Technical Annexe to Chapter 6: Client outcomes data analysis

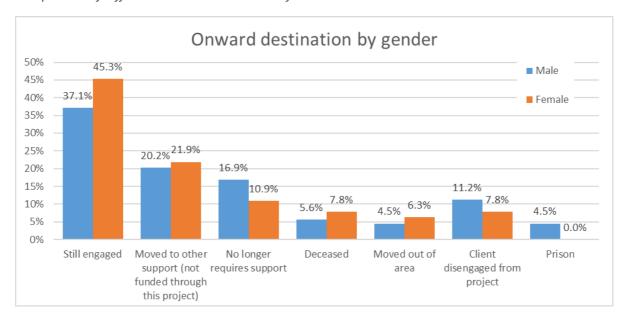
This document provides additional analyses to support the client outcomes data analysis reported in Chapter 6 of the Phase 5 Golden Key local evaluation report compiled by UWE, Bristol, July 2022.

1 Client demographic profile

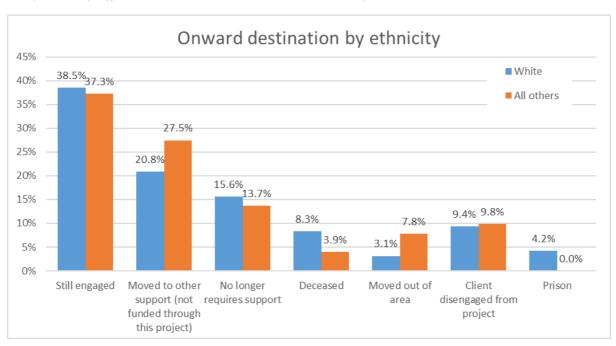


2 Onward destinations

Comparison of differences between male and female onward destinations



Comparison of differences between white and other ethnicity onward destinations



GK client engagement length in months (between first and last support action) by onward destination

Destination	Average engagement length
Still engaged with the project	3 years, 4 months
No longer requires support	2 years, 7 months
Moved to other support (not funded through project)	3 years, 4 months
Moved out of area	2 years, 7 months
Prison	3 years, 1 months
Deceased	2 years, 3 months
Client disengaged from project	2 years, 11 months

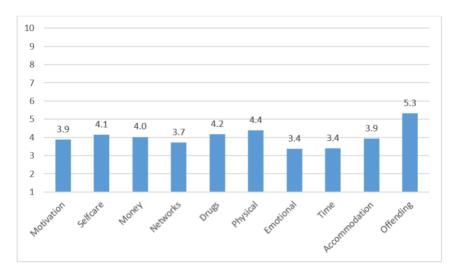
3 Exploring variability

3.1 Cohort 1: Overall level of client's need at start

3.1.1 Cohort 1: Defining the cohort groups

Identifying the cohorts: This analysis explores differences by the clients' level of need when they joined GK, using their first reported Outcome Star scores. To calculate this, the mean score across the whole cohort (n=141) was calculated (and rounded to one decimal place) for each Outcome Star indicator.





The difference between the mean and each client's score was calculated for each Outcome Star indicator and each individual. This gave a positive number for scores below mean average and a negative number for those above average. The number range in each indicator was between the mean-1 and 0 (1 being the minimum score).

Negative numbers were set to zero to prevent good scores in some indicators from masking poor scores in others. The scores for each client were then totalled, rounded, and normalised to a range 0-10 to give an indication of level of need and numbers inverted to reflect the Outcome Star score system (10 being the lowest level of need and 0 being the highest). Clients with scores between 0-5 identified as having the highest level of need, scores between 6-8 a medium level of need and scores 9-10 as the lowest level of need.

Distribution table of clients in three groups for cohort 1 (overall level of need)

		LEVEL OF NEED													
	Lov	vest		Medium	ı	Highest									
Score	10	9	8	7	6	5	4	3	2	1	0				
Number of clients	26	23	16	17	22	11	13	5	1	2	5				

Thirty-seven clients who scored between 5-0 were identified as having the highest level of need, 55 as medium, and 49 as having the lowest level of need.

