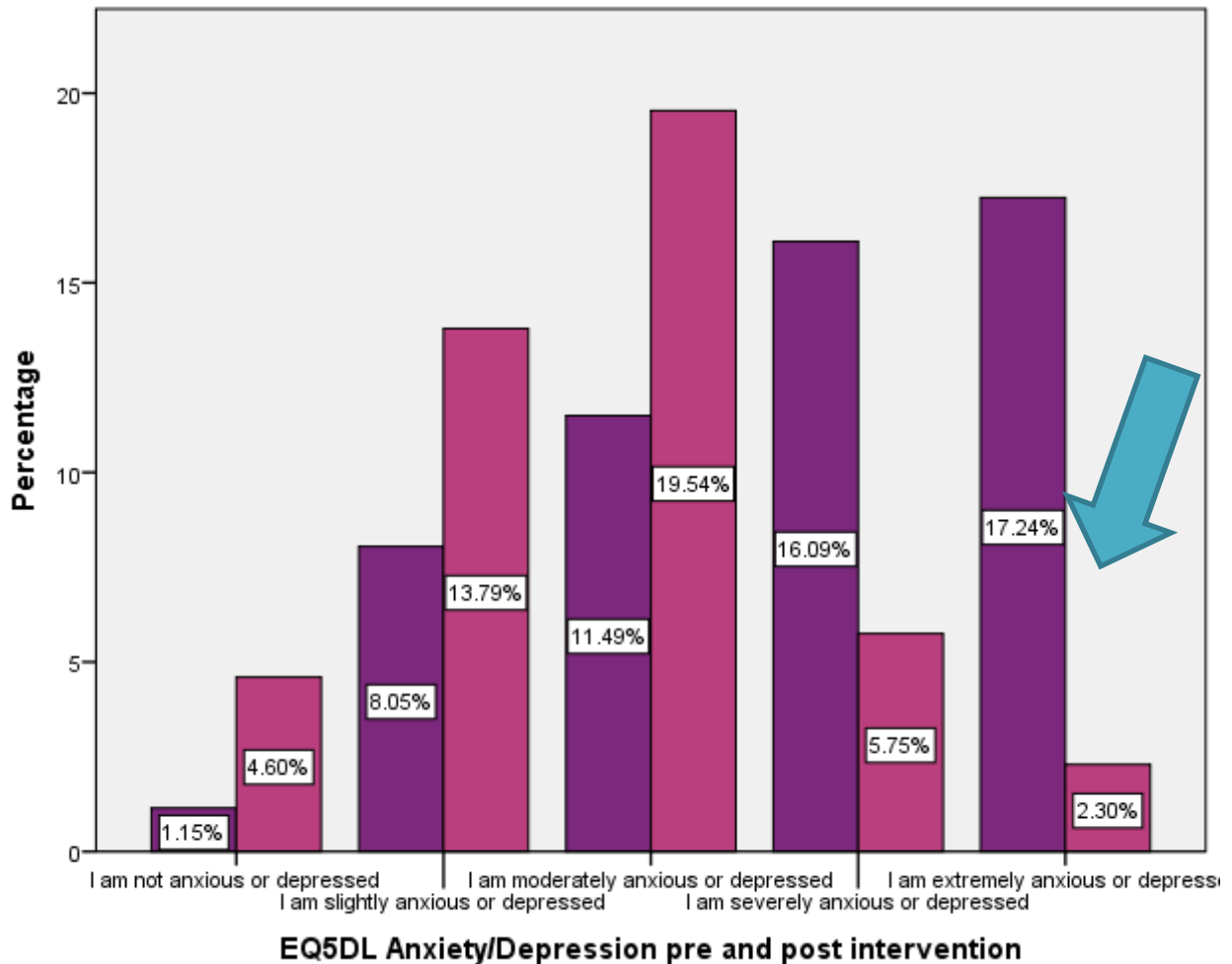
Figure 3.3 shows a consistent improvement in almost each area of 'Pain/Discomfort'. The most relevant change is found to the answers to 'I have severe pain or discomfort', which dropped from 10.47% before the intervention to 2.33% after the intervention (see arrow), followed by 'I have extreme pain or discomfort', which dropped from 6.98% before the intervention to 1.16% after the intervention. The percentage of 'I have no pain or discomfort' did not show any change in percentage between pre and post intervention (8.14%).

**Fig. 3.3 Change in Pain/Discomfort between pre and post intervention**



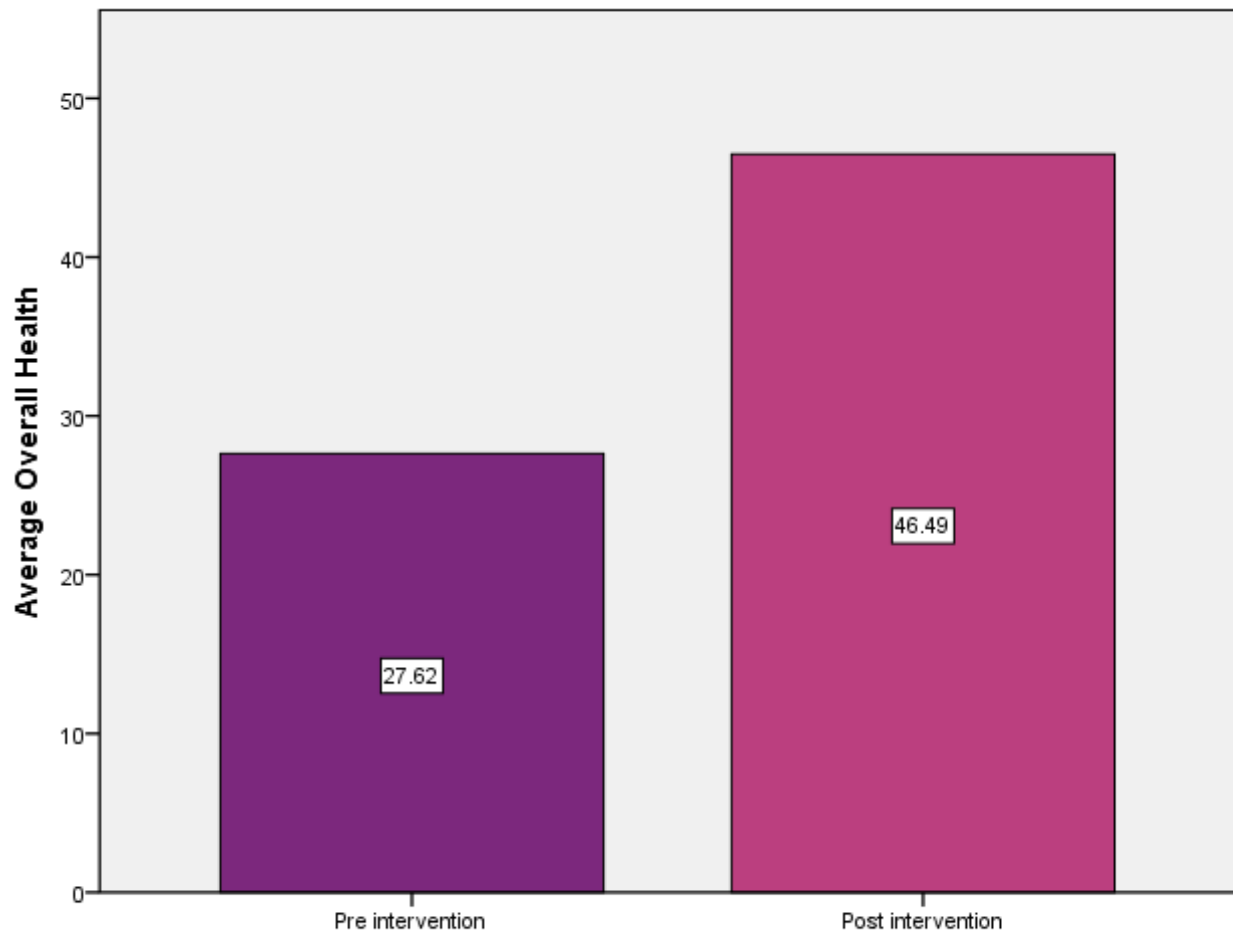
As mentioned previously, Anxiety/Depression is the area that reports the highest improvement after the intervention. As we can see from Fig. 3.4 service users who expressed themselves as being 'Extremely anxious or depressed' dropped from 17.24% before the intervention to 2.30% after the intervention (see arrow). A similar reduction was registered for those service users who expressed to be 'Severely anxious or depressed' before the intervention (16.09%), which went down to 5.75% after the intervention. Conversely, there was an increase in people who reported to be 'Not anxious or depressed' after the intervention (4.6%) and those who reported to be 'Slightly anxious or depressed' after the intervention (13.79%). The only discrepancy is represented by a slight increase in the percentage of users who reported to be 'Moderately anxious or depressed' after the intervention (19.54%) compared to 11.49% who expressed the same condition before the intervention.

**Fig. 3.4 Change in Anxiety/Depression between pre and post intervention**



As we can see from Fig 3.5, taking all the service users together there is an overall significant positive change in the health of their service users. The results of paired sample t-test show that their overall health has increased 18.86 points on a scale from 0 to 100, starting from an average of about 28 pre-intervention, to an average of about 47 post intervention,  $t = -5.475$ ,  $p = .002$ , 95% CI [-25.86, 12.51], and this change has a large effect size,  $d = .9$ .

**Fig. 3.5 Change in Overall health between pre and post intervention**



**New Directions Team Assessment (NDT) chaos index. Changes between pre and post intervention**

This section reports the results of pre and post intervention changes in the participants' answers to the NDT chaos index. In total, 44 people provided answers to the questionnaire. The results of the analyses are reported below.

As we can see from Table 3.5, the majority of people have reported a statistically significant positive change in their conditions, with the number of negative ranks always exceeding the number of positive ranks. This indicates a general reduction in the issues explored by the survey. The strongest improvement is found for 'Housing', with 22 people who have reported an improvement in their condition, against only 3 who reported a deterioration, and 19 who reported no change. This improvement is highly significant,  $p < .001$ , and shows a large effect size,  $r = .574$ . This is followed by other strong improvements in 'Stress and anxiety',  $p < .001$ ,  $r = .542$ , 'Risk from others',  $p < .001$ ,  $r = .52$ , 'Unintentional self-harm',  $p < .001$ ,  $r = .5$ , and 'Engagement with frontline services',  $p < .001$ ,  $r = .5$ . Medium significant improvements are reported for 'Intentional self-harm',  $p = .012$ ,  $r = .33$ , 'Risk to others',  $p = .025$ ,  $r = .33$ , and 'Impulse control',  $p = .47$ ,  $r = .3$ . Lastly, two variables showed a non-statistically significant change with small effect size, these are "Social effectiveness",  $p = .052$ ,  $r = .292$ , and "Alcohol/Drug abuse",  $p = .067$ ,  $r = .276$ .

**Table 3.5 Pre and post intervention changes in responses to NDT survey**

NDT items	Ranks	N	Sig.	Effect size (r) <sup>ii</sup>
NDT Engagement with frontline services pre and post intervention	Negative Ranks	21	.001	.5
	Positive Ranks	3		
	Ties	20		
	Total	44		
NDT Intentional self-harm pre and post intervention	Negative Ranks	13	.012	.33
	Positive Ranks	3		
	Ties	28		
	Total	44		
NDT Unintentional self-harm pre and post intervention	Negative Ranks	20	.001	.5
	Positive Ranks	3		
	Ties	21		
	Total	44		
NDT Risk to others pre and post intervention	Negative Ranks	8	.025	.33
	Positive Ranks	2		
	Ties	34		
	Total	44		
NDT Risk from others pre and post intervention	Negative Ranks	15	<.001	.52
	Positive Ranks	0		
	Ties	29		
	Total	44		
NDT Stress and anxiety	Negative Ranks	17	<.001	.542

pre and post intervention	Positive Ranks	1		
	Ties	26		
	Total	44		
NDT Social Effectiveness pre and post intervention	Negative Ranks	10	.052	.292
	Positive Ranks	3		
	Ties	31		
	Total	44		
NDT Alcohol / Drug Abuse pre and post intervention	Negative Ranks	10	.067	.276
	Positive Ranks	3		
	Ties	31		
	Total	44		
NDT Impulse control pre and post intervention	Negative Ranks	10	.047	.3
	Positive Ranks	2		
	Ties	32		
	Total	44		
NDT Housing pre and post intervention	Negative Ranks	22	<.001	.574
	Positive Ranks	3		
	Ties	19		
	Total	44		

The following graphs show visually the changes reported by the participants. The dark purple coloured bars indicate the percentages of responses given after the first administration of the NDT chaos index (pre-intervention) whereas the light purple bars show the percentages of responses given after the second administration of the survey (post intervention).

Figure 3.6 shows a consistent improvement in almost all areas associated with 'Engagement'. The most relevant improvement is shown by 'Non-compliant with routine activities...' which dropped from 33.90% before the intervention to 6.78% after the intervention (see arrow). This is followed by a similar reduction in all other areas and by an increase in the percentage of people who reported 'Usually keeps appointments and routine activities', which went from 5.93% before the intervention up to 7.63% after the intervention. However, Fig. 6 also shows a decrease in percentage of people who 'rarely missed appointments or routine activities', which went from 3.39% = before the intervention down to 1.69% after the intervention.

**Fig. 3.6 Change in Engagement between pre and post intervention**

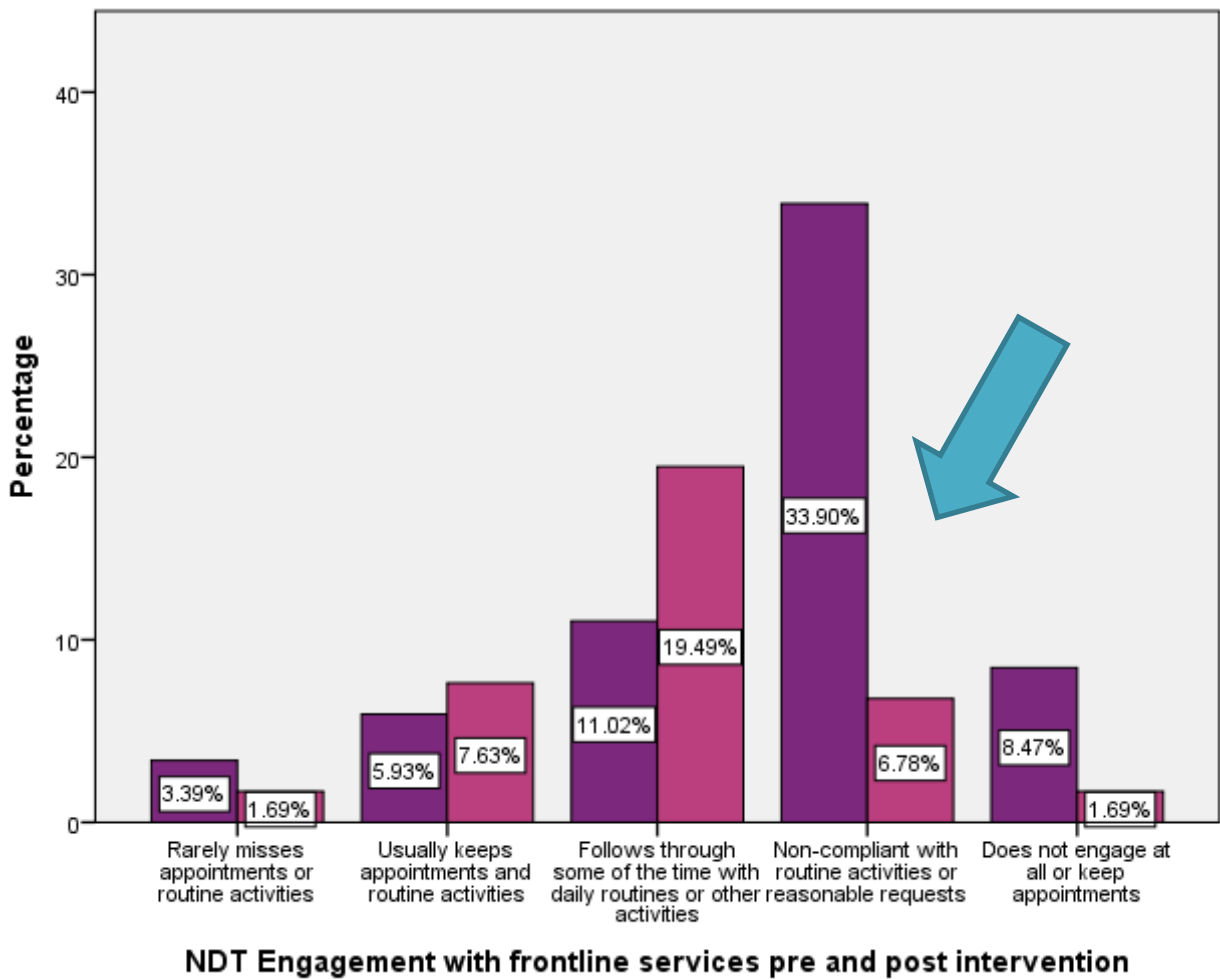


Figure 3.7 shows a consistent decrease in all areas associated to 'Intentional self-harm'. The most relevant improvement is shown by 'Minor concerns about risks of deliberate self-harm...' which dropped from 23.73% before the intervention to 11.86% after the intervention (see arrow). This is followed by a similar reduction in all other areas, but also by a drop in users who reported 'no concerns about risks of deliberate self-harm...', which went from 18.64% before the intervention to 16.95% after the intervention.

