Making the Business Case for Employee Assistance Programs:

ANNOTED BIBLIOGRAPHY OF KEY

RESEARCH STUDIES

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CONCEPTUAL OVERVIEW

"Making the Business Case for EAPs"

The general model for ROI consists of 1) human capital, 2) claims costs, and 3) organizational savings. A brief description of each category is provided below:

Human Capital Savings	Human capital cost savings are based on calculations of estimated savings from avoided employee absenteeism, productivity, and turnover. Savings on these dimensions are calculated for individual clinical cases, management consultation cases, training programs, and crisis risk management cases.
Claims Costs Savings	Claims cost savings are determined for mental health outpatient claims, medical claims, short-term disability, and worker's compensation claims. Savings are estimated from both diversions (avoided costs that would have occurred had an external provider been used instead of EAP Staff) and loss reduction (cases where more expensive treatment has been averted from appropriate use of less expensive care in benefits).
Organizational Savings	Organizational services include direct value for providing management consultation services, group interventions, and educational training. Savings are calculated based on the cost to provide similar services through an external provider, as well as savings from legal risk reduction (for crisis risk management services).

General Review Papers on Making the Business Case for EAPs.

Mastrich, J. & Beidel, B. (1987). Employee assistance programs cost-impact. The Almacan, June, 34-37.

Yandrick, R.M. (1992). Taking inventory. EAPA Exchange, July, 22-29.

Blum, T.C. & Roman, P.M. (1995). Cost-Effectiveness and Preventive Implications of Employee Assistance Programs. Rockville, MD: U.S. Department of Health and Human Services.

Attridge, M. & Fletcher, L. (2000, November). Annotated Bibliography of Research on EAP Outcomes and Cost-Benefit. Presented at the 29th Annual Employee Assistance Professionals Association Annual Conference, New York, NY.

Attridge, M. (2001, April). Making the business case for EAPs: How to demonstrate your value. Presented at the 13th Annual Institute of the Employee Assistance Society of North America, Chicago, IL.

Attridge, M., & Amaral, T. (2002, October). Making the business case for EAPs with the core technology. Presented at the Employee Assistance Professionals Association Conference, Boston, MA.

Part 1: Human Capital

The Human Capital component of the business value model has three parts: absenteeism (the cost of avoided unscheduled time off from work), productivity (the costs of less than full effort while on the job), and turnover (costs to replace an employee).

Absenteeism Savings

Absenteeism savings are calculated from the combination of a) the number of relevant clients with an outcome of avoided missed time off from work due to EAP (effect rate), b) the number of hours of avoided work per case with the effect (effect size), and c) the dollar value per hour of absenteeism (effect value). This basic formula is applied to each kinds of case seen by the EAP.

Relevant research sources used for estimating absenteeism effect rates and values:

Optum Study. Attridge, M. (2001, August). Personal and Work Outcomes of Employee Assistance Services. Presented at the American Psychological Association Annual Meeting, San Francisco, CA. N = 1050. Cases with avoided work loss = 60%, with average hours saved = 17.

Optum Study. Attridge, M. (2001, June). Outcomes of telephonic employee assistance services in a national sample: A replication study. Presented at the American Psychological Society Annual Meeting, Toronto, Ontario. N = 1251. Cases with avoided work loss = 62%, with average hours saved = 16.

Optum Study. Attridge, M. (2002, June). Employee assistance program outcomes similar for counselor (phone and In-person) and legal/finance consultation clients. Presented at the American Psychological Society Conference, New Orleans, LA.
N = 1045 phone EAP: Cases with avoided work loss = 37%.
N = 1031 in-person EAP: Cases with avoided work loss = 40%.
N = 436 consultations for legal/finance EAP: Cases with avoided work loss = 39%.

Optum Study. Attridge, M. (1999, November). Worksite trainings: A nationwide study of hot Topics, evaluation and outcomes. Presented at the Employee Assistance Professionals Association Annual Conference, Orlando, FL. N = 3,500+ with 31% of the attendees at worksite trainings by EAP with reported improved absenteeism.

McDonnell-Douglas Study. Comparison of EAP referred cases for alcohol, tobacco and drug (ATD) dependency and psychiatric conditions with a control group of employees utilizing health services without first using the EAP. Employee absenteeism was lower for EAP than non-EAP users (44% lower than comparison for ATD group and 34% lower for psychiatric group). (Stern, 1990). Why EAPs are worth the investment. Business and Health, 14-19. Washington DC.

Orange County, Florida, Public Schools Study. 6 years of medical claims data compared for EAP users (type unspecified) and non-user of EAP matched on demographic and insurance coverage factors. EAP user's had lower use of sick leave time than comparison group (10% lower) over 5 years of follow-up. (Yandrick, 1992).