3.1.2 Cohort 1: Demographic breakdown

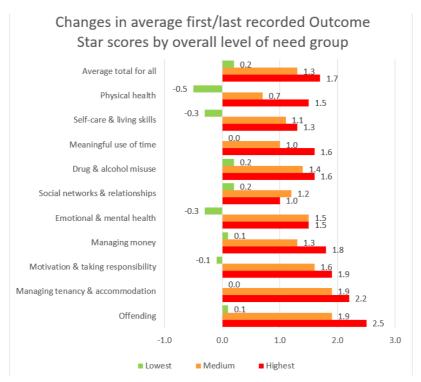
Broadly, the demographic characteristics are similar across the three levels of need (high, medium, low). However, there are substantially more men in the high level need group than women and a higher proportion of other ethnicities in the medium level of need group. There are a total of 141 clients in this cohort, 82 = male, 58 = female, 1 = transgender.

Client's overall level of need by demographic characteristics (where disclosed/data available)

	HIGH (n= 37)	MEDIUM (n= 55)	LOW (n= 49)
Male	76% (28)	49% (27)	55% (27)
Female	24% (9)	51% (28)	43% (21)
White: British	62% (23)	56% (31)	67% (33)
Black/Black British: African	11% (4)	11% (6)	4% (2)
White: Other	-	11% (6)	2% (1)
Black/Black British: Caribbean	3% (1)	9% (5)	-
Mixed: White & Black Caribbean	3% (1)	4% (2)	4% (2)
Asian/Asian British: Other	3% (1)	2% (1)	4% (2)
Mixed: Other	3% (1)	2% (1)	4% (2)
Gypsy/Irish Traveller	3% (1)	2% (1)	2% (1)
Black/Black British: Other	3% (1)	-	4% (2)
White: Irish	5% (2)	-	-
Asian/Asian British: Indian	3% (1)	-	-
Don't know	3% (1)	2% (1)	6% (3)
Did not wish to disclose	-	2% (1)	2% (1)
Disabled - long term sick/disabled	43% (16)	42% (23)	39% (19)
Average age	42	43	40
Age range	24-63	23-68	23-67

3.1.3 Cohort 1: Differences in Outcome Star changes between the cohort groups

Cohort 1 changes in clients' average first/last Outcome Star scores



3.2 Cohort 2: level of engagement with GK

3.2.1 Cohort 2: Defining the cohort groups

Data was collected for each GK client on the number of support 'actions' by a GK Service Coordinator. This section of the analysis focused on actions only where the client was included; and excluded the Service Coordinator actions which did not involve the client. This analysis did not account for the time/intensity of the actions. Communication with the client could have been face to face, a phone call, an email, by letter, text, or fax. The average number of actions across the cohort was 136 where the client was involved.

Cohort 2 grouped clients by highest, medium and lowest level of engagement with GK

		Client engagement												
	Lowest	Medium	Highest											
Number of actions	0-136	137-200	201-300	301-400	401-500	600+								
Number of clients	84	21	25	8	2	1								

3.2.2 Cohort 2: Demographic breakdown

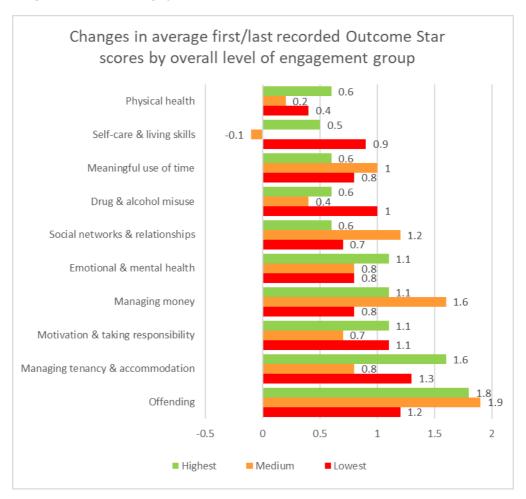
Total of 141 clients in this cohort, 82 = male, 58 = female, 1 = transgender.

