The HealthLink Wellness Approach

"Pilot Program Results"

Executive Summary

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I. Executive Summary

HealthLink Program

The goal of HealthLink is to initiate a process of prevention and early detection that will become a model for expansion into other community settings. The hope is to create a community health culture that revolves around three principles:

- **Education:** Setting up comprehensive approaches to retiree health education.

- **Retiree Health Programs:** Reduce retiree risks; engage a large proportion of retirees in health monitoring with feedback and other health-promotion activities.

- **Partnerships:** Develop an extensive network of partnerships that engages the retirees in the fabric of the community. For example outreach from this project has in the past lead to networking with existing senior citizen programs throughout Rhode Island and southern New England.

The initial support of the Rhode Island AFL/CIO was critical in the acceptance of HealthLink by labor retirees and their local chapter leadership. With this base of support, HealthLink went on to established six regional screening centers in Rhode Island which are listed below. In addition to Rhode Island, there is also one screening center in Worcester Massachusetts but limited only to members of Teamsters Local 170 Retirees Chapter. Local 170 retirees have been very vocal supporters of the HealthLink approach and with the approval of the Center for Disease Control it was decided to include them in the HealthLink Project which was originally targeted for Rhode Island

HealthLink's Regional Centers:

- **Providence RI – United Commercial and Food Workers local 328 Union Hall**
- **Cranston RI – VFW Post 2812**
- **Warwick RI – BPO Elk's Lodge 2196**
- **Smithfield RI – BPO Elk's Lodge 2359**
- **East Providence RI – Teamster Local 251 Union Hall**
- **North Providence RI – St. Anthony's Church Hall**
- **Worcester MA - Teamsters Local 170 Union Hall**

HealthLink's wellness approach is designed for seniors based on their participation in regular medical screenings and feedback. The specific measures screened were: fasting blood glucose, blood pressure, high-density lipoproteins (HDL), total cholesterol (TC), smoking habits and body mass index (BMI). Four separate screening sessions were held at six Rhode Island regional centers and one in Massachusetts. The first screening was conducted in October 2002 and the last in June 2004. The intervention between screenings was feedback to retirees about their results and the recommended screening values they should try to achieve. Many retirees were

encouraged and did share the results of their screening sessions with their primary care physician for further follow-up. After assessing the results of the initial baseline screenings, workshops and other health education tools were developed to augment the medical screening and feedback program.

The pilot HealthLink Project had completed its final screening as of June 2004. The goal was to schedule screenings and follow-up long enough to determine whether any measured improvement in HealthLink members' screenings are in fact merely transitional due to the newness of the project or evidence of sustainable progress. Many studies have shown that any new initiative may have immediate impact driven by the newness of the experience but in the long term initial gains can recede into the background.

All four screening results indicate that HealthLink improvements are indeed sustainable. Results indicate that HealthLink's initial gains were upheld at the fourth and final screening. In some cases there is statistical evidence of additional modest improvements at the fourth and final screening. The significance of the fourth screening is that there is no evidence of backsliding. Sustained member support is evidenced by the fact that almost 70% of all eligible HealthLink members reported for at least 3 of the four scheduled screenings.

Retiree Input

In any intervention and follow-up project there are always those individuals who for what ever reason cannot make all the scheduled follow-up sessions. For HealthLink this was compounded by the fact that though we started with a cohort of 523 individuals who formally signed up for the wellness intervention and screening program, we did not close off enrollment once the screenings and interventions began in 2002. We found that members would call to inquire or just show up at a screening session requesting a neighbor or friend also join the HealthLink program. An additional 102 individuals took advantage of this on-going enrollment so that by the last series of screenings the total enrollment for the screening interventions grew to 625 individuals.

This did pose analytical issues for our statisticians but it was felt more important for HealthLink members, who took the time to promote the program to their fellow retirees, be heard and given a sense that their input is truly appreciated. The results break down the screenings based on each individual's screening schedule and not the calendar date of the screening. For example if an individual enrolled or only showed up in time for the 2nd scheduled screening in April 2003, that screening is considered that individual's 1st baseline entry screening. Eighty percent of the new add on members enrolled during the first or second scheduled screenings.

