

## Section 2

### Demographics

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### Demographics

There were 37 people with blood cancer that took part in this study, 17 were females (45.95%). Participants were aged from 25 to over 75 years of age, most were aged between 55 to 74 years (n=26, 70.27%).

Participants were most commonly from Queensland (n=10, 27.03%), Victoria (n=8, 21.62%), and New South Wales (n=6, 16.22%). Most participants were from major cities (n=21, 56.76%), and they lived in all levels of advantage, defined by Socio-economic Indexes for Areas (SEIFA) ([www.abs.gov.au](http://www.abs.gov.au)) with 20 participants (54.05%) from an area with a high SEIFA score of 7 to 10 (more advantage), and 17 participants (45.95%) from an area of mid to low SEIFA scores of 1 to 6 (less advantaged).

### Other health conditions

Participants were asked about health conditions, other than blood cancer that they had to manage. Participants could choose from a list of common health conditions and could specify other conditions.

The majority of participants had at least one other condition that they had to manage (n=31, 83.78%), the maximum number reported was 10 other conditions, with a median of 3.00 other conditions (IQR = 4.00). The most commonly reported health condition was sleep problems or insomnia (n=24, 64.86%), followed by back pain (n=16, 43.24%), anxiety (n=14, 37.84%), and arthritis (n=10, 27.03%).

### Baseline health

**SF36 Physical functioning** scale measures health limitations in physical activities such as walking, bending, climbing stairs, exercise, and housework. On average, physical activities were slightly limited for participants in this study.

**SF36 Role functioning/physical** scale measures how physical health interferes with work or other activities. On average, physical health sometimes interfered with work or other activities for participants in this study.

**SF36 Role functioning/emotional** scale measures how emotional problems interfere with work or other activities. On average, emotional problems never interfered with work or other activities for participants in this study.

**SF36 Energy/fatigue** scale measures the proportion of energy or fatigue experienced. On average, participants were sometimes fatigued.

**The SF36 Emotional well-being** scale measures how a person feels, for example happy, calm, depressed or anxious. On average, participants had good emotional well-being.

The **SF36 Social functioning** scale measures limitations on social activities due to physical or emotional problems. On average, social activities were slightly limited for participants in this study.

The **SF36 Pain** scale measures how much pain, and how pain interferes with work and other activities. On average, participants had mild pain.

The **SF36 General health** scale measures perception of health. On average, participants reported average health.

The **SF36 Health change** scale measures health compared to a year ago. On average, participants reported that their health is better now compared to a year ago.

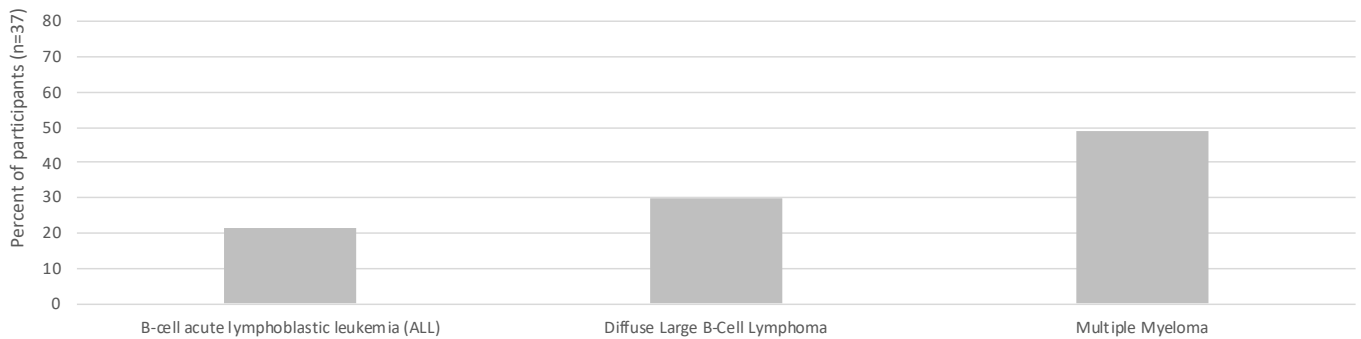
## Participants

There were 37 people with CAR-T treatable blood cancers who took part in this study. There were 8 participants (21.62%) with B-cell acute lymphoblastic

leukemia (ALL), 11 participants (29.73%) with Diffuse Large B-Cell Lymphoma and 18 (48.65%) with multiple myeloma.

**Table 2.1: Participants**

Participants and diagnosis	Number (n=37)	Percent
B-cell acute lymphoblastic leukemia (ALL)	8	21.62
Diffuse Large B-Cell Lymphoma	11	29.73
Multiple Myeloma	18	48.65



**Figure 2.1: Participants**

## Demographics

There were 37 people with CAR-T treatable blood cancer that took part in this study, 17 were females (45.95%). Participants were aged from 25 to over 75 years of age, most were aged between 55 to 74 years (n=26, 70.27%).

Participants were most commonly from Queensland (n=10, 27.03%), Victoria (n=8, 21.62%), and New South

Wales (n=6, 16.22%). Most participants were from major cities (n=21, 56.76%), and they lived in all levels of advantage, defined by Socio-economic Indexes for Areas (SEIFA) ([www.abs.gov.au](http://www.abs.gov.au)) with 20 participants (54.05%) from an area with a high SEIFA score of 7 to 10 (more advantage), and 17 participants (45.95%) from an area of mid to low SEIFA scores of 1 to 6 (less advantaged).

**Table 2.2: Demographics**

Demographics	Definition	Number (n=37)	Percent
Gender	Female	17	45.95
	Male	20	54.05
Age	25 - 34	1	2.70
	35 - 44	1	2.70
	45 - 54	7	18.92
	55 - 64	13	35.14
	65 - 74	13	35.14
	75+	2	5.41
	Location	Major Cities of Australia	21
Inner Regional Australia		8	21.62
Outer Regional Australia		6	16.22
Remote Australia		2	5.41
Australian Capital Territory		2	5.41
State	New South Wales	6	16.22
	Northern Territory	1	2.70
	Queensland	10	27.03
	South Australia	3	8.11
	Tasmania	3	8.11
	Victoria	8	21.62
	Western Australia	4	10.81
Socio-Economic Indexes for Areas (SEIFA)	1	2	5.41
	2	4	10.81
	3	2	5.41
	4	4	10.81
	5	4	10.81
	6	1	2.70
	7	6	16.22
	8	3	8.11
	9	5	13.51
	10	6	16.22
Race/ethnicity	Caucasian/White	32	86.49
	Other	3	8.11

## Other health conditions

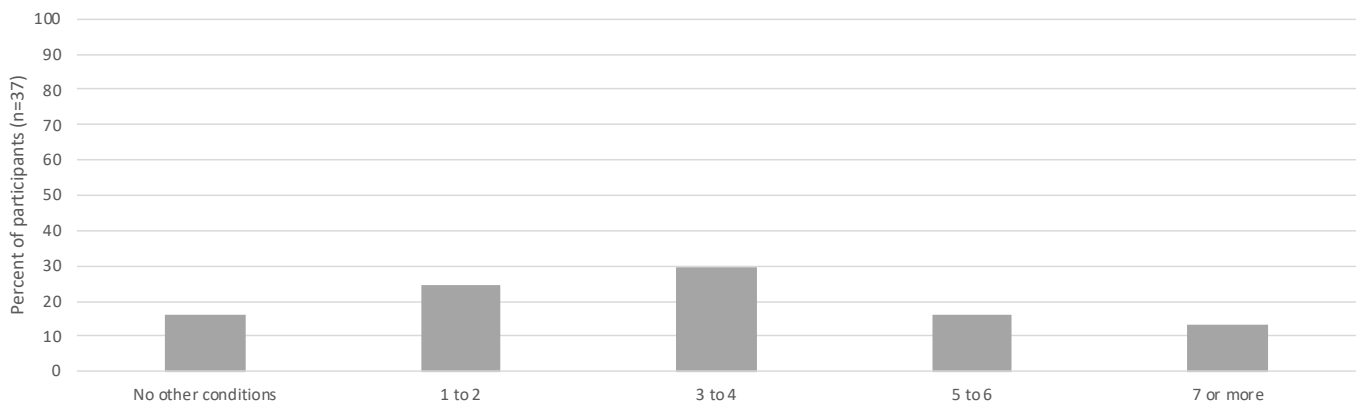
Participants were asked about health conditions, other than blood cancer that they had to manage. Participants could choose from a list of common health conditions and could specify other conditions.

The majority of participants had at least one other condition that they had to manage (n=31, 83.78%), the

maximum number reported was 10 other conditions, with a median of 3.00 other conditions (IQR = 4.00). The most commonly reported health condition was sleep problems or insomnia (n=24, 64.86%), followed by back pain (n=16, 43.24%), anxiety (n=14, 37.84%), and arthritis (n=10, 27.03%).

