Comparison of HMC Center for Health Improvement Members and Non-Members on Health Status, Awareness of Health Issues, Health Improvement Attitudes, and Perceptions of the Center: 2003



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November 2003



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# Comparison of HMC Center for Health Improvement Members and Non-Members on Health Status, Awareness of Health Issues, Health Improvement Attitudes, and Perceptions of the Center: 2003

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November 2003

This research was sponsored by Hays Medical Center

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#### **Executive Summary**

The Docking Institute of Public Affairs at Fort Hays State University conducted a survey of Hays Medical Center's Center for Health Improvement members and a survey of non-members in the adult general population of Ellis County for Hays Medical Center. The purposes of this survey research are to measure self-reported health status, exercise activities, awareness of obesity's health effects, and perceptions of the CHI, and to compare members and nonmembers on these characteristics. Between September 10, 2003 and September 29, 2003, the Docking Institute of Public Affairs through its University Center for Survey Research conducted a telephone survey of randomly selected CHI members. The Institute completed interviews with 333 of 397 members who were contacted, resulting in a cooperation rate of 84%. With the total number of CHI members at about 2000, these 333 responses offer a margin of error of +/-5% at a 95% confidence level, assuming no response bias. Between September 24, 2003 and October 21, 2003, the Institute conducted a telephone survey among randomly selected adults in Ellis County who are not members of the CHI. The Institute completed interviews with 400 of 669 households contacted, resulting in a response rate of 60%. This sample size of 400 offers a margin of error of +/-5% at a 95% confidence level, assuming no response bias.

The Docking Institute's independent analyses of survey data find that:

- On most socio-demographic characteristics, CHI members and nonmembers are not significantly different (Table 1). However, CHI members do have significantly higher household incomes, higher educational attainment, and college students are under-represented in the CHI population.
- Self-reported physical functioning is remarkably similar when comparing members to non-members (Table 2). As would be expected the highest percentages of "Limited a Lot" responses occur on vigorous activities (20% among members and 22% among non-members), walking more than a mile (13% and 12%), walking several blocks (11% and 8%), and climbing several flights of stairs (10% and 8%).
- Vast majorities of both members and non-members indicated that they were not limited by physical health over the previous four weeks (Table 3). No significant differences between members and non-members exist.
- There are no significant differences between members and non-members on the three self-reported items assessing emotional problems (Table 4). Between 5% and 12% of both members and non-members report that they experience one of the three emotional problems.

- No significant differences exist between members and non-members on four sub-items of the energy/fatigue scale, with responses tending to reflect "a good bit of" energy and relatively little fatigue (Table 5).
- There are statistically significant although substantively small differences between CHI members and non-members on two of the five items that constitute the emotional well-being scale (Table 6). About 85% of members said that within the previous four weeks they never felt so down in the dumps that they could not cheer up while only 78% of non-members said so. In addition, 19% of members indicated that within the previous four weeks they never felt so down of non-members indicated that within the previous four weeks they have been a happy person all of the time, while only 15% of non-members indicated so.
- Comparing members to non-members, there are no significant differences in physical or emotional problems influencing social functioning, and the vast majority of respondents from both groups report *no* effect on social functioning due to such problems (Table 7).
- A significantly higher percentage (33%) of members compared to nonmembers (26%) report having *no* bodily pain over the previous four weeks (Table 8). On a second item measuring the impact of pain, about half of both members and non-members indicate that pain has not interfered with their normal work over the previous four weeks.
- Of five items used to measure general health (Table 9), on only one was a significant difference between members and non-members found, with members being less likely to feel that their health "is going to get worse".
- The most prevalent health conditions (Figure 1) among all non-member respondents are neck or back problems (41%), allergies (38%), and arthritis (38%).
- The single largest percentage of both CHI members (29%) and nonmembers (22%) report engaging in moderate physical activities three times per week (Figure 2). No statistically significant difference exists between members and non-members.
- Significant differences exist between members and non-members on frequency of strenuous physical activity (Figure 3). About 22% of members indicate that they do not engage in strenuous activities, but a much larger percentage (41%) of non-members indicate so.
- Among the respondents who do no moderate or strenuous activities regularly, CHI members express a much higher likelihood of beginning a moderate or strenuous activity program within the next year (Figure 4).

About 38% of members indicate that they are "very likely" to begin, while only 15% of non-members indicate so.

- Nearly equal majorities of CHI member respondents (63%) and nonmember respondents (67%) indicate that they would like to increase their level of exercise (Figure 5).
- Those who exercise more often tend to be happy with their level of exercise, while those who exercise less tend to want to increase their level of exercise (Figure 6).
- Large majorities of both members (70%) and non-members (62%) would like to lose some weight (Figure 7), and vast majorities of members (94%) and non-members (92%) believe they can lose the weight (Figure 8).
- Those who want to lose weight were asked whether they are currently dieting. There is a significant difference between the percentage of members (41%) and non-members (28%) who are currently dieting (Figure 9). Majorities of members (59%) and non-members (61%) who would like to lose weight but are not currently dieting do *not* plan to diet within the next year (Figure 10).
- Strong majorities of both members (77%) and non-members (69%) strongly agree that maintaining ideal weight is important to health, and this difference between members and non-members is significant (Figure 11).
- Majorities of members (90%) and non-members (63%) indicate that within the last year they have encouraged others to exercise. Within the past year about 58% of members and about 48% of non-members have encouraged others to lose weight. On both of these items, the higher percentage of members engaging in these behaviors is significant (Figure 12).
- A series of questions assessed whether respondents understand some of the potential health effects of obesity, and members are significantly more aware of the connection between obesity and cancer and obesity and osteoarthritis (Figure 13).
- When asked to identify the health benefits of exercise, members were more likely to mention "feel good" and "strength and energy", while non-members were more likely to mention "helps heart" (Figure 14).
- Satisfaction with the CHI is very high among members, with 81% saying they are "very satisfied" and another 17% indicating "somewhat satisfied" (Figure 15).

- By far the largest single percentage (38%) of members visit the CHI three times per week. All measures of central tendency (mean, median, and mode) all have a value of three, consistent with the relatively high percentage reporting three visits per week (Figure 16).
- An extremely high level of awareness of the CHI exists among nonmembers, as 92% of non-members report hearing of the CHI. Fifty-two percent who have heard of the CHI have also visited the CHI.
- The single largest reason (52%) for not being a member among those who have heard of CHI but not joined is the cost of membership and other associated costs, such as gym clothes and day care (Figure 17). The second most frequent response (27%) was not having enough time to take advantage of the membership.
- In terms of preferred medium for hearing about the CHI, the most popular way is newspaper (31%), followed closely by TV ads and commercials (27%), radio (18%), and direct mail (11%) (Figure 18).