Statistical Results

Listed below are the results of all screenings. Table 1 lists fasting blood glucose levels for all four screenings. As the table points out, most progress was between baseline and the second screening. Immediate feedback for those with elevated measures is handled at the screening session and for those whose blood glucose was not in control, follow-up phone calls were made to assure that the member was acting on their medical condition. This was true for all the screening results

1. Glucose Level*				
	Screen #1	Screen #2	Screen #3	Screen #4
Normal (<=110)	51%	73%	78%	77%
Pre-Diabetes (111-124)	23%	13%	10%	10%
Diabetes (>= 125)	26%	15%	12%	13%
Total	100%	100%	100%	100%
*P< .01				

Table 2 below examines total cholesterol with the most immediate results seen after the first screening but steady progress right through to the last screening.

2. Total Cholesterol*				
	Screen #1	Screen #2	Screen #3	Screen #4
Normal (<200)	48%	60%	65%	71%
Above Avg. (200-239)	36%	30%	29%	26%
Elevated (>240)	16%	10%	5%	3%
Total	100%	100%	100%	100%
*P< .01				

Blood pressure is a major public health problem in the United States and though we have made progress, much more needs to be done. One of the key components for the improvement so far is our initiation of walking clubs and workshops on the DASH (Dietary Approaches to Stop Hypertension) eating plan. Reducing the numbers of those with hypertension from 61% to 37% is considerable progress. Unfortunately all too many members are in the pre-hypertension range. In future planning for HealthLink more thought should be given to exercise programs.

3. Blood Pressure*				
	Screen #1	Screen #2	Screen #3	Screen #4
Normal	6%	7%	13%	14%
Pre-Hypertension	33%	32%	47%	49%
Hypertension	61%	61%	40%	37%
Total	100%	100%	100%	100%
*P<.01				

HealthLink analysts have developed a composite score of risk for coronary heart disease. It is based on risk factors as defined by the Framingham Heart Study. The HealthLink Risk Profile (HRP) index is a composite of all the screening measures for a given individual and based on an individual's screenings, one can be classified as indicated in the first column of table 4. Those who are in the elevated categories (HRP 2-4) are immediately encouraged to follow-up with us or, in some instances, their primary care physician. When a wellness workshop is scheduled these individuals also receive a follow-up phone call to encourage their participation. The results to date have been very encouraging. The number of individuals whose risk is normal improved from 18% at screening #1 to 36% at screening #4. The more important risk reduction is for those in the elevated ranges (HRP 2-4), which reduced from 41% to 27%. These individuals have one or more screening results that are of immediate concern.

4. HealthLink Risk Profile*				
	Screen #1	**Screen #2**	**Screen #3**	**Screen #4**
0. Average Risk	**18%**	**21%**	**30%**	**36%**
1. Above Average Risk	**41%**	**40%**	**41%**	**37%**
2. Elevated Risk	**14%**	**13%**	**13%**	**15%**
3. Elevated-Moderate	**10%**	**12%**	**9%**	**7%**
4.Elevated-Severe Risk	**17%**	**13%**	**7%**	**5%**
Total	100%	100%	100%	100%
***P< .01**				

In terms of the aggregate risk reduction, statistically the greatest improvement occurred between the 2nd and 3rd screenings. This coincides with the major shift observed in improvement of blood pressure results. This was also the time when the DASH eating plan and walking clubs were introduced, specifically to make inroads in hypertension results.

Concluding Remarks

As was mentioned previously, the design of the project did require some additional analytical issues to be addressed. One of the analytical issues addressed by HealthLink statisticians is whether the results to date are biased in some way. For example, one could conclude that those who were motivated to attend all four screenings are healthier than those who were not available or did not show up for all four. Are the results observed to date an artifact of sicker individuals lost to follow-up while healthier members remained in the screening regime? A much more comprehensive analysis in the full report assesses this issue. Our analysis indicates that those who completed four sessions of follow-up and those with less than four recorded sessions did not statistically differ in health status at baseline. The interesting finding is that all participants were statistically comparable at baseline as measured by the HealthLink Profile Index and their progress was correlated with workshop and screening participation. There is ample statistical evidence that it was screening and workshops that were indeed of prime benefit. There is no statistical evidence that the observed results are due to a statistically biased differential in follow-up.

Most members know four screenings and two years of follow-up was the goal of this pilot phase. It is also significant that right up to the final series of screening sessions, HealthLink members recruited new members. This was done without any encouragement on our part. This fact and our statistical results is an indication HealthLink participant's accepted HealthLink's basic premise that they are the driving force for their improved health and we are a helping hand.