**Table 2.3: Number of other health conditions**

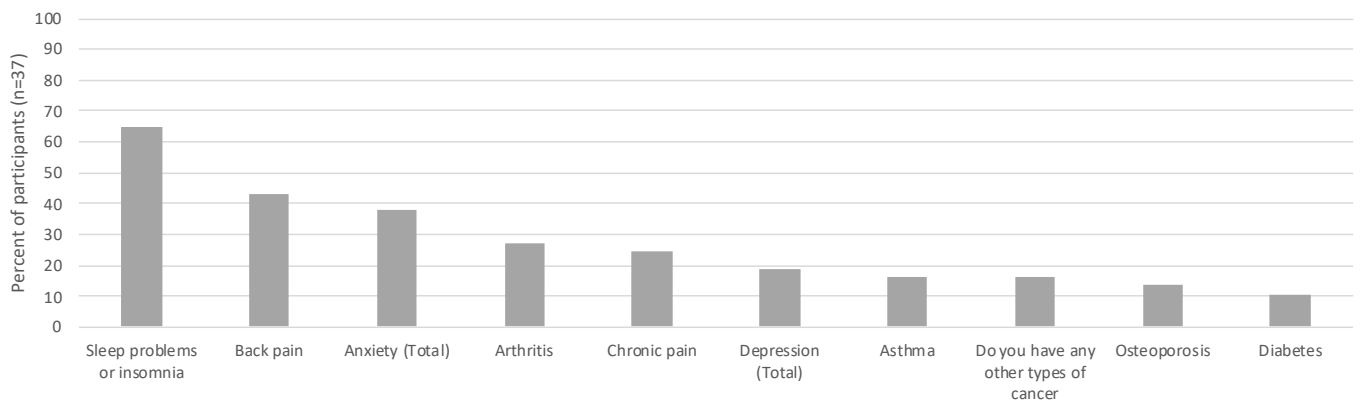
Number of other conditions	Number (n=37)	Percent
No other conditions	6	16.22
1 to 2	9	24.32
3 to 4	11	29.73
5 to 6	6	16.22
7 or more	5	13.51



**Figure 2.2: Number of other health conditions**

**Table 2.4: Other health conditions**

Other conditions	Number (n=37)	Percent
Sleep problems or insomnia	24	64.86
Back pain	16	43.24
Anxiety (Total)	14	37.84
Anxiety (that a doctor diagnosed)	8	21.62
Anxiety (that you diagnosed) yourself	10	27.03
Arthritis	10	27.03
Chronic pain	9	24.32
Depression (Total)	7	18.92
Depression (that you diagnosed yourself)	6	16.22
Depression (that a doctor diagnosed)	2	5.41
Asthma	6	16.22
Do you have any other types of cancer	6	16.22
Osteoporosis	5	13.51
Diabetes	4	10.81
Chronic heart failure	2	5.41
Coronary heart disease (eg heart attack, angina)	2	5.41
Chronic kidney disease	1	2.70
COPD (Chronic obstructive pulmonary disease)	1	2.70



**Figure 2.3: Other health conditions (% of all participants)**

## Subgroup analysis

Subgroup analysis are included throughout the study and the subgroups are listed in the table below.

Comparisons were made by Blood cancer. There were 8 participants (21.62%) with B-cell acute lymphoblastic leukemia (ALL), 11 participants (29.73%) with Diffuse Large B-Cell Lymphoma, and 18 participants (48.65%) with Multiple Myeloma.

Comparisons were made by CAR T-cell therapy there were 29 participants (78.38%) that had Car T-cell therapy and, 8 participants (21.62%) that did not.

Comparisons were made by gender, there were 17 female participants (45.95%) and 20 male participants (54.05%).

Participants were grouped according to age, with comparisons made between participants aged 25 to 64

(n=22, 59.46%), and participants aged 65 and older (n=15, 40.54%).

The location of participants was evaluated by postcode using the Australian Statistical Geography Maps (ASGS) Remoteness areas accessed from the Australian Bureau of Statistics. Those living in regional/rural areas (n=16, 43.24%) were compared to those living in a major city (n=21, 56.76%).

Comparisons were made by socioeconomic status, using the Socio-economic Indexes for Areas (SEIFA) ([www.abs.gov.au](http://www.abs.gov.au)), SEIFA scores range from 1 to 10, a higher score denotes a higher level of advantage. Participants with a mid to low SEIFA score of 1-6 (n=17, 45.95%) compared to those with a higher SEIFA score of 7-10 (n=20, 54.05%).

**Table 2.5: Subgroups**

Subgroups	Definition	Number (n=37)	Percent
Type of blood cancer	B-cell acute lymphoblastic leukemia (ALL)	8	21.62
	Diffuse Large B-Cell Lymphoma	11	29.73
	Multiple Myeloma	18	48.65
CAR T-cell therapy	No	29	78.38
	Yes	8	21.62
Gender	Female	17	45.95
	Male	20	54.05
Age	Aged 25 to 64	22	59.46
	Aged 65 and older	15	40.54
Location	Regional or remote	16	43.24
	Metropolitan	21	56.76
Socioeconomic advantage	Mid to low advantage	17	45.95
	Higher advantage	20	54.05

## Baseline health

The Short Form Health Survey 36 (SF36) measures baseline health, or the general health of an individual. The SF36 comprises nine scales: physical functioning, role functioning/physical, role functioning/emotional, energy and fatigue, emotional well-being, social function, pain, general health, and health change from one year ago. The scale ranges from 0 to 100, a higher score denotes better health or function.

Summary statistics for the entire cohort are displayed alongside the possible range of each scale in Table 2.6, for scales with a normal distribution, the mean and SD should be used as a central measure, and median and IQR for scales that do not have a normal distribution.

The overall scores for the cohort were in the highest quintile for SF36 Role functioning/emotional (median=100.00, IQR=66.67), indicating very good emotional role functioning.

The overall scores for the cohort were in the second highest quintile for SF36 Physical functioning (median=72.50, IQR=40.00), SF36 Emotional well-being (mean=76.24, SD=12.61), SF36 Social functioning (median=75.00, IQR=46.88), SF36 Pain (median=72.50, IQR=30.00), SF36 Health change (median=62.50, IQR=50.00), indicating good physical functioning, good emotional well-being, good social functioning, mild pain, better than a year ago.

The overall scores for the cohort were in the middle quintile for SF36 Role functioning/physical (median=50.00, IQR=100.00), SF36 Energy/Fatigue (mean=52.50, SD=18.96), SF36 General health (mean=53.38, SD=24.70), indicating moderate physical role functioning, moderate energy, moderate general health.

Comparisons of SF36 have been made based on type of blood cancer, treatment with Car T-cell therapy, gender, age, location, and socioeconomic status.

**SF36 Physical functioning** scale measures health limitations in physical activities such as walking, bending, climbing stairs, exercise, and housework. On average, physical activities were slightly limited for participants in this study.

**SF36 Role functioning/physical** scale measures how physical health interferes with work or other activities. On average, physical health sometimes interfered with work or other activities for participants in this study.

**SF36 Role functioning/emotional** scale measures how emotional problems interfere with work or other activities. On average, emotional problems never interfered with work or other activities for participants in this study.

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The **SF36 Emotional well-being** scale measures how a person feels, for example happy, calm, depressed or anxious. On average, participants had good emotional well-being.

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The **SF36 General health** scale measures perception of health. On average, participants reported average health.

The **SF36 Health change** scale measures health compared to a year ago. On average, participants reported that their health is better now compared to a year ago.

**Table 2.6: SF36 summary statistics**

SF36 scale (n=34)	Mean	SD	Median	IQR	Possible range	Quintile
Physical functioning	68.68	29.34	72.50	40.00	0 to 100	4
Role functioning/physical	51.47	42.61	50.00	100.00	0 to 100	3
Role functioning/emotional	70.59	38.28	100.00	66.67	0 to 100	5
Energy/Fatigue*	52.50	18.96	50.00	25.00	0 to 100	3
Emotional well-being*	76.24	12.61	80.00	20.00	0 to 100	4
Social functioning	73.90	24.30	75.00	46.88	0 to 100	4
Pain	69.56	24.44	72.50	30.00	0 to 100	4
General health*	53.38	24.70	55.00	46.25	0 to 100	3
Health change	67.65	26.49	62.50	50.00	0 to 100	4

\*Normal distribution, use mean and SD as central measure. Possible range 0-100

### SF36 by type of blood cancer

Comparisons were made by type of blood cancer. There were 6 participants (17.65%) with B-cell acute lymphoblastic leukemia (ALL), 11 participants (32.35%) with Diffuse Large B-Cell Lymphoma, and 17 participants (50.00%) with Multiple Myeloma.

A one-way ANOVA test was used when the assumptions for response variable residuals were normally distributed and variances of populations were

equal. A Tukey HSD test was used post hoc to identify the source of any differences identified in the one-way ANOVA test. When the assumptions for normality of residuals was not met, a Kruskal-Wallis test was used.

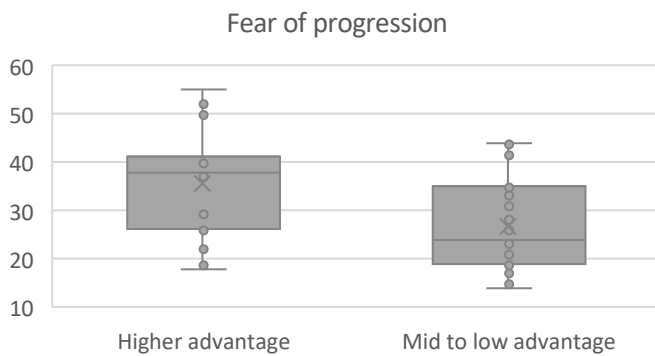
No significant differences were observed between participants by **type of blood cancer** for any of the SF36 scales.