#### Introduction

The Docking Institute of Public Affairs at Fort Hays State University conducted a survey of Hays Medical Center's Center for Health Improvement (CHI) members and a survey of non-members from the general population of adults in Ellis. The survey assessed self-reported health status, exercise activities, awareness of obesity's health effects, and perceptions of the CHI.

#### **Survey Instrument**

The Docking Institute and Hays Medical Center (HMC) agreed on the survey items used. It was the responsibility of the Docking Institute to help ensure technically correct and unbiased items were used. HMC had final approval of all survey items. The Appendix contains the questionnaire.

#### Survey Methodology

Between September 10, 2003 and September 29, 2003 the Docking Institute of Public Affairs through its University Center for Survey Research conducted a telephone survey of randomly selected CHI members. The Institute completed interviews with 333 of 397 members who were contacted, resulting in a cooperation rate of 84%. With the total number of CHI members at about 2000, these 333 responses offer a margin of error of +/-5% at a 95% confidence level, assuming no response bias. Between September 24, 2003 and October 21, 2003 the Institute conducted a telephone survey among randomly selected adults in Ellis County who are not members of the CHI. The Institute completed interviews with 400 of 669 households contacted, resulting in a response rate of 60%. This sample size of 400 offers a margin of error of +/-5% at a 95% confidence level, assuming no response bias.

## **Socio-Demographics**

Table 1 reports socio-demographic characteristics of both CHI members and non-members.

	Members	Non-Members
Age		
Mean	50 years	48 years
Median	50 years	47 years
Gender		
Male	34%	45%
Female	66%	55%
Occupational status		
Working	63%	66%
Homemaker	9%	7%
Unemployed	5%	6%
Retired	23%	20%
Highest Educational Level Attained*		
Eighth Grade Or Less	0%	3%
Some High School	2%	4%
High School Graduate	18%	23%
Vocational School	2%	5%
Some College	27%	32%
College Graduate (Bach)	25%	21%
Post College Graduate	25%	13%
Household Income*		
Less 10,000	5%	9%
Between 10,000 and 20,000	7%	14%
Between 20,000 and 30,000	8%	19%
Between 30,000 and 40,000	14%	11%
Between 40,000 and 50,000	15%	15%
Between 50,000 and 60,000	12%	12%
Between 60,000 and 70,000	8%	8%
Between 70,000 and 80,000	8%	5%
Over 80,000	22%	9%
Currently a College Student*	10%	18%

Table 1. Socio-Demographic Characteristics

Total No. People in Household		
One	20%	25%
Two	50%	37%
Three	13%	14%
Four	10%	17%
Five	5%	6%
Six	2%	1%
Seven	.3%	1%
Eight	.3%	0%
Hispanic	1%	1%
Race		
White	96.7%	96.2%
Black Or African American	.3%	0%
Biracial	.9%	1.5%
American Indian Or Alaskan Native	.9%	.5%
Asian	.6%	.8%
Native Hawaiian Or Other Pacific Islander	.3%	0%
Some Other Race	.3%	1.0%

## Table 1. Socio-Demographic Characteristics (continued)

\* P<=.05

The average age of CHI members (50) is two years older than nonmembers (48), and this is not significantly different. About 66% of respondents in the member sample are female, and this is about 7% above the female presence (59%) in the full population of members. About 55% of the non-member respondents are female, and this is about 5% above the female presence in the general population. Thus, females are slightly over-represented in both the sample of members and non-members. Occupational status is similar among members and non-members, about 63% of members working and 66% of nonmembers working. Analyzing educational status, members tend to show significantly higher levels of highest educational level achieved than nonmembers, particularly at the upper levels of educational attainment. Twenty-five percent of members have completed a graduate degree, while only 13% of nonmembers have done so. Significant differences in income also exist between

CHI members and non-members, with members having higher household incomes throughout the income distribution shown in Table 1. About 35% of members have household incomes of \$40,000 or less, while slightly over half (52%) of non-members have household incomes of this level. In addition, at the upper end of the income distribution, 22% of members have household incomes of \$80,000 or greater, while only 9% of non-members have incomes of this level. It is likely that this difference is at least partially due to medical personnel associated with HMC having a higher presence in the CHI membership population than in the general population. Analyzing household size, members are slightly more likely to have fewer people living in the household, although this difference is not significant. About 70% of members have household sizes of two or less, compared to 62% among non-members. There is a significantly lower presence of college students in the CHI-member sample (10%) than in the general population sample (18%). Ethnic and racial differences between members and non-members do not exist. Both samples are about 1% Hispanic and about 96% white.

## Health Item Scores and Scales

The present study incorporates RAND's 36-Item Health Survey, and its items are identical to the Medical Outcomes Study SF-36 as described in Ware and Sherbourne's 1992 publication (Rand, 2003). The scoring scheme used herein is that of the RAND 36-Item Health Survey (Health Survey), which differs somewhat from the MOS SF-36 scheme.

The Health Survey has eight scales: physical functioning, role limitations due to physical health, role limitations due to emotional problems, energy/fatigue, emotional well-being, social functioning, pain, and general health.

Table 2 shows each survey item, response distribution on each item, and central tendency and variability for the physical functioning scale.

	Limited	a Lot	Limited	a Little	Not	Not Limited At All		
Health limits you now in	(%	6)	(%	6)		(%)		
these activities:		Non-		Non-		Non-		
	Member	Member	Member	Member	Membe	er Member		
Vigorous activities such as	20	22	35	31	45	47		
running, lifting, heavy								
objects, or participating in								
strenuous sports								
Moderate activities such as	5	6	14	11	81	83		
moving a table, pushing a								
vacuum cleaner, bowling, or								
playing golf								
Lifting or carrying groceries	3	4	10	11	88	85		
Climbing several flights of	10	8	19	20	72	72		
stairs	-							
Climbing ONE flight of stairs	6	5	10	12	84	83		
Bending, kneeling, or	8	8	18	20	74	73		
stooping								
Walking more than a mile	13	12	10	16	76	72		
Walking several blocks	11	8	11	11	78	81		
Walking one block	7	6	7	6	87	88		
Bathing or dressing yourself	0	1	3	2	97	97		
				-				
		Mean			SD	)		
	Membe	er No	on-Member	Memb	er	Non-Member		
Physical Functioning Scale	88		89	26		24		
(min = 0, max = 100)								

Table 2. Physical Functioning Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members Results across all items are remarkably similar when comparing members to non-members. No significant differences between these two groups in distribution of responses exist. As would be expected the highest percentages of "Limited a Lot" responses occur on vigorous activities (20% among members and 22% among non-members), walking more than a mile (13% and 12%), walking several blocks (11% and 8%), and climbing several flights of stairs (10% and 8%).

