

# Enhance programme learning and evaluation findings:

## Evaluation Questionnaire Analysis

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### 1. Introduction and overview

This document reports on the findings of a two-phase evaluation questionnaire completed by Enhance participants that assessed frailty risk (PRISMA-7), health related quality of life (PROMIS), demographic profile (age, gender, ethnicity) and long term health conditions (see Box 1). Participants completed a baseline questionnaire soon after they were referred to Enhance, and a follow up at various timepoints, or once the service ended. **Just under a third of Enhance participants completed a baseline (410), and 15% completed a follow up (190)** between June 2022 and December 2024. Data was cleaned, prepared and analysis was carried out with the assistance of statistical software SPSS.

#### **Box One: Overview of Enhance measures**

**PROMIS-GHS:** This measures self-reported health-related quality of life. It consists of ten questions designed to measure self-reported physical and mental health, with two additional questions measuring overall health and social health. There are four PROMIS-GHS questions that produce a Global Physical Health score and four that produce a Global Mental Health score (both with a maximum score of 20). Higher scores reflect a better level of functioning.

**PRISMA-7:** Program of Research to Integrate Services for the Maintenance of Autonomy is an instrument used to identify frailty in older adults. It contains 7 questions which have a yes/no response. A score 3 or more yes answers mean the person indicates an increased risk of frailty.

#### Reflections on the data

Enhance is reaching a particularly vulnerable population. Based on 156 valid PRISMA-7 responses – 88% (137) are classed as having a frailty risk. Nearly all (97.4%) have at least one long term condition; one third have 3 or more LTCs (based on 156 responses)<sup>1</sup>.

The follow up PROMIS-GHS responses return an improved score across all items, which suggests for those who completed the questionnaire at least, their mental and physical health functioning improved across the duration of receiving support through Enhance (statistical tests indicate that change across all items are significant at the 0.01 level). Measures based on social health show the most significant improvement – suggesting Enhance is particularly effective at

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<sup>1</sup> PRISMA-7 was only completed by participants from year 2 onwards, so number of completions are lower.

tackling isolation through increase social interaction. Though loneliness was not measured directly – participants frequently reported this outcome through qualitative fieldwork.

Across most physical and social health measures, those with reported mental health showed the most improved score across the two time-points.

Some delivery partners reported that either the health of some Enhance clients was progressive and had deteriorated during the support, and/or that they felt the follow up questionnaires were sometimes completed too soon to show the full benefits. This suggests that for some participants, we might capture an improved score if they were revisited, yet in other cases – progress may be halted or even reversed (due to the impact of progressive conditions).

The original intention was to carry out comparative analysis to explore differences based on ethnicity, and to compare those affected by frailty/long term conditions with those who do not. This is not possible due to the low number of those from ethnic minority backgrounds and the high proportion of those with frailty/long term conditions (i.e., the numbers are not high enough to robustly report on difference across these groups).

## 2. Survey Analysis

### Demographic characteristics

#### Age range

Table 1 provides an overview of the age range of 399 responses received. As can be seen, the majority of participants were aged 75 and over, at 63.9%, with 17.5% aged under 65 (a similar proportion to the main Enhance referrals, based on monitoring returns).

**Table 1: Age range**

Age range	Number	Percentage
Under 50	11	2.8
50-64	58	14.7
65-74	73	18.5
75-84	149	37.8
85 and offer	103	26.1
Totals		100

#### Gender

As can be seen in Table 2, respondents are more likely to be female than male (at 55% and 45% respectively). Based on monitoring returns this is very similar to the main Enhance participant cohort (at 57 and 43% respectively, based on data collected up to December 2023).

**Table 2: Gender**

Gender	Number	Percentage
Female	231	57.9
Male	168	42.1
Totals	399	100

#### Ethnicity

387 respondents provided information on their ethnicity, of which 88.6% described themselves as White UK (the number of participants in this category across the whole Enhance cohort is 89.2%). A full breakdown can be found in Table 3. To note, as the numbers are low we were unable to carry out a comparisons based on ethnic background.

