Passing Through the Stages: Are You Ready for Disease Management?

James O. Prochaska, Ph.D.

Director and Professor Cancer Prevention Research Center University of Rhode Island Founder Pro-Change Behavior Systems, Inc.

Stages of Change

PRECONTEMPLATION _____ CONTEMPLATION

PREPARATION ACTION

MAINTENANCE - TERMINATION

Intervention Issues

1. Recruitment 2. Retention 3. Progress 4. Process 5. Outcomes

Percent of Smokers by Stage Across Three Different Samples

Sample	Precont.	Cont.	Prep.	Ν
Rhode Island	42.1	40.3	17.6	4,144
4 Worksites	41.1	38.7	20.1	4,785
California	37.3	46.7	16.0	9,534

ORIGINAL IMPACT EQUATION

IMPACT = REACH X EFFICACY

IMPACT = (5% **REACH**) **X** (30% **ABSTINENCE**) = 1.5%

IMPACT = (75% **REACH**) X (20% **ABSTINENCE**) = 15%

Four Leading Recruitment Strategies

- **1. Persuasive Communications**
- 2. Positive Reinforcement
- 3. Personal Outreach
- 4. Negative Reinforcement



Stage Transitions



Stages by Processes

PRECONTEMPLATION \Longrightarrow **PREPARATION**

CONSCIOUSNESS RAISING DRAMATIC RELIEF ENVIRONMENTAL REEVALUATION

SELF REEVALUATION

Stages by Processes

PREPARATION I ACTION ACTION ACTION PREPARATION PREPARATION ACTION PREPARATION PREPARATION

SELF LIBERATION

REINFORCEMENT MANAGEMENT HELPING RELATIONSHIPS

COUNTERCONDITIONING STIMULUS CONTROL

Treatment Groups

- **1. Action-oriented Manuals**
- 2. Stage-Matched Manuals
- 3. Stage-Matched Computers & Manuals
- 4. Counselors & Stage-Matched Computers













This is your personalized feedback report based on your answers to the assessment you most recently completed. It summarizes your recent accomplishments, as well as those areas where you may need more work. This report can help you continue eating fewer calories and low-fat foods. Doing these two things can help you reach a healthy weight.

Within many of the sections of this report you will see references and links to the interactive workbook for Healthy Weight Management. There are several ways you can use this report along with the workbook:

- You can review it online now. If you'd like to, you can click on any of the links below as you go through the report now. The links will take you to the specific sections of the workbook that are right for you.
- You can print it out. You can refer to your printed report to find the strategies and activities that will be most helpful to you. When you're ready, you can access the workbook from your homepage and work on the activities suggested in your report.
- Return to this report later. If you're not ready to do the activities now, you can return to the program
 and review your feedback when you're ready. Just select the "Review my feedback" option on your
 homepage. You'll get all your personal feedback onscreen and then you'll get this report. From here, you
 can link directly to the specific sections of the workbook that are right for you.

Do what works best for you. Now let's review your feedback.

Your Stage of Change

You are off to a great start! Eating less fat and fewer calories can help you reach and maintain a healthier weight.

• Your answers show that you are in the **Maintenance** stage for healthy eating. This means you are eating a diet that is low in fat **and** you are eating 500 fewer calories a day to help you lose weight.

You probably know that keeping up changes can be difficult at times. This report includes strategies that can help you overcome roadblocks. It can keep you on track toward a lifetime of healthy eating.

This "map" shows where you are on the road to healthy eating.





Assessment Periods

Percentage

Computer vs. Counseling



Assessment Periods

Percentage

PROACTIVE CESSATION WITH ADOLESCENTS IN PRIMARY CARE

Tailored Interventions

Assessment Only

23.9%

11.4%

Proactive Cessation with Depressed Patients Abstinence at 18 Months



24.6%





19.1%





Percentage in Action/Maintenance for Stress Managment



 χ^2 significant (<u>p</u> < .001) at 6, 12, & 18 months Pre-Action at Baseline Only



Risk Factors: Smoking, Avoid High Fat, Regular Exercise (3x/wk @ 20 min.), Use Sunscreen after 15 min. exposure

Point Prevalence Smoking Cessation



Diet Point Prevalence



Sun Point Prevalence



TWO YEARS OF PRIMARY CARE COUNSELING

I. No effects on any of the four target behaviors

II. No increased effect on four behaviors treated effectively with TTM-tailored interventions

TWO YEARS OF WORKSITE CAMPAIGN

I. No effects on any of the multiple targeted behaviors

II. No increased effect on multiple behaviors treated effectively with TTM-tailored interventions

Diabetes Self Management Outcomes: Percent in Action or Maintenance at 12 Months

	Treatment	Assessmer
I. Smoking:		
A. Canada	26 %	15 %
B. Hawaii	25.9 %	15.9 %
II. Diet		
A. Canada	40.6 %	31.8 %
B. Hawaii	24.1 %	11.5 %
III. SMBG		
A. Canada	38%	25 %
B. Hawaii	28 %	18%

Co-variation: The increased probability of progressing to action on a second behavior (e.g. diet) when individuals have progressed to action on an initial behavior (e.g. smoking).

Co-variation in

Odds Ratio

Control Group TTM Intervention Group

.85 3.44

ADFIERENCE Treatment Success by Group Pre-action at Baseline



ADHERENCE Regression from A/M by Group Post-action at Baseline



Exercise Staging – Adherence Group Progression to A/M by Group (pre-action at baseline)



Dietary Fat Staging – Adherence Group Progression to A/M by Group (pre-action at baseline)



Multiple Behavior Change Strategies

- I. Sequential
- **II. Simultaneous: Modular**
- **III. Simultaneous: Co-variation**
- **IV. Simultaneous: Integrative**
 - **A. Bullying Prevention**
 - **B.** Pro-active Health Consumer

NEW IMPACT EQUATION IMPACT = REACH X EFFICACY X (Σ BEHAVIORS CHANGED)