**Table 2.7: SF36 by type of blood cancer summary statistics and one-way ANOVA**

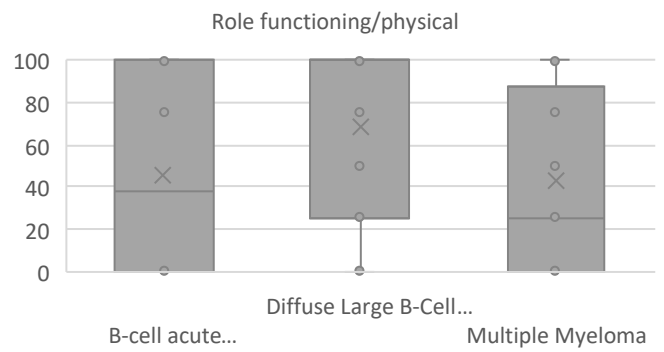
SF36 scale	Group	Number (n=34)	Percent	Mean	SD	Source of difference	Sum of squares	dF	Mean Square	f	p-value
Physical functioning	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	65.83	42.36	Between groups	1215.00	2	607.30	0.69	0.5080
	Diffuse Large B-Cell Lymphoma	11	32.35	77.27	22.95	Within groups	27201.00	31	877.40		
	Multiple Myeloma	17	50.00	64.12	28.46	Total	28416.00	33	1484.70		
Energy/fatigue	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	51.67	18.62	Between groups	5.00	2	2.60	0.01	0.9930
	Diffuse Large B-Cell Lymphoma	11	32.35	52.73	20.66	Within groups	11857.00	31	382.50		
	Multiple Myeloma	17	50.00	52.65	19.13	Total	11862.00	33	385.10		
Emotional well-being	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	78.67	13.54	Between groups	47.00	2	23.30	0.14	0.8710
	Diffuse Large B-Cell Lymphoma	11	32.35	75.27	13.84	Within groups	5200.00	31	167.70		
	Multiple Myeloma	17	50.00	76.00	12.17	Total	5247.00	33	191.00		
General health	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	59.17	29.23	Between groups	1940.00	2	969.90	1.65	0.2080
	Diffuse Large B-Cell Lymphoma	11	32.35	61.82	21.25	Within groups	18196.00	31	587.00		
	Multiple Myeloma	17	50.00	45.88	24.25	Total	20136.00	33	1556.90		
Health change	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	70.83	33.23	Between groups	2942.00	2	1470.90	2.26	0.1220
	Diffuse Large B-Cell Lymphoma	11	32.35	79.55	21.85	Within groups	20220.00	31	652.30		
	Multiple Myeloma	17	50.00	58.82	24.91	Total	23162.00	33	2123.20		

**Table 2.8: SF36 by type of blood cancer summary statistics and Kruskal-Wallis test**

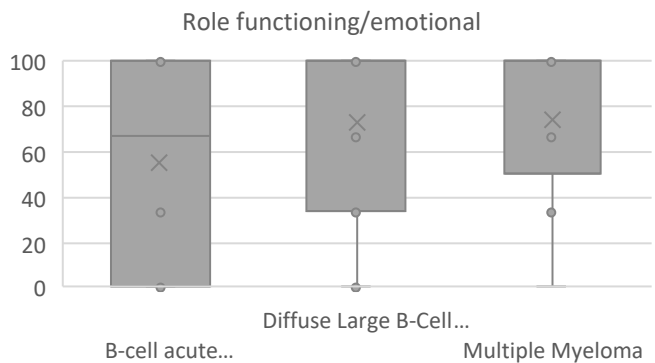
SF36 scale	Group	Number (n=34)	Percent	Median	IQR	C <sup>2</sup>	dF	p-value
Role functioning physical	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	37.50	93.75	2.46	2	0.2922
	Diffuse Large B-Cell Lymphoma	11	32.35	100.00	62.50			
	Multiple Myeloma	17	50.00	25.00	75.00			
Role functioning emotional	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	66.67	91.67	0.66	2	0.7193
	Diffuse Large B-Cell Lymphoma	11	32.35	100.00	50.00			
	Multiple Myeloma	17	50.00	100.00	33.33			
Social functioning	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	62.50	43.75	0.69	2	0.7096
	Diffuse Large B-Cell Lymphoma	11	32.35	75.00	31.25			
	Multiple Myeloma	17	50.00	75.00	37.50			
Pain	B-cell acute lymphoblastic leukemia (ALL)	6	17.65	72.50	10.00	0.65	2	0.7242
	Diffuse Large B-Cell Lymphoma	11	32.35	77.50	42.50			
	Multiple Myeloma	17	50.00	67.50	22.50			



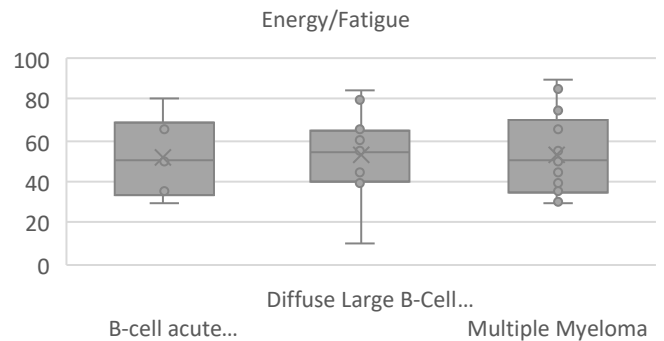
**Figure 2.4: Boxplot of SF36 Physical functioning by type of blood cancer**



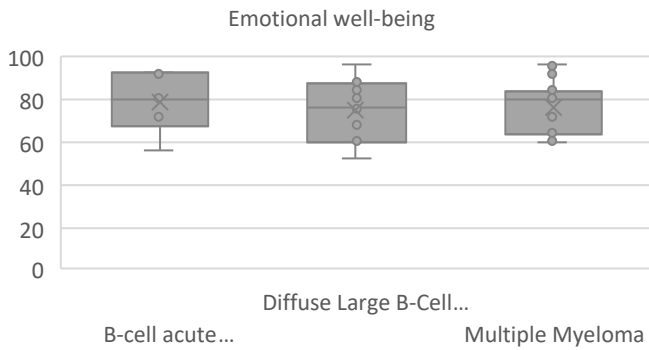
**Figure 2.5: Boxplot of SF36 Role functioning/physical by type of blood cancer**



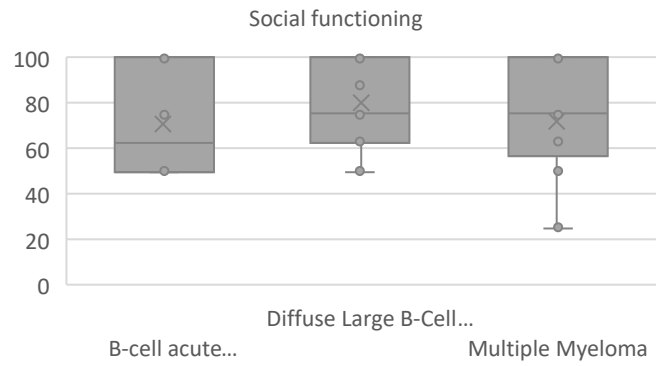
**Figure 2.6: Boxplot of SF36 Role functioning/emotional by type of blood cancer**



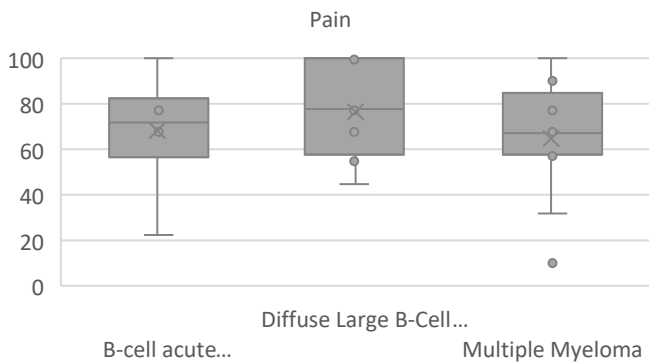
**Figure 2.7: Boxplot of SF36 Energy/fatigue by type of blood cancer**



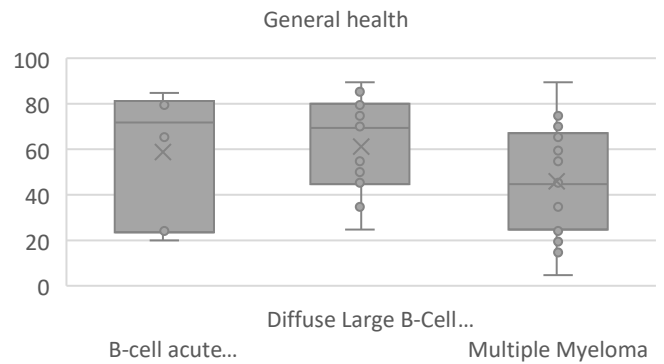
**Figure 2.8: Boxplot of SF36 Emotional well-being by type of blood cancer**



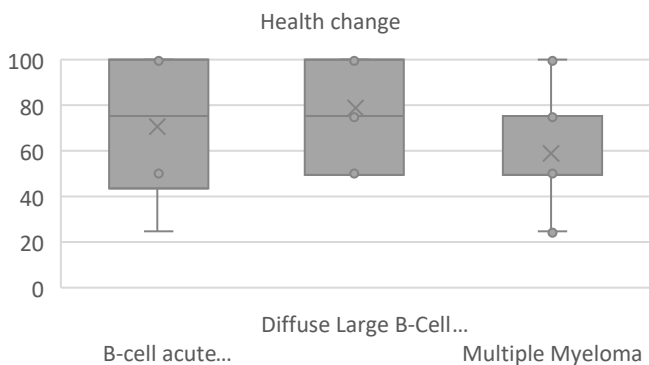
**Figure 2.9: Boxplot of SF36 Social functioning by type of blood cancer**



**Figure 2.10: Boxplot of SF36 Pain by a type of blood cancer**



**Figure 2.11: Boxplot of SF36 General health by type of blood cancer**



**Figure 2.12: Boxplot of SF36 Health change by type of blood cancer**

### SF36 by CAR T-cell therapy

Comparisons were made by CAR T-cell therapy there were 26 participants (76.47%) that had treatment with CAR T-cell therapy and, 8 participants (23.53%) that did not.