**Table 3: Ethnicity**

Ethnic group	Number
White English/Scottish/Welsh/Northern Irish/UK	343
White Irish/White/Gypsy Roma Irish traveller	4

Black African/Caribbean	17
Other white background/mixed	8
Asian Indian/Pakistani	14
Mixed/other	1
Totals	387

## Health-related quality of life (PROMIS)

This section reports on responses to the PROMIS-GHS measure – beginning with an overview of responses to each question, followed by the global physical and mental health scores. A reminder that for each response a lower average (mean) score indicates a lower level of functioning.

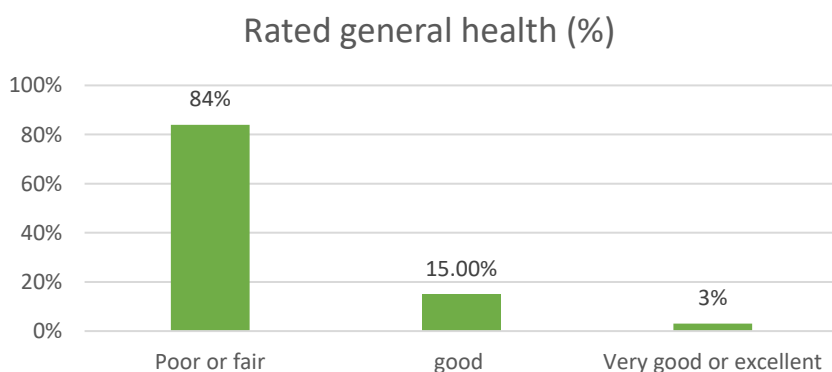
**Table 4: PROMIS-GHS summary of questions**

<b>Overall health and wellbeing questions</b>
In general, how would you rate your health?
How well do you carry out your social activities and roles?
<b>Physical health questions</b>
In general, how would you rate your physical health?
To what extent are you able to carry out your everyday physical activities such as walking, climbing stairs, carrying groceries or moving a chair?
In the past 7 days, how would you rate your fatigue on average?
Overall, in the past 7 days, how would you rate your pain?
<b>Mental health questions</b>
In general, how would you rate your satisfaction with your social activities and relationships?
In the past 7 days, how often have you been bothered by emotional problems such as feeling anxious, depressed, or irritable?
In general, how would you rate your mental health, including your mood and your ability to think?
In general, how would you rate your quality of life?

## Health in general

Of the 402 people who provided a response over three quarters (81%) described their health as either “fair” or “poor”. Only 2 described their health as “excellent”, 15.4% described it as “good” and 2.5% “very good” (Figure 1).

**Figure 1: Rated general health (percentage)**



Respondents aged under 50 were the most likely to report their general health as poor (at 72.7% though to note – only 11 respondents were under 50). No real difference was identified across other age groups or gender.

### Change in general health recorded in the follow up survey

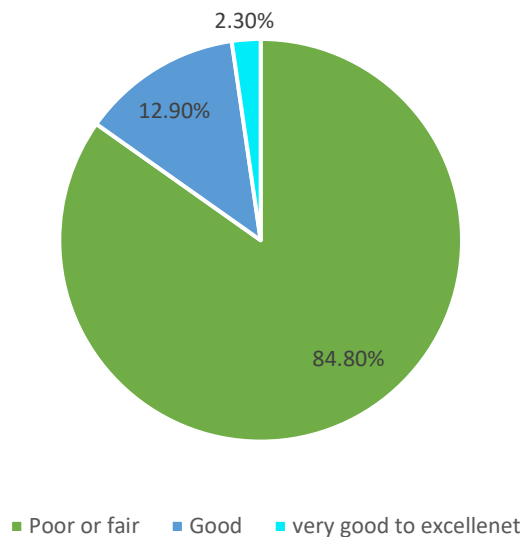
Of 189 valid responses provided in the follow up survey:

- Assessed general health increased from an average of 1.8 to 1.98 out of a possible 5 (a 10% increase)<sup>2</sup>.
- Respondents were 23.6% less likely to rate their general health as “poor” (40.2 down to 30.7) and a third more likely to rate it as “good” to “excellent” (from 17.9 to 23.8).

