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## **Online Coaching: Lessons Learned**

*Dr. Neal H. Mayerson*

**"From a public health perspective, you can treat so many more thousands of people on the Internet than you can in person..."** *Dr. Jean Harvey-Berino, Chair, Department of Nutrition and Food Science, University of Vermont.<sup>1</sup>*

### **Executive Summary:**

Online coaching has now been an area of exploration for the past five years by Hummingbird Coaching Services as well as by researchers around the country. Findings, to date, indicate that online coaching can work *effectively* and with comparatively great *efficiency and convenience* for consumers and coaches. Comprehensive studies of Internet usage indicate that the "digital divide" between demographic categories is closing rapidly and therefore most people can participate in online delivery of coaching services.

- *Types of coaching:* Online delivery has been tried with a number of different topics, including: weight management, exercise, parenting support, general life balance and satisfaction, smoking cessation, smokeless tobacco cessation, cardiac rehabilitation, diabetes management, HIV prevention, and Alzheimer caregiver support.
- *Internet usage:* The most recent Pew Internet and American Life Study indicates that about 73% of Americans, that is, 147 million people, are Internet users. Over 100 million Americans use the Internet for assistance with medical issues. And, even the lowest utilizer groups are increasing usage at a rate of more than 10% per year.
- *Effective:* Random assignment, control group studies by a number of different researchers have shown that online coaching for weight management and for blood-glucose control is 2-3 times more effective than content-only websites, and as effective as face-to-face delivery. Since there is no evidence that telephonic delivery produces superior results compared to face-to-face delivery, it can be assumed that online delivery also compares favorably with telephonic delivery in terms of effectiveness. Hummingbird studies of consumer satisfaction

consistently indicate high levels of overall satisfaction, high rates of satisfaction with progress against target goals, and greater satisfaction compared with other programs and supports used in the past. An independent study of return on investment (ROI) with Hummingbird's health coaching indicates approximately a 23% cost savings after 6 months based on typical costs of health risk factors, and a \$5.5 to \$1 ROI. This is consistent with industry studies of ROI based on other types of health interventions, the latter which average about \$3 to \$1.

- *Efficient:* Descriptive data and anecdotal reports point to the significantly improved *efficiency* of online delivery of coaching as compared with telephonic or face-to-face delivery. Early indicators suggest that online delivery may be about 40% more efficient for coaches than telephonic delivery. Hummingbird has found that the amount of time required by a coach depends on the topic of the coaching. Online delivery of health and fitness coaching seems to take about 15-20 minutes per month per coachee, while parent coaching can take about twice as much time. In any case, online delivery is significantly more time efficient, and therefore more affordable than telephonic or in-person delivery.
- *Convenient:* Hummingbird's online coaching is delivered "on-demand". More and more consumers expect in all realms this feature of being able to get what they want, when they want it. Consumers report that they highly value the ability to engage in their coaching program any time of day or night, or from anywhere they can get Internet access. The same is true for coaches who appreciate being able to service their customers at times of convenience, often in down times between appointments or when appointments cancel or no-show, and often in the convenience of their home.
- *Quality Management:* Unlike other forms of coaching delivery, online delivery leaves a nearly complete record of *actual* transactions between coaches and consumers. This written record can be used effectively for supervision purposes and for risk management.
- *Positive Psychology:* Online coaching may be especially suited to emerging findings from the new scientific field of "positive psychology". For example, the latter is discovering that discrete exercises can lead to sustained improvements in life satisfaction and decreases in depression, and that these exercises can be described and prescribed over the Internet. Positive psychology emphasizes building upon individuals' personal strengths, and offers for free to coaches and consumers a scientifically validated measurement of personal strengths (the VIA Strengths Survey available free at [www.viastrengths.org](http://www.viastrengths.org)).

In summary, online coaching is a new method for helping people with a variety of life issues. Early indicators are that it is effective and highly efficient with advantages of convenience, affordability, and quality management.

