

Design, Development and Evaluation of Driver Wellness Programs

Technical Memorandum Number Three: Pilot Test Results and Marketing Plan

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INTRODUCTION

In May, 1997, the National Private Truck Council's (NPTC) Private Fleet Management Institute (PFMI) began a research program in cooperation with Sue Roberts Health Concepts, Inc., ATA Foundation, Inc., and the Federal Motor Carrier Safety Administration (FMCSA) to design, develop, and evaluate a model truck and bus driver wellness program. This wellness program is being developed to provide a resource for addressing truck and bus industry challenges in the area of driver safety, turnover, performance, job satisfaction, and industry competition. It is intended to provide strategies to give drivers opportunities for improved health.

As envisioned in the project workplan, this project has five primary research tasks:

Task	Title	Time Frame	Deliverable
1	Review of Literature and Programs	June 97 – Aug 97	Technical Memorandum One
2	Draft Core Wellness Program	Sept 97 – May 98	Technical Memorandum Two
3	Develop Core Wellness Program	June 98 – Aug 98	
4	Pilot Test and Evaluate Program	Sept 98 – Oct 99	Technical Memorandum Three
5	Marketing Plan	Oct 99 – Apr 00	Technical Memorandum Three

This document (Technical Memorandum Three) is the product of Tasks 3, 4 & 5 research efforts. Comprised of four major sections, the document includes:

- Program Review - review of Tasks 1 & 2 completed earlier
- Core Wellness Program - description of program design
- Pilot Test- description of test, analysis, and evaluation of data
- Marketing Plan

PROGRAM REVIEW

The research data has already been reported regarding the first two tasks of this research project in Technical Memorandum One and Two. However, the writers thought it would be beneficial to the reader if a summary of the research in Technical Memorandum One and Two was done as a review and introduction to the detailed research from Tasks 3–5 which is presented here. For more detailed information, the reader is referred back to Technical Memorandum One and Two.

Task 1: Review of Driver Health Literature and Programs

This task involved four subtasks:

- A. Review of the literature regarding driver health.
- B. Review of current wellness programs inside and outside the industry.
- C. Review of behavior change models.
- D. Review of wellness program design.

Summaries of findings by subtask are shown below:

Subtask A: Review of the Literature

1. The literature on driver health is scarce.
2. The prevalence of risk factors is much higher in drivers compared to the general population (often double).

Subtask B: Review of Wellness Programs

1. Most companies do not have programs (only one was reported in the literature).
2. The few companies with programs had trouble reaching drivers and therefore had much less participation than companies outside the industry.

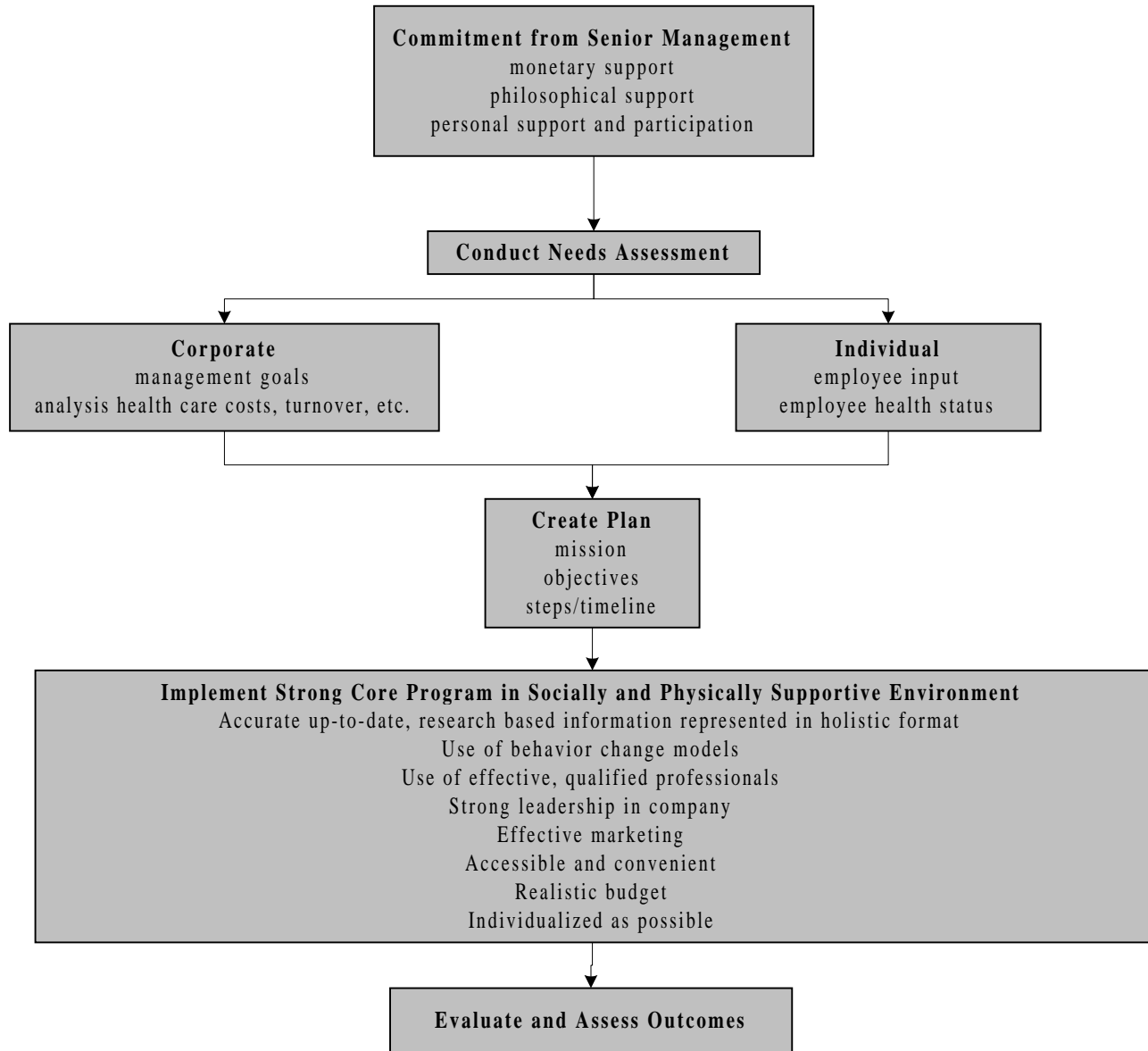
Subtask C: Review of Behavior Change Models

1. Trans Theoretical Model (stages of change).
2. Social Cognitive Theory.
3. Health Beliefs Model.
4. Community Participation.