Jardine, E.L., & Liebermann, R. (1993). The role of EAPs in occupational stress claim risk management. Behavioral Healthcare Tomorrow, July/August, 30-35. Supervisory rating data found improvements in employee absenteeism (38% to 78% at satisfactory level) and tardiness (53% to 81% at satisfactory level) from before to after use of EAP.

Many other studies with EAP impact on reduced employee absenteeism are cited in Blum and (Roman 1995).

Productivity Savings

Productivity can be impaired when an employee is not functioning at an optimal level. The impact of an EAP intervention is to improve or repair the productivity level. The cost savings calculation for productivity involves several steps. Productivity savings are calculated from the combination of a) the number of relevant clients with an outcome of avoided lost productivity while at work due to EAP (effect rate), b) the number of hours of lost productivity avoided work per case with the effect (effect size), and c) the dollar value per hour of productivity (effect value). This basic formula is applied to kinds of relevant cases seen by the EAP.

Relevant research sources used for estimating productivity effect rates and values.

Optum Study. Attridge, M. (2001 August). Personal and Work Outcomes of Employee Assistance Services. Presented at the American Psychological Association Annual Meeting, San Francisco, CA. N = 1050. Cases with improved work productivity = 72%, with average gain of 43%.

Optum Study. Attridge, M. (2001, June). Outcomes of telephonic employee assistance services in a national sample: A replication study. Presented at the American Psychological Society Annual Meeting, Toronto, Ontario. N = 1251. Cases with improved work productivity = 77%, with average gain of 43%.

Optum Study. Attridge, M. (2002, June). Employee assistance program outcomes similar for counselor (phone and In-person) and legal/finance consultation clients. Presented at the American Psychological Society Conference, New Orleans, LA.
N = 1045 phone EAP: Cases with improved work productivity = 55%.
N = 1031 in-person EAP: Cases with improved work productivity = 56%.
N = 436 consultations for legal/finance EAP: Cases with improved work productivity = 36%.

Dozens of other studies reviewed in Yandrick (1992) and Roman and Blum (1995) also have productivity results for EAP clients, with greater effects for cases with more serious mental health or substance abuse issues.

Employee Retention (Avoided Turnover) Savings

Employee turnover is a function of the effect an EAP intervention on an at-risk employee who is thinking of leaving the university. To determine the cost savings, we estimate both the number of employees who avoided turnover and the dollar cost to replace an employee. Turnover savings are calculated from the combination of a) the number of relevant clients with an outcome of avoided turnover due to EAP (effect rate) and b) the dollar value per avoided turnover (costs of hiring, training and lost productivity). This basic formula is applied to the relevant kinds of cases seen by the EAP.

Relevant research sources used for estimating turnover effect rates and values.

To the extent that EAPs can help troubled workers to improve in their workplace performance in the areas of being late for work, missing time from work (absenteeism), and job performance, this should then reduce the chance of employee turnover as well.

A meta-analysis review of published longitudinal research studies found significant relationships between the outcome of actual employee turnover and prior employee behavior of **lateness** (effect r = .15; based on 6 studies on 2,283 employees), **absenteeism** (effect r = .33, based on 28 studies on 5,364 employees) and (poor) **job performance** (average effect r = -.19; based on 72 studies on 25,234 employees). Employees who later quit their job tend to behave with lateness and missing work and poor job performance before they quit. Citation: Griffeth, R.W., Hom, P.W., & Gaertner, S. (2000). A meta-analysis of antecedents and correlates of employee turnover. Journal of Management, Vol. 26, No. 3., 463-488.

How many employees voluntarily leave a company each year? 21% for companies with 1000-5000 employees; 24% for firms over 5,000 employees, according to the 2000 Society of Human Resources Management (SHRM) Retention Practices Survey (http://www.shrm.org)

International Foundation of Employee Benefit Plans – Survey Results May 2000: Substance abuse services for multiemployer fund participants. Survey sample of 185 benefit plan administrators. (page 11). 57% = yes for EAP reduced employee turnover and job loss.

Chevron EAP Study. Collins, K.R. (1998). Cost/Benefit analysis shows EAPs value to employer. EAPA Exchange, 28 (6), 16-20. Focus on supervisory referral cases for drug and alcohol cases at EAP. Chevron had from 37% to 46% fewer terminations and at a savings rate of $50,000 per case for avoided turnover (in 1992 dollars).