### **Background:**

In the late 1970's, in recognition of the importance of employee health in optimizing productivity and controlling healthcare costs, many corporations set about installing on-site physical fitness facilities. Efforts also included employee education around health issues and lifestyle education around chronic illness risk factors. Effectiveness was limited in terms of actually improving employee health significantly or lowering healthcare costs. In an effort to increase penetration of the workforce and overall effectiveness, the addition of personal assistance in the form of telephonic fitness training was explored. Sean Slovenski, founder and CEO of Hummingbird Coaching Services, was one of the pioneers on that frontier. It seemed clear at the time, that a telephonic service held the promise of: a.) being more easily accessible and convenient than visits to the corporate gym, b.) appealing to a broader range of employees including those who might be intimidated exercising with their colleagues, and c.) helping people personalize and breathe life into distributed generic educational materials. Today, telephonic services seem to have lived up to their promise quite well and are now ubiquitous in the array of offerings to employees.

About seven years ago, Slovenski, ever the visionary, recognized that the Internet was emerging as the new communication technology with the potential of delivering health promotion services differently and with some advantages – much as had occurred in prior years with telephony. He set about exploring this new frontier and about five years ago partnered with the author, and Dr. Donna Mayerson, both licensed psychologists, to strengthen the coaching methodology and extend the application beyond health promotion services into parent coaching and life coaching services. Since then Hummingbird Coaching Services has been diligently exploring this new frontier of delivering coaching services online in a variety of arenas – health and fitness, parenting support, Alzheimer patient caregiver support, teacher support, and general life coaching. This article shares data, observations, and opinions formed about this new methodology of online delivery.

### **Effectiveness:**

The major finding is that helping relationships can in fact be formed online and can be effective in helping people acquire relevant information, articulate goals, make plans around these goals, and receive support throughout the implementation phase. This flies in the face of conventional wisdom which asserts that in-person delivery is most powerful, followed by telephonic, and that distance coaching via the Internet with a stranger would be relatively ineffective. Conventional wisdom assumes that human connection requires full interchange of *non-verbal information* in addition to verbal content. Hummingbird has challenged this assumption and found it to be untrue in the applications it has explored.

Hummingbird's consumer satisfaction studies have consistently indicated that about 90% of consumers rate their online coaching experience as "better" or "much better" than other sources of assistance they have used in the past such as other professional assistance, advice from friends and family, and written and video educational materials. About 90% report their overall experience as "good" to "excellent". In health coaching,

- about 90% reported improved overall health and well-being,
- 56% reported improved aerobic conditioning by increasing the amount of time spent exercising,
- 75% reported experiencing fewer stress-related physical symptoms than when they began their coaching,
- 50% reported increase in their healthy eating choices,
- 72% of those who lost weight lost more than five pounds, and
- 40% of smoking cessation clients remained tobacco-free at 6 months.

In terms of ROI (return on investment), an independent evaluation of Hummingbird's general health coaching service estimated that a 23% decrease in medical costs was achieved in six months, with an estimated annualized ROI of \$5.50 for every dollar spent. This compares favorably with general industry standards for healthcare initiatives of about a 3:1 ROI in a year.

Moving far beyond the descriptive data reported above, a number of *experimental randomized control studies* have been published showing that personalized online support (a la coaching) is an effective way to help people lose weight (Berino, et al, 2002; Berino, et al, 2004; Rothert, et al, 2006; Southard, et al, 2003; Tate, et al., 2001; Tate, et al, 2003; Veverka, et al, 2003). Two studies (Rothert, et al, 2006; Tate, et al, 2001) indicate that this type of online personalized support produces significantly superior results when compared with static information-only websites aimed at giving people information to help themselves *without* personalized support. Two studies (Berino, et al, 2002; Berino, et al, 2004) have shown that online coaching is *as effective as face-to-face support* when it comes to maintaining weight loss, while only one (Berino, et al, 2002) reported negative results in this regard.

Beyond exploring efficacy with overweight individuals, three published studies (Mckay, et al, 2001; McMahan, et al, 2005; Tate, et al, 2003) have looked at efficacy with individuals at risk for developing type 2 diabetes and with people who already have this disease. These studies indicate that online coaching is effective in helping at-risk individuals manage their weight (a major risk factor) and in helping diabetic patients manage their weight as well as their A1C, HDL, and triglyceride levels. The study by McMahan and his colleagues showed online support to be superior to usual care by the primary care physician.

A study by Southard and colleagues (2003) has shown online coaching can be effective in managing cardiovascular disease. Compared with patients who received usual care from their physician, those with personalized Internet support lost significantly more weight and had fewer cardiovascular events. According to Southard, "An Internet-based case management system could be used as a cost-effective intervention for patients with cardiovascular disease, either independently or in conjunction with traditional cardiac rehabilitation."