**Fig. 3.7 Change in Intentional self-harm between pre and post intervention**

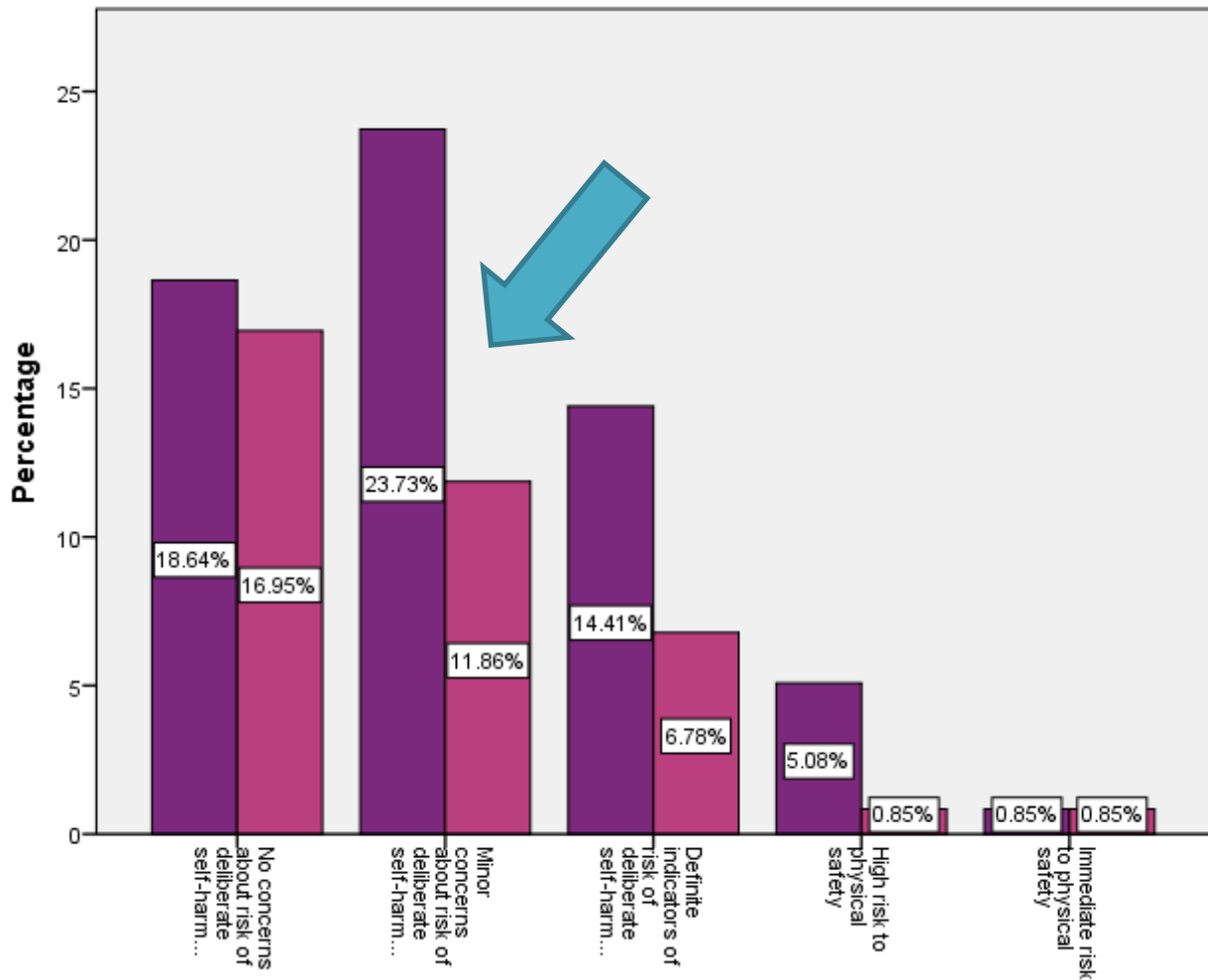




Figure 3.8 shows a consistent improvement in all areas associated to 'Unintentional self-harm'. The most relevant improvement is shown by 'Immediate risk to physical safety', which dropped from 21.19% before the intervention to 6.78% after the intervention (see arrow). This is followed by a similar reduction in all other areas and with an increase in the percentage of people who reported 'Non-concern about unintentional risk...' which went from 5.08% before the intervention to 8.47% after the intervention.

**Fig. 3.8 Change in Unintentional self-harm between pre and post intervention**

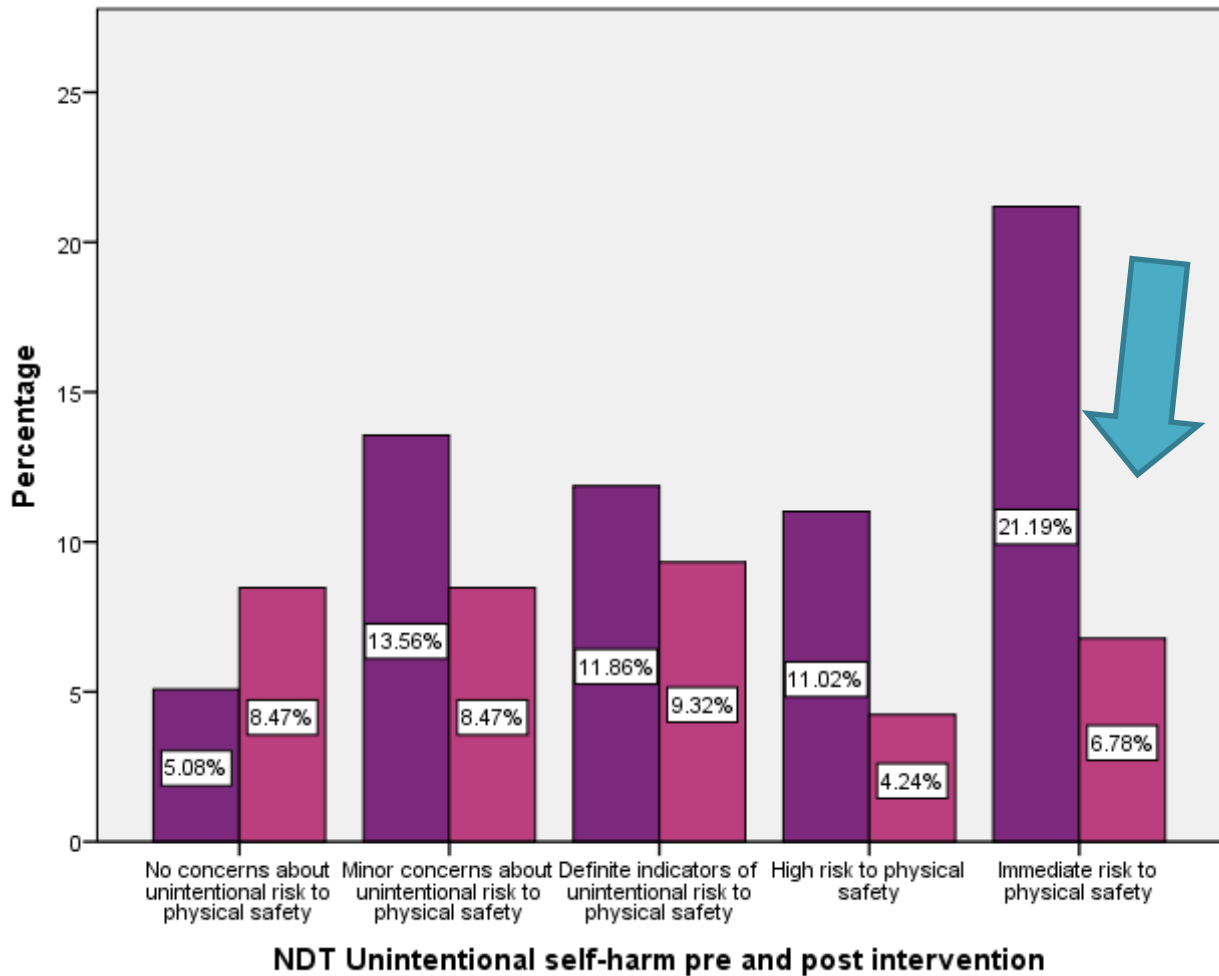


Figure 3.9 shows a consistent improvement in almost all areas associated to 'Risk to others'. The most relevant change is shown by 'Risk to property and/or minor risk to... others' which dropped from 15.25% before the intervention to 5.93% after the intervention (see arrow). This is followed by a similar reduction in all other areas. However, Fig. 9 also shows a reduction in the percentage of people who reported 'No concern about risk...' before the intervention (21.19%), which went down to 16.10% after the intervention.

**Fig. 3.9 Change in Risk to others between pre and post intervention**

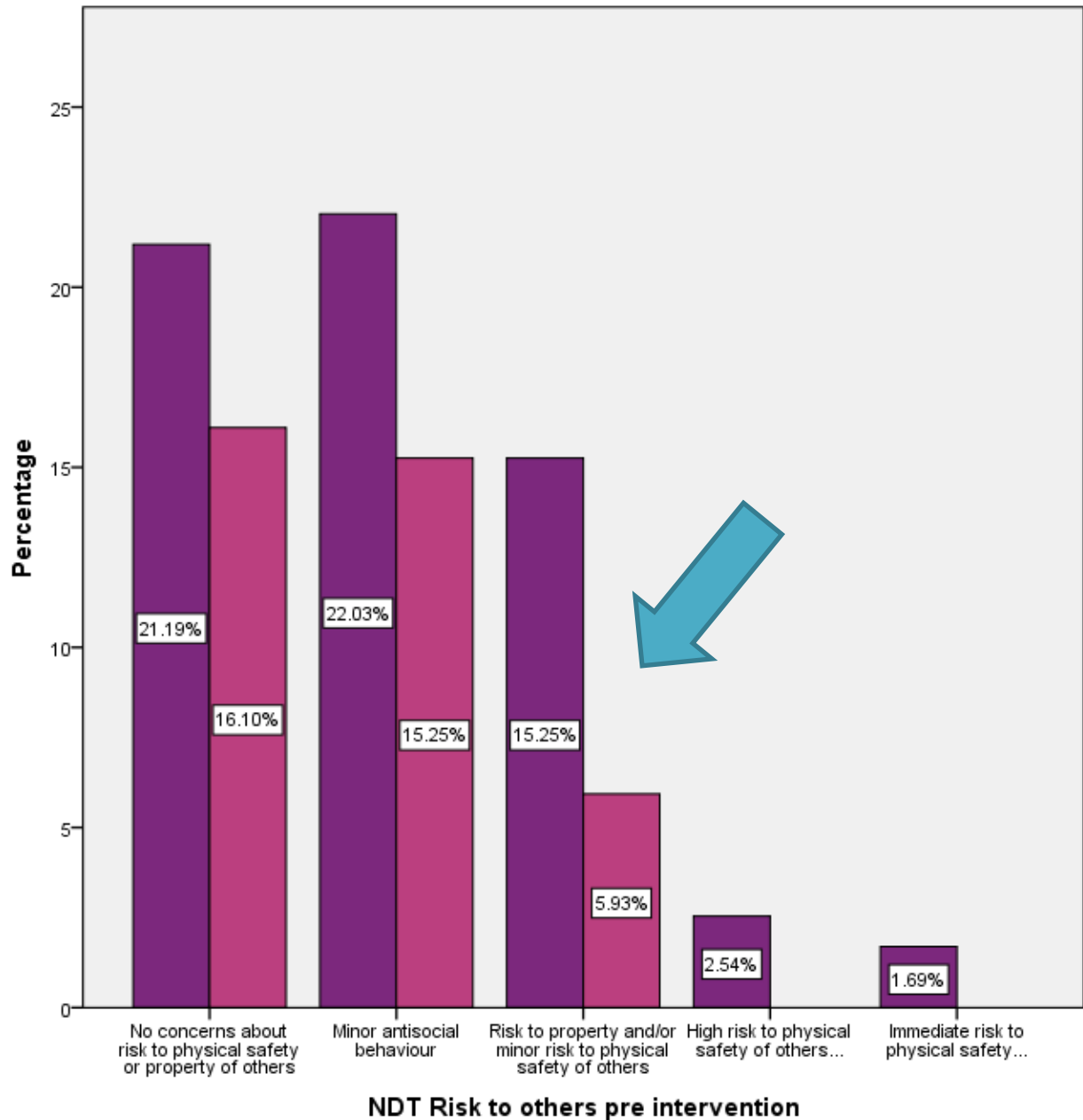


Figure 3.10 shows a consistent improvement in all areas associated to Risk from others'. The most relevant improvement is shown by 'Evidence of abuse or exploitation...', which dropped from 15.25% before the intervention to 3.39% after the intervention (see arrow). This is followed by a similar reduction in all other areas. In addition, the percentage of people who reported 'No concern...' increased from 4.24% before the intervention to 5.93% after the intervention.