Subtask D: Review of Wellness Program Design

The process and criteria necessary for program success are summarized in Figure One:

Figure One: Wellness Program Design



Task 2: Draft Core Wellness Program

This task comprised three subtasks:

- A. Determination of driver attitudes and perceptions.
- B. Determination of management perceptions.
- C. Draft of core wellness program.

Subtask A: Driver Attitudes and Perceptions

Attitudes and perceptions were determined through a national survey. This was conducted after four national focus groups were held to help develop the survey. A pretest was also conducted. Significant findings of the survey were:

1. Age, gender, primary driving job, and employer data were very similar to national statistics verifying representative sample of total population in our 448 responses (from 2750 sent).
2. Major health concerns of drivers were lack of family time, lack of exercise, weight, fatigue, poor diet, stress.
3. Drivers were in stages ready or trying to improve behavior in eating, exercise, stress management, self care and sleep.
4. Drivers most concerned about health were long haul TL, 40-60 years old, and those who do not currently exercise or eat well.
5. Drivers who more feel they are in control or are responsible for their own health tended to have better lifestyle habits (i.e., lower weight, more exercise, healthier eating, no tobacco).
6. Better eating habits composite score correlated significantly with the most healthy lifestyle habits.
7. A subgroup of "Healthy drivers" significantly exercised more, ate better, managed stress, etc., and felt more in control.

Subtask B: Management Attitudes and Perception

Attitudes and perceptions were determined by one-on-one interviews conducted with ten fleet executives. Major findings were:

1. Employee health is important. It has a direct impact on health care costs, absenteeism, workers compensation and bottom line.
2. Most companies were doing little to improve driver health. Many had concerns about driver participation and cost of wellness programs.

Subtask C: Core Wellness Program:

As described in the next section, an initial program design was drafted for steering committee approval in May, 1998. The following issues were used in the conceptualization of the design:

GETTIN' IN GEAR WELLNESS PROGRAM

Design of the 'Gettin' in Gear' Driver Wellness Program

It was thought the actual program design should have direct driver involvement for best results. To accomplish this, we invited 2 drivers from each of our pilot companies to be part of a Driver Task Force to provide input into the design of the program.

The Driver Task Force was made up of the following individuals:

Dave Ramos	Driver, DATTCO
Mark Sullivan.....	Driver, DATTCO
Gary Austin	Driver, Collins & Aikman Corporation
Herschell Summers, Jr.....	Driver, Collins & Aikman Corporation
Tom Rockwell	Driver Trainer, Ruan Transportation Management
Dave Stewart	Recruiter, Ruan Transportation Management
Bob Newhouse	Driver Trainer, Leprino Transportation
Al Griffen	Driver, ABF, America's Road Team Captain
Margaret Petersen.....	Driver, Roadway, America's Road Team Captain

The drivers and personnel working on the program met over a weekend in Des Moines, IA, during September, 1998. Drivers provided input into the design of the program. They shared experiences and thoughts, for the video which was produced. They spoke with interviewers, sharing their thoughts, for audio tapes which were produced. And finally, they provided quotes and ideas which were used in the written material.

It was hoped that driver input and involvement in actual materials produced would increase driver acceptance (i.e., drivers working with drivers).

The actual program design took into consideration:

1. Concepts presented on page 5.
2. Input from the wellness steering committee.
3. Input from the driver task force.

The final design is described in the following paragraphs.



Phase I: Recruitment

Industry Wide Awareness

Print media was to be used to draw industry awareness to the wellness concept and the Gettin' in Gear Program. This was accomplished through three articles featuring the Gettin' in Gear Program printed in *Over Drive, Commercial Carrier Journal and Transport Topics*.

Industry awareness was to be increased with use of a well known audio magazine. This was accomplished through the audio magazine *Super Driver* which featured stories and information from the Gettin' in Gear Program for several months.

Company Recruitment

A recruitment package was developed for companies to use to encourage drivers to enroll in the Gettin' in Gear program. This package had the following materials along with detailed instructions on how to use the materials.

- Gettin' in Gear Brochure See Attachment #1
- Gettin' in Gear Poster See Attachment #2
- Audio Magazine (*Super Driver*) See Attachment #3
- CEO Letter See Attachment #4
- Newsletter article See Attachment #5

This package was sent to the contact person at each of the pilot companies in December, 1998. They used the materials to recruit drivers in their company during January, 1999. In addition, the drivers who were on the Driver Task Force were asked to talk with fellow drivers to encourage them to participate in the program.

Phase II: Introduction

Introductory Package

An introductory package was developed to introduce the participant to the Gettin' in Gear Program. This package consisted of a box (with the Gettin' in Gear logo) containing:

- Gettin' in Gear Introductory Brochure See Attachment #1
- Gettin' in Gear Introductory Video See Attachment #6
- Gettin' in Gear Introductory Audio Tape See Attachment #7
- Gettin' in Gear Notebook See Attachment #8



The program was designed so that each participant received the Gettin' in Gear Introductory Package.

Introductory Seminar

An introductory seminar was designed to be given by project staff. All pilot groups were to receive this seminar except for one.

Health Assessment

A health assessment containing both a written lifestyle questionnaire and physical risk factor assessment was completed with each participant. Health assessments were done at each pilot company at the same time the introduction to the program was given. The assessment included:

1. Written Lifestyle Questionnaires

Health Habits History	See Attachment #9
Lifestyle related to Refueling, Rejuvenating, Relaxing, Relating	See Attachment #10
Health Knowledge	See Attachment #11
Health Beliefs	See Attachment #11

2. Physical Risk Factor Assessment

See Attachment #12

Total Cholesterol
HDL percentage of Total Cholesterol (calculated)
Glucose
Body Mass Index (calculated from height and weight)
Blood Pressure
Pulse
Aerobic Fitness- (step test)
Strength Fitness- (push ups)
Flexibility Fitness- (sit and reach)

All testing was done by trained personnel using standard procedures. The standards and procedures are explained in detail in Technical Memorandum Two.

3. Goal Setting

Each participant had the opportunity to speak with a health professional who explained their results and helped them set personal goals (if desired). An example of personal goals set for a participant can be viewed in Attachment #13.

The Introduction Phase was completed during the month of February, 1999.

Phase III: Action

Part One: Information Package

During this phase, the participants received information mailed directly to their home each of the four months. The material was designed to address the topics of Refueling, Relating, Rejuvenating, and Relaxing.