A two-sample t-test was used when assumptions for normality and variance were met, or when

assumptions for normality and variance were not met, a Wilcoxon rank sum test with continuity correction was used.

No significant differences were observed between participants by **CAR T-cell therapy** for any of the SF36 scales.

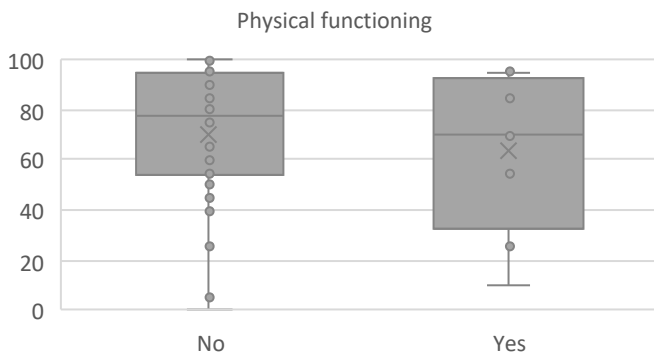


**Table 2.9: SF36 by CAR T-cell therapy summary statistics and T-test**

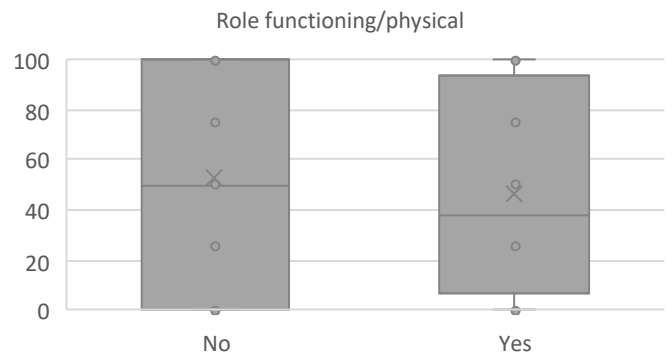
SF36 scale	Group	Number (n=34)	Percent	Mean	SD	T	dF	p-value
Emotional well-being	No	26	76.47	75.23	12.24	-0.83	32	0.4107
	Yes	8	23.53	79.50	14.09			
General health	No	26	76.47	51.92	23.84	-0.62	32	0.5428
	Yes	8	23.53	58.13	28.53			

**Table 2.10: SF36 by CAR T-cell therapy summary statistics and Wilcoxon test**

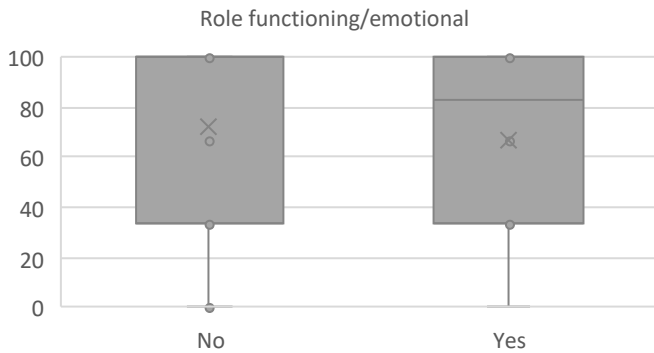
SF36 scale	Group	Number (n=34)	Percent	Median	IQR	W	p-value
Physical functioning	No	26	76.47	77.50	38.75	118.50	0.5679
	Yes	8	23.53	70.00	40.00		
Role functioning/physical	No	26	76.47	50.00	100.00	111.50	0.7677
	Yes	8	23.53	37.50	62.50		
Role functioning/emotional	No	26	76.47	100.00	58.33	112.00	0.7362
	Yes	8	23.53	83.33	66.67		
Energy/Fatigue	No	26	76.47	50.00	28.75	102.50	0.9675
	Yes	8	23.53	45.00	17.50		
Social functioning	No	26	76.47	75.00	37.50	130.50	0.2752
	Yes	8	23.53	62.50	46.88		
Pain	No	26	76.47	72.50	30.00	115.50	0.6522
	Yes	8	23.53	72.50	26.25		
Health change	No	26	76.47	50.00	43.75	83.00	0.3813
	Yes	8	23.53	87.50	50.00		



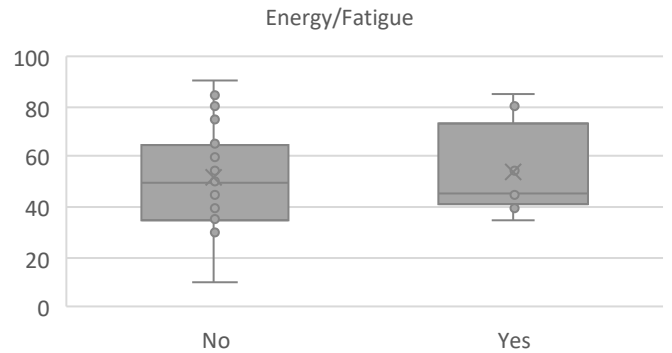
**Figure 2.13: Boxplot of SF36 Physical functioning by CAR T-cell therapy**



**Figure 2.14: Boxplot of SF36 Role functioning/physical by CAR T-cell therapy**



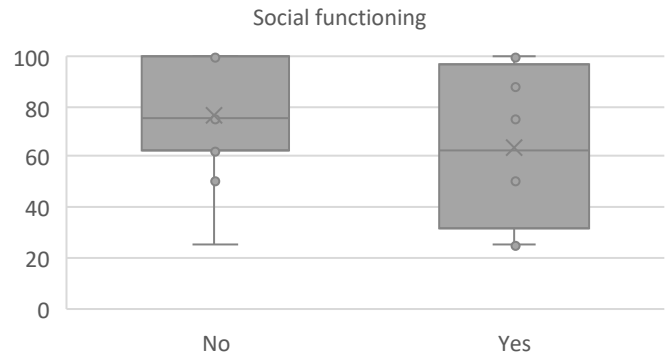
**Figure 2.15: Boxplot of SF36 Role functioning/emotional by CAR T-cell therapy**



**Figure 2.16: Boxplot of SF36 Energy/fatigue by CAR T-cell therapy**



**Figure 2.17: Boxplot of SF36 Emotional well-being by CAR T-cell therapy**



**Figure 2.18: Boxplot of SF36 Social functioning by CAR T-cell therapy**

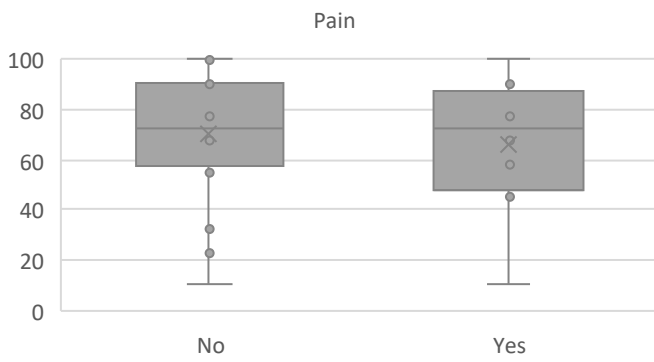


Figure 2.19: Boxplot of SF36 Pain by a CAR T-cell therapy

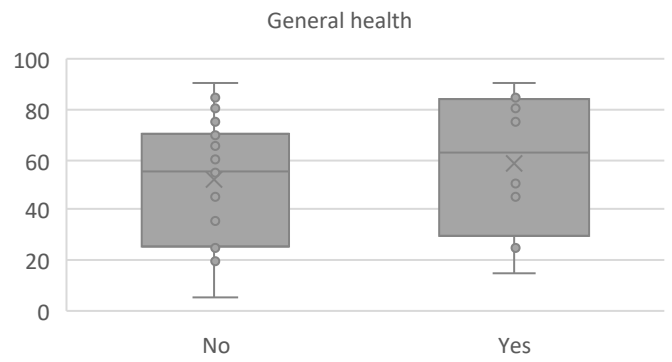


Figure 2.20: Boxplot of SF36 General health by CAR T-cell therapy

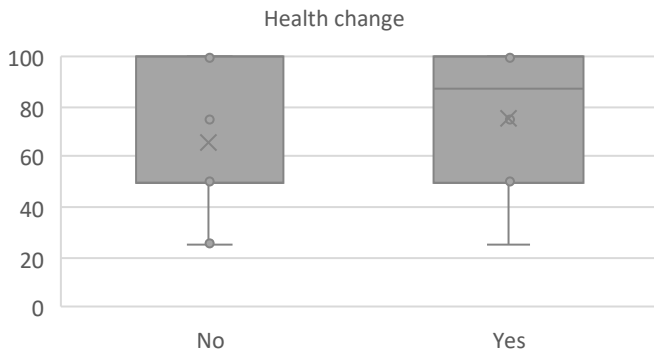


Figure 2.21: Boxplot of SF36 Health change by CAR T-cell therapy

### SF36 by gender

Comparisons were made by gender, there were 15 female participants (44.12%), and 19 male participants (55.88%).