The Physical Functioning scale was created by recoding the original metric of the scale items (1 = limited a lot, 2 = limited a little, 3 = not limited at all) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. All of the items in the Physical Functioning scale were recoded as follows: 1 = 0, 2 = 50, and 3 = 100. After recoding, scale items scores were simply summed and divided by the number of scale items to arrive at an average scale score. The mean score among members is 88, while the mean score among non-members is essentially the same at 89.

Table 3 shows the response distributions among member and nonmembers on the items of the Role Limitations Due to Physical Health scale. Vast majorities of both members and non-members indicated that they were not limited by physical health over the previous four weeks. In addition, responses are very similar between CHI members and non-members. No significant differences are found.

The scale was created by recoding the original metric of the scale items (1 = Yes, 2 = No) to a dichotomy with values of 0 or 100. The scale means of 85 (members) and 83 (non-members) reflect the high incidence of no limitations observed in the individual scale items, and they indicate no significant differences between members and non-members in terms of life role activities as a result of physical health problems over the previous four weeks.

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Table 3. Role Limitations Due to Physical Health Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members<sup>a</sup>

During the past four weeks, have you had any of the following problems with your work or with other	Y. (9	es %)	No (%)		
health?	Member	Non- Member	Member	Non- Member	
Had to cut down on the amount of time you spent on work or other activities	12	10	88	90	
Have accomplished less than you would like	15	19	85	81	
Were limited in the kind of work or other activities you could do	18	21	82	79	
	Me	ean	S	D	
		Non-		Non-	
	Member	Member	Member	Member	
Role Limitations Due to Physical Health Scale (min = 0, max = 100)	85	83	30	31	

a. The RAND 36-Item Health Survey includes a fourth item in this scale. This item was inadvertently omitted from the survey instrument used in the present study. Since the scale is averaged based on the number of items in the scale, this omission does not affect the range of the scale. However, it is unknown how much the omission of this item reduced comparability to other studies using the same set of items to create the Role Limitations Due to Physical Health scale.

Table 4 reports the response distributions among items that form the Role Limitations Due to Emotional Problems scale. Even lower percentages of respondents report limitations due to emotional problems than report limitations due to physical problems (see Table 3). Also, there are no significant differences between members and non-members on the items of the Role Limitations Due to Emotional Problems scale.

The scale was created by recoding the original metric of the scale items (1 = Yes, 2 = No) to a dichotomy with values of 0 or 100. The scale means of 92 (members) and 91 (non-members) reflect the high incidence of no limitations observed in the individual scale items, and they indicate no significant differences between members and non-members in terms of life role activities as a result of emotional problems over the previous four weeks.

#### Table 4. Role Limitations Due to Emotional Problems Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

During the past four weeks, have you had any of the following problems with your work as a result of any	Y. (9	es %)	۸ (۲	lo %)
emotional problems such as reeling depressed of		Non-		Non-
	Member	Member	Member	Member
Had to cut down on the amount of time you spent on work or other activities	5	7	95	93
Have accomplished less than you would like	8	10	92	90
Were limited in the kind of work or other activities you could do	12	12	88	88
	Me	ean	S	D
		Non-		Non-
	Member	Member	Member	Member
Role Limitations Due to Emotional Health Scale (min = 0, max = 100)	92	91	21	23

Four survey items were used to measure energy level among members and non-members. Table 5 shows the distributions of response to the four items used to create the Energy/Fatigue scale. For the two items, "feel full of pep" and "had a lot of energy", the single largest percentage (mid 40% range) of both CHI members and non-members reported feeling like this most of the time. Turning to the "feel worn out" and the "feel tired" items, the single largest percentage of respondents answered "a little of the time" (about 40% of members and 38% of non-members). No significant differences exist between members and nonmembers on these four sub-items of the Energy/Fatigue scale.

The scale was created by recoding the original metric of the scale items (1 = All of the Time, 2 = Most of the Time, 3 = A Good Bit of the Time, 4 = Some of the Time, 5 = A Little of the Time, 6 = None of the Time) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. This resulted in the following recoding for the first and second items of the scale: 1 = 100, 2 = 80, 3 = 60, 4 = 40, 5 = 20, 6 = 0 [the recoding of the last two items was reversed to be consistent with the directionality of the first two scale items]. After recoding, scale items scores were

simply summed and divided by the number of scale items to arrive at an average scale score. There is no significant difference in the mean scale scores of members (64) and non-members (62), with the means in the low 60s indicating a tendency toward having energy a "good bit of the time".

	All of the		Mos	Most of		A Good		Some of		A Little of		None of	
How much of the time	Ti	me	the Time		Bit of the		the Time		the Time		the Time		
during the past four	/0	()	/0	2/ )	- Ті	Time		/)	(0	/)			
uuning the past loui	0	<i>'</i> 0)	C	/0)	11	rime		0)	()	<i>'</i> 0)	(%)		
weeks					("	%)							
	Μ	NM	Μ	NM	Μ	NM	М	NM	Μ	NM	М	NM	
Feel full of pep (energy)	3	4	47	45	22	17	18	22	8	8	2	4	
Had a lot of energy	5	5 5		44	12	16	24	20	10	13	3	4	
Feel worn out	2	4	6	8	5	6	30	31	41	38	15	13	
Felt tired	4	6	8	10	7	8	35	34	40	38	6	4	
			Me	ean					S	D			
	Ν	/lembe	er	Nor	n-Merr	nber	Member		er	Nor	n-Merr	nber	
Energy/Fatigue Scale	64			62		20			21				
(min=0, max=100)													

Table 5. Energy/Fatigue Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

The health survey also assessed emotional health status. A number of items were administered as part of the Emotional Well-Being scale. Table 6 reports the distribution of responses across these emotional well-being items. There are statistically significant although substantively small differences between CHI members and non-members on two of the five items that constitute this scale. About 85% of members said that within the previous four weeks they never felt so down in the dumps that they and could not cheer up while only 78% of non-members said so. In addition, 19% of members indicated that within the previous four weeks they have been a happy person all of the time, while only 15% of non-members indicated so.

The scale was created by recoding the original metric of the scale items (1 = All of the Time, 2 = Most of the Time, 3 = A Good Bit of the Time, 4 = Some of the Time, 5 = A Little of the Time, 6 = None of the Time) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. This resulted in the following recoding for the third

and fifth of the scale: 1 = 100, 2 = 80, 3 = 60, 4 = 40, 5 = 20, 6 = 0 [the recoding of the first, second, and fourth items was reversed to be consistent with the directionality of the third and fifth items]. After recoding, scale items scores were simply summed and divided by the number of scale items to arrive at an average scale score. There is no significant difference in the mean scale scores of members (84) and non-members (82), with the means in the low to mid 80s indicating a tendency toward having positive emotional well being "most of the time."