**Fig. 3.10 Change in Risk from others between pre and post intervention**

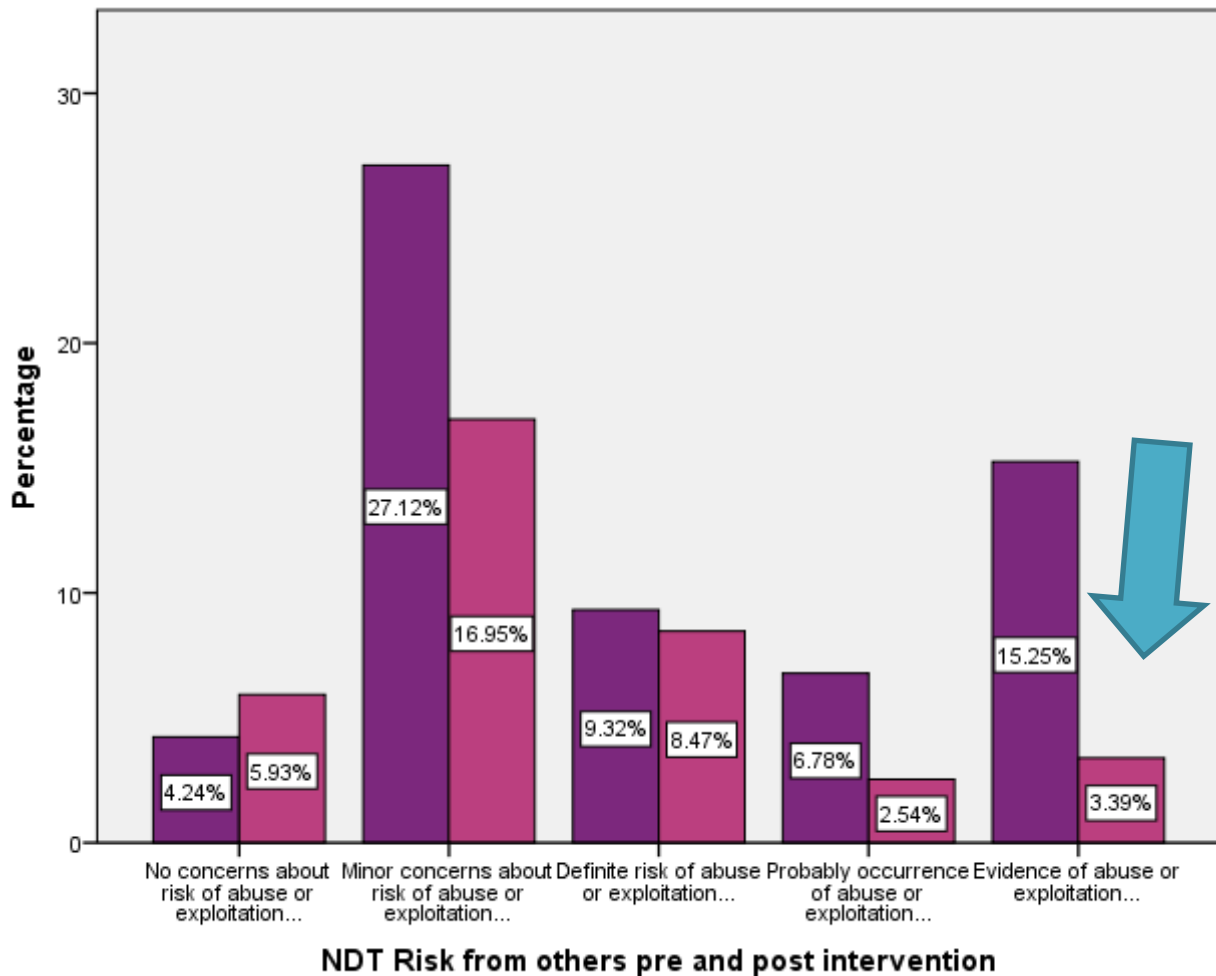


Figure 3.11 shows a consistent improvement in almost all areas associated to 'Stress and anxiety'. The most relevant change is shown equally by 'Severe reactiveness...' and 'Obvious reactiveness' which both dropped from 19.49% before the intervention to 7.63% after the intervention (see arrow). This is followed by a reduction in 'Somewhat reactive to stress', which went from 10.17% before the intervention down to 5.93% after the intervention. In addition, the number of people who reported a 'normal response to stressors' increased to 2.54% after the intervention. 'Moderately reactive to stress...' shows no change in percentage between pre and post intervention.

**Fig. 3.11 Change in Stress and anxiety between pre and post intervention**

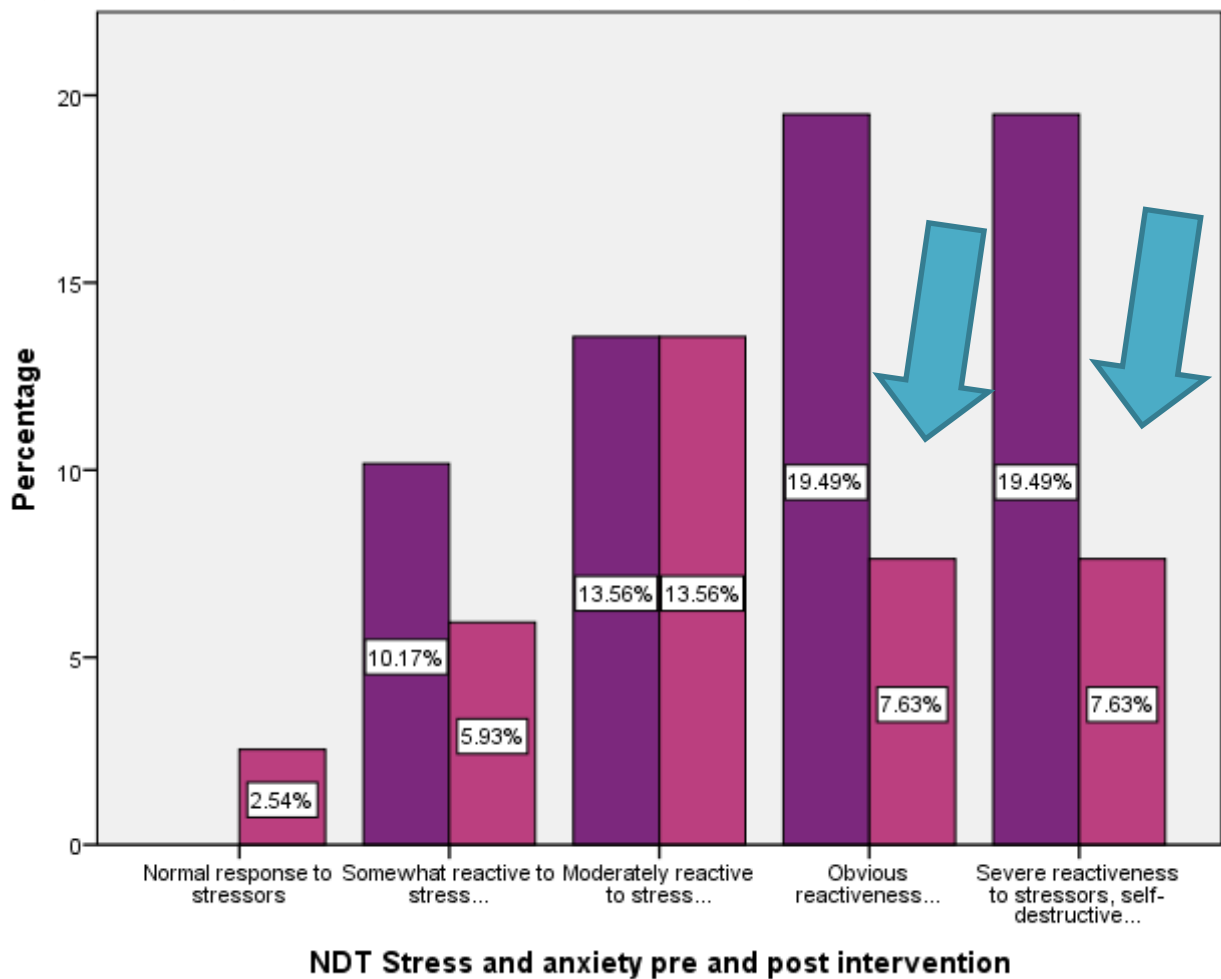


Figure 3.12 shows a small but consistent improvement in almost areas associated with 'Social effectiveness'. The most relevant change is shown by the users' ability to carry out social interactions... which dropped from 30.51% before the intervention down to 15.25% after the intervention (see arrow). This is followed by a smaller drop in all other areas and coupled by an increase in 'Social skills that are within the normal range', which went from 5.08% before the intervention to 9.32% after the intervention. However, as touched upon, these changes are not supported by statistical significance, and therefore should be interpreted with caution.

**Fig. 3.12 Change in Social Effectiveness between pre and post intervention**

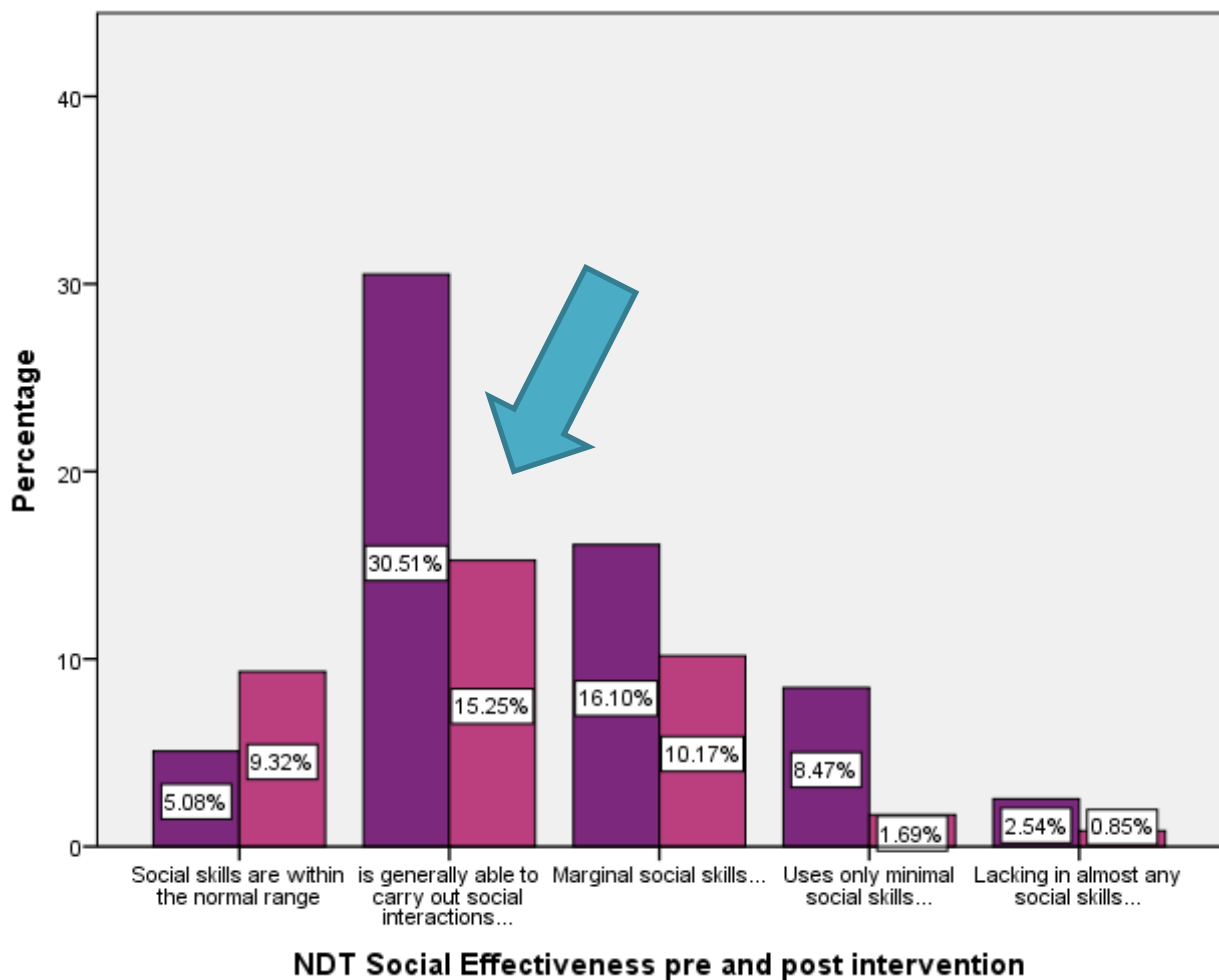


Figure 3.13 shows a consistent improvement in almost all areas associated to 'Alcohol/Drug abuse'. The most relevant improvement is shown by 'Drug/Alcohol dependence...', which dropped from 23.73% before the intervention down to 6.78% after the intervention (see arrow). This is followed by a smaller drop in all other areas but not coupled with an increase in the responses to 'Abstinence...', which went from 13.56% before the intervention down to 10.17% after the intervention. In addition, these changes are not supported by statistical significance, and therefore should be interpreted with caution.