It was originally thought the chapters would follow the stages of change model as described on page 5. The Driver Task Force, however, strongly believed the action information “What do I need to do?” should get to the participant before Month 3 (as originally planned). The information was then designed to start ‘action’ information in Month 2, instead of Month 3, as shown in Table One.

Table One: Gettin' in Gear Information Package Topics

	Month 1 Maybe I Should <i>Stages 1 & 2</i>	Month 2 What Do I Need To Do? <i>Stage 3</i>	Month 3 I'm Doing It <i>Stage 4</i>	Month 4 What's Next? <i>Stages 5 & 6</i>
Refueling	Does Eating Healthy Matter Advantages Refueling needs evaluation Refueling habits evaluation	Refueling on the Road Tips for restaurants Tips for snacks Tips for packing food	Refueling at Home Planning, Preparation Shopping Tips	Keep Going Tips Variety Support Balance
Rejuvenating	Does Exercising Matter Health Benefits of Moving Moving Evaluation	Rejuvenating on the Road Tips outside Tips inside vehicle	Rejuvenating at Home Simplicity Nature Equipment	Keep Going Tips Variety Support Navigating road blocks
Relating	Health Value of Relationships Evaluation of relationships Evaluation of self esteem	Relating with Family while on the Road Keeping in touch Improving relationships Improving communication	Relating at Home Building Connections with Family and Friends	Keep Going Tips Focus Challenges Support Positiveness
Relaxing	Stress Issues Road rage evaluation Evaluation of stress health effects	Relax on the Road with Stretching, Breathing, Progressive Muscle Relaxation	Relax with Personal balancing skills, Healthy body, Healthy relationships, Healthy attitude	Keep Going Tips Plan ahead Lighten the load Balance

The participant received the monthly ‘action’ information in two formats:

1. Written - Chapters to put in their 5 ½ x 7" Notebook (See sample Month 1 written materials- Attachment #14).
2. Audiotape - Information was also presented in audio format each month for participants to listen to while driving (Attachment #15).



Information was presented as easy tips from both professionals and other drivers (used driver task force members).

Information was also presented to be interactive. For example, each written chapter had workouts (worksheets) to engage the participant in thinking and doing.

Part Two: Coaching

Written – Each participant received a letter from a health professional as follows:

- Two weeks following health assessment (Attachment #16)
- Two weeks following receipt of Month 1 Action materials
- Two weeks following receipt of Month 2 Action materials
- Two weeks following receipt of Month 3 Action materials
- Two weeks following receipt of Month 4 Action materials

Telephonic – Each participant was offered personal coaching by phone using a toll free number provided.

E-mail – Each participant was offered personal coaching by e-mail using the NPTC website set-up for Gettin' in Gear.

Part Three: Snack Pack

Snack ideas (see Attachment #17) were given to pilot companies to provide to participants as a weekly snack pack. One company (Gates Rubber) provided snacks throughout the entire study in reusable bags with the Gettin' in Gear Logo. Another company (Collins & Aikman) provided snacks for part of the study.

Part Four: Exercise Membership

All participants were offered a free membership with the “Rolling Strong” Gyms found in several truck stops across the country. One company (Collins & Aikman) provided subsidized YMCA memberships.

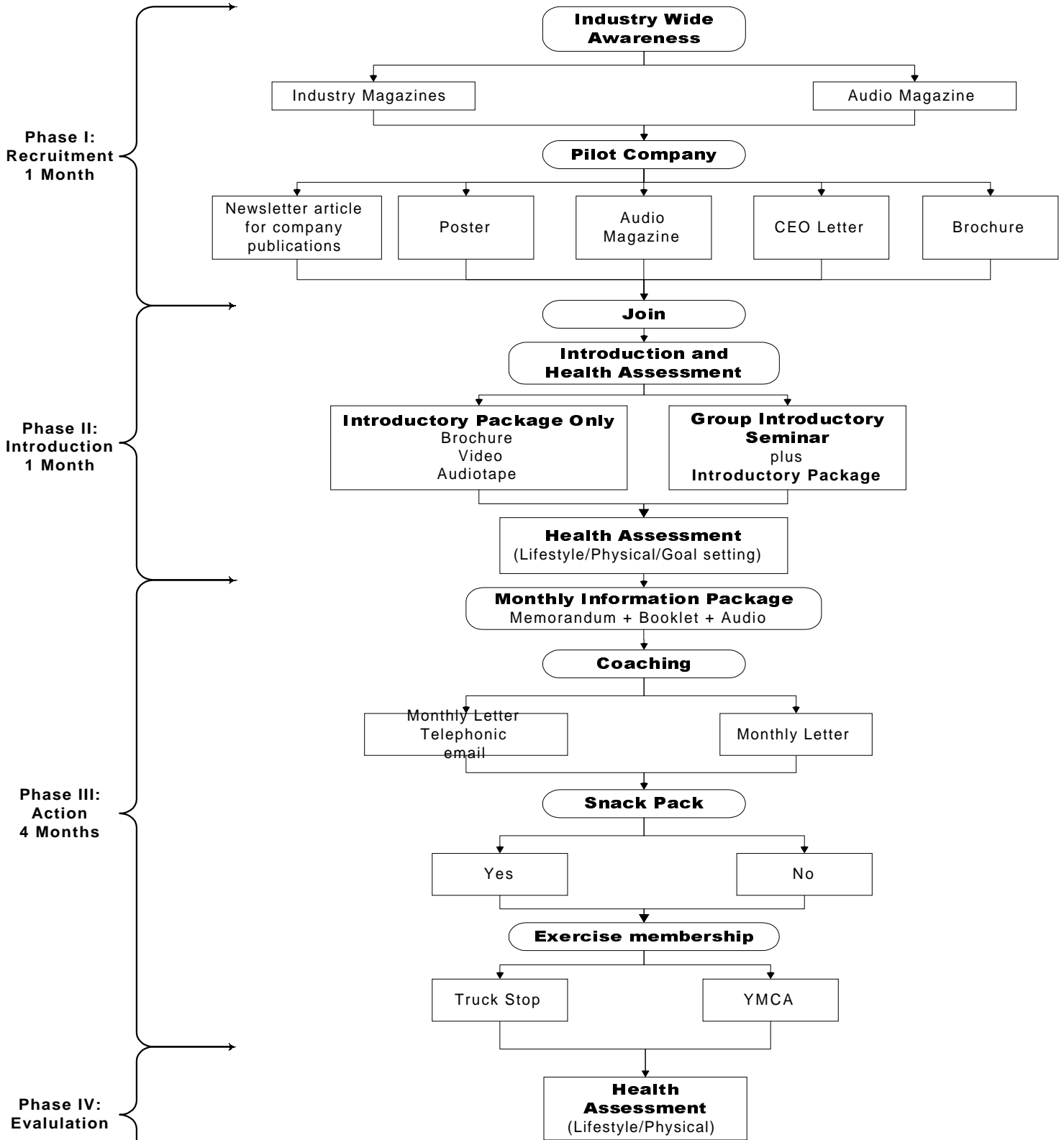
Phase IV: Evaluation

For evaluation, a follow-up health assessment was completed.