A two-sample t-test was used when assumptions for normality and variance were met, or when

assumptions for normality and variance were not met, a Wilcoxon rank sum test with continuity correction was used.

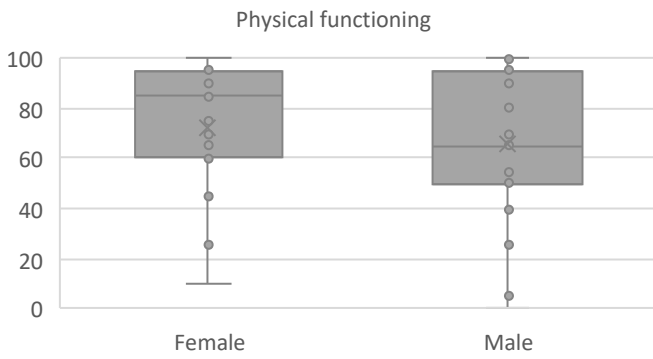
No significant differences were observed between participants by **gender** for any of the SF36 scales.

Table 2.11: SF36 by gender summary statistics and T-test

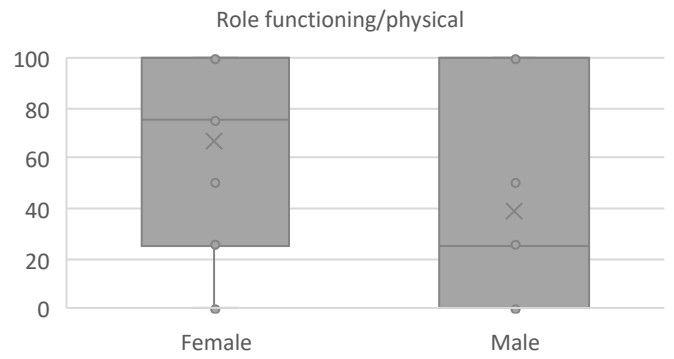
SF36 scale	Group	Number (n=34)	Percent	Mean	SD	T	dF	p-value
Emotional well-being	Female	15	44.12	77.87	12.73	0.66	32.00	0.5110
	Male	19	55.88	74.95	12.71			
General health	Female	15	44.12	62.00	22.74	1.88	32.00	0.0699
	Male	19	55.88	46.58	24.61			

Table 12.: SF36 by gender summary statistics and Wilcoxon test

SF36 scale	Group	Number (n=34)	Percent	Median	IQR	W	p-value
Physical functioning	Female	15	44.12	85.00	30.00	155.50	0.6631
	Male	19	55.88	65.00	42.50		
Role functioning/physical	Female	15	44.12	75.00	62.50	189.50	0.0937
	Male	19	55.88	25.00	75.00		
Role functioning/emotional	Female	15	44.12	100.00	16.67	192.00	0.0600
	Male	19	55.88	66.67	83.33		
Energy/Fatigue	Female	15	44.12	45.00	35.00	132.50	0.7407
	Male	19	55.88	50.00	12.50		
Social functioning	Female	15	44.12	75.00	31.25	169.50	0.3421
	Male	19	55.88	75.00	50.00		
Pain	Female	15	44.12	77.50	22.50	157.50	0.6118
	Male	19	55.88	67.50	28.75		
Health change	Female	15	44.12	75.00	50.00	173.00	0.2738
	Male	19	55.88	50.00	25.00		



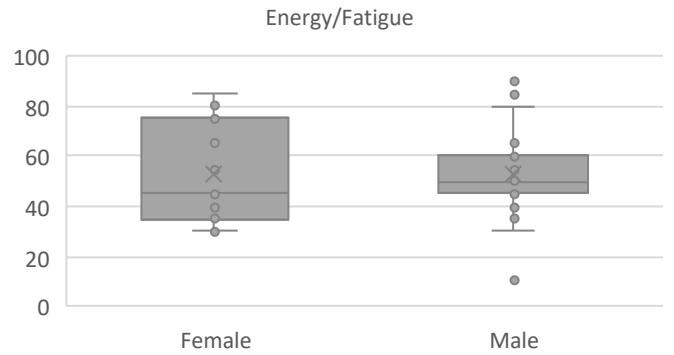
**Figure 2.22: Boxplot of SF36 Physical functioning by gender**



**Figure 2.23: Boxplot of SF36 Role functioning/physical by gender**



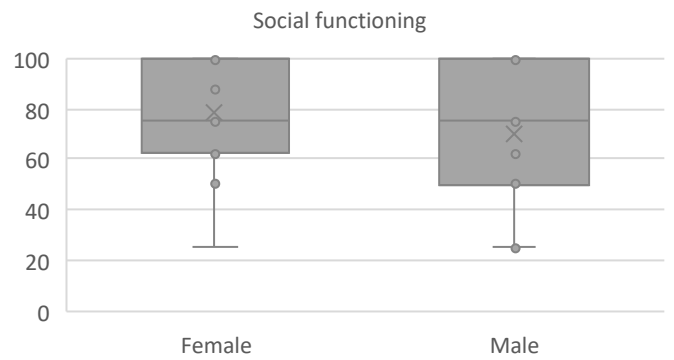
**Figure 2.24: Boxplot of SF36 Role functioning/emotional by gender**



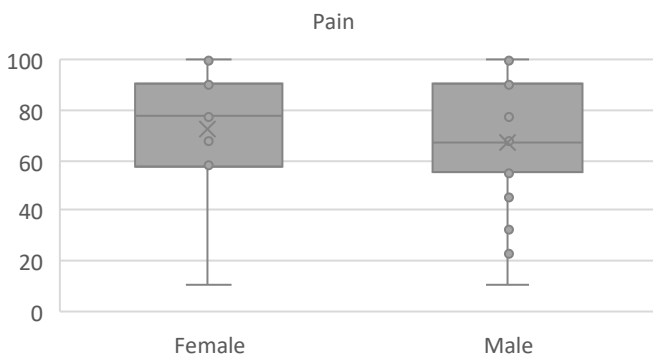
**Figure 2.25: Boxplot of SF36 Energy/fatigue by gender**



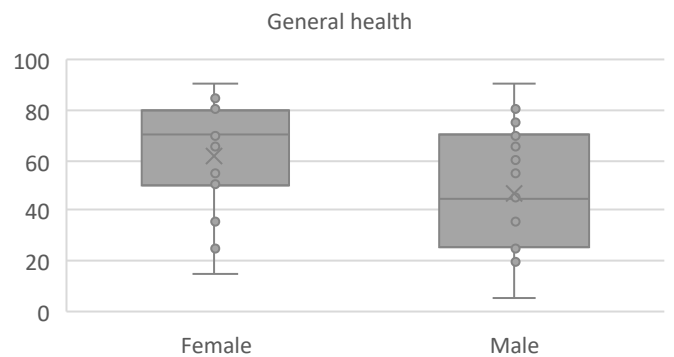
**Figure 2.26: Boxplot of SF36 Emotional well-being by gender**



**Figure 2.27: Boxplot of SF36 Social functioning by gender**



**Figure 2.28: Boxplot of SF36 Pain by a gender**



**Figure 2.29: Boxplot of SF36 General health by gender**

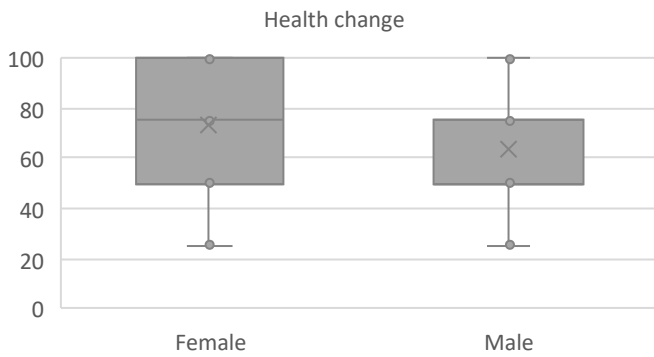


Figure 2.30: Boxplot of SF36 Health change by gender

### SF36 by age

Participants were grouped according to age, with comparisons made between participants aged 25 to 64 (n=20, 58.82%), and participants aged 65 and older (n=14, 41.18%).

A two-sample t-test was used when assumptions for normality and variance were met, or when

assumptions for normality and variance were not met, a Wilcoxon rank sum test with continuity correction was used.

No significant differences were observed between participants by age for any of the SF36 scales.