**Fig. 3.13 Change in Alcohol/Drug abuse between pre and post intervention**

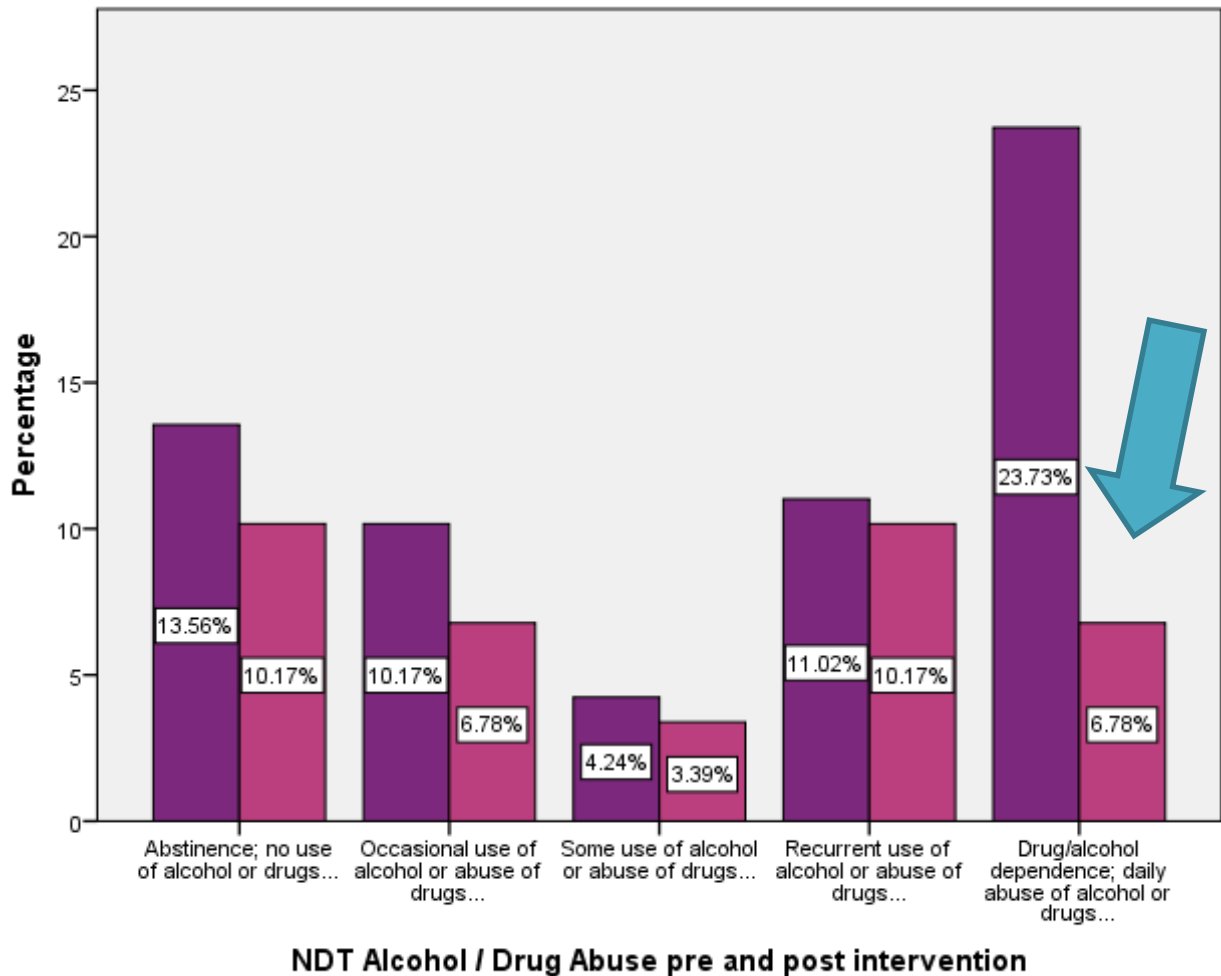
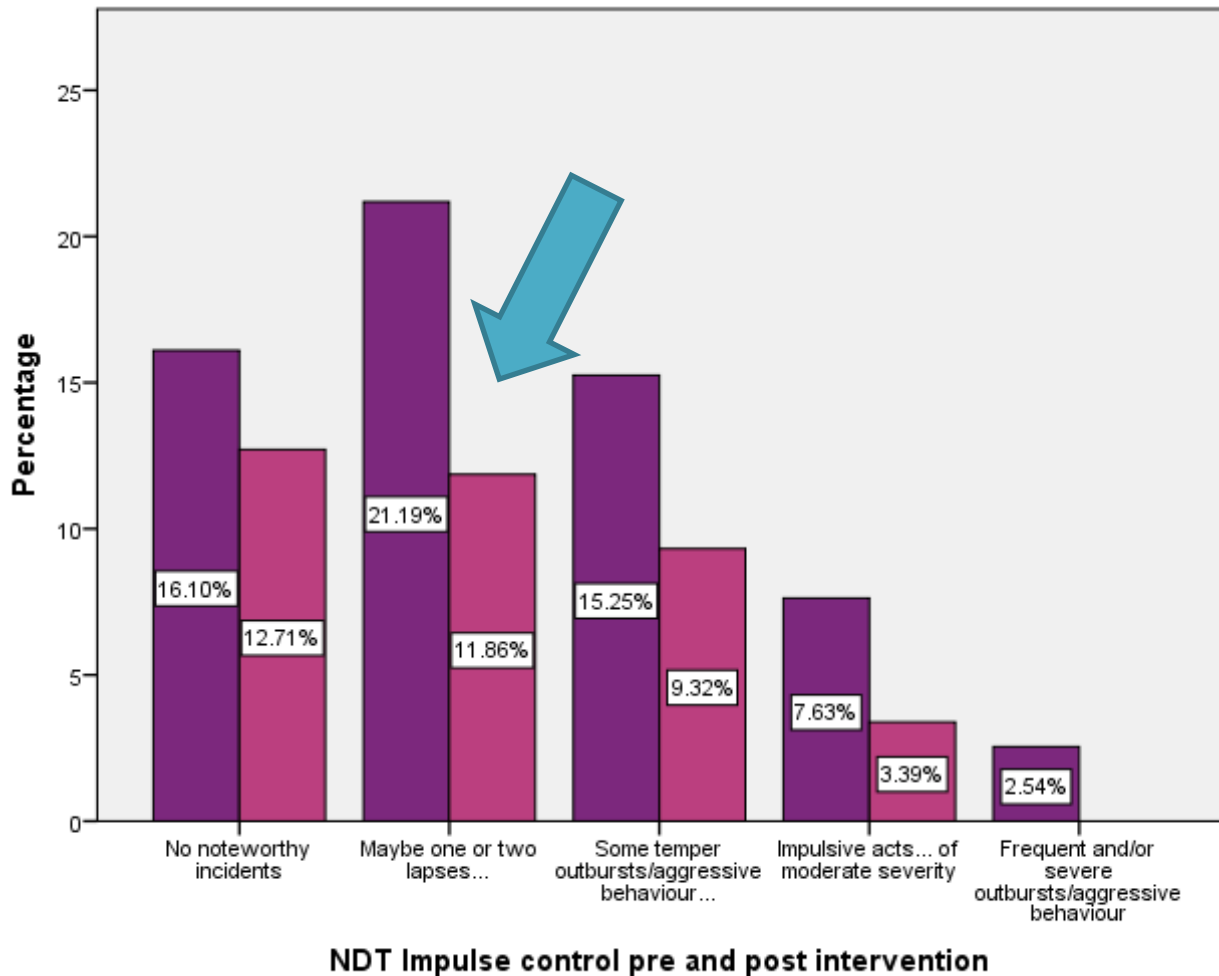


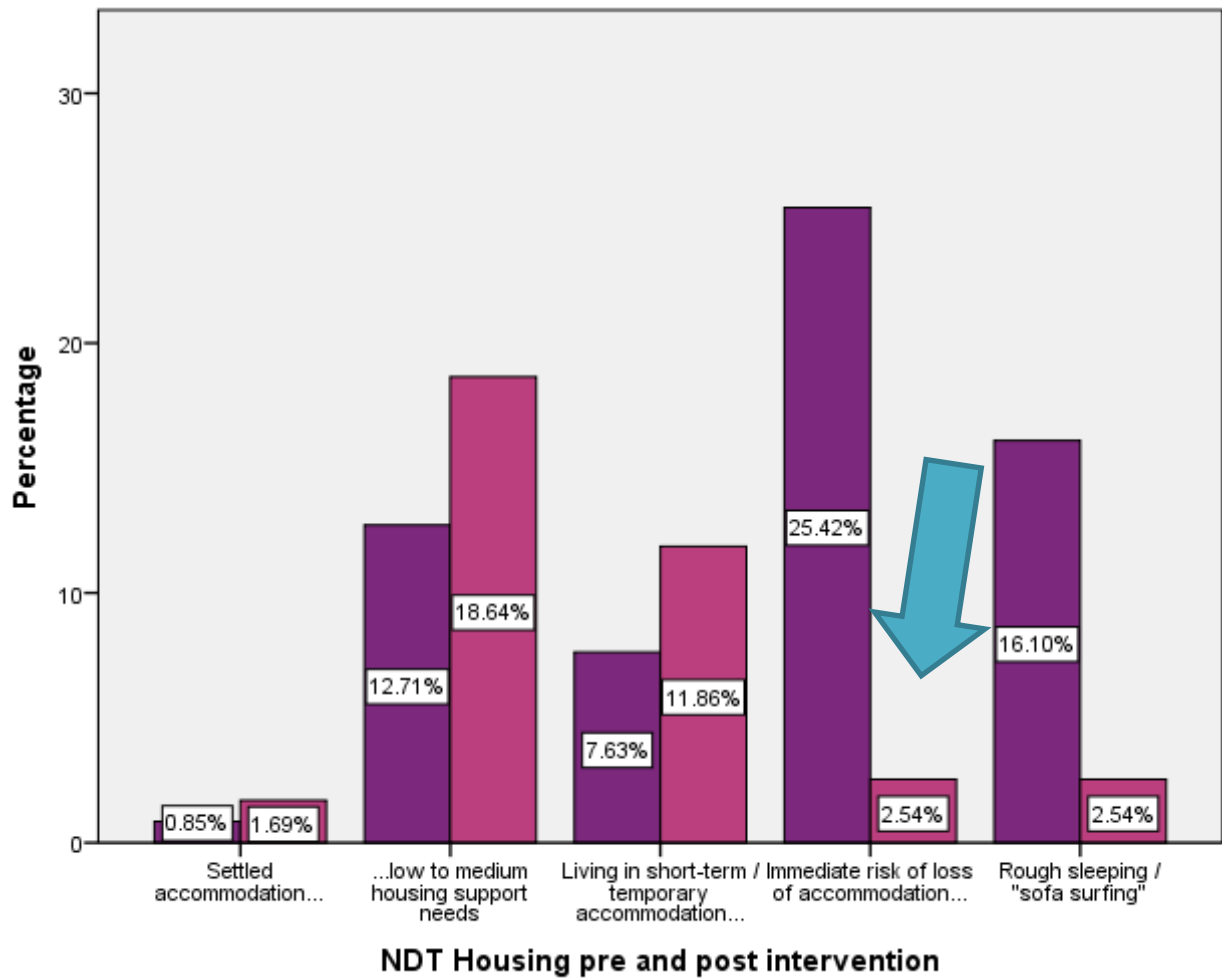
Figure 3.14 shows a consistent improvement in almost all areas associated to 'Impulse control'. The most relevant improvement is shown by 'Maybe one or two lapses...', which dropped from 21.19% before the intervention down to 11.86% after the intervention (see arrow). This is followed by a smaller drop in all other areas but not coupled with an increase in the responses to 'No noteworthy incidents', which went from 16.10% before the intervention down to 12.71% after the intervention. In addition, these changes are on the margin of statistical significance ( $p = .047$ ), and therefore should be interpreted with caution.

**Fig. 3.14 Change in Impulse control between pre and post intervention**



As touched upon, 'Housing' is the variable that reported the strongest improvement after the intervention. Fig. 3.15 shows that 'Immediate risk or loss of accommodation' is the area that registered the highest change, with a drop of 25.42% before the intervention to 2.54% after the intervention (see arrow). This is followed by a smaller drop in all other areas associated to housing and coupled with a small increase in 'Settled accommodation', which went from 0.85% before the intervention to 1.69% after the intervention.

**Fig. 3.15 Change in housing between pre and post intervention**





### Change in overall health within and between delivery partners

As mentioned above, the EQ-5D-5L scale includes a final question that aims to measure the service users' overall health. The answers to this question have been analysed with a combination of parametric tests (i.e. Paired-sample t-test and Repeated Measure MANOVA).

**Table 3.6 Change in overall health between pre and post intervention within delivery partners<sup>iii</sup>**

Delivery Partners	Time	Mean	Sign.	95% Confidence Interval		Effect size (d)
				Lower Bound	Upper Bound	
Basis n = 5	Pre-intervention	33	.08	-55	-15.33	2.66
	Post intervention	67				
WYCCP N = 4	Pre-intervention	41	.49	-18.75	11.25	.31
	Post intervention	46				
Leeds GATE n = 11	Pre-intervention	13	.01	-6.18	-1.81	1.03
	Post intervention	17				
St George's Crypt	Pre-intervention	32	.00	-35.49	-19.11	1.36
	Post intervention	59				

The results in Table 3.6 demonstrate that service users from each delivery partner have registered an improvement in their overall health. However, WYCCP shows a non-significant change of about 4 points between pre and post intervention,  $p = .492$ , 95% CI [-18.75, 11.25] with a small effect size .31.

**Fig. 3.16 Change in Overall health between pre and post intervention within and between delivery partners**

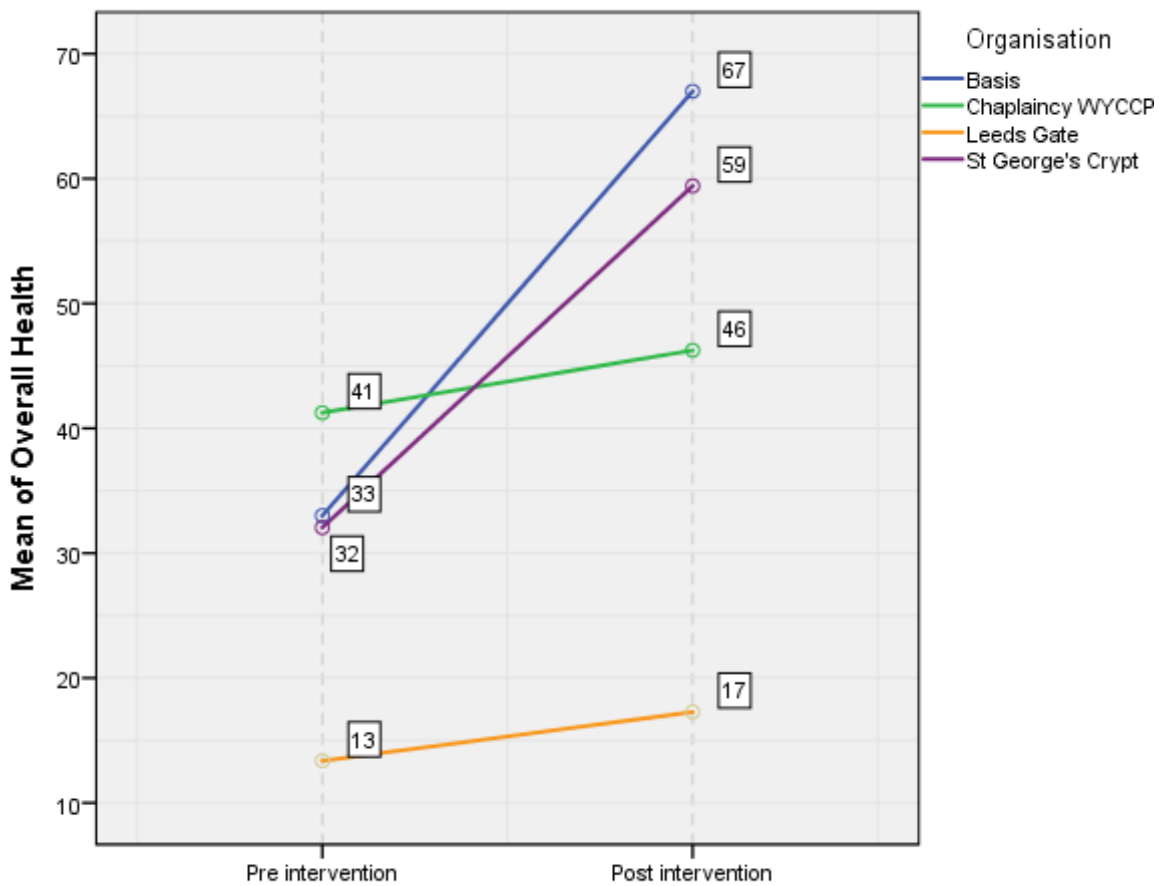


Fig. 3.16 summarises visually the changes reported in Table 3.6 (see also table 3.7 in the Technical Appendix). As we can see from the figure, Basis shows a very high change in the overall health between pre and post intervention (blue line). In fact, the average health of its users started at about 33 before the intervention up to about 67 after the intervention. Although this change is not statistically significant,  $p = .08$  (a condition that is probably caused by the very small amount of cases analysed,  $n = 5$ ), the confidence intervals show that the true effect might lie between -55 and -13.334. The fact that they do not cross zero, combined with a very large effect size,  $d = 2.66$ , indicate that the overall health of Basis' service users has improved after the intervention.

St George's crypt also shows a high change in the overall health of its service users (purple line). This started from an average of about 32 pre-intervention, up to about 59 post intervention. This change is statistically significant,  $p = .002$ , 95% CI [-35.49, -19.11], and is supported by a large effect size,  $d = 1.36$ .

Leeds GATE works with services users that started with a lower overall health before the intervention, compared to the other services (orange line). They registered a small improvement in overall health between pre and post intervention. In fact, their health scores went from an average of about 13 pre-intervention to an average of about 17 post intervention. This change is significant,  $p = .015$ , 95% CI [33.55, 3.83], and presents a large

effect size,  $d = 1.03$

WYCCP (green line) reports a small improvement in the health of its service users. This time, their overall health score went from an average of about 41 pre-intervention, to an average of about 46 post intervention. However, this change is not significant,  $p = .492$ , 95% CI [-18.75, 20.47] – due in all likelihood to a very small number of cases ( $n = 4$ ) – and shows only a medium effect size,  $d = .31$ . Therefore, we advise caution in drawing conclusions based on these findings.