Client's level of engagement by demographic characteristics (where disclosed/data available)

	HIGHEST (n= 28)	MEDIUM (n= 41)	LOWEST (n= 72)
Male	57% (16)	66% (27)	54% (39)
Female	39% (11)	34% (14)	46% (33)
White: British	61% (17)	46% (19)	71% (51)
Black/Black British: African	11% (3)	12% (5)	19% (4)
White: Other	7% (2)	7% (3)	3% (2)
Black/Black British: Caribbean	4% (1)	2% (1)	6% (4)
Mixed: White & Black Caribbean	4% (1)	2% (1)	4% (3)
Asian/Asian British: Other	11% (3)	-	1% (1)
Mixed: Other	-	2% (1)	4% (3)
Gypsy/Irish Traveller	-	5% (2)	2% (1)
Black/Black British: Other	-	7% (3)	-
White: Irish	-	5% (2)	-
Asian/Asian British: Indian	-	-	1% (1)
Don't know	4% (1)	7% (3)	1% (1)
Did not wish to disclose	-	2% (1)	1% (1)
Disabled - long term sick/disabled	21% (6)	49% (20)	44% (32)
Average age	39	42	43
Age range	24-68	23-63	23-67

3.2.3 Cohort 2: Differences in Outcome Star changes between the level of engagement cohort groups

Cohort 2 changes in clients' average first/last Outcome Star scores



3.3 Cohort 3: Level of joint GK and other service involvement

3.3.1 Cohort 3: Defining the cohort groups

This section of the analysis focused on the number of activities for each client where a *professional or related agency was involved*; this could be communication between a service and the service coordinator, or a multi-agency meeting. Data does not account for the time/intensity of that involvement. The client is not necessarily involved in the action directly.

For the 141 clients included in the analysis, a total number of 21,896 actions were recorded by professionals. The highest number of actions for a single client was 875, the lowest was one. The average across the cohort was 158 actions by a professional. 89 clients had an average or lower number of actions from a professional (between 0-158). 52 clients were recorded as having above the number of average actions from professionals (between 159-875).

Grouped clients by highest, medium and lowest level of engagement with joint GK and other service support (cohort 3)

	Service involvement													
	Lowest	Medium		Highest										
Number of actions	0-158	159-200	201- 300	301- 400	401- 500	501- 600	601- 700	701- 800	800+					
Number of clients	89	13	22	8	4	2	1	1	1					

3.3.2 Cohort 3: Demographic breakdown

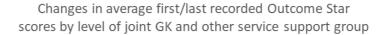
Total of 140 clients in this cohort, 82 = male, 58 = female, 1 = transgender.

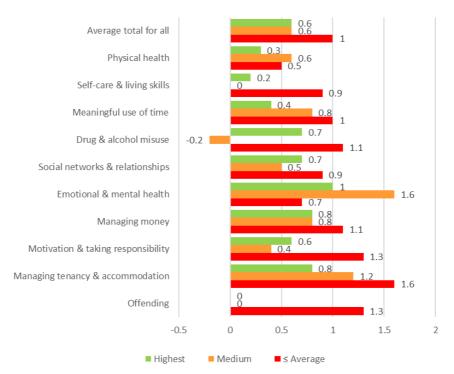
Demographic breakdowns for cohort 3

	HIGH (n= 39)	MEDIUM (n= 12)	LOW (n=90)
Male	44% (17)	50% (6)	66% (59)
Female	56% (22)	50% (6)	33% (30)
Transgender	-	-	1% (1)
White: British	59% (23)	83% (10)	60% (54)
Black/Black British: African	8% (3)	8% (1)	9% (8)
White: Other	5% (2)	-	6% (5)
Black/Black British: Caribbean	5% (2)	-	4% (4)
Mixed: White & Black Caribbean	-	-	6% (5)
Asian/Asian British: Other	5% (2)	-	2% (2)
Mixed: Other	5% (2)	-	2% (2)
Gypsy/Irish Traveller	5% (2)	-	1% (1)
Black/Black British: Other	-	8% (1)	2% (2)
White: Irish	3% (1)	-	1% (1)
Asian/Asian British: Indian	3% (1)	-	-
Don't know	-	-	6% (5)
Did not wish to disclose	3% (1)	-	1% (1)
Disabled - long term sick/disabled	62% (24)	33% (4)	33% (30)
Average age	43	39	41
Age range	23-62	24-55	23-68

3.3.3 Cohort 3: Outcome star assessment and change

Changes in clients' average first/last Outcome Star scores by level of engagement with joint GK and other service support group (cohort 3)