Table 2.13: SF36 by age summary statistics and T-test

SF36 scale	Group	Number (n=34)	Percent	Mean	SD	T	dF	p-value
Energy/Fatigue	Aged 25 to 64	20	58.82	47.75	17.36	-1.8048	32	0.08053
	Aged 65 and older	14	41.18	59.29	19.70			
Emotional well-being	Aged 25 to 64	20	58.82	73.60	12.41	-1.4829	32	0.1479
	Aged 65 and older	14	41.18	80.00	12.35			
General health	Aged 25 to 64	20	58.82	51.50	24.61	-0.52522	32	0.603
	Aged 65 and older	14	41.18	56.07	25.51			

Table 2.14: SF36 by age summary statistics and Wilcoxon test

SF36 scale	Group	Number (n=34)	Percent	Median	IQR	W	p-value
Physical functioning	Aged 25 to 64	20	58.82	82.50	42.50	148.50	0.7785
	Aged 65 and older	14	41.18	65.00	38.75		
Role functioning/physical	Aged 25 to 64	20	58.82	50.00	100.00	123.50	0.5607
	Aged 65 and older	14	41.18	50.00	75.00		
Role functioning/emotional	Aged 25 to 64	20	58.82	100.00	66.67	137.00	0.9229
	Aged 65 and older	14	41.18	100.00	58.33		
Social functioning	Aged 25 to 64	20	58.82	75.00	31.25	117.50	0.4262
	Aged 65 and older	14	41.18	87.50	46.88		
Pain	Aged 25 to 64	20	58.82	67.50	20.63	124.00	0.5841
	Aged 65 and older	14	41.18	78.75	32.50		
Health change	Aged 25 to 64	20	58.82	62.50	50.00	139.00	0.9853
	Aged 65 and older	14	41.18	62.50	43.75		

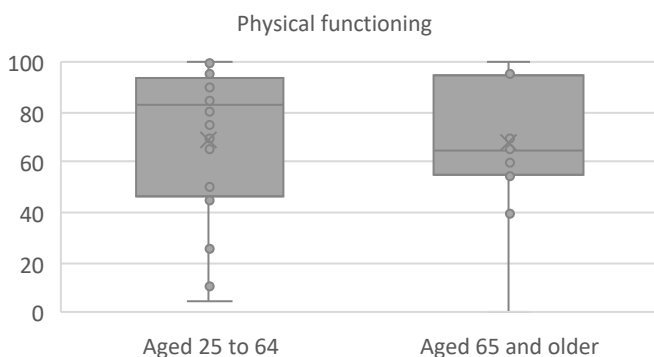


Figure 2.31: Boxplot of SF36 Physical functioning by age

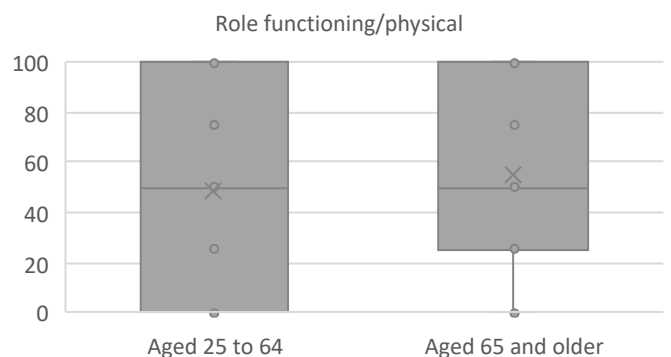
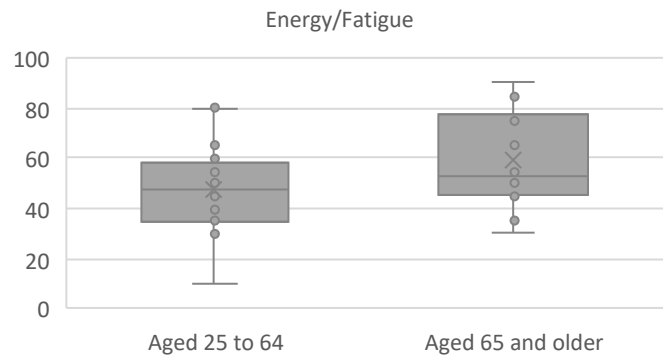


Figure 2.32: Boxplot of SF36 Role functioning/physical by age



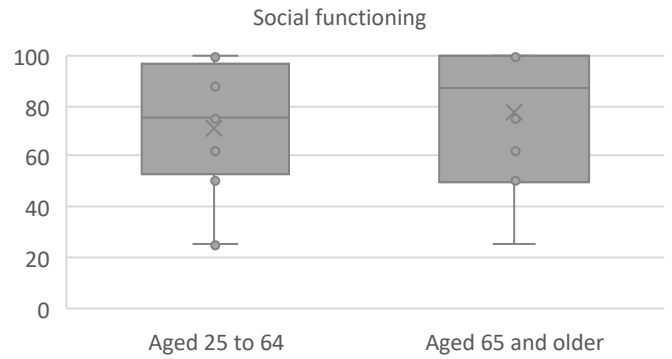
**Figure 2.33: Boxplot of SF36 Role functioning/emotional by age**



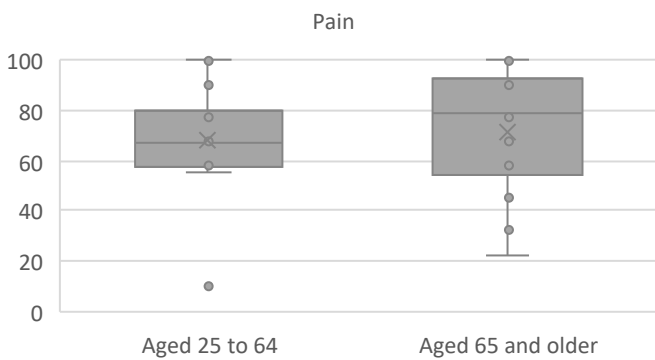
**Figure 2.43: Boxplot of SF36 Energy/fatigue by age**



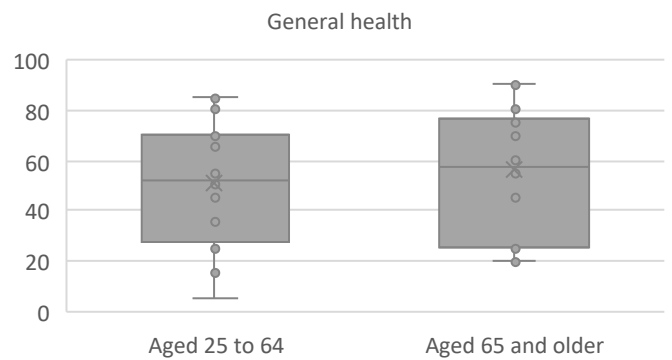
**Figure 2.35: Boxplot of SF36 Emotional well-being by age**



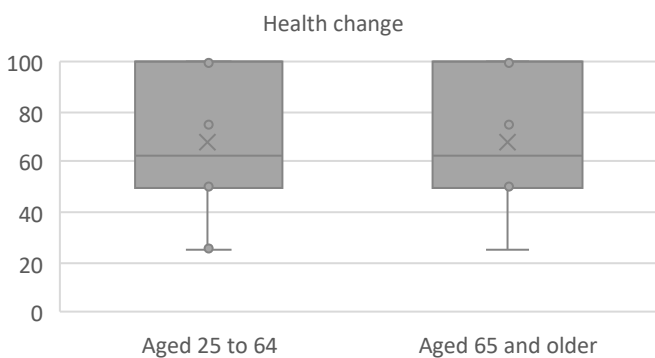
**Figure 2.36: Boxplot of SF36 Social functioning by age**



**Figure 2.37: Boxplot of SF36 Pain by a age**



**Figure 2.38: Boxplot of SF36 General health by age**



**Figure 2.39: Boxplot of SF36 Health change by age**

## SF36 by location

The location of participants was evaluated by postcode using the Australian Statistical Geography Maps (ASGS) Remoteness areas accessed from the Australian Bureau of Statistics. Those living in regional/rural areas (n=16, 47.06%) were compared to those living in a major city (n=18, 52.94%).

A two-sample t-test was used when assumptions for normality and variance were met, or when assumptions for normality and variance were not met, a Wilcoxon rank sum test with continuity correction was used.

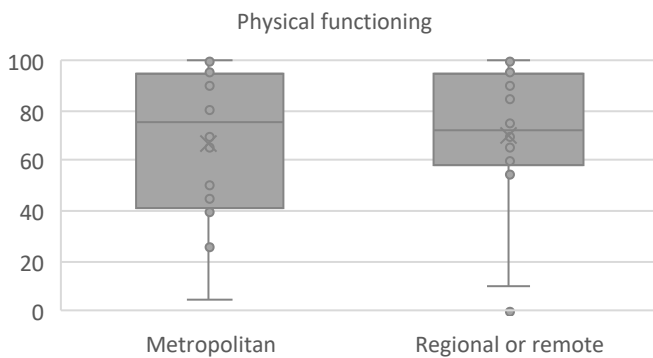
No significant differences were observed between participants by **location** for any of the SF36 scales.

