IBI Research Insights

IBI INTEGRATED BENEFITS INSTITUTE

Heading Upstream

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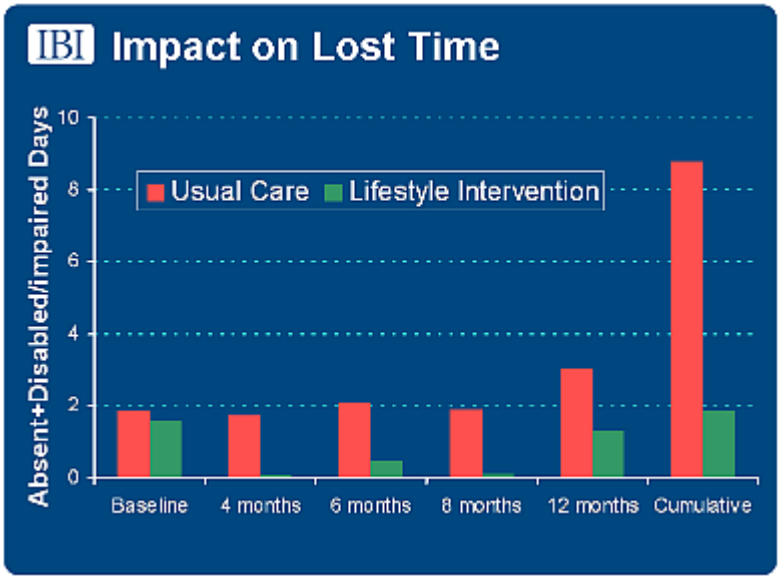
Fly fishing for trout is one of my great passions in life. When I do have a chance to fish, I invariably find myself heading upstream to where (I hope) most people aren't willing to go. Headwaters always are harder to get to but the rewards often are solitude, beauty and better fishing.

It strikes me that this notion of "moving upstream" also characterizes much of the development of health and productivity management since we formed IBI in 1995. The health and productivity movement began when larger employers realized that employee disability absence resulted in lost productivity; thus was born integrated disability management. It wasn't long before the discussion morphed into "total absence management" - after all, if disability time away from work is important, then all health-related lost time deserves attention. Data availability on incidental absences and the existence of paid-time-off programs, however, presented challenges. Still, there was a growing recognition that lost work time really is a health event, leading to the integration of health and absence outcomes (and more recently, presenteeism lost time) as "health and productivity management." Finally, with the realization that healthier employees can have lower medical costs, as well as improved absence and productivity, has come a focus on wellness and prevention. Steadily moving upstream from outcome to cause.

Research on Lifestyle Modification. Researchers at the Department of Health Services at the University of Virginia Medical Center recently published results of a randomized control study of the impacts of lifestyle change on absence and disability for 147 employees with diabetes and obesity.[1] Researchers compared a lifestyle modification intervention to "usual care."

Study participants[2] were divided into two groups. The intervention participants (74 patients) met with a registered dietician six times over the course of the year for assessment, education, goal setting and support based on standards of care for medical nutrition therapy.[3] Goals were individually developed based on national dietary recommendations. There was a brief monthly phone contact between the dietician and each patient during the study period.

The control group (73 patients) received "usual care" in the form of standard written education material on weight management.[4] Both groups received usual medical care from their physicians; participants did not receive any study-related physician visits. The net cost of the program was $328 per person per year.