#### **Summary of service users' quantitative data**

- Service user data, from all the delivery partners together, shows a significant change in almost all the areas measured by the EQ-5D-L scale. The highest improvement was found in terms of 'Anxiety/Depression'. This is followed by other = improvements in 'Usual activities' and 'Mobility'. No statistically significant change was found for 'Self-care' between pre and post intervention.
- Service user data, from all the delivery partners together, shows a significant change in the NDT chaos index. The highest improvement was found in terms of 'Housing'. This is followed by other strong improvements in 'Stress and anxiety', 'Risk from others', 'Unintentional self-harm', and 'Engagement with frontline services'. No statistically significant change was found in terms of 'Social effectiveness' and 'Alcohol/Drug abuse' between pre and post intervention.
- There is a significant improvement in service users' overall health after the intervention.
- Despite differences in the initial health score of their users before the intervention, each delivery partner showed an improvement in their service user's overall health. We are unable to draw definitive conclusions for WYCCP, due to the positive change not being endorsed by statistical significance.

### 3.3 The personal outcomes of each of the vulnerable populations – service use interview data (evaluation objective 2)

This section draws from interviews with service users – conducted either face to face or on the telephone plus case studies provided by delivery staff. The initial analysis was done by service user group (i.e. all Basis service users, then Leeds GATE etc.). For this report, in the interests of brevity and to aid understanding, these have been drawn together and presented by theme. Any similarities or differences between service user groups are described as appropriate.

#### **The Services Offered**

The duration of service offered varies slightly, though tends to be long-term. Leeds GATE and Basis offer on-going support, sometimes for years. Similarly, WYCCP service users have an on-going relationship, with access to the resettlement worker and wider team for as long as they require, ranging from several months, up to 4 years. St George's Crypt service users can access the OT if they are on the drug or alcohol programme or are residents. The temporary and transitory nature of the homeless community means there tends to be a shorter relationship, although there is the potential to stay engaged.

All the project staff work in a way that is designed to be accessible for service users. The delivery staff for St George's Crypt and Leeds GATE are located 'on-site' meaning service users are likely to encounter them during their daily life. St George's Crypt service users had often met the OT at lunch or dinner whilst others said she had come to visit them when they first came in. She also runs weekly social activities at the Crypt. The Leeds GATE project worker is frequently on the main Gypsy and Traveller site, with service users either being approached by her (for example, when upset) or approaching her themselves to ask for help (for example, with PIPs or when a family member has passed away). WYCCP and Basis have offices that service users can visit. The WYCCP office is by the prison – service users have regular meetings there or at home. Basis service users can visit the office or be seen elsewhere. All the services offer regular, flexible contact by phone or in person. They will also accompany service users to other services if needed.

Initial contact between the service user and the project worker is made in a variety of ways. Basis and WYCCP service users often mentioned being referred by another service (e.g. probation / mental health / housing workers). In the case of WYCCP, this generally occurs upon release from prison. For St George's Crypt and Leeds GATE contact tended to have been made by bumping into them on-site or word of mouth.

#### **Views on the Service Offered**

Participants were extremely positive about the service offered – praising the project worker, the holistic support offered and the benefits that have come from being involved. This was the same across all four projects. Participants expressed that they felt cared for and the project workers went out of their way to support them. Words like 'wow' and 'brilliant' were regularly used:

*'They're great to me. I'd be lost without them. I wouldn't know what to do without them. So, they've been great to me and they're good for me, and they help me out. And I feel a lot better coming here than I would not coming here.'* (WYCCP Service User)

*'But then what struck with me with [name]'s therapy, occupational therapy, you kind of get like, 'oh, there's people that actually care in the world', there's actually people out there not just doing their jobs for the sake of doing, they reach out in that sense, if you understand' (St George's Crypt Service User)*

*'I just didn't know that there was support out there. And then by them not giving up and being consistent, I felt like somebody actually cared about us in Basis.'* (Basis Service User)

### **Support Offered**

The project workers offer a range of support – from the practical to the emotional. This included; having somewhere to go for a hot drink or meal (Basis), being taken to an appointment they are nervous about (all), organizing social activities and buying craft supplies (St George's Crypt), helping read letters (Leeds GATE). WYCCP in particular helped with accommodation and benefits and even help with cleaning, shopping and paying bills. This breadth of support is greatly appreciated helping gain trust and build a relationship (see later):

*'Yes, it's very important isn't it, to have somebody you can trust to read your letters, trust to make a GP appointment, a hospital appointment ... and write it in the diary and remind you that you have these appointments. I think it's very good, yes.'* (Leeds GATE service user)

*'You can get something warm to eat. Even if it's just like making sure that you eat, because sometimes us girls, sometimes we don't eat or sometimes you just want a cup of coffee or something and you can go and do that. And that helps health-wise as well, because your mental health.'* (Basis Service User)

### **Success Factors – what makes the service work?**

The reasons for the services being so appreciated are, perhaps surprisingly given the disparate nature of the groups, remarkably similar. Most relate to the project workers' approach and the relationship service users have been able to build up with them.

Project workers are trusted and liked and there has been time for a relationship to be built up - this applies to all four delivery partners. Being listened to with compassion and in a non-judgmental way is mentioned by Leeds GATE and Basis service users. Service users, particularly from Basis and WYCCP, mention feeling they are treated with respect:

*'Yes, she listens to me and she'll advise me and she's got patience. She's lovely... I have a lot of trust with [name]. That's because I've met her for a long time going in and out to my [family member]'* (Leeds GATE service user)

*'It all depends on the person. I mean if [name] went and another person came in, it would be like starting all over again to get to know that person again... It's great to have a person that long and to have that trust... And she's great is [name], honestly, she's the best person I've met.'* (Basis service user)

The fact the project worker is independent (i.e. not from the community in question or a family member) is critical for Leeds GATE, Basis and WYCCP service users:

*'Because obviously they're not in your life they just there to support you and they have those boundaries it makes it easier to confide in them. Because you're not around the same people. Some things I might not tell my family I can tell [name] because she's not going to judge. Whereas family members can be a bit judgmental.'* (Basis service user)

Being reliable is mentioned by the service users of all delivery partners. Providing familiarity and stability to service users lives is expressed by some:

*'That's the good thing, they are people of their word. If they say something, they do hold out. Some people say, yeah, yeah, yeah, just to be rid of you. But these don't, no. If they say something, they go full out to do it. And that's what I like about them. They're people of their word. And that's all you've got in life is your word.'* (WYCCP Service User)

The fact the service is client-led was mentioned by all four service user groups as was the easy availability of the project workers – whether that be by telephone or on-site. Being regularly checked up on, in a caring way, was also cited as a positive.

Having someone within the system who cares for them and is on 'their side', helping them deal in an individual way with the many issues in their lives is highly valued.

### **Outcomes – what have service users gained from the project?**

A wide range of positive outcomes were described by service users ranging from better use of appointments, eating better, improved accommodation through to feeling more in control of their life and gaining insight into their situation.

Increased attendance at **appointments** and better use of them was mentioned by all service user groups, as project workers will accompany them and assist during the interaction. Some stated that they would not go without assistance (WYCCP and Basis) whilst all groups said it gave them increased confidence so they were better able to open up to the professional and express their issues:

*'...because I'm right shy when I'm in front of, especially when it comes to the doctor. Because when I go into the doctor's it's like my mind goes blank. And then what I need to tell him what's wrong with me, it's like my mind goes blank. And I just sit there and I say, 'I'm alright.' Even though I'm not... But when [name] is with me, it's like I open up. I can talk. It's right weird. She gives me a lot of confidence...'* (Basis Service User)

*'I'll get help from these people to go to these meetings and whatever else it is, doctors, opticians or whatever else, and these people help me to go. I wouldn't go there if it wasn't for these.'* (WYCCP Service User)

Being taught to ask more questions (self-advocate) was a skill being taught to WYCCP and Leeds GATE service users in particular. The Leeds GATE Outreach Nurse had taught them to ask, 'can you put it in a nice way?' so healthcare workers would explain things in

understandable language, whilst the WYCCP project workers similarly encouraged them to ask twice and then say, 'can you explain it in a different way?'

Assistance with **medication** was mentioned by St George's Crypt and WYCCP service users. The project workers had helped them manage prescriptions from several different agencies, reminded them to get their prescriptions and, in general, provide reassurance they can help the access necessary medication when needed.

**Urgent health issues** were addressed by the project workers. One WYCCP participant had been taken to hospital by the project worker after attempting to take their own life. Another, from Basis, had an infected leg ulcer she was not taking care of. Ongoing conversations with the project worker had helped her appreciate that life, and her leg, are precious. She had subsequently sought treatment:

*'... when my leg was, puss and that was coming out of it, [name] told me that if I didn't get it sorted that I could lose it. Which I didn't know that until then, until she said. And then when she said that to me, and I didn't want to lose my leg. It didn't bother me until she actually said that...It's like with me being on drugs and drinking and that, it was like all of that had gone out the window to me. And it was like when I met [name], it's like she's kept me focused and she's made me realise how precious life is. And how precious your leg is and all.'* [Basis Service User]

**Lifestyle changes** were mentioned by some, for example, attending a gym, eating better food, stopping smoking and improved self-care, including washing. One participant had halved their drug use, another had ceased drug taking, remained abstinent for three and a half months and were now making healthier food choices:

*'The only way I can explain it is I'm three and a half months clean from the drugs and alcohol and everything else, and I'm starting to eat healthier. Compared to then when I was in the madness to where I am now, everyone, like my family and friends sees the difference in me and notices the difference in me. Because back then in addiction I was a pain in the backside. And that's putting it politely.'* [SGC Service User]

**Improved mental health** was a theme that emerged from many interviews. Participants said they felt calmer (WYCCP and Basis), less worried and anxious (SGC) or better able to recover from upset (WYCCP). One Basis service user had been helped to use the gym by the project worker and said this made her feel less anxious and depressed. Another talked about how creative activities and art projects had helped soothe them. One said they were now adhering to their depression medication, when previously they had not:

*'I think she helps with mental health. ... at the moment I am taking my depression tablets. Whereas before I never did. So, she's definitely helped me with that. Because I realised that I was just – basically I think she made me recognise my own patterns of behaviour. So, I know it's me, it's as well as my work I'm putting in. but it's different when you have the right kind of support, I guess.'* [Basis Service User]

**Improved confidence and independence** emerged. Through doing simple activities, such as going shopping or to the vets, with the project worker, one Basis service user was then able

to do these things on her own ‘that wasn’t so bad after all.’ She had been helped to become more organized by buying a diary where she put appointments in and her goals at the back. This helped lessen her anxiety around feeling chaotic. Similarly helping to clean and organize her house had lifted her mood and enabled her to concentrate on next steps in her life:

*‘...because right now I want to get that more independent and stuff so definitely like and I know that that’s the goal is like to build up to going to the doctors on my own, going to these places and getting the confidence to do those things and slowly, you know, it is happening. It is hard because then I like I have up days and down days one day I can do it I feel confident I can go and one day it’s just not like that.’ [Basis Service User]*

**Improvements in the wider determinants of health**, for example, help with accommodation, benefits and finance were mentioned by many participants. Service users from St George’s Crypt for example had been helped with temporary accommodation in a hostel where they had previously been refused due to their health requirements, another had had adaptations to their home carried out along with suggesting other changes that would help him, whilst another was provided with a wheelchair and assessed for accommodation adaptations. Similarly, WYCCP service users had been helped with fundamental needs. One, upon leaving prison, had had no money for eight weeks – the delivery partner staff was able to arrange gas, electricity and food for them during that period. The service had also helped with benefits and budgeting. One participant had been spending unwisely and getting into debt so the staff member had helped them budget, another had been helped to receive disability allowance which meant they could now use the bus and access services that were previously out of reach.

Getting into work or training was mentioned by WYCCP and SGC participants. One participant had a job interview following support from the delivery partner, including contacting the potential employer and supporting the application. Others had been helped to attend training courses.

Importantly some service users said their relationship with the project worker had given them a **new perspective** on life, they had gained insight and the support worker was helping them break negative cycles of behaviour. One participant said that without the OT’s help:

*‘I’d have just ignored things. And they’d just build up and, in the end, I’d be a right mess like I was when I came here. ... Just looking after yourself, you know, like you would outside. Hopefully getting into a routine where I can break that cycle of drugs, drink and all that, and not looking after yourself and stuff, skipping meals and not getting to your appointments so your medication gets stopped and stuff like that. Keeping on top of things. ... Yeah, like re-evaluating your life.’ (St George’s Crypt Service User)*

‘She inspires like you want to do things’ (Basis Service User)

### **Health Service Use**

Improved knowledge of health services emerged, particularly amongst St George’s Crypt and WYCCP service users. One service user said how, with the project worker’s encouragement, they were now more motivated to attend:



*'I knew the services were there but you just sort of ignore things because the drugs look better than it does sorting yourself out...'* (St George's Crypt Service User)

There are clear signs that satisfaction with services is also growing, as service users feel confident to ask for help or even change surgeries. Some felt more open to receiving help from other services now:

*'I feel that the hospital is just ... well you don't know, they try and fob you off. They can't fob these people off [at WYCCP]. They know more medical words than I do. So, they have to talk basic to me now. They've told them that. 'You're using all these long words. Mr [surname] doesn't understand what you're saying.' ... And now they're on my level when they talk and they make sure I understand everything before I leave.'* (WYCCP Service User)

*'I tend to look at people a lot differently, yeah. There is help out there, you've just got to ask for it.'* (St George's Crypt Service User)

Other services are also being accessed. Basis service users have been signposted to domestic violence services and Forward Leeds (drug and alcohol service). One WYCCP service user was now accessing physiotherapy having received their PIP with help from the project worker.

### **Recommendations**

Service users were all extremely positive about their experiences. When asked to suggest changes or improvements they said none – beyond promoting it more or expanding the service by employing more delivery partner staff. They would all recommend the service to others, saying how much it had helped them and praising the quality and breadth of service:

*'And I'd recommend it for basically anyone. It doesn't have to be homeless or vulnerable. And for me, I'm speaking being homeless, vulnerable, my addiction side of it and my mental health side of it. ... especially in SGC, I'd recommend an OT being here when you want to talk to someone.'* (St George's Crypt Service User)

*'I'd like to see the service keeps going. And I really do believe these people saved my life. And that's all I can ever say about these people is they saved my life. And I hope they help other people.'* (WYCCP Service User)

*'To be honest, I think that Basis and [name] and all the support workers are doing a really great job. So that's it. I really couldn't speak highly enough. And I always say this to literally everyone.'* (Basis Service User)

*'... everybody looks out for [name] coming and they're very grateful of [name] coming. I don't think anybody could do without her to be quite honest... I recommend her everywhere I go.'* (Leeds GATE Service User)

### **Summary of service user interview data**

- Service users reported very positive experiences of the practical and emotional support that they received. For some it was life-changing.
- From a service user point of view, trusting their workers and being listened to were noted as important components of success within these interventions.
- A wide range of positive outcomes were described by service users ranging from better use of appointments, improvements in eating behaviours, better accommodation, feeling more in control of their lives and improved confidence and independence.
- Many service users described improvements in their mental health such as feeling calmer, less worried, having reduced anxiety and feeling less depressed.
- Service users reported accessing existing health care provision more frequently following support from their worker, growing satisfaction with such services and increased confidence in asking for help.
- Improvements in the wider determinants of health were also noted by service users with support provided in relation to housing, benefit provision and associated finance.