### Rating physical health overall

Based on 395 responses to the question ‘how would you rate your physical health’ 84.8% described their physical health as “poor” or “fair” Only two described their health as “excellent” and 51 as “good” (at 0.5 and 12.9% respectively).

**Figure 3: Rating of physical health (percentage)**



There is no assessed difference in score based on age group or ethnic group, with around half of men and women reporting that their physical health was “poor”.

### Change in physical health recorded in the follow up survey

Of 184 valid responses to the follow up survey:

- The assessed physical health functioning score increased from an average of 1.72 to 1.84 out of a possible 5, a 10% increase<sup>3</sup>.
- Respondents were 20% less likely to rate their physical health as “poor” (48.9% to 39.1%) – with more people rating it as “fair” (from 32.1 to 42.4%).

<sup>2</sup> Positive correlation is significant at the 0.01 level, n = 189, r = .660, Df = 187, (1 tailed, Pearson Correlation)

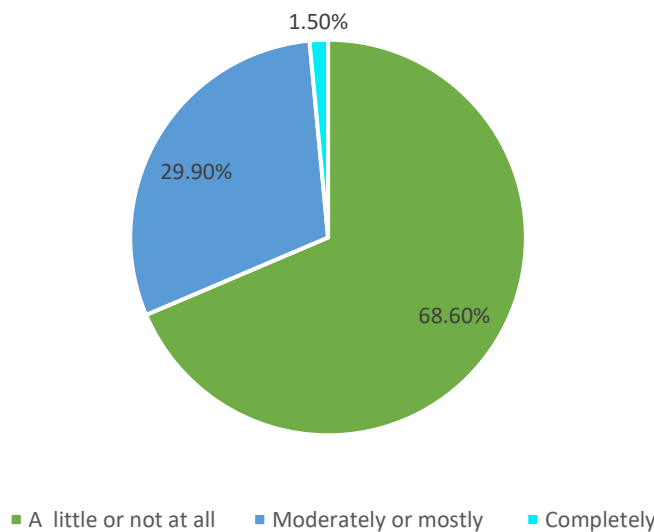
<sup>3</sup> Significant positive correlation at the 0.01 level, n = 184, r = .667, Df 182, (1 tailed, Pearson Correlation)

- Greater improvement was achieved for those who also reported that their mental health had improved (where the average score rose by 17.7%, n = 44).

### Ability to carry out every day physical activities

Of 401 respondents, 68.6% reported that they were only able to carry out every day physical activities either “a little” or “not at all”, with just over a fifth (21.2%) reporting “not at all”. Only 1.5% of Enhance respondents were able to “completely” carry out every day physical activities.

**Figure 4: Ability to carry out every day physical activities (percentage)**



When we consider scores by gender, women are slightly more likely to report their ability to carry out every day activities as “a little” or “not at all” - at 70%, compared to 66% for men. There was no identified difference by ethnicity or age (aside from those under 50, who were proportionally more likely to report less ability to carry out every day physical activities, with 10 out of 11 responses recording “a little” or “not at all”).

### Change in ability to carry out every day activities recorded in the follow up survey

Of 190 valid responses to the follow up survey:

- Assessed ability to carry out every day physical activities had increased from an average of 2.17 to 2.34 out of a possible 5, an increase of 8%<sup>4</sup>.
- Respondents were 21% less likely to report “not at all”.