Finally, a number of unpublished papers have been presented at conferences reporting on randomized controlled studies. One such study showed that online coaching can help in

the prevention of HIV infection via practicing safe sex (Davidovich, et al, 2006). Another (Severson, 2006) showed that online coaching is more effective than an information-only website in helping people to quit chewing smokeless tobacco. And, while there are no controlled studies with regard to online smoking cessation programs, three reports indicate that an online coaching approach can produce one-week quit rates of about 40%-50%, comparable to many non-Internet smoking cessation trials (e.g. Norman, 2004).

The strength of a significant number of rigorous randomized controlled studies, across a variety of applications, in addition to the descriptive data Hummingbird has collected directly, indicate that online coaching can be a very cost-effective way to deliver helping services.

#### Efficiency:

A second major finding is that these online coaching services, can be conducted with much greater *time efficiency* mainly due to the *power of asynchronous communication*. Synchronous interaction occurs when the two parties communicate in real time – either in-person or via distance technology such as telephonically. Asynchronous communication occurs when neither of the two parties shares the same time or space for communicating - the best example being e-mail. Consumers highly value the *convenience* of receiving help *whenever* they choose and from *wherever* they are. In today's world of hectic scheduling it works well for consumers to be able to receive help on-demand as opposed to having to schedule an appointment at a specific time. Regarding the “on-demand” character of online coaching, participants have reported that even though they know their coach may not respond to them for up to 24 hours (which is the Hummingbird practice), they feel an immediate unburdening after they hit the “send” button on their message to their coach.

On-line coaching that takes full advantage of asynchronous communication (vs. live chat, which is an example of *synchronous* online interaction) is highly time efficient, and thereby cost-effective to provide. There are a number of reasons. First, if one unpacks the basic structure of synchronous spoken communication, either party spends a good part of the time listening. So, for example, in a typical 60-minute in-person or telephonic coaching session, 30 minutes might be spent by each party as the other formulates and expresses their thoughts. Asynchronous online coaching, essentially removes the listening time. Asynchronous “listening” takes the form of reading, and, on average, we read about 50% faster than we speak, making reading emails or journal entries twice as fast as listening to the same spoken content. Further, synchronous communication has developed in a culture of expansiveness while asynchronous online communication has developed in a culture of abbreviation. If given the chance to talk, we tend to insert more extraneous information than when we write online messages. Email messages have grown in an environment of quick and brief communication. Consequently, on-line communications are less verbose. Therefore, instead of spending 30 minutes “listening”, it may only take 5 minutes online due to faster reading and briefer communications.

To obtain specific understanding of these efficiencies, Hummingbird has run some studies on the frequency and time required to participate in online coaching. We have looked at the frequency and length of email and journal entries on a monthly basis and applied estimates of time required by coaches based on both average rates of reading and typing as well as coach estimates. In general, the findings show that health and fitness coaching takes less time than parent or life coaching - approximately half as much time. On average, across all applications of online coaching, members send about 3-4 emails per month to their coach with an average length of about 150 words. The average number of journal entries is about two per month with an average length of about 140 words per entry (90 words in health coaching to 230 words for parent coaching). Though there is obvious variation among coaches and among cases, on average, *across the bell curve of high to low utilizers*, it seems to take a coach about 15-20 minutes per month per consumer to provide health coaching and 30-60 minutes per month to provide parent coaching. Feedback from coaches and their employers (e.g. EAP's) suggest that online coaching might save 40% or more of the time needed to provide coaching as compared with synchronous methods such as telephonic delivery. Please note, as before, that these are estimates only, and that complete and accurate comparative studies have not been done.

So, to date, there is good scientific evidence to suggest online delivery of coaching for weight management can be more effective than educational, informational programs, and equally as effective as face-to-face programs. Scientific studies also show that online coaching can be effective for managing and preventing diabetes via the control of blood-glucose levels with diet and exercise. Further, there is good evidence to suggest that online coaching can be significantly more *efficient* than face-to-face or telephonic coaching, thereby making online coaching an alternative service delivery method with cost-benefit advantages.

#### Internet Utilization:

The introduction of online coaching begs the question of the ubiquity of Internet use. Online coaching is limited as a methodology to the degree that potential consumers do not or cannot use this technology. The Pew Internet and American Life Study has been tracking all aspects of Internet usage in America for many years. What has become apparent is that Internet usage is moving rather rapidly towards essentially full utilization in the United States.