Figure Two shows the phases of the Gettin' in Gear wellness program in graphic form.



Figure Two: Gettin' in Gear Program Design



GETTIN' IN GEAR PILOT TEST

Pilot Companies

Companies were recruited during the summer of 1998 to be part of the testing phase. The companies who agreed to be part of the pilot test are shown in Table Two.

Table Two: Companies Recruited

Company Type	Company	Address
Special	America's Road Team	American Trucking Association 2200 Mill Road Alexandria, VA 22314-4677
Long Haul – Medium	Collins & Aikman	P.O. Box 521 New London, NC 28127
Long Haul – Small	Gates Rubber	7979 Vulcan Drive Florence, KY 41042
Long Haul – Large	Leprino Transportation	P.O. Box 17989 Denver, CO 80217 -0989
Short Haul	Ruan Transportation	Two Ruan Center 601 Locust Street Des Moines, Iowa 50309
Bus	DATTCO	583 South Street New Britain, CT 06051
Truck Stop	Petro Stopping Center	722 Watt Road Knoxville, TN 28127

We had two long haul – small companies, because Gates Rubber requested that one of their branch terminals be added and we were able to accommodate them.

Pilot Test Time Line

Pilot testing began in January, 1999, and proceeded as shown in Table Three.

Table Three: Pilot Test Time Table

Phase I Recruitment	January, 1999	Company recruits participants Used recruitment package sent December, 1998
Phase II Introduction	February, 1999	Introductory Package with Group Seminar and Health Assessments or Introductory Package Only and Health Assessment
Phase III Action	March, 1999	Month 1 booklet and audiotape sent plus follow-up letter sent two weeks later
	April, 1999	Month 2 booklet and audiotape sent plus follow-up letter sent two weeks later
	May, 1999	Month 3 booklet and audiotape sent plus follow-up letter sent two weeks later
	June, 1999	Month 4 booklet and audiotape sent plus follow-up letter sent two weeks later
Phase IV Evaluation	July/August, 1999	Follow- up Health Assessment.

Variables in Pilot Groups

The variables which were different in each pilot group are shown in Table Four.

Table Four: Variables in Pilot Groups

	One America's Road Team	Two Collins & Aikman	Three Leprino	Four Gates Rubber	Five Ruan	Six DATTCO	Seven Petro Centers
Recruitment	Project	Company	Company	Company	Company	Company	Company
Introductory Session	Group	Group	Group	Group	Group	Group	Individual
Health Assessment	Yes On-site	Yes On-site	Yes On-site	Yes On-site	Yes On-site	Yes On-site	Yes On-site
Monthly Information Package	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Coaching	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Snack Pack	No	Yes	No	Yes	No	No	No
Exercise Membership	Yes Rolling Strong	Yes YMCA	Yes Rolling Strong	Yes Rolling Strong	Yes Rolling Strong	No	Yes Rolling Strong
Reassessment	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Recruitment

Accomplished by each company using marketing materials provided. America's Road Team received marketing material directly from project staff through ATA staff.

Introductory Session

All participants received the Introductory Group Seminar plus Introductory Package except Petro participants, who received only the Introductory Package with no seminar.

Initial Health Assessment

All participants received the initial health assessment.

Monthly Information Package

All participants received the monthly information mailed for 4 months.

Coaching

All participants received monthly letters for 4 months. All participants were offered telephonic counseling through an 800 number, although only two drivers chose to use it. All participants were offered e-mail counseling and only one driver chose to use it.

Snack Pack

Two companies (Collins & Aikman and Gates Rubber) provided snack packs to participants.

Exercise Membership

All participants were offered free Rolling Strong memberships except DATTCO. No drivers chose to use the free Rolling Strong membership offered. Some of the employees at Petro, which had a Rolling Strong Gym on site, used the gym until it closed in June. Collins & Aikman offers a subsidized YMCA membership for drivers of which a few participated.

Follow-up Health Assessment

All participants were offered follow-up health assessments.

Participant Sample

The participant sample size goal of 120 was determined for statistical purposes. We tried to recruit slightly more than our suggested number. We achieved 128 initial enrollees. All 128 received the Introductory session with Introductory Package, Initial health assessment, and Action materials. All were offered coaching and an exercise membership.

We tried very hard to get participants back for the follow-up health assessment (after intervention). Methods used were:

1. Sent three letters reminding them of follow-up assessment.
2. Worked with pilot company facilitator for four weeks prior to assessments to schedule drivers.
3. Telephoned drivers a minimum of one to four times.

After all this we were able to do follow-up health assessments on only 54 of the original 128 participants. The data is shown by company in Table Five.

Table Five: Number of Participants by Company

	ART	Collins & Aikman	Gates	Ruan	Leprino	DATTCO	Petro	Total
Starting Assessment	12	26	9	22	12	23	24	128
Follow-up Assessment	4	11	5	6	8	12	8	54

Because of the extremely low follow-up assessment response rate, we wanted to determine whether those who came to the follow-up assessment were the more healthy participants since they were the ones we were going to be using in our data analysis. To do this, we looked at the initial average scores in both groups (no follow-up vs. follow-up) to see if there were any significant differences.

The specific responses and grouped totals (i.e., for Refueling) with statistically significant change are shown in Table Seven.