**Table 2.15: SF36 by location summary statistics and T-test**

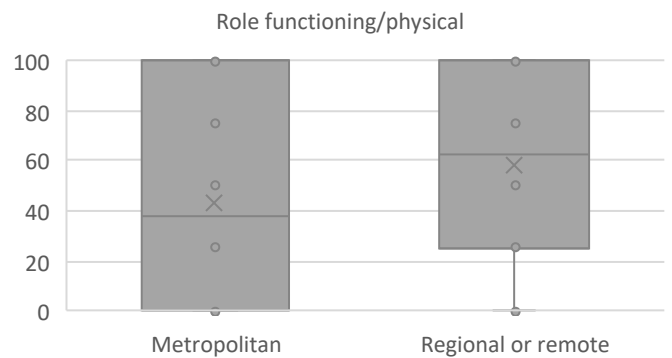
SF36 scale	Group	Number (n=34)	Percent	Mean	SD	T	dF	p-value
Energy/Fatigue	Metropolitan	16	47.06	47.50	15.71	-1.48	32.00	0.1499
	Regional or remote	18	52.94	56.94	20.87			
Emotional well-being	Metropolitan	16	47.06	73.50	11.94	-1.20	32.00	0.2387
	Regional or remote	18	52.94	78.67	13.02			
General health	Metropolitan	16	47.06	49.38	26.89	-0.89	32.00	0.3806
	Regional or remote	18	52.94	56.94	22.76			

**Table 2.16: SF36 by location summary statistics and Wilcoxon test**

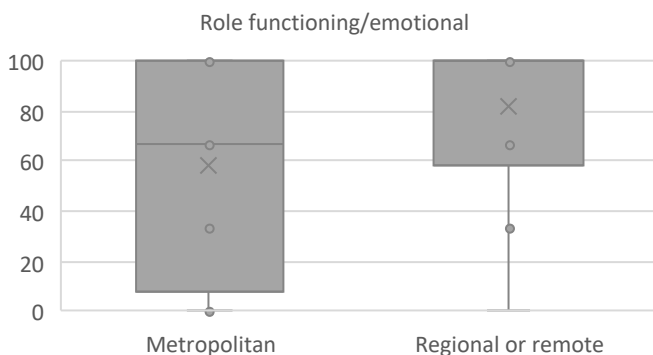
SF36 scale	Group	Number (n=34)	Percent	Median	IQR	W	p-value
Physical functioning	Metropolitan	16	47.06	75.00	51.25	138.50	0.8624
	Regional or remote	18	52.94	72.50	32.50		
Role functioning/physical	Metropolitan	16	47.06	37.50	100.00	114.00	0.2901
	Regional or remote	18	52.94	62.50	75.00		
Role functioning/emotional	Metropolitan	16	47.06	66.67	75.00	94.00	0.0588
	Regional or remote	18	52.94	100.00	25.00		
Social functioning	Metropolitan	16	47.06	75.00	40.63	137.00	0.8167
	Regional or remote	18	52.94	75.00	46.88		
Pain	Metropolitan	16	47.06	67.50	25.63	127.50	0.5774
	Regional or remote	18	52.94	77.50	27.50		
Health change	Metropolitan	16	47.06	50.00	50.00	123.50	0.4679
	Regional or remote	18	52.94	75.00	50.00		



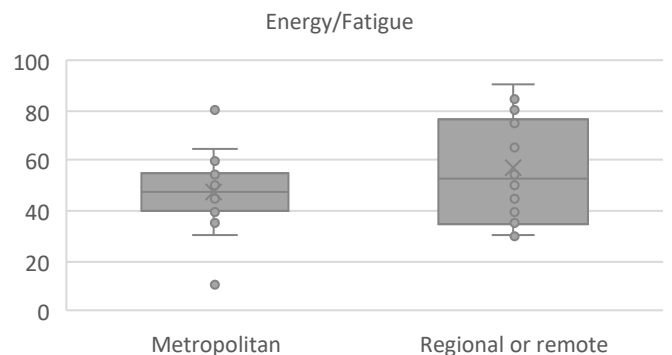
**Figure 2.40: Boxplot of SF36 Physical functioning by location**



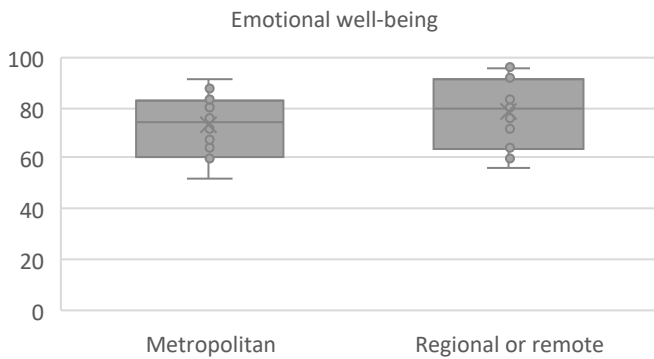
**Figure 2.41: Boxplot of SF36 Role functioning/physical by location**



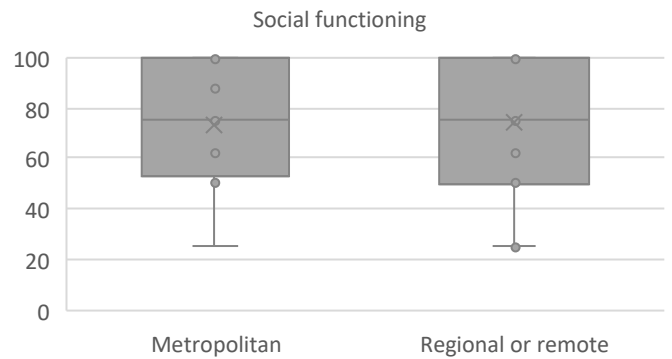
**Figure 2.42: Boxplot of SF36 Role functioning/emotional by location**



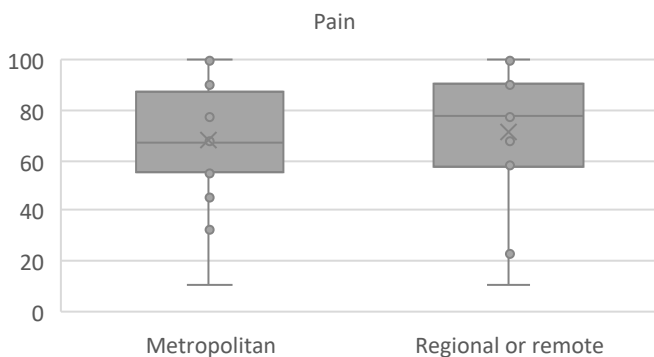
**Figure 2.43: Boxplot of SF36 Energy/fatigue by location**



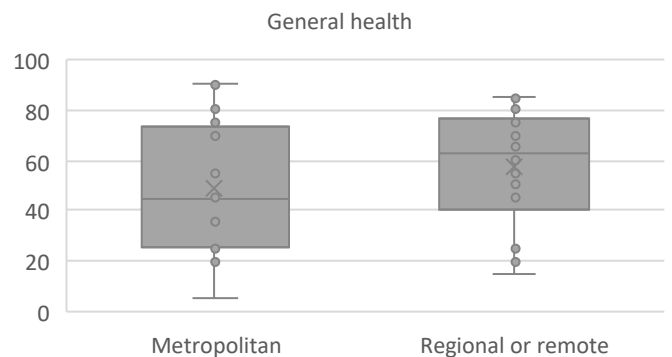
**Figure 2.44: Boxplot of SF36 Emotional well-being by location**



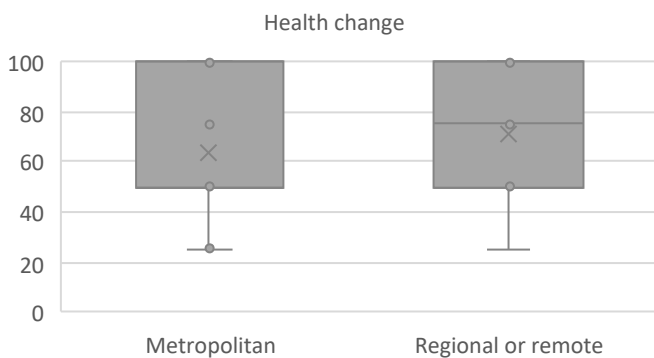
**Figure 2.45: Boxplot of SF36 Social functioning by location**



**Figure 2.46: Boxplot of SF36 Pain by a location**



**Figure 2.47: Boxplot of SF36 General health by location**



**Figure 2.48: Boxplot of SF36 Health change by location**

### SF36 by socioeconomic status

Comparisons were made by socioeconomic status, using the Socio-economic Indexes for Areas (SEIFA) ([www.abs.gov.au](http://www.abs.gov.au)), SEIFA scores range from 1 to 10, a higher score denotes a higher level of advantage. Participants with a mid to low SEIFA score of 1-6 (n=17, 50.00%) compared to those with a higher SEIFA score of 7-10 (n=17, 50.00%).

A two-sample t-test was used when assumptions for normality and variance were met, or when assumptions for normality and variance were not met, a Wilcoxon rank sum test with continuity correction was used.

A two sample t-test indicated that the mean score for the SF36 Emotional well-being scale [ $t(32) = -2.18$ ,  $p =$  Volume 6 (2023), Issue 4: PEEK Study in blood cancer

0.0366] was significantly lower for participants in the Higher advantage subgroup (Mean = 71.76, SD = 12.20) compared to participants in the Mid to low advantage subgroup (Mean = 80.71, SD = 11.68.)

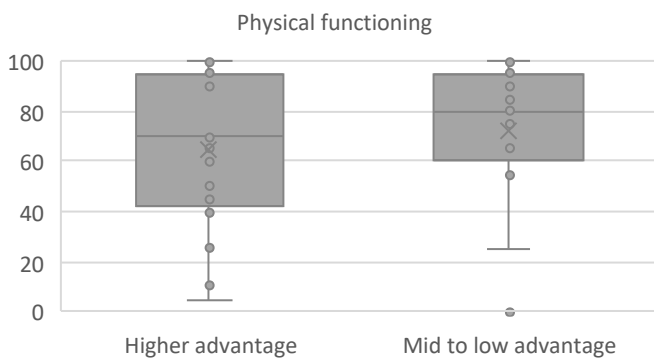
**SF36 Emotional well-being** scale measures how a person feels, for example happy, calm, depressed or anxious. On average, participants in the Mid to low advantage subgroup scored higher than participants in the Higher advantage subgroup. This indicates that participants in the Mid to low advantage subgroup had very good emotional well-being, and participants in the Higher advantage subgroup had good emotional well-being.