Surveys fielded in 2006 show that Internet penetration among adults in the U.S. is at an all-time high. Pew's latest survey, fielded February 15 – April 6, 2006 shows that 73% of respondents (about 147 million adults) are internet users, up from 66% (about 133 million adults) in our January 2005 survey, representing over 10% growth overall in just one year. And the share of Americans who have broadband connections at home has now reached 42% (about 84 million), up from 29% (about 59 million) in January 2005, representing over a 40% growth in just one year! Even in the lowest utilization categories of “over 65”, “less than high school education”, and “household income less than \$30,000”, the rate of growth *within* each of these categories is strong – in the order of magnitude of over 10% per year. Further data, looking at growth over the past *three*

years, indicate that Internet use has grown by 54% in the number of adults who say the Internet has played a major role as they helped another person cope with a major illness. And there has been a 40% increase in the number of those who report that the Internet has played a major role as they have coped with a major illness *themselves*. Recent reports indicate that over 100 million adults now use the Internet for health or medical purposes.

All of this supports the notion that the Internet is becoming a fully integrated aspect of most people's communication behavior in the United States, and that it is an appropriate place to expect people to go for help with matters of health and wellness.

### “IT” Grows into “RT”

At this point it may be worth mentioning that, because the Internet originally developed as “information technology”(IT), and has been dominated by sites that offer information /content, that often people expect that online coaching would be some combination of aggregated content, algorithmic automation, and possibly brief “ask an expert” responses. In other words, people have come to expect Internet sites to be what they are in the main – purveyors of content and light forms of personalized human service. However, the culture of the Internet is changing to where it is now also becoming what might be called “RT” – “relationship technology”. Whether it is online coaching, blogs, forums, email, instant messaging, chat rooms, social networking sites, etc., the Internet has become and is maturing as a place where relationships are formed and conducted. The challenge now, as with any new method, is to find the parameters of relationship that can be conducted online and aspects of relationship that are best conducted either in-person, or using distance technology to transmit aural and video dimensions of communication. Hummingbird Coaching has focused its exploration on a particular type of online relationship – namely the “helping relationship”.

This is also a good place to address current attempts to develop algorithm-based automated programs for the Internet. Certainly, automation offers the ability to decrease the cost of service delivery, which is a good thing in terms of penetration into the marketplace. However, some providers of such programs have found that retention is difficult beyond 6-12 weeks. It seems that, after a point, people do not want to only be accountable to a machine (beyond of course themselves). Given the essential social nature of human beings, it is reasonable to think that behavior change efforts could be facilitated significantly if they would occur within the context of a personal relationship. People often function best and are motivated most *in the context of relationship*. The accountability to another person, the understanding and support received, the customization and engagement in collaborative problem solving, all occur within a relationship. The error to date in various behavior change efforts has been to provide what is most easily and cheaply deliverable as opposed to what people really need in order to make sustained changes in behavior. Said differently, emphasis has been on the “cost” side of the cost-benefit equation and not enough on the “benefit” side. So, programs that provide education about healthy behavior and good healthcare choices have fallen short in terms of actually getting people to adopt healthy habits or make improved healthcare choices. *Information is not enough to get people to change – it is*

*often necessary but rarely sufficient to cause sustained change.* It seems that programs that seriously intend to help people make positive changes should consider offering their programs within the context of a personal helping relationship. The studies by Tate, and others, mentioned above, demonstrate this point.

#### Additional Observations:

Anecdotal information that has accumulated over the past few years indicates some additional benefits of online delivery of coaching. As a result of perceived anonymity that comes with online deliver, consumers report that they feel that they can *be more open* and self-disclosing in this format. The lack of voice contact or actual physical presence seems to create, for some, a heightened sense of anonymity and with that an enhanced sense of freedom to broach topics they otherwise might not explore as openly. Online coaching also offers distinct advantages for *supervising* coaches, controlling quality of services, and *managing risk* since there is often a near complete written record that can be reviewed. With synchronous methods of delivery the best that can be achieved, and which often is not, is a sampling of live or recorded sessions. More commonly, supervision relies on the practitioner's report of what transpired. With online coaching, *actual* transactions can be examined directly by supervisors in a time efficient manner, offering improved opportunity for ongoing supervision and training as well as risk management.