3.4 Cohort 4: Prior engagement with services

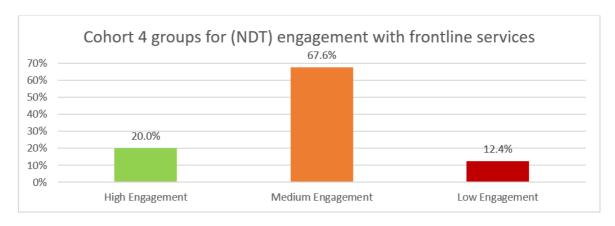
3.4.1 Cohort 4: Defining the cohort groups

To categorise the groups, we used the clients' first NDT assessment scores for 'engagement with frontline services' as follows:

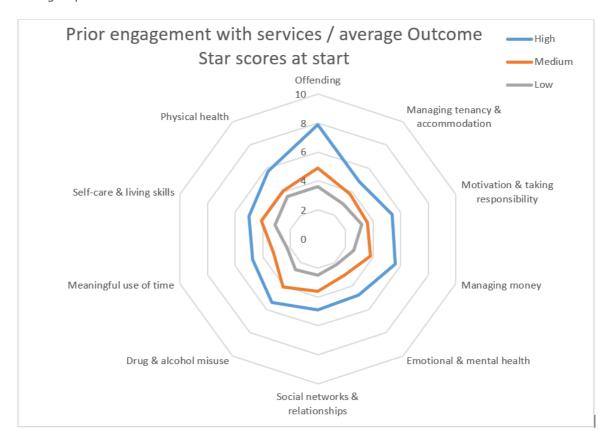
- 1. High engagement (NDT scores 0 & 1)
- 2. Medium engagement (NDT scores 2 & 3)
- 3. Low engagement (NDT score 4)

Of the 145 clients, 29 had high engagement, 98 medium engagement, and 18 low engagement.

Cohort 4 groups for engagement with frontline services (from NDT scores)



Average first Outcome Star assessment scores for prior engagement with services (from NDT scores) cohort 4 groups



3.4.2 Cohort 4: Demographic breakdown

Total of 135 clients in this cohort, 82 = male, 58 = female, 1 = transgender.

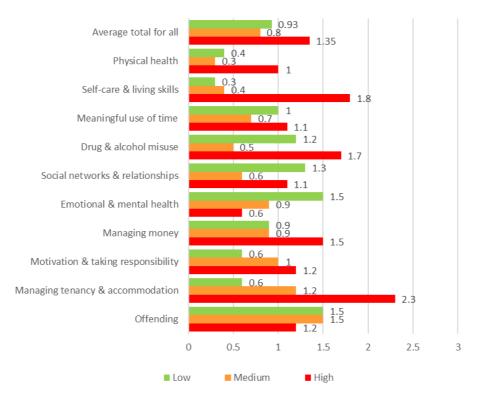
Demographic breakdowns for cohort 4

	HIGH (n= 28)	MEDIUM (n= 96)	LOW (n=17)
Male	57% (16)	61% (59)	41% (7)
Female	39% (11)	39% (37)	59% (10)
Transgender	4% (1)	-	-
White: British	61% (17)	61% (59)	65% (11)
Black/Black British: African	11% (3)	8% (8)	6% (1)
White: Other	7% (2)	3% (3)	12% (2)
Black/Black British: Caribbean	4% (1)	3% (3)	12% (2)
Mixed: White & Black Caribbean	4% (1)	4% (4)	-
Asian/Asian British: Other	11% (3)	1% (1)	-
Mixed: Other	-	4% (4)	-
Gypsy/Irish Traveller	-	3% (3)	-
Black/Black British: Other	-	3% (3)	-
White: Irish	-	2% (2)	-
Asian/Asian British: Indian	-	1% (1)	-
Don't know	4% (1)	3% (3)	6% (1)
Did not wish to disclose	-	2% (2)	-
Disabled - long term sick/disabled	18% (5)	48% (46)	35% (6)
Average age	39	42	42
Age range	24-68	23-67	25-60

3.4.3 Cohort 4: Differences in Outcome Star change between the cohort groups

Changes average first/last Outcome Star scores by prior engagement with services (cohort 4)





3.5 Cohort 5: Onward destination

3.5.1 Cohort 5: Defining the cohort groups

Data for destinations of all clients when they are no longer supported by GK is defined and captured by the programme with categories set by the national evaluation. :