## 3.4 The impact of the vulnerable populations work: stakeholder viewpoints (evaluation objective 3)

### 3.4.1 Leeds GATE

#### Impact on the health system

Improving access to services has been a major benefit of the project according to stakeholders. This has been achieved through a number of strategies including; a Care of Post service, advocacy to support GP registration, bringing specialist services onto the site, and improving communication with these mainstream services. One stakeholder said:

*'These aren't hard to reach people, we're hard to reach services, the language in mainstream services puts the responsibility on the individual 'they didn't engage, they didn't attend'.*

#### The care of post service

The Care of Post service provides approximately 170 community members with an address through which they can register with a GP and manage their healthcare appointments. The organisation offers a reading service with member's permission, so will phone a member when a letter arrives that looks like a medical appointment and read it if they request. This helps them maintain and manage their healthcare needs. This also gives them the opportunity to claim health-related sickness and disability benefits enabling greater financial stability also contributing to health and wellbeing. One stakeholder described the service simply:

*'You can get your post here, this is what your post says, this is what it means, this is what the appointment might look like. And really giving people a lot of encouragement and one-to-one support to attend, but then also trouble shooting.'*

#### Health Visitor provision

The Outreach Nurse has been instrumental in bringing mainstream services to the locations where Gypsy and Travellers live. For example, Health Visitors now visit roadside encampments which was not happening before. Traditionally, Health Visitors see people who have an address in their homes based on GP registration therefore Travellers were invisible to the system. They are now visiting encampment sites opportunistically and this is embedded practice.

One stakeholder narrated an example about a young mother in a new roadside encampment who had just had a baby, which had been born in another area before they arrived in the city. She was concerned because no one had come to see the baby and she was aware that she needed to see a Health Visitor to check the baby and have immunisations. A local Midwife had said she was afraid to visit the mother on the encampment. A meeting was arranged between the Midwife, Health Visitors and the Outreach Nurse and an Advocate.

The group agreed to keep in contact via regular emails and inform each other of new encampments and remind them of the Care of Post service. Following this a meeting was facilitated between the Midwife, Health Visitor and Mother and they had the opportunity to get to know each other and understand each other's roles and build relationships, the Mother was then able to share this experience with other members of the community, potentially helping build trust in the wider community.

### *Palliative care*

The Palliative Care service is traditionally very effective in building relationships but following input from this project they adopted a more Outreach style approach. This involved being more patient-led, rather than having a pre-determined agenda of what they needed to talk about. The Outreach Nurse acted as a link.

*'My currency is having a good relationship with community members and sharing that with other practitioners.'*

One patient was able to die at home, cared for by her family. They had had a positive experience due to the Outreach Nurse sharing their relationship with the Palliative Care Nurse and the Neighbourhood Team.

### *Health education*

Diabetes is a common health issue among the Gypsy and Traveller community. The Outreach Nurse arranged for the Diabetes Health Education programme to be delivered on site following the realisation that, until now, they had not been offered it. Bringing the practitioner to the site has raised awareness amongst the community of the availability of the service. Similar arrangements were made with Podiatry.

### *Mental health support*

The project identified many people on intensive mental health medication without any other access to support. Many had never tried psychological therapy and were not under the care of a Psychiatric Consultant. This was identified as the result of a breakdown in relationships and communication within the processes around Primary Care leading to a failure to address the underlying issues through Psychological Therapies.

Members of the community are now more aware of services e.g. Mental Health Support services and many referrals have been made into Touchstone Support. The project has facilitated improved satisfaction with services, reduced stigma around Mental Health Support and better conversations within the community.

### *GP Registration*

Stakeholders gave examples of families that had been refused GP registration due to not having an address. The delivery partner staff member intervened and spoke to receptionists

to enable families to register. In another case, a family was directed to a Walk-In centre for emergency care for an infant.

It was also noted that some practices have shown interest in supporting the Gypsy and Traveller community. An example was given of a Practice Manager who approached Leeds GATE for support asking how best to support an encampment that regularly pulled on and off in the local area. The project has also introduced a Pride of Practice poster with pictures of caravans drawn by Gypsy and Traveller children, which read 'Gypsies and Travellers welcome here' for GP practices to display.

### *Addressing stigma*

The project is addressing stigma within the healthcare system. This has been a particular issue with services which utilised lone-working, such as District Nurses. An example was given of a dying patient who was denied a Night Sitter. Her record stated that she had to be visited in pairs because she lived on a Gypsy and Traveller camp. The Outreach Nurse intervened to advocate for a risk assessment stating this should be carried out as in any other case and that people should not be discriminated against based on ethnicity.

### **Improved experiences with services**

As well as facilitating access to services the project has also improved the quality of members' interactions with services, due to time to build relationships and the one-to-one support available:

*'I've seen people being more connected to services... and have better quality appointments and I think sometimes there's quite a lot of length of time and coaching goes into somebody attending an appointment. So, if ... I've identified that there's a mental health need ... it might be some months before that person could feel that they could attend a mental health appointment due to fear and stigma and not knowing what that's about.'*

Coaching people through the system also improves their self-efficacy and self-esteem, enabling them to engage better with services and receive better quality appointments. In this way individuals gradually become more independent:

*'I'm noticing that people are doing more things on their own, requiring less support because [they are] more able to attend appointments on their own and feel better about doing so.'*

### **3.4.2 St George's Crypt**

For the OT role this delivery model provides '*less red tape*' meaning that unlike a big hospital environment '*you can generally get on and do what needs to be done*'. St George's Crypt have very specific local knowledge of the local homeless population, which is key for meeting their needs. The homeless population access the Crypt regularly for meals, temporary

accommodation and a number of other services. There are existing relationships in this setting and building trusting relationships enables this model to bring services to the vulnerable population. A stakeholder said:

*'We in the third sector we aren't clinical experts ... we're not the experts, but we are the experts with our specific vulnerable groups. And we do know where they access, how to access and engage with them. And then piggy backing on that clinical services, holistic services, can parachute in and the people will trust them and will engage, and more often than not will open up far too much and you'll get a full medical history.'*

The homeless population generally feel there is stigma attached to them because of their life circumstances and report feeling unfairly treated in other places. Crypt's service users are unlikely to go to another site to access services, therefore bringing services into the Crypt has been key to improving healthcare access. The site now offers dentistry, nurses and a liver clinic. Delivering in a setting where people feel comfortable means they are more confident about accessing services.

There was previously little knowledge amongst service users as to what Occupational Therapy could offer. Now, however, word of mouth communication in the community has significantly raised awareness of this type of support.

The model is more flexible than traditional services because it is not appointment-led. The people in this community generally live 'in the moment' and address needs as they arise. So, having the flexibility to see the delivery partner staff in an ad hoc way at opportune moments increases access. For this reason, the OT maintains a high visibility in the setting, often seeing people at lunch or around the building:

*'I think these people live in the moment really and they do what needs to be done to help them and they look for the help that they need at that moment. So, I think it works well in it's not appointment-led, people can just come and ask at reception if I'm in, they'll see me in the dining room, they'll see me just around the building and ask for things as time goes on.'*

Building rapport with individuals is also key. Being in the environment allows the OT to develop trusted relationships with service users, who may then come back for input at a later date:

*'And I think that flexibility is really important and also I don't know almost the lack of expectation from them. So I will see them just chat in general and try and be very casual in my interactions with people and I think get up some building rapport, but also that people feel that there's no pressure for us to particularly achieve anything on that day, but then surprising how they'll come back maybe an hour later sometimes or the next day or the next week and ask for really specific OT input then and I think that's really helpful.'*

## Impact on health system

### *Facilitating more effective use of health services and resource*

The effect of the Outreach OT role is beginning to change the service user's understanding of appropriate use of services. For example, the OT intervened with a patient that wanted to go to A and E for low mood. Following an OT assessment, he realised that he wanted to dance and listen to the music that he loved, the OT spoke to his support workers with his agreement so they could support him with this. Making service users more aware of the other services and options available has helped to redirect the use of services:

*'So those little things ... help in communicating to people that you don't need to go over to those services you know, because you don't know where else to turn.'*

There is positive feedback from service users about the OT service and the growing trust and support is motivating people to access other services:

*'I think it makes them think this is how they want to be able to access services; under one roof and in a place where they're comfortable and safe and there's familiar faces.'*

The OT role supports better use of health services in a number of other ways. They make sure service users are registered with a GP, encourage them to attend, and at times support them in appointments, helping them to advocate for themselves. When it's appropriate they share OT assessment information. Support also involves explaining what will happen in appointments to give people reassurance.

In other situations, the OT may arrange for adaptations for accommodation such as disabled bathrooms, without going through community teams. The OT also helps individuals to manage ongoing mental health support so that they do not attend A and E for this reason or depend on Crisis Teams.

### *Building health-related expectations*

Building health expectations through changing the population's understanding of what is adequate health is an important part of improving access to healthcare. Stakeholders stated that homeless people often do not access healthcare, and on questionnaires they rate their health and wellbeing high even when observed to have painful physical conditions such as black toes:

*'It's changing the understanding that these guys aren't going to go to the GP, not because they are lazy or any of that but because in themselves they think that whatever state they might be in, that's alright.'*

Initially it was thought that lack of GP registration was an issue for the population but a needs analysis completed by the Crypt indicate that the majority of service users are registered with the GP, yet still do not access the service.

### 3.4.3 West Yorkshire Community Chaplaincy Project

Advocates work closely with the service users in the run up to their release to develop a relationship and gain trust. As a self-referral service, it is an open-ended offer and individuals can contact the service years after their release. The individual support provided is not available from any other service and the project supports people who are extremely vulnerable and otherwise lost in society. Lack of literacy is an issue in this population:

*'We work alongside a lot of [other] services, the police, all these people that we work with have all said what we do is brilliant and there should be more services available in different places to do the sort of stuff that we do.'*

*'In other areas like Wakefield, Huddersfield, Halifax, some of the parts of West Yorkshire that we work in, Bradford, people are getting lost, people are getting through the net, going back to custody because there's not somebody around to support the people that need supporting.'*

The project combines work across Social Care, physical health, Mental Health and Addiction. All of these areas are seen as intertwined, with about a third of the service users having both mental and physical health problems. A project member described how health issues are related to the other needs:

*'It could start off with a mental health issue, for example, one man was self-harming to the extent he needed plastic surgery, so it became a physical health issue, he also had social issues ...which exacerbated his mental health issues.'*

Increasingly, the delivery partner has been helping individuals with their health needs, possibly reflecting a growing need in this area:

*'Now we realised ... increasingly we were supporting men with their health needs. So, in a range of different ways, and that can start with helping them to register with a doctor or a dentist, making sure they get their correct prescriptions, right up to accompanying them to MRI scans and everything in-between and visiting them in hospital.'*

The delivery partner staff have a good understanding of the health system and support service users by accompanying them to doctor's appointments in a variety of settings. They act as a liaison between different services, trying to coordinate their activities, attending multi-agency meetings and advocating on behalf of the service users. The need for advocacy is clear with this group of individuals who may have a number of social issues acting as barriers to accessing healthcare:

*'In an ideal world it would be that services are accessible and that people are trained to deal with anybody that walks off the street. But, if you've got somebody who's dishevelled, a bit smelly, very inarticulate, possibly a little bit drunk, you know it is difficult and alarming for a doctor's receptionist to kind of cope with that. And that's why it's so important that we go with people because then we can advocate.'*



### **Impact on the health service**

The project supports individuals to make better use of health services by pre-empting visits to A and E, supporting people in taking their medication and making sure they get their prescriptions. They remind service users about appointments and accompany them there, which reduces missed appointments, thus saving money. Advocates will arrange appointments for service users who have been turned down previously due to chaotic and extreme needs. They also advocate for people during the interaction, making them more efficient and effective. An example was provided of a support worker helping a service user to understand the language used by a clinician in a secondary care appointment. Having an advocate there to explain it, enabled them to engage with the whole process and understand what was happening to him.

This approach aims to empower individuals by demonstrating advocacy, which enables them to develop more confidence and start to attend appointments on their own.

### **3.4.4 Basis**

The majority of Basis service users have experienced abuse and trauma from males through their sex-work or prior to this. A women-only delivery model is therefore utilised, enabling service users to open up and feel safe, particularly when discussing intimate details and sexual health issues. The non-judgemental approach used has enabled the project to understand more about women's needs. For example, if a service user says they're not using protection, the delivery partner staff will discuss the consequences of this and how to be safer, rather than saying 'you shouldn't be doing it'.

#### *Barriers to healthcare*

The staff member has done some assertive outreach and taken up opportunities as they arise to talk to professionals. This has involved explaining that women don't access mainstream health services because they feel intense judgement. This can be difficult for professionals to hear but is likely in some cases to be a subconscious bias, which means it is important to discuss. The Advocate has observed incidents of stigma involving hospital doctors, GPs, and other health professions. Examples include comments about an individual's drug use and keeping pregnancies.

#### *Access to services*

The project has improved access to drug rehabilitation services by removing barriers such as the long time it takes to refer service users in. This is key to a successful outcome. There is now a dedicated contact at the Forward Leeds hub for these referrals.

Access to primary care has been improved by working directly with the York Street practice and their registration process. The support worker is able to book appointments online. The relationship with the practice has improved leading, in turn, to a better experience for the women.

A significant barrier for this service user group in accessing services is that they don't prioritise their own health due to poor self-esteem. The Advocate has worked intensely with service users to improve this, often involving activities that might not appear to relate to health. This might include, for example, keeping someone busy by attending groups, going for a walk with

them, generally talking to them to improve mental health. They talk to them about self-care, helping them recognise where they are in terms of confidence and esteem and to see *'actually, I am worthy of looking after myself'*.

Building self-efficacy is also a key component of the support provided. Through advocating on service users' behalf and demonstrating advocacy behaviours they are encouraged to build their own confidence in advocating for themselves in future appointments.

### **3.4.5 GP Views of the needs of vulnerable populations**

Three GPs were interviewed who, whilst not being involved directly with the Health Improvement Project, work intensively with vulnerable populations. The interviewees commented that inappropriate use of A and E by vulnerable members is an important concern for practices. Addressing the underlying chaos in people's lives is a prerequisite to creating more stable lives and healthcare access. Care becomes complicated for individuals with multiple vulnerabilities, for example lacking English language as well as being homeless or an ex-offender, especially if they have complex healthcare needs with mental health issues.

Common issues reported by the GPs in these populations relate to drug or alcohol misuse, particularly riskier drug using behaviour such as polly-drug use, and injecting. Mental health problems are widespread and physical health problems include infections and trauma.

Within the health service vulnerable groups experience various issues. Many will be discharged early from hospital either due to self-discharge or breaking behaviour rules. In many cases patients experience prejudice and judgement from the healthcare workforce. Patients withdrawing from opiates in particular struggle with the hospital environment with a lack of distractions and support. The GPs try to advocate for removal of punitive behaviour contracts. Early discharge often results in illnesses not being fully treated e.g. recurring infections, blood clots, bone infections requiring amputation and other complications. These mean patients take longer to heal when readmitted to hospital and in some cases, surgeons have refused to operate again leading to them dying from infections. A significant challenge for many vulnerable people is finding somewhere appropriate to go on discharge.

The York Street General Practice in central Leeds provides care for mainly homeless people, ex-offenders and sex-workers. It is a specialist practice with additional services provided under the same roof so that people can be seen for multiple issues when they attend. Patients do not need ID or an address to register. The practice runs a street medicine project taking health services to the street via an access bus. It also runs specialist drug treatment programmes.