An additional observation it that online delivery seems to capitalize fully on “teachable moments”. That is, it seems that a few minutes of assistance at the right time is worth more than an hour at a pre-scheduled time. Online coaching allows people to seek assistance exactly when they are most in need. This on-demand characteristic not only provides quick relief to participants (which has been shown to be related to retention and outcome – e.g. Brown, 1999), but also creates a condition in which they are primed for receiving their coach's response - taking full advantage of the precious “teachable moment”.

Finally, by way of observation, it is apparent that the term “online coaching” has come to mean different things to different people, and what might rightfully be called online coaching sometimes goes under different nomenclature (e.g. “Internet-based tailored programming”). Hummingbird considers online coaching to be person-to-person professional coaching – fully personalized. At the other end of the spectrum there are those that consider it to be a website where telephonic coaching can be scheduled. In-between there are those that think that “ask a coach” is rightfully considered to be coaching and still others that consider online coaching to be automated algorithm-based online programming or any online content aimed at helping people. Until our terminology becomes more sophisticated, it is best for any purveyor or consumer of online coaching to look beyond the term to understand what exactly is being offered and to examine carefully, not just the cost, but the benefit as well.

#### Integration of Positive Psychology:

Hummingbird, because of the connectedness of its principals with the new field of “positive psychology”, has also been exploring the intersection of this new field of

science with the practice field of coaching. Positive psychology is dedicated to focusing the *science* of psychology on those things that are best about human beings and the lives we live. This is in contrast to a focus on human suffering and dysfunction. Its focus on individual and organizational strengths fits well with corporate interests in optimizing individual and organizational performance.

Positive psychology sharpens the focus in coaching on an individual's strengths, which can help establish a strong positive therapeutic alliance and result in early gains. Research has shown the importance of therapeutic alliance and early gains on retention in counseling/coaching programs and outcomes achieved. Research by Dr. Bruce Wampold (2001) indicates that about 87% of the variance in therapy outcomes can be accounted for by what he calls "client factors" – strengths and resources particular to the individual, and research by him and by Dr. Michael Lambert (1992) indicate that somewhere between 10% and 30% of outcome can be attributed to therapeutic alliance. Findings from a Gallup corporation study (Hodges, 2003) indicate that about 60% of people surveyed "agreed" or "strongly agreed" that the discovery and increased awareness of personal strengths a.) helped them make better choices in life, b.) helped them be more productive, and c.) increased self-confidence.

The Values In Action Institute (VIA) Strengths Survey, (available for free at [www.viastrengths.org](http://www.viastrengths.org)) provides an immediate report of an individual's top 5 strengths – called "signature strengths". It is a scientifically validated instrument to which coaches can direct their clients and which can then set the stage for an early focus on personal strengths and provide clients with value early on. A strength focus can help secure a positive working alliance.

Though there are many elements of positive psychology that can weave into health and parent coaching, new positive psychology research findings are especially a' propos to *life coaching*. For example, Drs. Sonja Lyubomirsky and Kenneth Sheldon (2006) have shown that enduring happiness is only determined about 10% by life circumstances, but 40% by intentional activities. This suggests that life coaching may best focus on things people can do to improve themselves and their behavior as opposed to trying to change life circumstances. Another example of how positive psychology is producing findings that can guide coaching can be found in the research of Dr. Martin Seligman, the father of positive psychology. Using the most rigorous of research designs (double-blind, placebo controlled, random assignment) he and his colleagues (Seligman, et al, 2005) have found that helping people identify new ways of implementing their top VIA strengths – their "signature strengths" - leads to sustained and significant increases in life satisfaction and decreases in depression. And, he and other researchers have found that when people keep track of good things that happen in their lives their happiness elevates and their depression diminishes. The astonishing aspect of this research is the long lasting effects that are derived based on interventions with little cost and low intensity. Follow-up studies show the effects of these interventions are still evident at one year after the intervention was applied!

This article is not the forum to detail the many ways that positive psychology can benefit the field of coaching, but merely to point to its relevance for the field of coaching. Positive psychology is a new frontier of science, that, when blended with advantages from the new technology frontier of the Internet, can together lead to important improvements in service delivery.