Onward destination reasons and local evaluation assigned positive/negative/other categories

Onward destination reason	Local evaluation assigned positive or negative/other
No longer requires support	Positive
Moved to other support	Positive
Moved out of area	Other
Prison	Negative
Deceased	Negative
Client disengaged from project	Negative
Hospital (none in this category recorded by GK)	n/a
Excluded from the project (none in this category recorded by GK)	
Unknown (none in this category recorded by GK)	

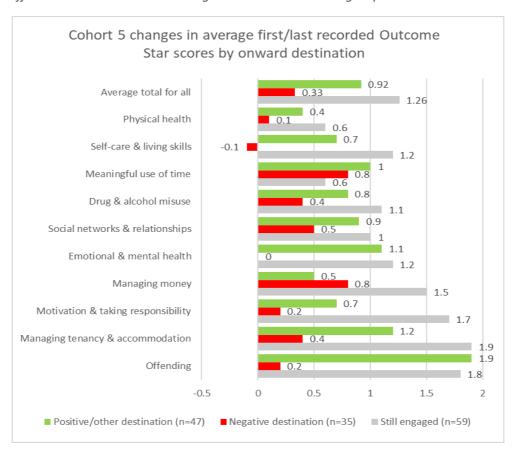
3.5.2 Cohort 5: Demographic breakdown

Demographic breakdowns for cohort 5

	Still engaged (n= 59)	Disengaged negative/other reasons (n= 35)	Disengaged positive reasons (n=47)
Male	53% (31)	60% (21)	64% (30)
Female	46% (27)	40% (14)	36% (17)
Transgender	1% (1)	-	-
White: British	61% (36)	60% (21)	64% (30)
Black/Black British: African	5% (3)	14% (5)	9% (4)
White: Other	-	-	9% (4)
Black/Black British: Caribbean	5% (3)	9% (3)	-
Mixed: White & Black Caribbean	3% (2)	3% (1)	4% (2)
Asian/Asian British: Other	5% (3)	3% (1)	-
Mixed: Other	1% (1)	-	6% (3)
Gypsy/Irish Traveller	1% (1)	-	4% (2)
Black/Black British: Other	3% (2)	-	2% (1)
White: Irish	5% (3)	6% (2)	-
Asian/Asian British: Indian	1% (1)	-	-
Don't know	3% (2)	6% (2)	2% (1)
Did not wish to disclose	3% (2)	-	-
Disabled - long term sick/disabled	39% (23)	40% (14)	45% (21)
Average age	42	40	42
Age range	23-67	23-59	24-68

3.5.3 Cohort 5: Differences in Outcome Star changes between the cohort groups

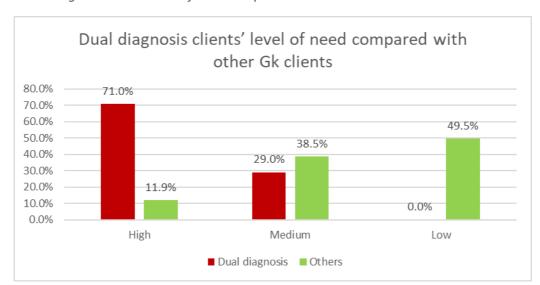
Cohort 5: Differences in Outcome Star changes between the cohort groups



3.6 Cohort 6: Dual diagnosis (substance misuse and mental health needs)

3.6.1 Cohort 6: Defining the cohort groups

To identify these clients, we used clients first Outcome Star assessment scores. Those in the dual diagnosis group had who scored 1 or 2 (the 'stuck' stage in the 'journey of change') at the first assessment for 'Drug and alcohol misuse' and 'Emotional and mental health'. Of the 141 clients OS scores, a total of 31 (21.9%) were 'stuck' (OS score 1-2) at start for 'drug and alcohol misuse' PLUS 'stuck' (OS score 1-2) at start for 'emotional and mental health'.