The majority of patients at York Street have high Adverse Childhood Experience (ACE) scores to the extent that this is not routinely screened due to the perverseness of high scores. A deep-seated lack of trust often comes from a childhood in foster or other types of care, school provision or a close relative who has been abusive. A healthcare provider must work extremely hard to establish trust and often, in the hospital setting, there is not the capacity or understanding to do that. Trust by association is helpful when doing clinics with third sector organisations, one interviewee cited previous experience of this with the Joanna Project.

Table 3.8 details the recommendations made by stakeholders, listed according to each delivery partner.

**Table 3.8 – Recommendations from Stakeholders**

<b>Leeds GATE</b>	<b>St George’s</b>	<b>WYCCP</b>	<b>Basis</b>
<p>Long-term recurrent funding for future planning was recommended.</p> <p>Allow more time for relationships and connections between services and users to build.</p> <p>Further work to address stigma in the health service. Providing a safe space for health service workers to recognise their own individual bias and how it affects their practice.</p>	<p>Continuity of funds would provide more ability to forward plan for identified need in the community.</p> <p>A previous gap in the OT service due to discontinued funding was noted as having a significant impact on the trusted relationships which had been built with vulnerable people, as well as outcomes for them.</p>	<p>WYCCP staff have gained a deeper understanding of the health service through involvement with the project.</p> <p>Recurrent funding would enable building on his project and continuing the support given to ex-offenders with significant healthcare needs.</p> <p>Continued peer support to be embedded in future delivery. The sharing of ideas between projects has been highly valued.</p>	<p>Recurrent funding. Previously there was a gap in the service in-between funding rounds. This was problematic in damaging the trust that had been built with very vulnerable service users. This impacted on service user individual outcomes.</p>

### **Summary of stakeholder interviews**

- The health issues experienced across the vulnerable populations are complex and are situated amongst a range of difficult social circumstances determining health.
- Professionals from all four delivery partners noted that building relationships and trust with vulnerable populations are essential prerequisites for engagement.
- The flexibility offered by each delivery partner in their approach to working with vulnerable populations enables them to meet the needs of their service users. The combination of out-reach and in-reach work is important in models of service delivery for vulnerable populations.
- The work of the delivery partners had enabled appropriate access to health services for some service users and increased their awareness of service availability. Advocacy work by professionals was needed for service users across all four vulnerable populations.

## 4 Cross-cutting themes and learning from implementation (data synthesis)

### Cross-cutting themes

- All four of the delivery partners established outreach systems, with value placed on building trusting relationships with the vulnerable population they work with.
- Traditional health services struggle to meet the needs of the most vulnerable and marginalised.

### Learning from implementation

- There are areas of common experience between the groups so bringing project leads together to share best practice is an additional benefit.
- Monitoring and evaluation are an additional task for delivery workers who already have busy workloads. Finding effective measures of success is challenging in this instance, when comparing four different and vulnerable populations. Basis workers had to use the 'other' selection frequently from drop-down menus on the monitoring data template.
- It takes considerable effort to build trusting relationships with individuals from these populations, so they are able to recognise their own health needs and have the motivation to engage with services. This includes building their confidence and self-esteem. This process is difficult to demonstrate or quantify but it is critical to take this into account.
- Building positive links with other services has been beneficial. This takes time and can be lost when services are discontinued.
- The CCG approach and support is important to the successful delivery of work with vulnerable populations:
  - St George's Crypt noted that a positive relationship with the CCG has enabled improved understanding of how to view a health package for vulnerable populations, catalysed further work in relation to physiotherapy and mental health support for service users as well as leading to successful grants applications.

- Leeds GATE workers noted that the approach from the commissioners was trusting and a departure from the traditional contract manager approach. The level of flexibility provided by commissioners enabled delivery workers to meet the needs of the community based on their wishes. For example, the Outreach Nurse discontinued routine health checks as this was not valued by community members – instead they wanted more opportunities to talk to a professional and have conversations about their health. Also a health check was not very meaningful without referring people on to other services. Similarly, informing members of the community of screening opportunities was not helpful if they were not registered with a GP.
- This flexibility also allowed advocates to address wider determinants of health. For example, if benefits or housing are a more pressing issue in someone's life this needs to be addressed before they are able to focus on managing long-term health conditions. The flexibility to look at what is important for individual members is critical.

## 5: CCG Strategy and the Vulnerable Populations Evidence

**Table 5.1. Evaluation evidence mapped against CCG strategic commitments**

Strategic Commitments	Evidence from the evaluation
<p>Delivering better outcomes for people’s health and wellbeing</p>	<p>The evaluation evidence illustrates service users’ health and wellbeing improved in a range of ways as a result of the support that they received from the four delivery partners:</p> <ul style="list-style-type: none"> <li>• There was a significant change in service users’ quality of life (as measured by the EQ-5D-L scale). The highest improvement was found in ‘Anxiety/Depression’.</li> <li>• There was a significant change in service users’ responses to the NDT chaos index.</li> <li>• Many service users described improvements in their mental health such as feeling calmer, less worried, having reduced anxiety and feeling less depressed.</li> </ul>
<p>Reducing health inequalities across the city</p>	<p>Professionals from all four delivery partners noted that building relationships and trust with vulnerable populations are essential prerequisites for engagement.</p> <p>The flexibility offered by each partner in their approach to working with vulnerable populations enables them to meet the needs of their service users.</p> <p>The combination of out-reach and in-reach work is important in models of service delivery for vulnerable populations and serves as a platform for starting to reduce health inequalities across the city.</p>

<p>Support a greater focus upon the wider determinants of health</p>	<p>The highest improvement was found in terms of 'Housing' on the NDT chaos index.</p> <p>Improvements in the wider determinants of health were also noted by service users with support provided in relation to housing, benefit provision and associated finance.</p>
<p>Increase people's confidence to manage their own health and wellbeing</p>	<p>Service users who participated in interviews reported feeling more in control of their lives in general.</p> <p>Service users also noted improvements in confidence and independence. This includes being more assertive and confident in healthcare appointments.</p>
<p>Achieving better integrated care for the population of Leeds</p>	<p>The work of the delivery partners enabled appropriate access to health services for some service users and increased their awareness of service availability.</p> <p>Advocacy work by professionals was needed for service users across all four vulnerable populations.</p> <p>Service users reported accessing existing health care provision more frequently following support from their worker, growing satisfaction with such services and increased confidence in asking for help.</p>
<p>Create the conditions for health and care needs to be addressed around local neighbourhoods</p>	<p>The presence of the four delivery partners in these communities and their existing relationships plays a crucial role in building trust with vulnerable members of society who are often untrusting due to previous negative experiences in the health service or due to general stigma and trauma. Building a trusted relationship is a prerequisite to working with individuals from such vulnerable groups, as a starting point to reduce health inequalities.</p>



## **Recommendations:**

- Consider the particular needs of the different vulnerable groups as they are not homogenous. For example, there are different challenges working with women compared to men. There are also variations in terms of how cohesive each community are, for example, the sex-worker group a disparate collection of individuals effectively in competition with one another, rather than a cohesive community.
- Retain these projects and their outreach model in the medium term to enable further engagement with additional vulnerable populations community members in Leeds. Longer-term planning for work with vulnerable populations is required.
- Allow time for relationships and connections to build between services and service users.
- Embed peer support opportunities into future delivery, when working with vulnerable populations to facilitate shared learning between workers and maximise service impacts.

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## 7: Appendices

### Appendix 1 – Monitoring Data Spreadsheet

Categories as below – supplied as a spreadsheet, completed for each interaction

#### **The Client**

Unique Client ID

Client Status (drop down list of options)

#### **The Appointment**

Date (open text)

Length of appointment (open text)

Place of appointment (drop down list of options)

#### **Client Profile**

Age by category (drop down list of options)

Gender (drop down list of options)

GP Registration (drop down list of options)

Literacy (drop down list of options)

Residence (drop down list of options)

#### **The Intervention**

Advocacy Purpose Primary (drop down list of options)

Advocacy Purpose Secondary (drop down list of options)

Main Referrals (drop down list of options)

Main signposting (drop down list of options)

Was NHS Health-Check offered? (drop down list of options)

Suggested cancer screening (drop down list of options)

**Barriers** – free text

**Goals** – free text

**Comments**

## Appendix 2 – Case Study Template

**Describe** the person in your own words

**Referral** – who referred them to the project and how did the referral process work?

**Background** – what prompted them to become engaged with the health improvement project e.g. outreach, referral...

**Benefits** – how has being involved with the project improved their health? E.g. uptake of services, behaviour change, increased knowledge and awareness...

**Challenges** – have there been difficulties related to this person's involvement in the project? How were they overcome?

**Recommendations** - Is there anything that would improve the service for this person?

**Alternatives** - Where would they be now without the health improvement project? E.g. other services, professional support

**Statutory Services** - In what way has being involved with the health improvement project affected their use of statutory services?

## Appendix 3 – Learning Log Template

What went well at this stage in the project, delivering activities and supporting service users?

What did not go as well at this stage in the project, delivering these activities?

What can you learn from this? With hindsight what would you do differently?

Are you aware of any other activities taking place locally that may affect the impact of this project? If so, please provide as many details as you can including; what the activity is, where it is taking place, how long it is lasting for and what resources are being used. Feel free to include links or scan any leaflets / resources being used.

## Appendix 4 – Stakeholder Interview Schedule

*Introductions:* Stress that we want to talk about the project in a general way rather than trying to obtain specific information about any of the people referred into the project/involved. If names or identifying factors come up in the conversation, then reassure that the information will be anonymised.

### *Background/Introductory information*

1. Please could you tell me about your role/what you do?

### *Questions relating to the project*

2. What do you know about the Health Improvement Project?

#### *Probes:*

How did you find out about it?

What type of connection have you had with the project? In what capacity? (referral? Information-seeking? Joint working?)

Who did you first speak to? Why did you make contact with (this person)?

What happened next?

3. Can you describe the project approach?

#### *Probes:*

How is it different? What makes it unique?

Do you think the approach is effective? If so, how and why (what features make it so?)

What are your views about the project approach?

4. What impact has the project has on the people who have been involved with the project?

#### *Probes:*

What changes have you seen in their situation/circumstances? Can you give some examples? Which of these might be as a direct result of her involvement with the Project?

How do you think the project has supported the people who have been referred? Is this different in any way to existing provision?

Is the project engaging with people in a different way to existing services? (Value of the vulnerable groups focus?)

4. We are interested in trying to determine outcomes and indicators for all of the people who have engaged in the project. What difference is the project making to those who come into contact with it?

#### *Probes:*

Improved satisfaction with services

Changes in understanding about appropriate use of services

Improved quality of life  
Good care/improved care for this group of people?

5. Can you describe/ give examples of how the project has made better/more effective use of health resources?

*Probes:*

Less use of Accident and Emergency?

More use of GP/other primary care e.g. pharmacy?

What kind of care is needed for this group of people?

6. If the project were to be delivered again, are there any recommendations that you would make for changes?

*Probes:*

Areas for improvement?

Changes to delivery?

Issues?

Learning?

*Closing questions*

Why is the project important? (Changes in use of services, changes in understandings of the needs of community members from professionals?)

Is there anything you would like to say about the Project which we have not discussed/talked about?

Thank you for your time etc., etc.



## Appendix 5 – Service User Interview Schedule

### **Introduction:**

Explain who we are, what the evaluation is for and normal guidelines re doing an interview. They can give verbal consent to take part (signed by us), if unable to provide written consent

Ensure the interviewee has the opportunity to introduce themselves.

### **General questions:**

Tell us about how you became involved with this project?

Why did you decide to be involved?

What do you think about the project? *(Both positive and negative perceptions – What is good about the project? What could be improved?)*

### **Questions which focus on improvements:**

Has the project changed your health at all? *(If so, in what way (examples)? If not, why not?)*

Do you know more about health services because of this project? For example, Accident and Emergency? Screening?

Has it changed how satisfied you are with your health care/services? (if so, how?)

Has it changed how satisfied you with any other local services? (if so, how)

Are you likely to use services differently because of this project?

### **Questions focusing upon learning:**

Has there been anything about this project that has surprised you?

Are there any drawbacks or negative aspects to this project?

If this project was to happen again, are there any changes that you think need to be made?

Do you think that this approach is useful/helpful for others in a similar situation to you? (E.g. Ex-offenders, sex workers, travellers or homeless individuals?)

Finally, is there anything you would like to say about the Project which we have not discussed/talked about?

Thank you.

## Appendix 6 – Questionnaires

### EQ5DL Questionnaire

Client Name		Client Reference
Person carrying out assessment:		
	Date 1	Date

Under each heading, please tick the ONE box that best describes your health TODAY.

#### MOBILITY

I have no problems in walking about

I have slight problems in walking about

I have moderate problems in walking about

I have severe problems in walking about

I am unable to walk about

#### SELF-CARE

I have no problems washing or dressing myself

I have slight problems washing or dressing myself

I have moderate problems washing or dressing myself

I have severe problems washing or dressing myself

I am unable to wash or dress myself

#### USUAL ACTIVITIES (e.g. work, study, housework, family or leisure activities)

I have no problems doing my usual activities

I have slight problems doing my usual activities

I have moderate problems doing my usual activities

I have severe problems doing my usual activities

I am unable to do my usual activities

#### PAIN/ DISCOMFORT

I have no pain or discomfort

I have slight pain or discomfort

I have moderate pain or discomfort

I have severe pain or discomfort

I have extreme pain or discomfort

#### ANXIETY / DEPRESSION

I am not anxious or depressed

I am slightly anxious or depressed

I am moderately anxious or depressed

I am severely anxious or depressed

I am extremely anxious or depressed		
-------------------------------------	--	--

We would like to know how good or bad your health is TODAY.

This scale is numbered from 0 to 100.

**100** means the best health you can imagine.

**0** means the worst health you can imagine.

Mark an X on the scale to indicate how your health is TODAY.

Now, please write the number you marked on the scale in the box below.

YOUR HEALTH TODAY	YOUR HEALTH TODAY
The best health you can imagine	The best health you can imagine
100	100
95	95
90	90
85	85
80	80
75	75
70	70
65	65
60	60
55	55
50	50
45	45
40	40
35	35
30	30
25	25
20	20
15	15
10	10
5	5
0	0
The worst health you can imagine	The worst health you can imagine
<b>Your health today</b>	<b>Your health today</b>

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### NDT Chaos Questionnaire

Client Name		Client Reference
Person carrying out assessment:		
	Date 1	Date 2

Select **ONE** statement that best applies to the person being assessed. Base all scores on the past **one month**.

#### 1. Engagement with frontline services

0 = Rarely misses appointments or routine activities; always complies with reasonable requests; actively engaged in tenancy/treatment

1 = Usually keeps appointments and routine activities; usually complies with reasonable requests; involved in tenancy/treatment

2 = Follows through some of the time with daily routines or other activities; usually complies with reasonable requests; is minimally involved in tenancy/treatment

3 = Non-compliant with routine activities or reasonable requests; does not follow daily routine though may keep some appointments.