#### Summary:

Online coaching has now been an area of exploration for the past five years by Hummingbird Coaching services. Findings, to date, indicate that online coaching can work *effectively* and with comparatively great *efficiency*. Random assignment, control group studies by a number of different researchers have shown that online coaching for weight management and for blood-glucose control is 2-3 times more effective than content-based programs (e.g. educational and informational websites and printed materials), and as effective as face-to-face delivery. Descriptive data and anecdotal reports point to the significant efficiency of online delivery of coaching as compared with telephonic or face-to-face delivery. More data are needed to confirm these early findings and observations, but at this point online coaching appears to be a good method of delivery, which can have distinct advantages of cost, accessibility, convenience, and quality management.

<sup>1</sup> *The View*, University of Vermont, April 20, 2004.

#### **About Hummingbird Coaching Services**

Founded in 1997 by Drs. Neal and Donna Mayerson and Sean Slovenski, Hummingbird Coaching Services, LLC is the only company providing one-on-one health and parent online coaching programs. These programs are designed to be easily integrated into corporate benefit plans allowing employers to reduce healthcare expenses while achieving improved productivity and morale within the organization. Based in Cincinnati, Hummingbird Coaching Services has successfully implemented coaching programs benefiting Fortune 500 corporate clients as well as organizations such as the Proctor & Gamble and Lifetime Fitness.

#### **Disclaimer**

Financial metrics are important for determining the best investments to make when deciding on health and wellness programs for employees. When companies purchase wellness or disease management programs, they are making an investment of time and resources for the purpose of achieving an outcome. Currently, there is no standardized or consensual way to measure and report calculations of cost savings, return on investment, cost-effectiveness, etc. in the corporate health and wellness industry. Making these calculations is complex and fraught with problems. Ideally, studies would be conducted independently of the intervention provider (i.e., free from bias), data would be objective instead of self-reported by employees (free from "demand" characteristics or other report biases), experimental designs would be used that included random assignment and/or matched control groups (equivalency of groups except for the intervention), factors extraneous to the intervention of question would be controlled (for internal validity) during the entire time of the intervention and follow up measurement periods (control groups), and attrition of employees during the test period would be adequately controlled. Unfortunately, reality is far from this ideal but we strive to come as close as we can. The best that can be done is to make all best efforts to collect unbiased and valid data and to be transparent and accurate in reporting the manner in which financial metrics have been calculated.

The results reported here came from a study conducted independently by Wellness, Inc. for a corporate client of Hummingbird Coaching Services. The method was to ask employees who opted into the coaching

program to take a Health Risk Appraisal (HRA) questionnaire at the beginning of their program and again after approximately 6 months of participation in the program. At each measurement point, the number of people with various risk factors (as defined by the HRA) was identified. For example, there were X people with depression, Y people with unhealthy weight, etc. Industry data were used to estimate the added costs incurred when various risk factors are present. For example, the additional dollars spent on healthcare by people who are overweight to the level found in this study, is considered to be about \$6,000 more than normal weight employees. The total "additional costs" associated with the risk factors at the beginning were compared with the total "additional costs" associated with the risk factors identified at the 6 month measurement time. The reduction in "estimated additional costs" due to reduction in measured risks was 23% in this particular study.

A number of caveats should be pointed out with regard to this study. First, there was no control group used, as true control groups are difficult to implement in real life employment settings. Thus, it cannot be concluded definitively that reductions in risk were due to the coaching intervention. Second, the HRA results are self-reports as opposed to objective data, such as actual healthcare expenditures. Similarly, as opposed to measuring actual expenditures by the specific employees in this study, actuarial data were used to estimate what level of expenditures would be likely. Third, every program has a limited rate of participation in program offerings, such as program attrition rate and participation rate in measurements. In this study, 26% of eligible employees participated in the program and both measurements. Based on this rate of participation and the estimated effects of the intervention in this study, it could be estimated that this company could experience an overall reduction of healthcare costs of about 6% (26% of employees participating and 23% reduction in costs from participants). Finally, return on investment should include all costs to implement a program, and not just the costs associated with the retained participants. In this particular study, the ROI was estimated at \$2.75 cost savings to \$1 of program expenditure.