Llow much of the time		ftha	Montof		A Cood		Somo of		A Little of		None of		
How much of the time		n the	IVIO	SUO	A GUUU		Some of		A Little OI		of None of		
during the past four	Ti	Time		the Time		Bit of the		the Time		the Time		the Time	
weeks	(9	(%)		%)	Ti	me	(9	6)	(%	6)	(%	%)	
	( )	-)	``	, - ,	(0	%)	( )	-)	( )	-)	( )	-)	
	Ν.4	NIN/	N.4	N IN A			5.4		N.4		NA		
	IVI	INIVI	IVI	INIVI	IVI	INIVI	IVI	INIVI	IVI	INIVI	IVI	INIVI	
Been a nervous person	2	1	2	3	2	3	9	11	31	32	54	51	
Felt so down in the	0	1	1	1	2	1	4	6	8	14	85	78	
dumps that nothing													
could cheer you up *													
Felt calm and peaceful	12	11	59	58	11	12	12	13	5	6	2	2	
Folt downboarted and	1	1	1	2	2	2	7	0	20	22	50	55	
Feit downnearted and	I	1	1	2	3	2		9	29	32	59	55	
blue													
Been a happy person *	19	15	65	65	6	12	8	6	2	3	0	1	
			Me	ean					S	D			
	Member			Nor	n-Merr	nber	Ν	/lembe	er	Nor	n-Merr	nber	
Emotional Well-Being	84				82		14				15		
Scale													
(min=0 max=100)													

Table 6. Emotional Well-Being: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

\* P<=.05

Another scale measures social functioning. The Social Functioning scale is made up of only two items described in Table 7. Examining the first item, the vast majority (80% among members, 78% among non-members) indicate that within the previous four weeks neither physical nor emotional problems interfered at all with normal social activities. Similarly, the second item in the table shows that about three-fourths of both members and non-members indicate that physical or emotional problems interfered with social activities "none of the time."

#### Table 7. Social Functioning Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

During t normal s	During the past four weeks, to what extent has physical or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?										
Not	ot at All Slightly		Moderately		Quite a Bit		Extremely				
M	NM	M	NM	M	NM	M	NM	M	NM		
80	78	13	11	5	8	2	2	1	1		
During t interfere	During the past four weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting with friends or relatives?										
All of the	ne Time	Most of	the Time	Some of the Time		Little of the Time		None of the Time			
(	%) NB4	(*	(o)	(%	(o)	(%	(o)	(%	(o)		
M	NIVI	IVI	NM	IVI	NIVI	IVI	NM	IVI	NIVI		
1	1	1	1	8	7	13	17	77	75		
Social Functioning scale (min=0, max= 100)											
		Mean					SD				
Ν	/lember		Non-Mer	nber	Member			Non-Member			
	92		91			17		17			

The scale was created by recoding the original metric of the first scale item in Table 7 (1 = Not at All, 2 = Slightly, 3 = Moderately, 4 = Quite a Bit, 5 = Extremely) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. This resulted in the following recoding for the item: 1 = 100, 2 = 75, 3 = 50, 4 = 25, 5 =0. The second scale item in Table 7 was recorded in a reverse order, so that it had the same directionality as the first item. After recoding, scale items scores were simply summed and divided by the number of scale items to arrive at an average scale score. There is no significant difference in the mean scale scores of members (92) and non-members (91), with the means in the low 90s indicating a tendency toward no barriers to social functioning posed by physical or emotional problems within the previous four weeks.

A pain scale was also created, and consists of the two items described in Table 8. On the first pain scale item, a significant difference exists between CHI member and non-members. About 33% of members indicate having no body pain over the previous four weeks, while only 26% of non-members indicate so. Turning to the second item, about half of both members and non-members indicate that pain has not interfered with their normal work over the previous four weeks.

The Pain scale was created by recoding the original metric of the first scale item in Table 8 (1 = None, 2 = Very Mild, 3 = Mild, 4 = Moderate, 5 = Severe, 6 = Very Severe) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. This resulted in the following recoding for the item: 1 = 100, 2 = 80, 3 = 60, 4 = 40, 5 = 20, 6 = 0. The second item's metric (1 = Not at All, 2 = A Little Bit, 3 = Moderately, 4 = Quite a Bit, 5 = Extremely) was recoded as follows: 1 = 100, 2 = 75, 3 = 50, 4 = 25, 5 = 0. After recoding, scale items scores were simply summed and divided by the number of scale items to arrive at an average scale score. There is no significant difference in the mean scale scores of members (70) and non-members (69), with the means in the low 90s indicating a tendency toward none or very mild pain over the previous four weeks.

How much bodily pain have you had during the past four weeks? *											
No	ne	Very	Mild	N	1ild	Mode	erate	Sev	/ere	Very	Severe
(%	6)	(0	%)	(	%)	(%	5)	(%	%)	(%)	
М	NM	М	NM	М	NM	М	NM	М	NM	М	NM
33	26	28	30	19	19	14	18	5	7	1	1
During the past four weeks, how much did pain interfere with you normal work?											
Not	at All		A Little	Bit	Moderately C		Q	2uite a Bit		Extremely	
(	(%)		(%)		(%)		(%)		(%)		
М	NM	Ν	Λ	NM	М	NM	Μ	N	M	М	NM
52	49	2	6	27	14	14	6	5	8	2	2
Pain Scale (min=0, max=100)											
		Me	ean					S	D		
	Vember		Non-Member			Ν	<b>Nembe</b>	r	N	on-Men	nber
	70			69			21			22	
* • •											

Table 8. Pain Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

<sup>\*</sup> P<=.05

Following the RAND 36-Item Health Survey protocol, the final scale is the General Health scale. Table 9 reports the distributions of items in the General Health scale. On one item, "I expect my health to get worse", members and non-members differed significantly, with several percentage points difference throughout the categories of the scale. Non-members tend to expect their health to get worse more so than CHI members.

The scale was created by recoding the original metric of the first scale item (1 = Excellent, 2 = Very Good, 3 = Good, 4 = Fair, 5 = Poor) and the original metric of the third and fifth scale items (1 = Definitely True, 2 Mostly True, 3 = Don't Know, 4 = Mostly False, 5 = Definitely False) to a metric ranging from 0 to 100 divided into equal segments corresponding to the proportions present in the original metric of the item. This resulted in the following recoding for the first, third, and fifth items of the scale: 1 = 100, 2 = 75, 3 = 50 4 = 25, 5 = 00 [the recoding of the second and fourth items was reversed to be consistent with the directionality of the other scale items]. After recoding, scale items scores were simply summed and divided by the number of scale items to arrive at an average scale score. There is no significant difference in the mean scale scores of members (73) and non-members (71), with the means in the low 70s indicating a tendency toward a self-rating of health in the "very good" to "good" range.