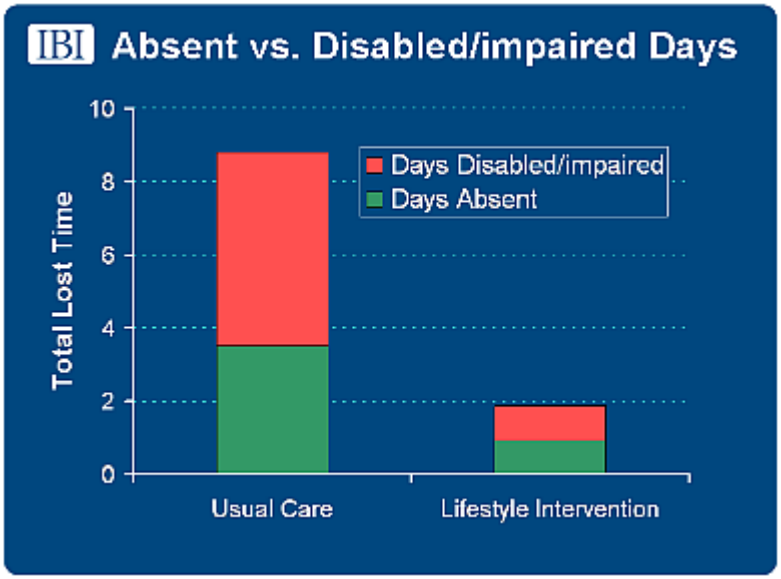


Researchers compared the two groups based on self-reported outcomes related to the patient's diabetes/obesity: days absent from work and days of disability or physical limitation. Data were collected at baseline (covering the previous 4 months) and at 4, 8 and 12

months. Analysis shows that at each assessment period, the lifestyle intervention was associated with statically significant less lost time. Over the course of the year, cumulative absent/disabled/impaired days for those participating in the lifestyle intervention were just 20% of that for non-participants.

The research also distinguishes between the two sources of lost work time over the entire study period. Days at work when employees experienced disability/impairment over the year represented about 60% of the total for those receiving usual care. For those in the intervention group, there was nearly an equal split between absence days and disability/physical limitation days.

Researchers also used regression analysis to remove additional differences after random assignment of patients to the two groups (these factors included age, gender, duration of diabetes, number of co-morbid medical conditions and the existence of depression). This analysis showed that depression was a significant risk factor in lost worktime. Those reporting at baseline being treated for depression had five times more absence days and seven times more disability/physical limitation days.[5] While more people in the control group reported being treated for depression than the participant group, researchers still found that after controlling for depression between the two groups, the lifestyle intervention significantly reduced the probability of absence days and of days with disability/impairment.



No other factors were statistically significant.

Commentary. Most studies of such interventions focus on medical and pharmacy cost impacts and either ignore lost-time effects or assume that lost time/productivity at work will improve with better medical care. In addition, many such studies simply use "before and after" comparisons and are not well suited to judge the intervention's impact. This study is impressive for several reasons. The study: (1) used a randomized control design, (2) showed significant differences both in absence and disability/physical limitations days, and (3) utilized a relatively low-cost intervention strategy.

Study results also emphasize that being actively engaged with patients seems to make a difference compared simply to providing patients with written information about "the right thing to do" for a health condition. What the study doesn't tell us is whether it is the *content* of the contact that makes a difference or just the contact itself. As we "move upstream" in managing health and productivity, direct contact with employees may be a key feature in gaining the full benefits of interventions.

One other limitation is the use of disability/impaired days at work as a lost-time measure. While perhaps a rough proxy for presenteeism, one cannot tell what part of the day was affected to truly equate to lost time. The good news is that both the control group and intervention group use the same measures so the results are more likely to be comparable.

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1. A.Wolfe, M. Siadaty, et al., "Impact of Lifestyle Intervention on Lost Productivity and Disability: Improving Control with Activity and Nutrition," *J Occup Environ Med, Vol. 51, No. 2, February 2009.*

2. In order to qualify for the study, individuals had type-2 diabetes, diabetes medication use, body mass index >= 27kg/m^2, age >= 20 years and the ability to comprehend English.

3. M. McCoin, G. Sikan, et al., "The effectiveness of medical nutrition therapy delivered by registered dietitians for disorders of lipid metabolism: a call for further research," *J Am Diet Assoc.* 2008; 108:233-239.

4. K. Brownell, "The LEARN Program for Weight Management." New Haven, CT: American Health Management Publishing Co.; 2000.

5. Later this spring IBI will publish research on the "full" medical, pharmacy, disability and lost productivity costs of employees with depression.

Thomas Parry, Ph.D. is President of the Integrated Benefits Institute and serves as IBI's Chief Executive Officer. Tom is heavily involved in IBI's research program. Most recently, he directed a study analyzing the impact of linking medical care and disability data and directed research on how Chief Financial Officers link workforce health to business outcomes.

Dr. Parry received his Bachelor's, Master's and Ph.D. degrees from the University of California, Berkeley.