Table Seven: Lifestyle Habits Showing Significant Change (N=54)

Question	Initial Mean	Final Mean	Diff.	P Value
Part I: Refueling Questions				
I eat 3 servings of colorful vegetables each day.	2.25	2.75	.50	.012
I eat brown rice, whole grain pasta, or 100% whole grain bread.	2.62	3.16	.54	.020
I eat less than 4 ounces of red meat or poultry each day.	2.44	2.91	.47	.052
I eat no more than 1 serving each day of high sugar foods.	2.61	3.14	.53	.031
I eat breads, vegetables, pasta and potatoes without margarine, butter, mayonnaise, sour cream or fatty sauces.	2.44	2.89	.45	.076
I drink enough fluid, like water, to keep my urine a very pale yellow.	3.49	3.84	.35	.110
I drink less than 16 ounces (2 cups) caffeinated drinks per day.	2.34	2.68	.34	.200
Refueling Total	2.70	2.99	.29	.030
Part II: Rejuvenating Questions				
I keep myself in top condition by balancing the type and amount of food I eat with exercise to maintain a healthy weight.	2.38	2.93	.55	.011
I do activities that increase my heart rate and get me sweating at least 3 times each week.	2.63	3.41	.78	.003
I walk at least 20 minutes each day.	2.52	3.20	.68	.012
I participate in a sport or leisure activity each week.	2.33	2.82	.49	.076
I do activities which increase my strength.	2.59	2.93	.34	.160
I take stretch breaks every 2 hours when sitting for long periods.	2.37	3.75	1.38	.120
Rejuvenating Total	2.45	3.00	.56	.004
Part III: Relaxing Questions				
I am guided by my inner self rather than from expectations of others.	3.56	3.87	.31	.130
I make time for myself to relax at least 20 minutes each day.	3.08	3.66	.58	.022
Relaxing Total	3.63	3.79	.16	.140

Refueling Habits (Diet)

The data reveal participants significantly improved in 7 of 15 areas with respect to Refueling (eating habits).

The total category score for Refueling also significantly improved after intervention.

Rejuvenating Habits (Exercise)

The data reveal participants significantly improved in 6 of 6 areas with respect to Rejuvenating (exercise habits).

These data are also supported by the fact that the physical data reveal statistically significant improvements in actual physical abilities (i.e., strength).

The total category score for Rejuvenating also significantly improved after intervention.

Relaxing Habits (Stress Management)

The data reveal participants significantly improved in 2 of 13 areas with respect to Relaxing.

Even though only 2 of 13 specific questions showed significant improvement for Relaxing, the total category score for Relaxing significantly improved after intervention.

Relating Habits (Relationships/ Family)

The data reveal participants did not improve significantly in any of the questions with respect to Relating.

Relative Improvements in Habits

The data show the participants improved most in the areas where most improvement was needed (i.e., Rejuvenating). This is revealed by looking at initial and final average responses in the four specific categories shown in Table Eight.

Table Eight: Mean Lifestyle Habit Responses by Category

Category	Initial Mean	Final Mean	Diff	P Value
Rejuvenating	2.45	3.01	.56	.004
Refueling	2.70	2.99	.29	.03
Relaxing	3.63	3.79	.16	.14
Relating	4.13	4.10	.03	NS

In other words, improvements were made where they were most needed. Improvements were also made proportionately. Largest improvements were made in Rejuvenating and Refueling where there was the most need. These data also show that significant changes were not made in Relating, probably because the participants scored so well initially in this area with little need or room for improvement.

Health Knowledge

Health knowledge was tested in two areas: knowledge of own health parameters (i.e., blood pressure) and knowledge of basic health issues. The percentage of drivers who answered knowledge questions correctly is shown in Table Nine.

Table Nine: Comparison of Before and After Pass Rates in Health Knowledge

Question	Considered Correct	Initial Correct (%)	Final Correct (%)	Statistical Significance Between Mean Responses
My current weight	within 5 lbs.	26.9	37.5	p=0.24+
My current blood pressure	within 5mm	11.5	14.3	p=0.67
My current cholesterol	Within 10mg	15.4	5.5	p=0.097*
Ideal cholesterol	(c)	65.4	66.1	p=0.94
A blood sugar suggesting diabetes	(d)	90.4	85.7	p=0.46
High cholesterol is associated with heart disease and stroke	T	23.1	32.1	p=0.30
High pulse indicates good physical shape	F	48.1	55.4	p=0.45
Risk Factors for heart disease	(e)	38.5	46.4	p=0.41

Note: + indicates a marginal statistical significance
 * indicates statistical significance

As can be seen with the data, the group did not increase their knowledge significantly in any question. They actually did significantly worse in knowing their actual cholesterol level.

Physical Risk Factor Data

Measurement of physical risk factor data revealed statistically significant improvement after intervention in 6 of the 10 areas measured:

- Body Mass Index (B.M.I.)
- Pulse
- Diastolic Blood Pressure
- Aerobic Fitness Level
- Strength Fitness Level
- Flexibility Fitness Level

The data are is shown in Table Ten.

Table Ten: Physical Data (N=54)

Physical Risk Factor Parameter	Initial Mean	Final Mean	P Value
Total Cholesterol (mg%)	217	218	NS
HDL Percent of Total (%)	22	21	NS
Glucose (mg%)	104	104	NS
B.M.I.	31.7	28.6	.23
Pulse (beats/min)	73	70	.16
Systolic Blood Pressure (mmHg)	152	148	NS
Diastolic Blood Pressure (mmHg)	82	80	.18
Aerobic Fitness Score (1)	2.0	3.8	.00
Strength Fitness Score (2)	2.1	2.7	.04
Flexibility Fitness Score (3)	2.2	2.5	.13

Note: 1 (1=Poor, 6=Excellent) 3 (1=Poor, 5=Excellent)
 2 (1=Poor, 4=Excellent)



Total Cholesterol/ HDL Percent of Total Cholesterol

The data reveal that, as a group, participants did not significantly change their total cholesterol or HDL percent of total cholesterol.

It is of interest, however, to note that single individuals did make significant improvements. For example, one participant dropped their cholesterol from 312 mg% to 216 mg%.

Glucose

The data reveal that as a group, the glucose level did not significantly change. The mean both initial and final is a normal value. Again, however, it is of interest to note that specific individuals did make significant improvements. For example, one participant dropped their glucose from 329 mg% to 120 mg %.

Body Mass Index (B.M.I.)

The data reveal participants significantly improved in BMI (from 31.7 to 28.6) which is an indicator of body weight. A B.M.I. of 28.6 is still elevated (passing is ≤ 27), however, the group dropped from an obese rating to an overweight rating (by definition).

Pulse

The data reveal participants significantly improved in resting pulse from 73 beats per minute to 70 beats per minute.

Systolic/Diastolic Blood Pressure

The systolic blood pressure reading did not significantly change, but the diastolic blood pressure reading did improve significantly.

Aerobic Fitness Level

The data reveal a very significant improvement in aerobic fitness score of the participants after intervention. This is the physical data measurement which saw the greatest improvement in the study. This significant improvement in fitness level validates the significant improvement reported in exercise habits (reported earlier).

Strength Fitness Level

This fitness parameter (tested with push ups) also saw a very significant improvement after intervention.

Flexibility Fitness Test

The data reveal that the final fitness test of flexibility (tested with a sit and reach) also improved significantly from initial measurement to final measurement.