## Table 9. General Health Scale: Sub-Item Responses, Central Tendency and Variability Among CHI Members and Non-Members

	Excellent (%)		Very Good		Good		Fair		Poor	
			(%)		(%)		(%)		(%)	
	M	NM	M	NM	M	NM	M	NM	M	NM
In general would	17	15	39	38	32	34	9	12	3	2
you say your										
health is										
	Definitely								Definitely	
	Irue		Mostly I rue		Don't Know		Mostly False		False	
	(%)		(%)		(%)		(%)		(%)	
	M	NM	M	NM	M	NM	M	NM	M	NM
I seem to get	4	3	1	1	2	2	28	30	59	58
sick a little										
easier than other										
people.				10				10		-
I am as healthy	34	32	47	48	2	2	11	12	6	6
as anybody that										
I know.	-	_								
I expect my	5	7	14	19	4	6	31	29	46	39
health to get										
worse.*										
My health is	25	24	55	53	1	1	14	16	6	8
excellent										
	Mean					SD				
	Member		Non-Member			Member		1	Non-Member	
General Health	73			71			19		20	
Scale										
(min=0,										
max=100)										

\* P<=.05

### Specific Health Conditions Among CHI Non-Members

The Institute's survey of the general population of Ellis County asked respondents whether he/she has specific health conditions. The following discussion is intended to provide the Center for Health Improvement with information it can compare to its own records of specific health conditions among its members. Figure 1 shows that incidence of particular self-reported health problems among CHI non-members.



Figure 1. Health Conditions Among Non-Members

The most prevalent health conditions among all non-member respondents are neck or back problems (41%), allergies (38%), and arthritis (38%). Of the seven health conditions assessed six are slightly more prevalent among females than males (allergies, arthritis, neck or back problems, high blood pressure, digestive problems and depression). None of the differences are statistically significant by sex.

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### Levels of Physical Activity

Respondents were asked to indicate on average about how many times per week they engage in moderate physical activities and in strenuous physical activities. Figure 2 shows responses to the question, "On average, about how many times per week do you participate in moderate physical activities such as golfing, dancing, walking, or gardening?" The single largest percentage of both CHI members (29%) and non-members (22%) report engaging in moderate physical activities three times per week. No statistically significant difference in frequency of moderate exercise per week exists between members and nonmembers.



Figure 2. Frequency of Moderate Physical Activities Per Week

Figure 3 shows the responses to the question on strenuous activities, "On average, about how many times per week do you participate in strenuous physical activities such as swimming, running or jogging, fast cycling, lifting weights, or moving furniture or other heavy objects?" Significant differences exist between members and non-members. About 22% of members indicate that they do not engage in strenuous activities, but a much larger percentage (41%)

of non-members indicates so. Larger percentages of members than nonmembers report engaging in strenuous activities at frequencies of one time per week all the way through six times per week. These results indicate that members tend to engage in strenuous activity more than do non-members.





#### \* P<=.05

Respondents who indicated that on average they do no moderate or strenuous exercise were asked, "How likely are you to start moderate or strenuous physical activities within the next twelve months." The chart in Figure 4 shows CHI members expressing much higher likelihood of beginning a moderate or strenuous activity program within the next year. About 38% of members indicate that they are "very likely" to begin, while only 15% of nonmembers indicate so. Moreover, by far the single largest percentage (52%) of non-members report that they are "not at all likely" to start moderate or strenuous activities during the next year. This difference between members and nonmembers is statistically significant.



Figure 4. Non-Exercisers: Likelihood of Starting Within Year\*

#### \* P<=.05

All respondents were asked whether they were happy with their current level of exercise. Figure 5 shows that nearly equal majorities of respondents among both the member group (63%) and the non-member group (67%) indicate that they would like to increase their level of exercise.

Analyses of the associations between satisfaction with exercise level and frequency of moderate exercise and frequency of strenuous exercise finds that those who exercise more often tend to be happy with their level of exercise, while those who exercise less tend to want to increase their level of exercise. This is reflected by the results shown in Figure 6. At lower frequencies of both moderate and strenuous exercise per week, there is a tendency to want to increase levels of exercise, while at higher frequencies of exercise, there is a stronger tendency toward being happy with one's level of exercise.



Figure 5. Desired Change in Level of Exercise

Figure 6. Satisfaction with Level of Exercise by Frequency of Moderate and Strenuous Exercise



## Satisfaction With and Attitudes About Body Weight

Respondents were asked, "Would you like to lose some weight, gain some weight, or stay the same size?" Figure 7 shows that large majorities of both members (70%) and non-members (62%) would like to lose some weight. There is no significant difference in response distributions between members and non-members.





Those who indicated that they would like to lose some weight were asked two follow-up questions: "Do you believe that you can lose the weight" and "Are you currently dieting?" Figure 8 shows the response distribution on the first follow-up question. Vast majorities of members (94%) and non-members (92%) believe they can lose the weight.



Figure 8. Those Wanting to Lose Weight: Believe Can Lose the Weight

Figure 9 shows whether those who want to lose some weight are currently dieting. There is a significant difference between the percentage of members (41%) and non-members (28%) who are currently dieting.

A follow-up question was asked of the non-dieters, "Do you plan to diet within the next twelve months?" Figure 10 shows that majorities of members (59%) and non-members (61%) who would like to lose weight but are not currently dieting do *not* plan to diet within the next year.



Figure 9. Those Wanting to Lose Weight: Currently Dieting

Figure 10. Those Who Want to Lose Weight but Not Currently Dieting: Plan to Diet Within Next Year



Respondents were asked how strongly they agree that maintaining ideal weight is important for health reasons. Figure 11. shows that strong majorities of both members (77%) and non-members (69%) strongly agree that maintaining ideal weight is important to health, and this difference between members and non-members is significant.



Figure 11. Agreement that Maintaining Ideal Weight is Important to Health\*

\* P<=.05

The conclusion of the questions regarding attitudes and behaviors with regard to "weight" sought to determine the extent to which respondents have encouraged others to exercise and to lose weight. Majorities of members (90%) and non-members (63%) indicate that within the last year they have encouraged others to exercise. Within the past year about 58% of members and about 48% of non-members have encouraged others to lose weight. On both of these items, there is a significantly higher percentage of members engaging in these behaviors.