Cohort 6: Dual diagnosis clients level of need compared with other GK clients

3.6.2 Cohort 6: Demographic breakdown

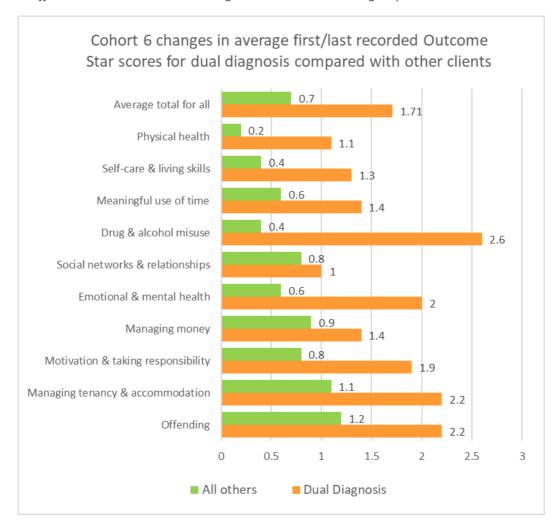
70.9% of the 31 clients were male (n=22), and 29% female (n=9). 58.1% were White British or White other (n=18). Clients classified as 'dual diagnosis' are compared with the rest of the cohort below.

Demographic breakdowns for cohort 6

	Dual diagnosis (n= 31)	All others (n=110)
Male	74% (23)	54% (59)
Female	26% (8)	45% (50)
Transgender	-	1% (1)
White: British	55% (17)	64% (70)
Black/Black British: African	10% (3)	8% (9)
White: Other	-	5% (6)
Black/Black British: Caribbean	10% (3)	3% (3)
Mixed: White & Black Caribbean	3% (1)	4% (4)
Asian/Asian British: Other	3% (1)	3% (3)
Mixed: Other	-	4% (4)
Gypsy/Irish Traveller	3% (1)	2% (2)
Black/Black British: Other	3% (1)	2% (2)
White: Irish	-	2% (2)
Asian/Asian British: Indian	3% (1)	-
Don't know	6% (2)	3% (3)
Did not wish to disclose	-	2% (2)
Disabled - long term sick/disabled	45% (14)	40% (44)
Average age	42	42
Age range	24-67	23-68

3.6.3 Cohort 6: Differences in Outcome Star changes between the cohort groups

Cohort 6: Differences in Outcome Star changes between the cohort groups



COMPARING EACH OUTCOME STAR AREA ACROSS ALL COHORT GROUPS

This table shows all of the cohort groups and uses colour conditional formatting (red negative/lower scores, green positive/higher scores) to compare scores across each Outcome Star area.

So, for example, the colours highlight which cohort group had the highest and lowest score within the Offending area - we can see that those with high overall need levels and dual diagnosis clients made the most progress in Offending OS scores.

Comparing each Outcome Star area across all cohort groups

	GK all	СОНО	ORT 1: 0	verall	СОНС	RT 2: Le	vel of	СОНС	RT 3: Le	vel of	СОН	ORT 4: F	Prior	СОН	ORT 5: Onv	COHORT 6: Dual		
	clients	level o	of need a	t start	engag	ement w	ith GK	joint GK & other		engagement with			destination			diagnosis		
								service support		services								
Outcome Star area		High	Med	Low	Low	Med	High	Low	Med	High	Low	Med	High	Negative	Positive/	Still	Dual	All others
															other	engaged	Diagnosis	
Cohort size (n)		37	55	49	72	41	28	90	12	39	17	96	28	35	47	59	31	110
Offending	1.4	2.5	1.9	0.1	1.2	1.9	1.8	1.3	0	0	1.5	1.5	1.2	0.2	1.9	1.8	2.2	1.2
Managing tenancy & accom.	1.3	2.2	1.9	0	1.3	0.8	1.6	1.6	1.2	0.8	0.6	1.2	2.3	0.4	1.2	1.9	2.2	1.1
Motivation & taking responsibility	1	1.9	1.6	-0.1	1.1	0.7	1.1	1.3	0.4	0.6	0.6	1	1.2	0.2	0.7	1.7	1.9	0.8
Managing money	1	1.8	1.3	0.1	0.8	1.6	1.1	1.1	0.8	0.8	0.9	0.9	1.5	0.8	0.5	1.5	1.4	0.9
Emotional & mental health	0.9	1.5	1.5	-0.3	0.8	0.8	1.1	0.7	1.6	1	1.5	0.9	0.6	0	1.1	1.2	2	0.6
Social networks & relationships	0.8	1	1.2	0.2	0.7	1.2	0.6	0.9	0.5	0.7	1.3	0.6	1.1	0.5	0.9	1	1	0.8
Drug & alcohol misuse	0.8	1.6	1.4	0.2	1	0.4	0.6	1.1	-0.2	0.7	1.2	0.5	1.7	0.4	0.8	1.1	2.6	0.4
Meaningful use of time	0.8	1.6	1	0	0.8	1	0.6	1	0.8	0.4	1	0.7	1.1	0.8	1	0.6	1.4	0.6
Self-care & living skills	0.7	1.3	1.1	-0.3	0.9	-0.1	0.5	0.9	0	0.2	0.3	0.4	1.8	-0.1	0.7	1.2	1.3	0.4
Physical health	0.4	1.5	0.7	-0.5	0.4	0.2	0.6	0.5	0.6	0.3	0.4	0.3	1	0.1	0.4	0.6	1.1	0.2
Average total for all areas		1.7	1.3	0.2	0.9	0.9	0.9	1	0.6	0.6	0.93	0.8	1.35	0.33	0.92	1.26	1.71	0.7