'Passing' Test Data

Another way to look at the data was to determine significance in whether a driver passes (based on specific passing criteria) the parameters measured initially and at follow-up. Criteria used to define passing are shown in Table Eleven along with percent with passing scores.

Table Eleven: Percent with Passing Scores on Parameters (N=54)

Parameter	Passing Criteria	Pass Initially	Final	P value
Total Refueling Score	Mean ≥ 3.0	34.6	50.0	0.11
Total Rejuvenating Score	Mean ≥ 3.0	21.2	53.6	0.0004
Total Relaxing Score	Mean ≥ 3.0	88.5	91.0	NS
Total Relating Score	Mean ≥ 3.0	94.2	96.4	NS
HDL Percent of Cholesterol	$\geq 22\%$	46.3	38.9	NS
Glucose (mg%)	60-140 mg%	90.7	90.7	NS
Body Mass Index	< 27.0	14.8	18.5	NS
Pulse (beats/min)	≤ 85	85.2	92.6	NS
Systolic Blood Pressure (mmHg)	≤ 160	92.6	96.3	NS
Diastolic Blood Pressure (mmHg)	≤ 90	81.5	90.7	0.17
Aerobic Fitness Score	≥ 4 (1=Poor, 6= xcellent)	16.7	44.4	0.002
Strength Fitness Score	≥ 3 (1=Poor, 4= xcellent)	31.5	42.6	NS
Flexibility Fitness Score	≥ 3 (1=Poor, 5= xcellent)	40.7	51.9	NS

Improvement in Parameters Measured

Some participants may not have a passing score in a specific parameter (i.e., B.M.I.) but did have a significant improvement from initial assessment to follow-up assessment. For example, their B.M.I. on initial assessment was 32.0 and was 28.5 on follow-up assessment. This is a significant improvement, but still does not meet the passing criteria of ≤ 27.0 . Therefore, we also evaluated improvement as shown in Table Twelve.

Table Twelve: Improvement in Parameters(Lifestyle and Physical) Measured

	ART N=4	Collins & Aikman N=11	Gates N=5	Leprino N=8	Ruan N=6	Dattco N=12	Petro N=8	Total N=54
Improved	7.46	7.51	7.14	6.30	7.80	6.49	6.54	7.18
Worse	3.10	4.31	3.59	5.46	4.25	5.10	5.13	4.15
Same	3.45	2.17	3.27	2.22	1.96	2.41	2.34	2.68

These data show the participants as a group improved in 7 of 14 total parameters. They stayed the same in 3 and retreated in 4. “It should be noted that two of the areas where they scored worse (retreated) were areas where both initial scores were very good (i.e., relating lifestyle score) and the score decrease was very small”.

Correlations

From all the data points collected, we looked at correlations. There was an extremely high number of correlations between data points. For example: Decreased pulse correlated positively with higher aerobic fitness scores. But one of the areas where we especially wanted to test correlations was in the health beliefs area. Some of the strongest correlations are shown in Table Thirteen.

Table Thirteen: Data Point Correlations

Correlating Data Points		R value
I feel I am in better health than I was 1 year ago.	→ Higher Refueling Score	.590
	Higher Rejuvenating Score	.619
Eating healthy and exercising will decrease my chance of developing heart disease, cancer or diabetes.	→ Higher Refueling Score	.510
	Higher Rejuvenating Score	.418
	Higher Relaxing Score	.512
	Higher Relating Score	.513
	Decreased Systolic Blood Pressure	-.409
It’s easy to follow good health habits on my own.	→ Higher Refueling Score	.602
I am responsible for my own health.	→ Decreased Systolic Blood Pressure	-.416
Health Beliefs Total Score	→ Higher Refueling Score	.430
	Higher Rejuvenating Score	.646
	Higher Relaxing Score	.554
	Higher Relating Score	.562

As can be seen from the data, as the participants positive health beliefs (i.e., Eating and exercise are important; I am responsible) increased so did their health parameters, especially their habits. For example, the Health Beliefs Total Score correlated highly with higher scores in all four lifestyle habits categories of Refueling, Rejuvenating, Relaxing and Relating. These data follow what is seen in the health literature. Those who have more positive beliefs are more likely to have healthier habits. Our participants were no different.

Evaluation of Program by Participants

Participants seen at follow-up assessment were asked questions to help in the evaluation of the program and the materials. A copy of the questions asked for the evaluation is found as Attachment #19.

Overall Program

Participants rated the overall program a 4.65 (on a scale of 1-5, 5 being high). Examples of comments about the overall program:

- Great – super.
- It works.
- Eye opener for me.
- Something to work at – good advice.
- Basically a real good program – depends on a person's willingness to try.

How Helped

Participants were asked how the program had helped them. Ninety-six percent responded that it had helped them. Sample responses:

- The program helped me realize I need to take better care of myself.
- I feel a lot better. Made me more conscious about eating. I began exercising a lot more – started running.
- Yes – in my mind – awareness.
- I feel better – have a lot more energy.
- Woke up ideas.
- Was already health conscious – mainly provided support.

Changes Made

When asked what they do differently, sample responses were:

- More exercise. Eating better: no vending snacks, no fried foods, no soft drinks, more veggies and fruit.
- I'm eating better: more fat free margarine, vegetables. More exercising – line dancing.
- I eat better: 1) eating less meat and 2) less fatty food and 3) started oatmeal for breakfast and 4) more fruits.
- Much more careful on the road. I park farther away when on road, walk more.
- I try not to eat Ho-Ho's, etc. I don't do buffets anymore.
- Quit eating red meat and fried foods. Walk dog every night.
- I walk 4-5 days/week, riding bike. Eat more fruit, make carrot-raisin salad, buy juices, less fried foods, less sweets.
- I pay more attention to exercise & stress reduction. Reinforced my eating habits.
- Helped me eat better: more vegetables.
- Eating: 1) more colored vegetables, 2) more brown rice, 3) now eating breakfast.

Recommendation

When asked if they would recommend the program to fellow drivers 100% said yes.

Involvement

The toughest evaluation question for the participants was the one we constantly struggle with: “How can we get drivers involved?” Responses were often prefaced with, “That’s a good question!” Some of the ideas participants had:

- Until they become aware of what the job does to them, they will not do anything. They need to realize it themselves.
- It’s hard – has to be individual willingness.
- Pay them.
- Pull them in. Tell them it’s not hard to do gradual things. Do not force them, but explain and encourage.
- One-on-one.
- Start with a good presentation.
- They have to want to get in shape.
- Just worry about those interested.
- Success stories of others.
- Have a mentor (driver) in the group who helps get it started.
- Get company to get their drivers involved – need management support. Drivers need outside support.