Figure 12. Encouraged Others to Exercise\* and to Lose Weight\*

\* P<=.05

#### Awareness of Obesity Health Effects and Benefits of Exercise

A series of questions assessed whether respondents understand some of the potential health effects of obesity. To assess the presence of response set, one condition unrelated to obesity (hair loss) was embedded in the set of questions. Figure 13 shows that with the exception of cancer and osteoarthritis, awareness that obesity can cause the health effects noted is at 90% or above among both members and non-members. Where awareness is lower, cancer and osteoarthritis, there is a significant difference in awareness among members and non-members. About 45% of members are aware that obesity can cause cancer, while only about 32% of non-members are aware of this. About 71% of members are aware that obesity can contribute to osteoarthritis, while 63% of non-members are aware. Response set does not appear to be too problematic as less than 20% of respondents identified hair loss as a consequence of obesity.





Respondents were asked to name three benefits of exercise. Figure 14 shows the types of responses that were mentioned. The four most commonly mentioned items were the same for members and non-members, "feel good," "strength and energy," "better health," and "lose weight." On three items there is a significant difference between member and non-member responses, "feel good," "strength and energy," and "heart help". Contrasting members and non-members, members were more likely to mention "feel good" and "strength and energy." Non-members were more likely to mention "help heart."



Figure 14. Respondent-Offered Three Benefits of Exercise

\* P<=.05

## Experience With and Attitudes About the Center for Health Improvement

Members were asked about their overall satisfaction with the CHI. Figure 15 shows extremely high levels of satisfaction, with 81% saying they are "very satisfied" and another 17% indicating "somewhat satisfied."





Members were also asked, "On average, about how many times per week do you go to the Center for Health Improvement?" Figure 16 shows that by far the largest single percentage (38%) of members visit three times per week. All measures of central tendency (mean, median, and mode) are all three, consistent with the relatively high percentage reporting three visits per week. The second largest percentage (18%) visit four times per week, followed by equal percentages (12%) indicating five times per week and less than once per week.



Figure 16. Average Number of CHI Visits Per Week for Exercise

To determine awareness of the CHI among non-members in the general population of Ellis County, non-members were asked whether they had heard of Hays Medical Center's CHI before the present survey. An extremely high level of awareness exists, as **92%** of non-members report hearing of the CHI. Those who reported hearing of the CHI were asked whether they had visited the CHI. **Fifty-two percent** report having visited the CHI. The non-members who had heard of the CHI, were asked, "What are the main reasons you have not become a member?" Figure 17 shows that the single largest reason (52%) for not being a member is cost of membership and other associated costs, such as gym clothes and day care. About 27%, the second most frequent response, was not having enough time to take advantage of the membership.

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Figure 17. Non-Members Reasons for Not Being a CHI Member

To help CHI in its effort to educate the public about the services of the Center, non-members were asked, "How would you prefer to hear about the Center for Health Improvement?" Figure 18 shows that the most popular medium of information is newspaper (31%), followed closely by TV ads and commercials (27%). In third place is radio, with 18% indicating this to be their preferred way of hearing about the CHI, and in fourth place at 11% is direct mail. Relatively small percentages mentioned flyers or posters (7%), local cable channel (2%), e-mail (2%), and a website (1%).



Figure 18. Non-Members Preferred Way to Hear About CHI

References

RAND, 2003. http://www.rand.org/health/surveys/sf36item

## Appendix

#### HAYS MEDICAL CENTER/CENTER FOR HEALTH IMPROVEMENT SURVEY

#### **Q: INTRO FOR COMMUNITY SURVEY**

Hi, I'm calling from the Center for Survey Research at Fort Hays State. We are conducting a 7-10 minute survey about health and exercise. I need to speak to the adult in the household over the age of 17 who has had the most recent birthday. Is that you?

REPEAT INTRO IF NEEDED

All your answers will remain strictly confidential. Do you have a few minutes?

### Q: INTRO FOR MEMBER SURVEY

Hi, I'm conducting a health survey on behalf of the Center for Health Improvement at the Hays Medical Center. May I speak with\_\_\_\_\_? REPEAT INTRO IF NEEDED

The survey will take about 10 minutes, and all answers will remain strictly confidential. Do you have a few minutes?

### Q: Q1

Ok. First, I will ask some questions about how you feel, and about how well you are able to do your usual activities. In general, would you say your health is: 1 Excellent

2 Very good 3 Good 4 Fair 5 Poor 8 DON'T KNOW 9 REFUSED

## Q: Q2

Compared to one year ago, how would you rate your health in general NOW? [READ RESPONSES] 1 Much better now 2 Somewhat better now 3 About the same 4 Somewhat worse now 5 Much worse now 8 DON'T KNOW 9 REFUSED Q: Q3a

The following questions are about activities you might do during a typical day. We want to know if your health NOW limits you in these activities. Are you limited a lot, limited a little, or not limited at all when it comes to vigorous activities such as running, lifting heavy objects, or participating in strenuous sports?

[RE-READ RESPONSES IF NEEDED]

1 Limited a lot 2 Limited a little

3 Not limited at all

8 DON'T KNOW 9 REFUSED

IF (ANS = 3) SKP Q4a

Q: Q3b

Are you limited a lot, limited a little, or not limited at all when it comes to moderate activities such as moving a table, pushing a vacuum cleaner, bowling, or playing golf?

[RE-READ RESPONSES IF NEEDED]

1 Limited a lot

2 Limited a little

3 Not limited at all

8 DON'T KNOW

9 REFUSED

Q: Q3c

Are you limited a lot, limited a little, or not limited at all when it comes to lifting or carrying groceries?

[RE-READ RESPONSES IF NEEDED]

1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW

9 REFUSED

Q: Q3d How about when it comes to climbing several flights of stairs? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED IF (ANS = 3) SKP Q3f

Q: Q3e How about when it comes to climbing ONE flight of stairs? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED Q: Q3f How about when it comes to bending, kneeling, or stooping? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED Q: Q3g Are you limited a lot, limited a little, or not limited at all when it comes to walking

more than a mile? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED If (ANS = 3) SKP Q3j

Q: Q3h How about when it comes to walking several blocks? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED If (ANS = 3) SKP Q3j

Q: Q3i How about when it comes to walking one block? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED Q: Q3j How about when it comes to bathing or dressing yourself? [RE-READ RESPONSES IF NEEDED] 1 Limited a lot 2 Limited a little 3 Not limited at all 8 DON'T KNOW 9 REFUSED

#### Q: Q4a

During the past four weeks, have you had any of the following problems with your work or with other regular daily activities as a result of your physical health? For example, during the past four weeks, have you had to cut down on the AMOUNT OF TIME YOU SPENT on work or other activities?

1 Yes

2 No

8 DON'T KNOW 9 REFUSED

Q: Q4b

During the past four weeks, have you ACCOMPLISHED less than you would like because of your physical health?

1 Yes

2 No

8 DON'T KNOW 9 REFUSED

Q: Q4c

During the past four weeks, were you limited in the KIND of work or other activities you could do because of your physical health?