**Table 2.17: SF36 by socioeconomic status summary statistics and T-test**

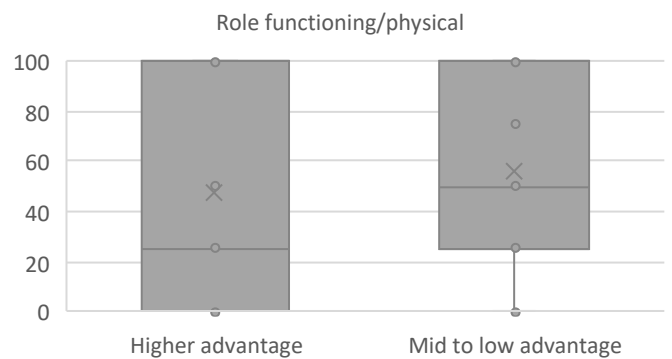
SF36 scale	Group	Number (n=34)	Percent	Mean	SD	T	dF	p-value
Emotional well-being	Higher advantage	17	50.00	71.76	12.20	-2.18	32.00	0.0366*
	Mid to low advantage	17	50.00	80.71	11.68			
Pain	Higher advantage	17	50.00	64.85	27.39	-1.13	32.00	0.2679
	Mid to low advantage	17	50.00	74.26	20.84			

**Table 2.18: SF36 by socioeconomic status summary statistics and Wilcoxon test**

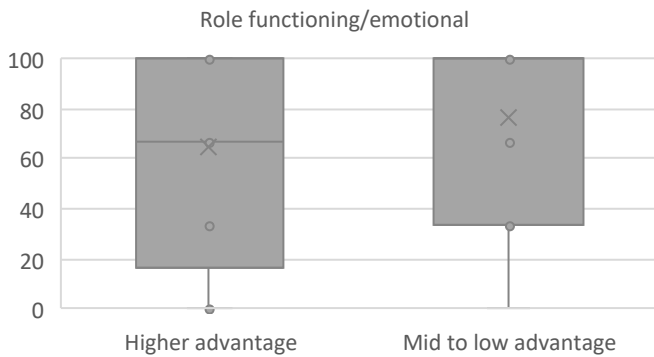
SF36 scale	Group	Number (n=34)	Percent	Median	IQR	W	p-value
Physical functioning	Higher advantage	17	50.00	70.00	50.00	128.50	0.5916
	Mid to low advantage	17	50.00	80.00	30.00		
Role functioning/physical	Higher advantage	17	50.00	25.00	100.00	128.50	0.5790
	Mid to low advantage	17	50.00	50.00	75.00		
Role functioning/emotional	Higher advantage	17	50.00	66.67	66.67	119.00	0.3407
	Mid to low advantage	17	50.00	100.00	66.67		
Energy/Fatigue	Higher advantage	17	50.00	50.00	15.00	128.50	0.5919
	Mid to low advantage	17	50.00	50.00	35.00		
Social functioning	Higher advantage	17	50.00	62.50	50.00	117.50	0.3454
	Mid to low advantage	17	50.00	75.00	25.00		
General health	Higher advantage	17	50.00	50.00	35.00	121.50	0.4367
	Mid to low advantage	17	50.00	65.00	50.00		
Health change	Higher advantage	17	50.00	50.00	25.00	91.00	0.0549
	Mid to low advantage	17	50.00	75.00	50.00		



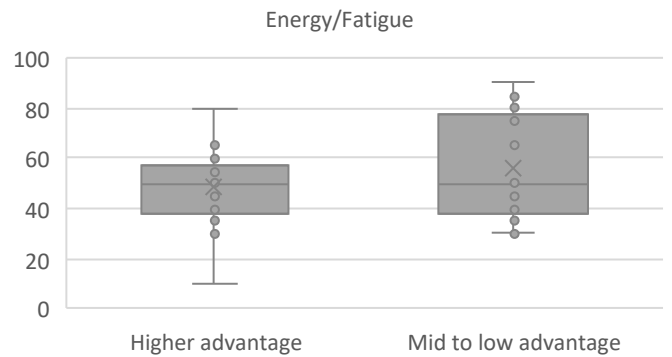
**Figure 2.49: Boxplot of SF36 Physical functioning by socioeconomic status**



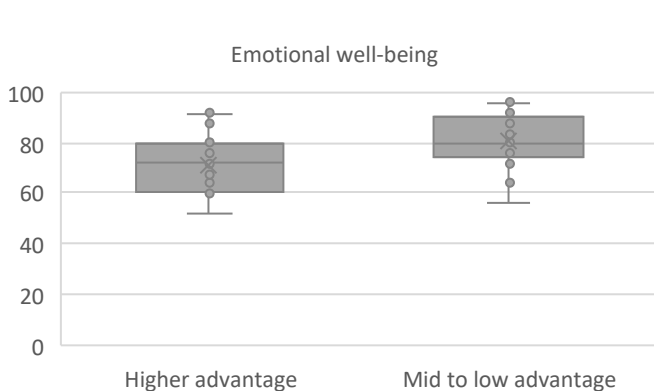
**Figure 2.50: Boxplot of SF36 Role functioning/physical by socioeconomic status**



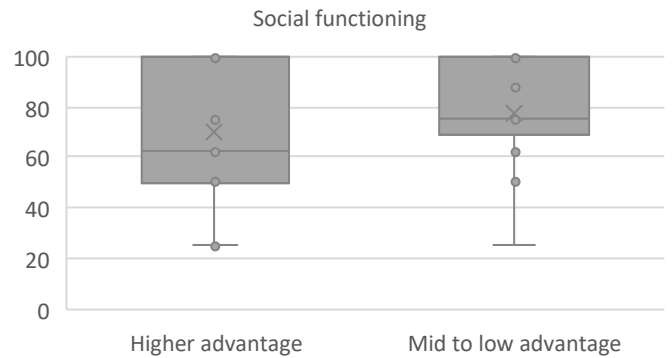
**Figure 2.51: Boxplot of SF36 Role functioning/emotional by socioeconomic status**



**Figure 2.52: Boxplot of SF36 Energy/fatigue by socioeconomic status**

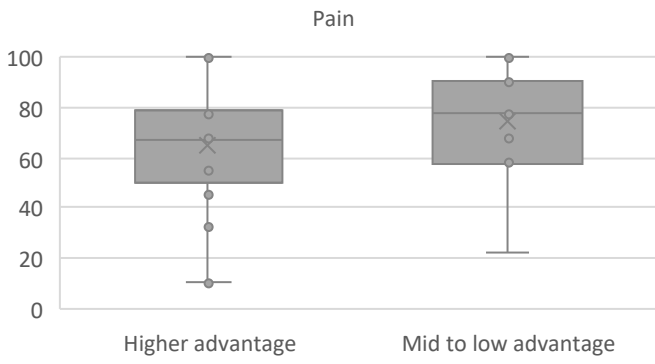


**Figure 2.53: Boxplot of SF36 Emotional well-being by socioeconomic status**

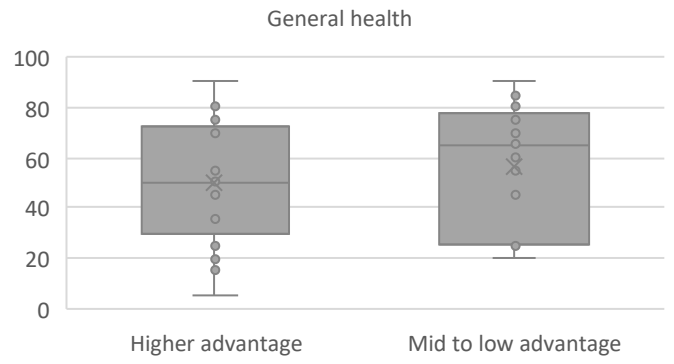


**Figure 2.54: Boxplot of SF36 Social functioning by socioeconomic status**

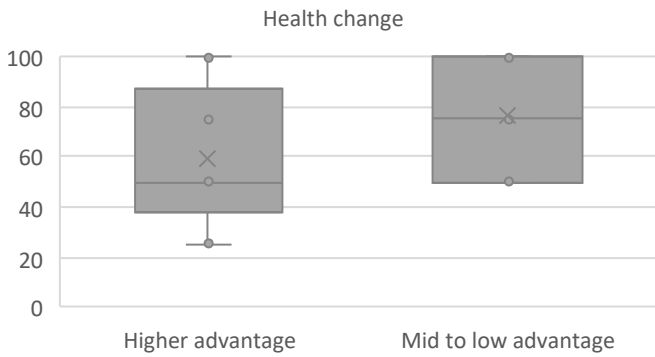




**Figure 2.55: Boxplot of SF36 Pain by a socioeconomic status**



**Figure 2.56: Boxplot of SF36 General health by socioeconomic status**



**Figure 2.57: Boxplot of SF36 Health change by socioeconomic status**