Program Specifics

Participants were asked specific questions about the different phases of the program. A summary of their responses:

Program Component	Evaluation Comment
<i>Recruitment</i>	Rated materials a 4.42 on a scale of 5.
<i>Introductory Group Session</i>	Those who had the introductory session (speaker and video) really liked it and ranked it a 4.69 on a scale of 5. Comments were: <ul style="list-style-type: none">▪ Excellent▪ Teaches you a lot▪ Gives people a wake up call.▪ Group part is important.

- Health Assessment* In general they liked the health assessments and found getting their personal information very valuable. They scored the assessment high with a 4.89 on a scale of 5.
- Action Notebook* The notebook was rated high, 4.66 on a 5-point scale, but it was apparent some did not read it. Some loved the written material and record keeping and others thought the worksheets or record keeping were too difficult or time consuming.
- Audiotapes* The audiotapes seemed to be more liked than the notebook, but they were rated about the same – 4.69 on a 5-point scale. Comments received were:
- Excellent – I listen to them all the time.
 - Just don't listen to tapes.
 - Most important thing.
 - Listened to tapes more than anything else – about wore them out.
 - Will listen over and over

Final Suggestions

When asked if they would go through the program again, now that they know what it is, all said yes except for one participant. He said no, because he felt he already was healthy and had knowledge from other sources.

Some of the final suggestions from the group were:

- Liked personal notes received from coach.
- Follow-up meeting at 6 weeks would be good.
- On right track.
- Need to give constant reinforcement to participants.
- Group participation (support) needed – like buddy system. Help and competition.
- A little too much repetition from tapes to book.
- I feel so much better. I can't believe it. Reduces stress.
- Need management support.
- Get management involved.
- Have successful people tell their stories.

Case Studies

It is often very interesting to also look at individual success stories as part of the program evaluation. Two are presented here:

Case Study #1

CS #1 began the Gettin' in Gear program with an unhealthy HDL/Total Cholesterol ratio of 14%, putting him at high risk for Coronary Heart Disease and Stroke. He weighed 208 pounds, which for his height placed his Body Mass Index (BMI) at an unhealthy 28. His blood pressure, though within regulation, was 133/88 mmHg, a level considered borderline high by many health professionals. He also scored Poor (level 1 of 6 possible) on the cardio-respiratory fitness test (step test).

By the end of the 6-month program, CS #1 had made many changes, resulting in an HDL cholesterol 20 points higher, which boosted his cholesterol ratio 7% (or one third) to a much healthier 21% (25% is ideal). This change alone reduces his risk of heart disease by 14%.

He lost 21 pounds, lowering his BMI to 25 (20-25 ideal). His blood pressure made a very significant drop to an ideal 120/82 mmHg. His score on the aerobic fitness test moved up from a 1 to a 4 (6 possible), and he did 47 pushups.

CS #1's fasting blood glucose, although within ideal limits both pre and post program, moved from 107 mg% to 82 mg%. A summary of CS # 1's before and after risk factor data is shown in Table Fourteen.

Table Fourteen: Case Study One Summary Risk Factor Data

Risk Factor	Before	After
Cholesterol (mg%)	289	283
HDL Cholesterol (mg%)	40	60
HDL%	14	21.2
Glucose (mg%)	107	82
Weight (pounds)	208	187
BMI	28	25
Pulse (beats/min)	64	68
Blood Pressure (mmHg)	133/88	120/82
Aerobic Fitness	Poor (56)	Good (43)
Strength Fitness	Outstanding (33)	Outstanding (47)
Flexibility Fitness	Avg (15 ½")	Avg (17")
Refueling (mean score)	3.5	3.9
Rejuvenating (mean score)	3.2	4
Relaxing (mean score)	3.1	3.4
Relating (mean score)	3.8	3.4

Case Study #2

CS #2 began the Gettin' in Gear program with a weight of 230 pounds placing his Body Mass Index (BMI) at 31 (obese). His blood pressure was high at 150/84 mmHg. He was already an avid exerciser and scored well in all the fitness tests.

At the end of the 6-month program, CS #2 scored even better in the fitness tests. He also lost 13 pounds, moving his BMI from the obese range to a better 29.4 (still overweight, but closer to a lower health risk BMI of 27).

Most significantly, his blood pressure dropped to an ideal 122/78 mmHg. His lifestyle refueling score jumped significantly from a mean of 2.1 to a 3.4, indicating an expected continuation of weight loss and healthier cholesterol levels. Case Study #2's summary risk factor data are shown in Table Fifteen.

Table Fifteen: Case Study Two Summary Risk Factor Data

Risk Factor	Before	After
Cholesterol (mg%)	238	291
HDL	44	57
HDL%	18.5	20
Glucose (mg%)	85	92
Weight (pounds)	230	217
BMI	31	29.4
Pulse (beats/min)	61	52
Blood Pressure (mmHg)	150/84	122/78
Aerobic Fitness	outstanding (34)	outstanding (26)
Strength Fitness	outstanding (32)	outstanding (32)
Flexibility Fitness	Good (18.5)	Good (18)
Refueling (mean score)	2.1	3.4
Rejuvenating (mean score)	4	4
Relaxing (mean score)	4.4	4.1

Conclusions from Pilot Test

Health Improvements

The Gettin' in Gear Program had a positive health impact on the 54 participants measured both initially and at follow-up. This was shown in both lifestyle habits and actual physical lifestyle data. The most statistically significant improvements were made in the exercise habits and also in the actual fitness parameters measured. This is important, because the exercise area is where they most needed to make improvements.

Participants significantly improved in 3 of 4 categories (eating, exercise, relaxing) of lifestyle habits. This is important because habits are what influence health status. The only area where significant improvement was not seen was in relationships. This is because the group scored so well initially, there was really no need for improvement.

The next step after looking at habits was to look at actual physical data. Again, the participants significantly improved in 6 of 10 parameters. As stated above, the parameters testing fitness levels (aerobic, strength, flexibility, pulse) improved the most.

Diastolic blood pressure improved significantly and systolic blood pressure moved in the right direction (although not statistically significant). These are a reflection of better eating, more exercise and better stress management.

The significant improvement in BMI (weight loss) is also a reflection of better eating habits and more exercise.

The blood glucose level did not improve as a group, but did not need to as the group mean was in the ideal range on initial assessment.

We are not sure why the cholesterol levels measured did not improve. The most likely reason for this is the small sample size with large variance.