1 Yes

2 No 8 DON'T KNOW

9 REFUSED

SILLI USEL

Q: Q5a

During the past four weeks have you had any of the following problems with work as a result of any emotional problems such as feeling depressed or anxious? For example, have you cut down on the amount of time you spent on work or other activities AS A RESULT OF EMOTIONAL PROBLEMS?

1 Yes

2 No

8 DON'T KNOW

9 REFUSED

#### Q: Q5b

Have you accomplished less than you would like as a result of emotional problems?

1 Yes

2 No

8 DON'T KNOW

9 REFUSED

Q: Q5c

Have you not been able to do work or other activities as CAREFULLY as usual? 1 Yes 2 No

8 DON'T KNOW 9 REFUSED

### Q:Q6

During the past four weeks, to what extent has physical or emotional problems interfered with your normal social activities with family, friends, neighbors, or groups?

[READ RESPONSES] 1 Not at all 2 Slightly 3 Moderately 4 Quite a bit 5 Extremely 8 DON'T KNOW 9 REFUSED

Q:Q7 How much bodily pain have you had during the past four weeks? [READ RESPONSES] 1 None 2 Very mild 3 Mild 4 Moderate 5 Severe 6 Very severe 8 DON'T KNOW 9 REFUSED IF (ANS = 1) SKP Q9a

#### Q: Q8

During the past four weeks, how much did pain interfere with your normal work (including both work outside the home and housework)? [READ RESPONSES] 1 Not at all 2 A little bit 3 Moderately 4 Quite a bit 5 Extremely 8 DON'T KNOW 9 REFUSED

Q: Q9a

These next questions are about how you feel and how things have been with you during the past four weeks. For each question, please give the one answer that comes closest to the way you have been feeling. How much of the time during the past four weeks did you feel full of pep (energy)?

- [READ RESPONSES]
- 1 All the time
- 2 Most of the time
- 3 A good bit of the time
- 4 Some of the time
- 5 A little of the time
- 6 None of the time
- 8 DON'T KNOW
- 9 REFUSED
- Q: Q9b

How much of the time during the past four weeks have you been a very nervous person? [READ RESPONSES] 1 All the time 2 Most of the time

- 3 A good bit of the time 4 Some of the time
- 5 A little of the time
- 6 None of the time
- 8 DON'T KNOW
- 9 REFUSED

### Q: Q9c

How much of the time during the past four weeks have you felt so down in the dumps that nothing could cheer you up? [READ RESPONSES] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED Q: Q9d

How much of the time have you felt calm and peaceful? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED Q: Q9e

How much of the time have you had a lot of energy? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED Q: Q9f How much of the time have you felt downhearted and blue? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED

Q: Q9g How much of the time did you feel worn out? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED

Q: Q9h How much of the time have you been a happy person? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED Q: Q9i How much of the time have you felt tired? [RE-READ RESPONSES IF NEEDED] 1 All the time, OR 2 Most 3 A good bit 4 Some 5 A little 6 Or, none of the time 8 DON'T KNOW 9 REFUSED

#### Q:Q10

During the past four weeks, how much of the time has your physical health or emotional problems interfered with your social activities like visiting with friends or relatives? [READ RESPONSES] 1 All of the time 2 Most of the time

3 Some of the time 4 A little of the time 5 None of the time 8 DON'T KNOW

9 REFUSED

#### Q: Q11a

How true or false is each of the following statements for you? I seem to get sick a little easier than other people.

[READ RESPONSES]

- 1 Definitely true
- 2 Mostly true
- 3 Mostly false
- 4 Definitely false
- 8 or Don't know
- 9 REFUSED

Q: Q11b

I am as healthy as anybody that I know. [READ RESPONSES] 1 Definitely true 2 Mostly true 3 Mostly false 4 Definitely false 8 or Don't know

9 REFUSED

Q:Q11c I expect my health to get worse. [READ RESPONSES] 1 Definitely true 2 Mostly true 3 Mostly false 4 Definitely false 8 or Don't know 9 REFUSED

Q: Q11d My health is excellent. [READ RESPONSES] 1 Definitely true 2 Mostly true 3 Mostly false 4 Definitely false 8 or Don't know 9 REFUSED

#### Q: Q12a

Now I am going to mention some health problems. Please tell me whether you think each is a consequence of being overweight. Can being overweight cause cancer? 1 Yes

2 No 8 DON'T KNOW

9 REFUSED

Q: Q12b Can being overweight cause a stroke? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q12c Can being overweight cause hair loss? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED Q: Q12d Can being overweight cause diabetes? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q12e Can being overweight cause psychological problems? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q12f Can being overweight cause high blood pressure? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q12g Can being overweight cause osteoarthritis? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED Q: Q13

Please name three benefits of exercise that you can think of.

1 Better health

2 Strength or energy

3 Endurance

4 Muscles

5 Lose weight

6 Look good

7 Help blood pressure

8 Help heart

9 Help bones and joints

- 10 Reduce cholesterol
- 11 Prevent heart attack
- 12 Prevent stroke
- 13 Prevent diabetes
- 14 Prevent cancer

15 Relax

- 16 Relieve stress
- 17 Help depression

18 Feel better

19 Other (specify)

88 DON'T KNOW

99 REFUSED

Q: Q14

On average, about how many times per week do you participate in moderate physical activities such as golfing, dancing, walking, or gardening?

- 1 time
- 2 times
- 3 times

4 times

5 times

6 times

7 times

8 or more times 77 NONE

88 DON'T KNOW

99 REFUSED

#### Q: Q15

On average, about how many times per week do you participate in strenuous physical activities such as swimming, running or jogging, fast cycling, lifting weights, or moving furniture or other heavy objects?

4 times 5 times 6 times 7 times 8 or more times 77 NONE

88 DON'T KNOW 99 REFUSED

## ONLY THOSE THAT SAY NONE TO BOTH Q14 AND Q15 GET Q16

#### Q: Q16

How likely are you to start moderate or strenuous physical activities within the next 12 months?

- 1 Very likely
- 2 Somewhat likely 3 Not at all likely 8 DON'T KNOW
- 9 REFUSED

## Q: Q17

Would you say that you are happy with your current exercise level, would like to increase it, or would like to decrease it?