### Rating of fatigue

Over a third (34.4%) of 395 respondents rated their fatigue as “severe” or “very severe”, with 16.9% rating it as “mild” or “none”. The most frequent response was “moderate”, which was reported by just under half (48.6%). There was no real difference by gender, though men were slightly less likely to rate their fatigue as ‘severe’ or ‘very severe’ (at 33.1% compared to 35.2% for women). There was no identified difference based on ethnic group.

<sup>4</sup> Significant positive correlation at the 0.01 level, N = 190 , r = .674, Df 188 (1 tailed, Pearson Correlation)

People aged under 65 were more likely to report their fatigue as being “severe” or “very severe” at 43% compared to 30% of people over 75.

### Change in fatigue ratings recorded in the follow up survey

Of 189 valid responses in the follow up survey:

- Respondents were less likely to report high fatigue levels (with the score rising from 2.76 to 2.96 out of a possible 5), an increase of 7%.<sup>5</sup>
- Rating of severe to very severe fatigue reduced 28% (34.4 to 24.8% from 56 to 47).

### Rating pain

42.7% of 388 respondents rated their pain in the range of 7-10 over the last 7 days, with 12.1% rating it at 9 or more).<sup>6</sup> Women were more likely than men to rate their pain between 7 and 10 (at 45.3%, the score for men was 39.3%).

### Change in pain rating recorded in the follow up survey

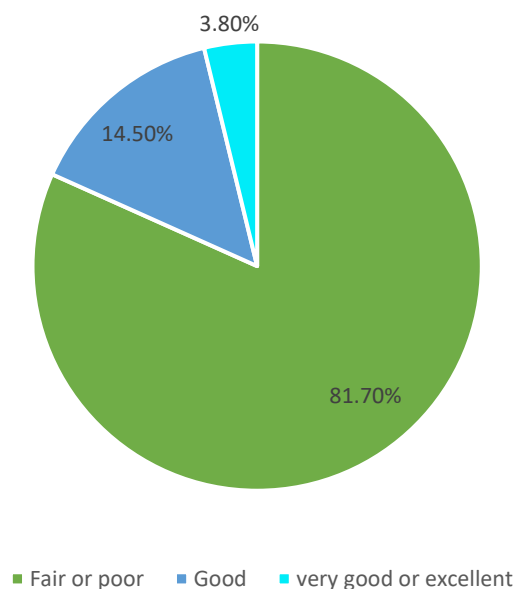
Of 179 valid responses from those who completed a follow up survey:<sup>7</sup>

- Those who scored pain at 7-10 reduced by 29% (43.7 to 31%),
- Respondents were 15% more likely to rate pain 5 or less (46.4 to 53.6%)

### Rating of social health

Over four fifths (81.7%) of the 400 respondents reported their ability to carry out usual social activities this as either “fair” or “poor”, with only 3.8% describing it as “very good” or “excellent”.

**Figure 8: Ability to carry out social activities (percentage)**



<sup>5</sup> Significant positive correlation at the 0.01 level, N = 189, r = .670, Df 187 (1 tailed, Pearson's correlation)

<sup>6</sup> The pain rating scores are recoded into 5 categories to calculate the global health score the full 10 score is considered here.

<sup>7</sup> Significant positive correlation at the 0.01 level, N = 179, r = .654, Df 177 (1 tailed, Pearson's Correlation)

Men were over a fifth more likely to report that their ability to carry out usual social activities was “fair” or “poor” (at 85.6%, compared to 70% of women). There was no real difference by ethnic group.

Those aged under 65 were the most likely to rate this item as “fair” to “poor” (at 88%). Across all age groups at least three quarters recorded a response of “poor” or “fair” (at 81% for 65-74, 74% 75-84, 81% over 85).