## References:

1. Brown, J., Dreis, S., & Nace, D.K. (1999). What really makes a difference in psychotherapy outcome? Why does managed care want to know? In M.A. Hubble, B.L. Duncan, & S.D. Miller (Eds.), *The heart and soul of change: what works in psychotherapy* (pp. 389-406). Washington, DC: American Psychological Association.
2. Davidovich, U., de Wit, J., Stroebe, W. (2006) Using the Internet to reduce risk of HIV-Infection in steady relationships: A randomized controlled trial of an online tailored intervention. Paper presented at *MedNet Conference*.
3. Harvey-Berino, J., Pintauro, S., Buzzel, P. (2002). Does using the Internet facilitate the maintenance of weight loss? *International Journal of Obesity and Related Metabolic Disorders*, 26(9):1254-1260.
4. Harvey-Berino, J., Pintauro, S.J., Gold, E.C. (2002). The feasibility of using Internet support for the maintenance of weight loss. *Behavior Modification*, 26; 103-116.
5. Harvey-Berino, J., Pintauro, S., Buzzel, P., Gold, E.C. (2004). Effect of Internet Support on the long-term maintenance of weight loss. *Obesity Research*, 12:320-329.
6. Holman, J.R. (2005). *Online dieting: with guidance and support, weight-loss Web site proves useful*. *DOC News*, 2:3.
7. Hunter, C. (2005). Randomized Trial of an interactive internet weight loss program: six month results. Paper reported at the annual conference of the *North American Association for the Study of Obesity*.
8. Lambert, M.J. (1992) Implications of outcome research for psychotherapy integration. In J.C. Norcross & M.R. Goldfried (Eds.). *Handbook of Psychotherapy Integration*, New York: Basic Books.
9. McKay, G.H., King, D., Eakin, E.G., Seeley, J.R., Glasgow, R.E. (2001). The Diabetes Network Internet-based physical activity intervention: a randomized pilot study. *Diabetes Care*, 24:1328-1334.
10. McMahon, G.T., Gomes, H.E., Hohne, S.H., Hu, T.M., Levine, B.A., Conlin, P.R. (2005). Web-based care management in patients with poorly controlled diabetes. *Diabetes Care*, 28: 1624-1629.

11. Norman, C. (2004). CATCH-IT Report: evaluation of an internet-based smoking cessation program: lessons learned from a pilot study. *Journal of Medical Internet Research*, 6(4):e47
12. Hodges, T.D. (2003). *Results of 2002 Strengthsfinder follow-up surveys*. Princeton, NJ: The Gallup Organization
13. Rothert, K., Strecher, V.J., Doyle, L.A., Caplan, W.M., Joyce, J.S., Jimison, H.B., Karm, L.M., Mims, A.D., Roth, M.A. (2006). *Web-based weight management programs in an integrated health care setting: a randomized, controlled trial*. *Obesity*, 14:266-272.
14. Seligman, M. E P, Steen, T., Park, N., & Peterson, C. (2005). Positive psychology progress: Empirical validation of interventions, *American Psychologist*, 60(5), 410-421.
15. Severson, H. (2006). ChewFree.com: results of a web-delivered smokeless tobacco cessation program. Paper presented at *MedNet Conference*, October 17, 2006.
16. Sheldon, K.M. and Lyubomirsky, S. (2006) Achieving Sustainable Gains in Happiness: Change Your Actions, not Your Circumstances. *Journal of Happiness Studies*, Vol. 7, No. 1, 55 – 86
17. Southard, B.H., Southard, D.R., Nuckolls J. (2003). Clinical trial of an Internet-based case management system for secondary prevention of heart disease. *Journal of Cardiopulmonary Rehabilitation*, 235:341-348.
18. Tate, D.F., Wing, R.R., Winett, R.A (2001). Using Internet Technology to Deliver a Behavioral Weight Loss Program, *Journal of the American Medical Association*, 285: 1172- 1177.
19. Tate, D.F., Jackovny, E.H., Wing, R.R. (2003). Effects of Internet behavioral counseling on weight loss in adults at risk for type 2 diabetes: a randomized trial. *Journal of the American Medical Association*, 289: 1833-1836.
20. Veverka, D.V., Anderson, J., Auld, G.W., Coulter, G.R., Kennedy, C., Chapman, P.L. (2003). Use of the stages of change model in improving nutrition and exercise habits in Air Force men. *Military Medicine*, 168(5):373-379.
21. Wampold, B.E. (2001). *The great psychotherapy debate: models, methods, and findings*. Mahwah, NJ: Erlbaum.
22. Wing, R (2005). Can we STOP regain after successful weight loss: 18 month results of a randomized trial. Paper presented at the *North American Society for the Study of Obesity*.