Driver Acceptance of Program

The drivers who were able to make it to the follow-up assessment all generally reported positive things about the program. We were unable to test various tracts of the core program (i.e., no introductory seminar vs. having introductory seminar), because our numbers were just too small. The following observations can be made:

- | | |
|--------------|--|
| Recruitment | Needed Materials were fine. Drivers (from company) recruiting fellow drivers is important. |
| Introduction | Initial seminar with speaker and video was well liked. All thought getting drivers together as a group was important. Participants thought the health assessment was valuable and should be a regular part of the program. A follow-up assessment is also important for participants to see results. |
| Action | The booklet and audiotapes are fine. The tapes were probably used more than written material, however for some drivers, the written was preferred. Therefore, both are needed.

The drivers did not choose to use the free fitness membership. They tended to do more exercising on their own (i.e., walking). |

The snack packs were popular in the two companies where done. One of these companies had significantly better results than others. The other showed improvement; however, the numbers were too small to show significance. This would imply the snack pack can be an important component of the program. The snack pack component, however, takes a larger commitment from management to provide time and money for the distribution of the snacks.

The coaching component was not used significantly by participants when they had to initiate it themselves. They did report that they liked the personal comments and letters sent to them. This implies program personnel may need to initiate contact rather than depending on drivers. With larger numbers, an 800 number would still be beneficial.

Other Thoughts

Driver Participation in the Program

As drivers respond best to other drivers, drivers should be involved in the coordination of the program at their company. They should be involved in initial training, recruitment of drivers, and support for drivers as they are making changes. Drivers should also be involved in the development of the materials. They should have input into the information developed and should be the voices and actors used in the actual tapes, videos, etc.

Management Support

Management support is critical to the success of the program. Management needs to show support by participating in the wellness program themselves and speaking of health/wellness goals for their company with employees.

Follow-up

Wellness is not a one-shot operation. There needs to be a commitment to have continual programming which follows the initial program.

MARKETING PLAN

Target Audience

There are two primary target audiences to reach with the Gettin' in Gear Program. They are the company decision maker and the individual driver or company employee.

The decision maker is the individual who decides whether to offer a wellness program to employees. The company decision maker:

Understands and believes that employees are the most important asset of the company;
Understands and believes that there is an important connection between an employee's health habits and work performance; and
Understands the connection between driver health and safety on the road.

The decision maker also has the desire to provide a work atmosphere and an effective wellness program that will improve health and quality of life.

The participant of the Gettin' in Gear program is the driver or company employee who believes in a person's ability to influence his/her health and recognizes the connection between health habits and safety on the road. This person has a desire to have a healthier body and mind and understands that this will improve his/her quality of life.

Marketing Obstacles

The anticipated marketing obstacles are:

1. Lack of understanding and interest by company decision makers to implement the Gettin' in Gear Program. This could be related to lack of understanding of the connection between health and performance/safety, lack of interest in providing anything above required programming for employees, unwillingness to spend the dollars needed for prevention or performance improvement programming.
2. Lack of understanding and interest by drivers regarding their own health. This is related to believing they do not have control over their own health, believing they do not have enough time to practice healthy habits, believing "the system" does not care about them, believing they are not responsible for their own health, believing their profession makes it impossible to be healthy, etc.

Marketing Strategies

Large Group Marketing Presentations

The intent of the large group presentation is to present the results of the Gettin' in Gear pilot study to decision makers at various meetings across the United States. These presentations will have the following objectives:

1. Improve decision maker awareness of the importance of employee health to their bottom line.
2. Present data from the pilot study showing health improvements made with the program.
3. Inform decision makers how they might use the Gettin' in Gear program with their employees.

Tactics:

1. Program participation will be solicited at different industry transportation meetings being held where decision makers will be present to obtain a cross section of the various businesses in the bus and trucking industry. Examples of such meetings are:

American Trucking Associations Annual Meeting
Food Distributors International Productivity Conference
Truckload Carriers Association Annual Meeting
United Motor Coach Association Annual Meeting
American Bus Association Annual Meeting
State Trucking Association Annual Meetings
Federal Motor Carrier Safety Administration "Driver Fatigue Seminars"

2. Presentations, at a minimum, should include the following:

PowerPoint presentation of program outline and results of pilot study
Promotional video showing success stories of drivers
Sample driver Gettin' in Gear wellness package

3. The presentations may be given by individuals involved in the project and, if available, by a driver who participated in the pilot project.

Promotional Campaign

A promotional campaign should be conducted to make information available to the transportation industry about the Gettin' in Gear program.

Tactics:

1. Development of an announcement and press kit folder to be sent to companies within the industry.
2. Development of a press release which will be used by the Federal Motor Carrier Safety Administration's Public and Consumer Affairs Office to announce the Gettin' in Gear program.
3. Development and placement of print ads in leading industry publications to announce the Gettin' in Gear program. Publications such as the following will be used:

For client (decision maker)

Transportation Topics

Business Trucking

Fleet Owner

The Docket (United Motor Coach Assoc.)

Destinations (American Bus Assoc.)

For customer (driver)

Truckers News

Owner Operator Magazine

The Trucker

4. Development and placement of articles about driver health and the Gettin' in Gear program in leading industry publications such as the ones listed above.
5. Development of a tabletop display (approximately 40" x 60") to be exhibited at various industry meetings.
6. Development of 30- and 60-second radio public service announcements.
7. Development of 30- and 60-second television public service announcements.
8. Development, implementation, and maintenance of an internet website which provides information about the Gettin' in Gear program.

Train the Trainer Presentations

A number of train the trainer presentations should be conducted. The objective of these presentations is to convince decision makers to implement the Gettin' in Gear program in their workplace and to provide them with the resources needed to implement the program. The presentations will explain the why and how of the Gettin' in Gear program.



Tactics:

1. It is recommended that the presentations be made in conjunction with the Federal Motor Carrier Safety Administration's "Driver Fatigue Seminars" programmed to be conducted around the United States through the American Trucking Associations. The sessions should be approximately one-half day and would be presented along with the fatigue seminar which is also one-half day.
2. Participants in the training session will be provided with a sample Gettin' in Gear Driver Box to include:
 - a. Introductory memo.
 - b. Gettin' in Gear notebook with tab dividers, notebook instructions, self health assessment, and chapters for action.
 - c. Gettin' in Gear program brochure.
 - d. Gettin' in Gear program video.
 - e. Gettin' in Gear program audio cassettes (5).
 - f. Gettin' in Gear reward button.
 - g. Gettin' in Gear coloring book (for family members).
3. Participants in the training session will be provided with a Gettin' in Gear Program Instructors Manual. The instructors manual will provide detailed information about the program and instructions on how to implement it.