4 = Does not engage at all or keep appointments

#### 2. Intentional self-harm

0 = No concerns about risk of deliberate self-harm or suicide attempt

1 = Minor concerns about risk of deliberate self-harm or suicide attempt

2 = Definite indicators of risk of deliberate self-harm or suicide attempt

3 = High risk to physical safety as a result of deliberate self-harm or suicide attempt

4 = Immediate risk to physical safety as a result of deliberate self-harm or suicide attempt

#### 3. Unintentional self-harm

0 = No concerns about unintentional risk to physical safety

1 = Minor concerns about unintentional risk to physical safety

2 = Definite indicators of unintentional risk to physical safety

3 = High risk to physical safety as a result of self-neglect, unsafe behaviour or inability to maintain a safe environment

4 = Immediate risk to physical safety as a result of self-neglect, unsafe behaviour or inability to maintain a safe environment

#### 4. Risk to others

0 = No concerns about risk to physical safety or property of others

2 = Minor antisocial behaviour

4 = Risk to property and/or minor risk to physical safety of others

6 = High risk to physical safety of others as a result of dangerous behaviour or offending/criminal behaviour

8 = Immediate risk to physical safety of others as a result of dangerous behaviour or

offending/criminal behaviour

### **5. Risk from others**

- 0 = No concerns about risk of abuse or exploitation from other individuals or society
- 2 = Minor concerns about risk of abuse or exploitation from other individuals or society
- 4 = Definite risk of abuse or exploitation from other individuals or society
- 6 = Probably occurrence of abuse or exploitation from other individuals or society
- 8 = Evidence of abuse or exploitation from other individuals or society

### **6. Stress and anxiety**

- 0 = Normal response to stressors
- 1 = Somewhat reactive to stress, has some coping skills, responsive to limited intervention
- 2 = Moderately reactive to stress; needs support in order to cope
- 3 = Obvious reactivity; very limited problem solving in response to stress; becomes hostile and aggressive to others
  
- 4 = Severe reactivity to stressors, self-destructive, antisocial, or have other outward manifestations

### **7. Social Effectiveness**

- 0 = Social skills are within the normal range
- 1 = Is generally able to carry out social interactions with minor deficits, can generally engage in give-and-take conversation with only minor disruption
- 2 = Marginal social skills, sometimes creates interpersonal friction; sometimes inappropriate
- 3 = Uses only minimal social skills, cannot engage in give-and-take of instrumental or social conversations; limited response to social cues; inappropriate
- 4 = Lacking in almost any social skills; inappropriate response to social cues; aggressive

### **8. Alcohol / Drug Abuse<sup>3</sup>**

- 0 = Abstinence; no use of alcohol or drugs during rating period
- 1 = Occasional use of alcohol or abuse of drugs without impairment
- 2 = Some use of alcohol or abuse of drugs with some effect on functioning; sometimes inappropriate to others
- 3 = Recurrent use of alcohol or abuse of drugs which causes significant effect on functioning;  
aggressive behaviour to others
- 4 = Drug/alcohol dependence; daily abuse of alcohol or drugs which causes severe impairment of functioning; inability to function in community secondary to alcohol/drug abuse; aggressive behaviour to others; criminal activity to support alcohol or drug use

### **9. Impulse control**

- 0 = No noteworthy incidents

- 1 = Maybe one or two lapses of impulse control; minor temper outbursts/aggressive actions, such as attention-seeking behaviour which is not threatening or dangerous
  - 2 = Some temper outbursts/aggressive behaviour; moderate severity; at least one episode of behaviour that is dangerous or threatening
  - 3 = Impulsive acts which are fairly often and/or of moderate severity
  - 4 = Frequent and/or severe outbursts/aggressive behaviour, e.g., behaviours which could lead to criminal charges / Anti-Social Behaviour Orders / risk to or from others / property
- 3 Drugs include illegal street drugs as well as abuse of over-the-counter and prescribed medications.*

**10. Housing**

- 0 = Settled accommodation; very low housing support needs
- 1 = Settled accommodation; low to medium housing support needs
- 2 = Living in short-term / temporary accommodation; medium to high housing support needs
- 3 = Immediate risk of loss of accommodation; living in short-term / temporary accommodation; high housing support needs
- 4 = Rough sleeping / "sofa surfing"

**Scoring**

Please insert the assessed score against each criterion point and add up the total score.

**Criterion Score**

- 1. Engagement with frontline services**
- 2. Intentional self-harm**
- 3. Unintentional self-harm**
- 4. Risk to others**
- 5. Risk from others**
- 6. Stress and anxiety**
- 7. Social Effectiveness**
- 8. Alcohol / Drug Abuse**
- 9. Impulse control**
- 10. Housing**

Date	Total score out of 48	Date	Total score out of 48

## Appendix 7 – Technical Appendix

**Table 3.7 Change in overall health between pre and post intervention between organisations**

Variable	Parameter	Std. Error	t	Sig.	95% Confidence Interval		Effect size ( $\eta^2$ )
					Lower Bound	Upper Bound	
EQ5DL Overall Health pre intervention	Intercept	4.578	7.003	.000	22.745	41.372	.598
	Basis	9.602	.098	.923	-18.595	20.477	.000
	Chaplaincy WYCCP	10.489	.876	.387	-12.149	30.531	.023
	Leeds Gate	7.304	-2.560	.015	-33.554	-3.836	.166
	St George's Crypt	.	.	.	.	.	.
EQ5DL Overall Health post intervention	Intercept	2.683	22.142	.000	53.953	64.871	.937
	Basis	5.628	1.348	.187	-3.863	19.039	.052
	Chaplaincy WYCCP	6.148	-2.141	.040	-25.670	-.653	.122
	Leeds Gate	4.281	-9.843	.000	-50.849	33.429	.746
	St George's Crypt	.	.	.	.	.	.

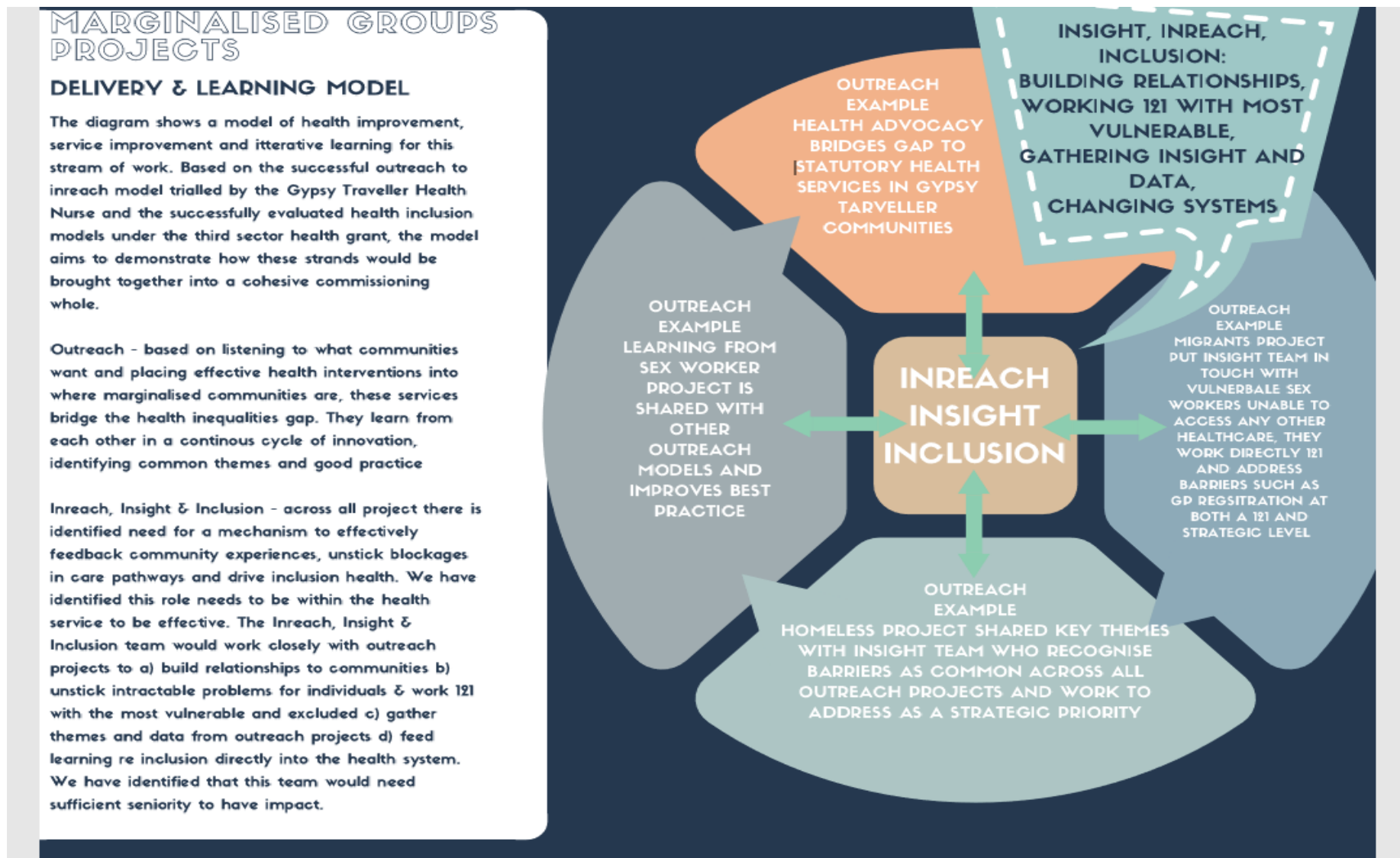
a. This parameter is set to zero because it is used as reference category

As we can see from Table 3.7, compared to St. George's crypt – which is has been set as reference category – the other organisations show no significant difference in their users' average health score before the intervention. Only Leeds GATE showed to have a significantly smaller average health score,  $t = -2.560$ ,  $p = .015$ , 95% CI [-33.55, -3.83]. This is also evident in Fig. 14, where Leeds GATE (orange line) users' overall health scores lower than all the other organisations displayed on the graph. After the intervention, the average

health score of Leeds GATE service users continues to be significantly different from the reference category,  $t = -9.843$ ,  $p < .001$ , 95% CI [-50.849, -33.429] with a very large effect size,  $\eta^2 = .746$ .



## Appendix 8 – Model



## Appendix 9 – Theory of Change



**Figure 1: Proposed Theory of Change linking the intervention to outcomes**

<b>Theory of Change</b>	<b>Evaluation objective</b>	<b>Research methods</b>	<b>Areas of measurement</b>	<b>Indicators of success</b>
<p><b>CONTEXT</b></p> <p>Strategic Aim:</p> <p>Health Improvement Projects (x 4) - enabling clients to have improved knowledge of services and increased appropriate service uptake, by supporting them to engage with health (and other services)</p>	<p>To examine the relationship between 4 vulnerable populations and services (delivery partners, health and more broadly)</p>	<p>Monitoring data</p> <p>Case studies from the workers</p> <p>Gathering service user's views</p> <p>Gathering stakeholder views to provide in depth perspectives</p>	<p>Project delivery and activity mapped to strategic objectives</p> <p>Case studies mapped to demonstrate need and outcomes</p> <p>Clients views recorded (semi-structured interviews) to demonstrate differences made</p> <p>Stakeholder views (semi-structured (telephone/face to face) interviews</p>	<p>Recruitment of clients to the project</p> <p>Clear case study documentation of experiences of clients</p> <p>Positive difference documented through the voices of the clients themselves</p> <p>Positive difference documented through the voices of stakeholders</p>
<p><b>ENGAGEMENT</b></p> <p>Local engagement and support through specialist organisations and dedicated support staff</p>	<p>To evaluate the intervention itself</p>	<p>Monitoring data</p> <p>Case studies from the delivery staff</p> <p>Service user &amp; stakeholder views (in depth data)</p> <p>Interviews with all delivery workers</p>	<p>Number of clients and support documented</p> <p>How and why being supported has made a difference (service users and stakeholder's views)</p> <p>Perspective of the delivery workers collected via interviews and learning logs</p> <p>Success of delivery worker roles</p>	<p>Evidence of changes in relation to:</p> <ul style="list-style-type: none"> <li>▪ Numbers of clients worked with</li> <li>▪ Support as a process</li> <li>▪ Types of support provided</li> <li>▪ Successful support</li> <li>▪ Referrals made</li> <li>▪ Pathways and any associated outcomes</li> </ul>

Theory of Change	Evaluation objective	Research methods	Areas of measurement	Indicators of success
<p><b>CHANGING THE ENVIRONMENT</b></p> <p>Interactions with clients, building positive relationships, providing support and linking to broader services (where appropriate) Working with services to improve health care provision to vulnerable communities.</p>	<p>To evaluate the intervention itself</p>	<p>Monitoring data</p> <p>Case study data</p> <p>Clients perspectives</p> <p>Stakeholder views, including delivery workers</p>	<p>How and why being supported has resulted in changes to the lives of the clients involved in the project</p> <p>Identification of positive changes in relationships with services (e.g. with Primary Health Care and more broadly)</p> <p>Changes in service uptake/usage patterns</p> <p>Changes in service delivery approaches/pathways</p>	<p>Evidence of changes in relation to:</p> <ul style="list-style-type: none"> <li>▪ Increased support (delivery workers)</li> <li>▪ Improved individual outcomes (self-reported health)</li> <li>▪ Referral pathways</li> <li>▪ Health service usage</li> </ul>

<b>Theory of Change</b>	<b>Evaluation objective</b>	<b>Research methods</b>	<b>Areas of measurement</b>	<b>Indicators of success</b>
<p><b>SERVICE USER OUTCOMES</b></p> <p>(a) Improved/changed relationships with services (intervention staff, and more broadly)</p> <p>(b) Improved knowledge and attitudes towards health services</p> <p>(c) Improvements in self-reported health</p>	To examine health outcomes	<p>Service user interviews/views</p> <p>Stakeholder interviews/views</p> <p>Case studies</p> <p>Questionnaire data (at baseline and follow-up)</p> <p>Monitoring data</p>	<p>Identification of types of individual positive outcomes (stakeholder and service user perspectives)</p> <p>Self-reported health improvements</p> <p>Case studies illustrating outcomes</p> <p>Types of engagement/service usage</p>	<p>Evidence of</p> <ul style="list-style-type: none"> <li>• Improved/changed pathways and support for clients</li> <li>• Improvements in self-related health (qualitative and quantitative evidence)</li> <li>• Increased knowledge and/or uptake of range of services</li> <li>• Increased understanding of how to engage with Primary Health Care appropriately</li> </ul>
<p><b>ORGANISATIONAL OUTCOMES</b></p> <p>(a) Learning from implementation e.g. improved understandings of how to work with these 4 population groups amongst professionals</p> <p>(b) Changes in the use of services</p>	To identify any recommendations and offer areas for consideration	<p>Delivery workers learning logs</p> <p>Monitoring data</p> <p>Stakeholder interviews</p> <p>Service user interviews</p> <p>Questionnaire data</p>	<p>Service delivery changes</p> <p>Perspectives/learning from the delivery partners</p> <p>Perspective of the service users</p> <p>Stakeholder views</p>	<p>Evidence of</p> <ul style="list-style-type: none"> <li>• Referral changes/increases</li> <li>• Differential usage of health services</li> <li>• Uptake/usage of other services</li> <li>• Lessons for practice/wider dissemination</li> </ul>

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<sup>i</sup> Wilcoxon signed rank test effect size ( $r$ ) was calculated using the Rosenthal's (1994) formula:  $r = Z/\sqrt{N}$

<sup>ii</sup> Wilcoxon signed rank test effect size ( $r$ ) was calculated using the Rosenthal's (1994) formula:  $r = Z/\sqrt{N}$

<sup>iii</sup> Three multivariate outlier cases had to be deleted (one from Chaplaincy and two from St. George's Crypt) due to a Cook distance higher than .1