1 Happy with it 2 Want to increase it 3 Want to decrease it 8 DON'T KNOW 9 REFUSED

## Q: Q18

Would you like to lose some weight, gain some weight, or stay the same size? 1 Lose some weight 2 Gain some weight 3 Stay the same size 8 DON'T KNOW 9 REFUSED IF (ANS IS NOT 1) SKP Q20 Q: Q18a Do you believe that you can lose the weight? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q19 Are you currently dieting? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED IF (ANS IS NOT 1) SKP Q19b

#### DIETERS ONLY

Q: Q19a Which diet are you on? [ENTER NAME OR TYPE OF DIET] ENTER "DK" FOR DON'T KNOW ENTER "REF" FOR REFUSED SKP Q20 (DIETERS ARE DONE)

## NON-DIETERS (Q19b AND Q19c)

Q: Q19b Do you plan to diet within the next 12 months? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED IF (ANS IS NOT 1) SKP Q20

Q: Q19c Which diet do you plan to use? [ENTER NAME OR TYPE OF DIET] ENTER "DK" FOR DON'T KNOW ENTER "REF" FOR REFUSED

#### Q: Q20

Do you strongly agree, agree, disagree, or strongly disagree that maintaining ideal weight is important for health? [READ RESPONSES] 1 Strongly Agree 2 Agree 3 Disagree 4 Strongly disagree 8 DON'T KNOW 9 REFUSED

Q: Q21 In the last 12 months have you encouraged others to exercise? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q21b In the last 12 months have you encouraged others to lose weight? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

#### NONMEMBERS ONLY

Q: Q22 Before this survey, had you heard of Hays Medical Center's "Center for Health Improvement"? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

IF (ANS IS NOT 1) SKP Q24 Q: Q22a T: 8 5 Have you ever visited the Center for Health Improvement? 1 Yes

2 No 8 DON'T KNOW 9 REFUSED Q: Q22b

What are the main reasons you have not become a member?

1 Time (not enough)

2 Money (membership, clothes, daycare)

3 Facility (wrong equipment)

4 Don't know how to exercise

5 Schedule (of Center)

6 Distance/transportation

7 Didn't know about CHI

8 Don't like to exercise

9 Don't like HMC/CHI

10 No interest/just don't want to

11 Too hard

12 Embarrassed/Afraid

13 Boring

14 Hard to get or stay motivated

15 It's painful (hurts)

16 Too tired

17 Injury/health problems

18 Long term disability

77 Other

88 DON'T KNOW

99 REFUSED

SKP Q24 (SKIP OVER THE MEMBER QUESTIONS)

#### MEMBERS ONLY

Q:Q23 Overall, how satisfied are you with the Center for Health Improvement? [READ RESPONSES] 1 Very satisfied 2 Somewhat satisfied 3 Somewhat dissatisfied 4 Very dissatisfied 8 DON'T KNOW 9 REFUSED

Q: Q23a

On average, about how many times per week do you go to the Center for Health Improvement to exercise? 77 LESS THAN ONE 88 DON'T KNOW 99 REFUSED SKP Q25 (Q24 IS A NON-MEMBER QUESTION)

### NONMEMBERS ONLY

Q: Q24 How would you prefer to hear about the Center for Health Improvement? [READ AN EXAMPLE OR TWO IF NEEDED. CHOOSE ALL THAT APPLY] 1 TV ads and commercials 2 Local cable channel [FOR EXAMPLE: OUR CHANNELS 8, 14, 16, ETC] 3 Newspaper 4 Radio 5 Website on the internet 6 E-mail 7 Direct Mail 8 Flyers or posters 9 Other 77 DON'T WANT TO HEAR ABOUT THE CHI 88 DON'T KNOW 99 REFUSED Q:alergy Please tell me whether you have any of the following health conditions. Allergies 1 Yes 2 No 8 DON'T KNOW 9 REFUSED Q: arthr Arthritis or joint problems [INCLUDES KNEE OR HIP PROBLEMS] 1 Yes 2 No 8 DON'T KNOW 9 REFUSED Q: neckback Neck or back problems 1 Yes 2 No 8 DON'T KNOW 9 REFUSED Q: hibp High blood pressure 1 Yes 2 No 8 DON'T KNOW

9 REFUSED

Q: lung Lung or breathing problems 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: dig Digestive problems 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: depr Depression 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q25 Now I have a few questions about yourself. What year were you born? 8888 DON'T KNOW 9999 REFUSED

Q: Q26 Are you of Mexican or some other Hispanic origin? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q27 Do you consider yourself: 1 White 2 Black or African American 3 Biracial 4 American Indian or Alaskan Native 5 Asian 6 Native Hawaiian or Other Pacific Islander 7 Some other race 8 DON'T KNOW 9 REFUSED Q: Q28 Are you currently a college student? 1 Yes 2 No 8 DON'T KNOW 9 REFUSED

Q: Q29

What is the highest level of education you completed? [FIT ANSWER] 1 Eighth grade or less 2 Some high school 3 High school graduate 4 Vocational school 5 Some college 6 College graduate (Bachelors) 7 Post college graduate (Anything more than bachelors) 8 DON'T KNOW 9 REFUSED

Q: Q30

Are you working, a homemaker, unemployed, or retired? 1 Working 2 Homemaker 3 Unemployed 4 Retired 8 DON'T KNOW 9 REFUSED Q: Q31

Was your total family income for the last year above or below \$40,000? [IF BELOW \$40,000, READ THE FOLLOWING RESPONSES] 1 Was it less than \$10,000, 2 Between \$10,000 and \$20,000, 3 Between \$20,000 and \$30,000? 4 Or was it between \$30,000 and \$40,000? [IF ABOVE \$40,000, READ THE FOLLOWING RESPONSES] 5 Was it between \$40,000 and \$50,000, 6 Between \$50,000 and \$60,000, 7 Between \$60,000 and \$70,000, 8 Between \$70,000 and \$80,000 9 Or was it over \$80,000 88 DON'T KNOW 99 REFUSED Q: Q32
How many individuals including adults and children live in the household?
88 DON'T KNOW
99 REFUSED

Q: Q33 How tall are you? [ENTER FEET HERE, THEN CLICK NEXT AND ENTER INCHES] 88 DON'T KNOW 99 REFUSED

Q:Q33a ENTER INCHES 88 DON'T KNOW 99 REFUSED Q: Q34 How much do you weigh? 888 DON'T KNOW 999 REFUSED

Q: Q35 [SURVEYORS: ENTER GENDER SILENTLY. IF YOU DON'T KNOW BY NOW, ASK: ARE YOU A MALE OR FEMALE?] 1 Female 2 Male IF (ANS IS NOT 1) SKP Q36a

Q: Q36
Pregnancy can sometimes limit a woman's physical activity. To your knowledge are you now pregnant?
1 Yes
2 No
8 DON'T KNOW
9 REFUSED

#### NON MEMBER SURVEY ONLY

Q:Q36a [SILENTLY: DID THE RESPONDENT INDICATE ANY OTHER TEMPORARY CONDITION THAT LIMITS THEIR PHYSICAL ACTIVITY?] 1 YES 2 NO

Thank you for your participation in this survey.