### Change in social health recorded in the follow up survey

Of 188 valid responses to the follow up survey:

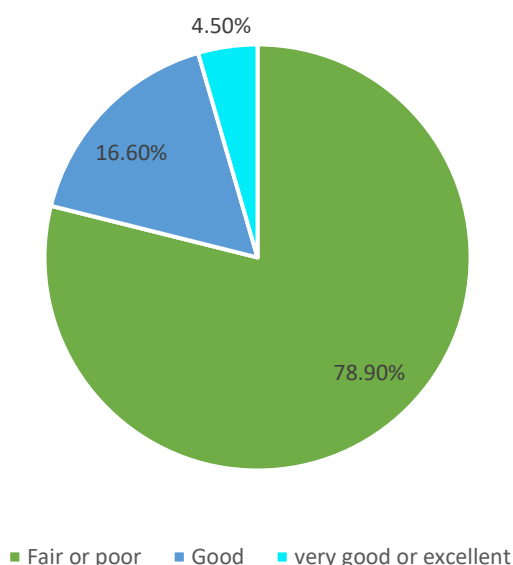
- The average score on ability to carry out social activities had increased from an average of 1.71 to 1.94 out of a possible 5, an increase of 13.5%<sup>8</sup>.
- Respondents were 27% less likely to rate usual as “poor” (46.8 to 34%) and 71% more likely to report “good” to “excellent” (14.9 to 25.5%).
- Those who recorded improved mental health showed a 19.6% decrease in assessing their ability to carry out social activities as “poor” or “fair” (compared to equivalent for those with no mental health improvement, at 9.1%).

### Rating satisfaction with social activities and relationships

Over three quarters of the 402 respondents (78.9%) rated satisfaction with social activities and relationships as “fair” or “poor”, with nearly half (48.3%) rating it as “poor”. Only 4.5% rated satisfaction with social activities as “very good” or “excellent”.

Considering age, again – those aged under 65 returned the lowest score, with 88% rating their satisfaction with social activities and relationship as “poor” or “fair”. Those aged over 75 were the least likely to report this (through three quarters still rated this as “poor” or “fair”).

**Figure 9: Satisfaction with social activities and relationships (percentage)**



<sup>8</sup> Significant positive correlation at the 0.01 level, N = 188 r = .612, Df 186 (1 tailed, Pearson's Correlation)

When gender is considered, women were less likely to rate their satisfaction with social activities and relationships as “poor”, compared to men (at 43.9%, compared to 54.7%).

### Change in satisfaction recorded in the follow up survey

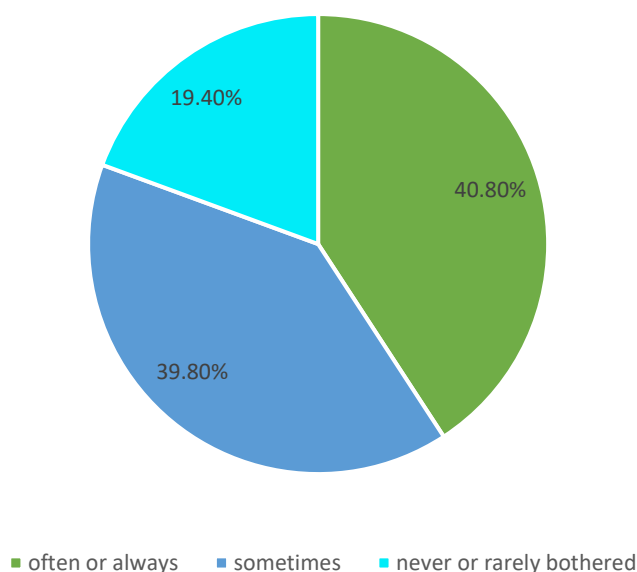
Of 189 valid responses to the follow up survey:

- The average score increased from 1.74 to 2.12 out of a possible 5. This showed the starkest increase across all variables, at 22%<sup>9</sup>.
- Respondents were 40% less likely to rate satisfaction as “poor” (50.8 to 30.2%) and 73% more likely to rate is as “good” or “excellent” (19 to 32.9%).
- Those who recorded an improved mental health score were 75% less likely to rate this item as poor at follow up (from 28 down to 7) and over a third (36.6%) less likely to rate it as poor or fair (from 41 to 26).
- The starkest change was for those under 65, which showed an average score increase between baseline and follow up of 38.9% (n = 32) (the percentage of those aged between 65-84 was 24.2%).
- Those over 85 showed the smallest increase, at 5.9% (n = 44). This indicates that Enhance participants aged over 85 are less likely to experience change in their social activities and relationships – though it should be noted that this age group had the highest mean score at baseline (at 1.84, compared to a scored of 1.78 for those aged 65-84 and 1.44 for those aged under 65). This indicates that those over 85 were more satisfied at the outset and therefore less likely to show change around this indicator.

### Experiencing emotional problems

Over four fifths (80.6%) of the 397 respondents reported that they were at least “sometimes” bothered by emotional problems such as feeling anxious, depressed, or irritable, with 40.8% experiencing this “often” or “always” (19.4% reported that were either “rarely” or “never” bothered).

**Figure 10: Bothered by emotional problems (percentage)**



<sup>9</sup> Significant positive correlation at the 0.01 level, N =189, r = .472, Df 187 (1 tailed, Pearson's Correlation)



Less than a fifth of respondents reported that they were “rarely” or “never” bothered by emotional problems (at 18.6% for men and 19.3% women). Men were more likely to say they were “often” or “always” bothered by emotional problems, at 43.7% compared to 38.6% of women.

### **Change in experiencing emotional problems recorded in the follow up survey**

Of 189 valid responses to the follow up survey:

- Respondents were less likely to report that they were bothered with emotional problems with the average score increasing from 2.72 to 2.97 out of a possible 5, an increase of 9%<sup>10</sup>.
- Respondents were 32% less likely to report that they were “always” bothered by emotional problems (8.5 down to 5.8) – and 41% less likely to report they were “often” or “always” bothered.

### **Rating of mental health**

Respondents were asked to rate their mental health, including mood and ability to think. Over three fifths of the 390 who provided a response (61.3%) rated their mental health as either “fair” or “poor”, with a quarter reporting it as “poor”. 27.2% rated their mental health as “good”, 11.6% rating their mental health as “very good” or “excellent”.

Women were less likely than men to rate their mental health as ‘fair’ or ‘poor’, at 59.3%, compared to 64.8% for men. No difference was identified by ethnic group.

Looking across age groups younger cohorts were more likely to rate their mental health as “fair” or “poor” – at 81% for those aged under 65. This compares to 51% of those aged over 85 and 71% for those aged 65-74 (and 56% of those aged 75-84).

### **Change in mental health recorded in the follow up survey**

Of 180 valid responses in the follow up survey:

- Respondents’ mental health score improved (with the average score increasing from 2.22 to 2.38 out of a possible 5, an increase of 7%)<sup>11</sup>.
- Respondents were 29% less likely to rate their mental health as “poor” (25 to 17.8%), and 13.4% more likely to rate it as “good” or “excellent.”

### **Rating quality of life**

The quality of life measure had a lower response rate than the other items, at 335. 69.3% respondents reported that their quality of life was either “poor” or “fair”. A quarter of Enhance participants assessed their quality of life as “good”. Only 5.1% of respondents described their quality of life as “very good” or “excellent” (with only 3 rating it as “excellent”).