McDonnell-Douglas Study. Comparison of EAP referred cases for alcohol, tobacco and drug dependency and psychiatric conditions with a control group of employees utilizing health services without first using the EAP. Employee turnover over 4 years was lower for EAP than non-EAP users (7.5% vs 40% alcohol non-EAP and 60% for psychiatric non-EAP). Stern, L. (1990). Why EAPs are worth the investment. Business and Health, 14-19. Washington DC.

Other research studies with turnover outcomes from EAP are cited in Blum and Roman (1995).

Research on Measuring the Cost Value of Employee Turnover

Nucleus Consulting (www.nucleusweb.com/ROI3.cfm date: 2001)
Factors in model for turnover cost value:
* average direct cost to replace each lost employee (selection and training)
* average indirect cost to replace each lost employee (lost production or revenue)

AON Workforce Strategies Consulting – Turnover Cost Estimator
AON web address: http://acw.aon.com/wfs (date: 2001)

DIRECT COSTS	including costs directly related to terminations, hiring, recruiting, training and orientation, etc...
INDIRECT COSTS	including costs related to lost productivity, learning curves, lost revenue and lost sales

Estimate Total Turnover Per Employee by Multiplier of Direct Costs:
2.00 average for All Industries. Example: If know that at company X the average direct costs for replacement = $10,000 per case, then the total estimated cost value of one turnover is $20,000 ($10,000 X 2.0)

"The IHPM research reviews include several estimates of the costs incurred when an employee leaves a firm. The estimates range from $25,000 per worker to losses as high as 150% of a worker's annual salary," (p. 18). Johnson, W. G. (2001). Economic analysis of health and productivity: An integrated approach to health. Scottsdale, AZ: Institute for Health and Productivity Management.

Outcomes from EAP Workplace Educational Trainings

There is research evidence for personal and workplace outcomes from employees attending EAP educational trainings and workshops.

Optum Study. Survey study of over 3,500 employees nationwide who were participants in over 190 educational trainings by an EAP found the following outcomes: 31% reduce absenteeism, 54% improve productivity, 68% improved decision-making, 61% lower stress, 57% improved health and well-being, 64% improved work morale, 48% increased job commitment. Attridge, M. (1999, November). Worksite trainings: A nationwide study of hot Topics, evaluation and outcomes. Presented at the Employee Assistance Professionals Association Annual Conference, Orlando, FL.

Part 2: Benefits (Claims Cost Savings)

1. **Mental Health Outpatient Claims**
2. **Medical Claims**
3. **Short-term Disability**
4. **Workers Compensation**

The Benefits component of the business value model has four parts: Mental Health Outpatient claims (the cost of avoided counseling from outpatient benefits providers that was done instead by EAP counselors), Medical claims (the net savings from avoided costs of medical claims avoided by appropriate use of other mental health care for at-risk clients), Short-term disability costs (STD cases who have better outcomes and lower disability costs and avoided STD cases), and Workers Compensation costs (WC cases who have better outcomes and lower disability costs and avoided STD cases).

Relevant research articles on health care cost savings from EAP.

International Foundation of Employee Benefit Plans – Survey Results May 2000: Substance abuse services for multiemployer fund participants. Survey sample of 185 benefit plan administrators. (page 10). 66% = yes for EAP reduced health plan costs.

Abbott Labs Study. Dainas, C. (1996). EAP cost-benefit performance. EAPA Exchange, May/June, 23-24. Results of claims-based cost analysis for two year follow-up of EAP users and a comparison sample of non-users of EAP who were employees with mental health/substance abuse claims. The results found the EAP cases had lower overall net inpatient and outpatient medical costs and resulted on a 6:1 ROI.

Abbott Labs Study. Dainas, C. & Marks, D. (2000). Evidence of an EAP cost offset. Behavioral Health Management, July/August, 34-41. Claims-based study finds lower net overall medical costs than non-eap users of psychiatric services, but higher mental health treatment costs.

McDonnell-Douglas Study. Comparison of overall medical costs for EAP referred cases for alcohol, tobacco and drug dependency and psychiatric conditions with a control group of employees utilizing health services without first using the EAP. Medical claims over 4 years of follow-up were $2,400 lower (in 1986 dollars) for EAP than non-EAP users. More specifically, $7,370 lower for alcohol eap cases and $2,400 lower for psychiatric cases. Stern, L. (1990). Why EAPs are worth the investment. Business and Health, 14-19. Washington DC.

Virginia Power. Virginia Power's internal EAP in 1991 examined medical claim records for four years before and four years after use of the EAP and treatment (1985-1989). EAP referred clients were 23% lower in total medical costs than a comparison group of employee users of behavioral health services who had not used the EAP. Every, D.K., & Leong, D.M. (1994). Exploring EAP cost-effectiveness: Profile of a nuclear power plant's internal EAP. Employee Assistance Quarterly, 10(1), 1-12.