COMPARING ALL OUTCOME STAR CHANGE WITHIN EACH COHORT

This table shows all of the cohort groups and uses colour conditional formatting (red negative/lower scores, green positive/higher scores) to compare scores within each cohort (i.e. between the groups across the whole cohort).

So, for example, within Cohort 1, the colour highlights that those who made the most progress were clients with high overall need levels and most positive change was seen in Offending and Housing scores. Clients who made the least progress in Cohort 1 were those with low needs and they saw worsened outcomes in their Physical health, Self care and living skills and Emotional & mental health scores.

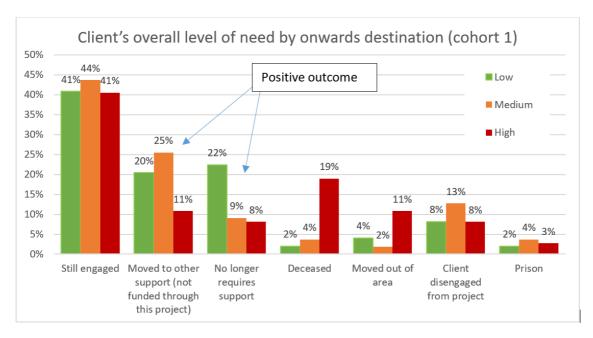
Comparing all Outcome Star change within each cohort

	GK all	COHORT 1: Overall			COHORT 2: Level of			COHORT 3: Level of			COHORT 4: Prior			COHORT 5: Onward			COHORT 6: Dual	
	clients	level of need at start			engagement with GK			joint GK and other			engagement with			destination			diagnosis	
								service support			services							
Outcome Star area		High	Med	Low	Low	Med	High	Low	Med	High	Low	Med	High	Negative	Positive/	Still	Dual	All
															other	engaged	Diagnosi	others
Cohort size (n)		37	55	49	72	41	28	90	12	39	17	96	28	35	47	59	31	110
Offending	1.4	2.5	1.9	0.1	1.2	1.9	1.8	1.3	0	0	1.5	1.5	1.2	0.2	1.9	1.8	2.2	1.2
Managing tenancy & accom.	1.3	2.2	1.9	0	1.3	0.8	1.6	1.6	1.2	0.8	0.6	1.2	2.3	0.4	1.2	1.9	2.2	1.1
Motivation & taking responsibility	1	1.9	1.6	-0.1	1.1	0.7	1.1	1.3	0.4	0.6	0.6	1	1.2	0.2	0.7	1.7	1.9	0.8
Managing money	1	1.8	1.3	0.1	0.8	1.6	1.1	1.1	0.8	0.8	0.9	0.9	1.5	0.8	0.5	1.5	1.4	0.9
Emotional & mental health	0.9	1.5	1.5	-0.3	0.8	0.8	1.1	0.7	1.6	1	1.5	0.9	0.6	0	1.1	1.2	2	0.6
Social networks & relationships	0.8	1	1.2	0.2	0.7	1.2	0.6	0.9	0.5	0.7	1.3	0.6	1.1	0.5	0.9	1	1	0.8
Drug & alcohol misuse	0.8	1.6	1.4	0.2	1	0.4	0.6	1.1	-0.2	0.7	1.2	0.5	1.7	0.4	0.8	1.1	2.6	0.4
Meaningful use of time	0.8	1.6	1	0	0.8	1	0.6	1	0.8	0.4	1	0.7	1.1	0.8	1	0.6	1.4	0.6
Self-care & living skills	0.7	1.3	1.1	-0.3	0.9	-0.1	0.5	0.9	0	0.2	0.3	0.4	1.8	-0.1	0.7	1.2	1.3	0.4
Physical health	0.4	1.5	0.7	-0.5	0.4	0.2	0.6	0.5	0.6	0.3	0.4	0.3	1	0.1	0.4	0.6	1.1	0.2
Average total for all areas		1.7	1.3	0.2	0.9	0.9	0.9	1	0.6	0.6	0.93	0.8	1.35	0.33	0.92	1.26	1.71	0.7