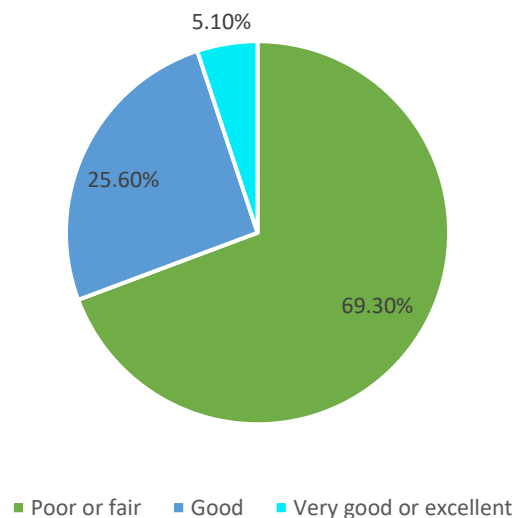
A high proportion of respondents aged under 65 (89%) rated their quality of life as either ‘fair’ or ‘poor’, this compares to 67% of those aged 65-74, 63% of those aged 75-84 and 68% of those aged 85 or over.

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<sup>10</sup> Significant positive correlation at the 0.01 level, N = 189 r = .609, Df 187 (1 tailed, Pearson’s Correlation)

<sup>11</sup> Significant positive correlation at the 0.01 level, n = 180, r = .661, Df 178 (1 tailed, Pearson’s Correlation)

**Figure 12: Reported quality of life**



### **Change in quality of life recorded in the follow up survey**

Of 157 valid responses to the follow up survey:

- Assessed quality of life increased from an average of 2.07 to 2.19 out of a possible 5, an increase of 5.8%<sup>12</sup>.
- Respondents were 28% less likely to rate quality of life as “poor” (27.4 down to 17.7), and 13% more likely to rate it as “good” to “excellent” (30.5 to 34.4).

### **PROMIS-GHS - Physical Health raw scores**

There are four PROMIS-GHS questions designed to produce a Global Physical Health score (each question scores a 5 for excellent and 1 for poor – with a maximum total raw score of 20). Respondents need to have answered all four questions for a score to be generated (where this is not the case – the respondent is excluded). Higher scores reflect a better level of functioning.

Based on 173 respondents who completed all 4 items for baseline and survey follow up:

- Rated physical health functioning increased from an average total score of 9.36 to 10.00 – a 6.8% increase (the median score increased from 9 to 10)<sup>13</sup>.
- The number of higher scores (14+) remains relatively small - constituting 11% for respondents at follow up, but this compares to a score of 5.9% for this cohort at baseline.
- A score of 10 or more increased from 46.2% to 57.2% of the sample.

This feels like a promising upward direction of travel, particularly considering the identified level of frailty of Enhance clients.

### **PROMIS-GHS - Mental Health raw scores**

Four PROMIS-GHS questions are used to measure Global Mental Health and generate a raw summed score. Higher scores reflect a better level of functioning, with a maximum of 20 points

<sup>12</sup> Significant positive correlation at the 0.01 level, n = 157, r = .568, Df 155 (1 tailed, Pearson’s Correlation)

<sup>13</sup> Significant positive correlation at the 0.01 level, N = 173, r = .786, DF 171 (1 tailed, Pearson Correlation)

possible. As with the raw mental health score, only participants who respond to all 4 questions are included in the analysis.

Based on 149 respondents who completed all 4 items for baseline and survey follow up questions:

- Respondents had a more pronounced higher average total score for mental health functioning when compared to physical health functioning, increasing from 8.95 to 9.82, an increase of just under 10% (9.7%)<sup>14</sup>.
- The proportion of higher scores (over 14) increasing from 5.3% at to 7.4% at follow up (a score of 10 or above increased from 38.3 to 52.3%).

## **Methodological overview**

A one-tailed test was used as it has higher power than a two-tailed test, and we have a strong reason to expect an effect in a positive direction (e.g., the mean score will increase following the Enhance intervention).

Data was analysed using IBM SPSS and the level of statistical significance chosen for this report is  $p \leq 0.01$ , that is, a statistically significant change is indicated by a probability value that is less than or equal to 0.01. In other words, we are 99 per cent confident that the changes reported here are not due to statistical error.

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<sup>14</sup> Significant positive correlation is significant at the 0.01 level, N = 149,  $r = .609$ , Df 147 (1 tailed, Pearson Correlation)