4 Onward Destinations of cohort groups 1-6

4.1 Cohort 1: Onward destination differences between the overall level of need at start cohort groups

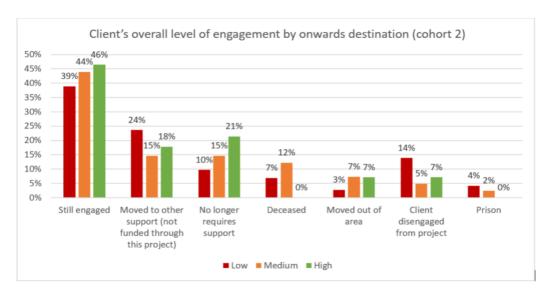
Client's overall level of need by onwards destination (cohort 1)



4.2 Cohort 2: Onward destination differences between the level of engagement cohort groups

Clients who had the lowest levels of engagement with GK were less likely to no longer require support, have moved away from Bristol, or to have died, and slightly less likely to be still engaged. Those who had engaged least, were also more likely to have moved on to support elsewhere, gone to prison, or to have disengaged from the project.

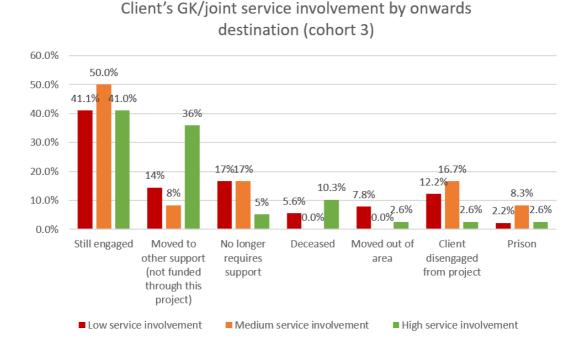




4.3 Cohort 3: Onward destination differences between the GK/joint service involvement cohort groups

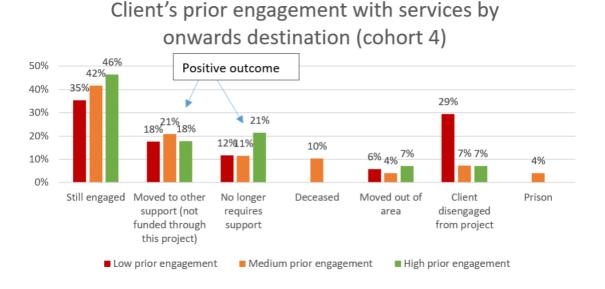
No clients who had the highest levels of engagement were closed due to being deceased. Unsurprisingly, a higher proportion of clients who disengaged were in the group with the lowest levels of engagement. Clients with the highest level of engagement were more likely to no longer require support (21%, compared with 15% of medium engagers and 10% of the lowest engagers). Clients with the highest engagement were more likely to move on to other support than those with medium or low engagement.

Client's GK/joint service involvement by onwards destination (cohort 3)



4.4 Cohort 4: Onward destination differences between the prior engagement with services cohort groups

Client's prior engagement with services by onwards destination (cohort 4)



4.5 Cohort 5: Onward destination differences for the onward destination cohort groups

Not applicable.

4.6 Cohort 6: Onward destination differences between clients with dual diagnosis and other GK clients

Clients in the dual diagnosis group whose case was closed, were less likely to be recorded with a positive onwards destination, and more likely to have disengaged or moved away from Bristol.