Campbell Soup. All eap cases at internal EAP partner with behavioral managed care provider. Reductions over 1 year post EAP in mental health care costs (28% less). The per employee per year average mental costs reduced from $261 to $188 (cost data from 1988-1990). Also had a reduction in workers compensation reportable accidents. Yandrick, R.M. (1992). Taking inventory. EAPA Exchange, July, 22-29.

Southern California Edison. Longitudinal claims data study of EAP substance abuse clients (n = 30) and matched comparison group of employees (n = 29) with claims experience in the same areas of substance abuse and mental health. Analysis of 12 months of baseline (before use of EAP) and 30 months of follow-up data, show that total medical costs were $18,120 per case for the comparison group and $11,222 for the EAP referral group. This difference of $6,898 between the two groups is 38% lower for the EAP over 2.5 years post use. The EAP group experienced most of its savings in the area of physical health costs ($4,117 vs $10,210) and mental health costs ($575 vs $3,637) with the costs for substance abuse treatment being higher ($6,530 vs $4,273). These are 1991 dollars. The data suggests that the EAP was successful in referral of employees to the most appropriate provider to deliver treatment for substance abuse issues. Conlin, P., Amaral, T.M. & Harlow, K. (1996). The value of EAP case management. EAPA Exchange, May/June, 12-15.

Orange County, Florida, Public Schools. 6 years of medical claims data compared for eap users (type unspecified) and non-user of EAP matched on demographic and insurance coverage factors. EAP user medical costs higher than control for baseline year and first year after use, then decline each year for next four years. ROI of 3:1 over 5 years. (Yandrick, 1992).

NCR Corporation. Company encouraged employee and dependents to use EAP first before seeking treatment in benefits for alcohol/drug or mental health issues. After 1 year, 80% of EAP cases were resolved without use health care benefits; average claims costs for inpatient substance abuse treatment were 50% lower if had used EAP fist.
(Davis, 1993 – cited in Blum and Roman 1995).

Crestar Bank. Company encouraged employee and dependents to use an external EAP (Personal Performance Consultants) first before seeking treatment in benefits for alcohol/drug or mental health issues. After 1 year, average psychiatric claims costs were 58% less for cases that had used the EAP compared to cases not using the EAP. (Davis, 1993 – cited in Blum and Roman 1995).

Clinical Effectiveness and Medical Cost-Offset of Mental Health Services

One of the assumptions of this analysis is that when EAP counselors refer cases into the mental health providers in benefits, that these professionals are effective. Do mental health treatment services generally produce positive clinical outcomes?

The answer is yes, according to a landmark review study that examined over 300 meta-analysis papers (each paper itself a review of other many original studies) – see Lipsey, M.W. & Wilson, D.B. (1993). The efficacy of psychological, educational, and behavioral treatment confirmation from meta-analysis. American Psychologist, 48 (12), 1181-1209.

Large-scale survey research of consumers of mental health services in the U.S. has also found generally positive outcomes – see Seligman, M.P. (1995). The effectiveness of psychotherapy, American Psychologist, 50 (12), 965-974.

The medical cost-offset effect has been demonstrated in a number of earlier studies from mental health benefits providers – see

Shemo, J.P. (1985). Cost-effectiveness of providing mental health services: The offset effect. International Journal of Psychiatry in Medicine, 15 (1), 19-31.

Miller, N.E., & Magruder, K.M. (Eds)., (1999), Cost-effectiveness of psychotherapy: A guide for practitioners, researchers and policymakers. New York: Oxford.

Studies on EAP and Disability Cost Savings:

International Foundation of Employee Benefit Plans – Survey Results May 2000: Substance abuse services for multiemployer fund participants. Survey sample of 185 benefit plan administrators. (page 10). Result of 49% = yes for EAP reduced disability costs.

Contie, D.J., & Burton, W.N. (1999). Behavioral health disability management. In J. Oher (Ed)., The Employee Assistance Handbook (pp. 319-336). NY: Wiley.

Handron, K., (1997). Managing workplace disabilities: How EAPs can help put the cap on rising costs. EAPA Exchange, May/June, 21-23.

Raderstorf, M., & Harri, K. (2002, October). Help, I'm too stressed out to work: Managing psychiatric disability. Paper presented at Employee Assistance Professionals Association National Conference, Boston.

Studies on EAP and Workers Compensation Benefit Cost Savings:

International Foundation of Employee Benefit Plans – Survey Results May 2000: Substance abuse services for multiemployer fund participants. Survey sample of 185 benefit plan administrators. (page 10). Result: 41% = yes for EAP reduced workers compensation costs.

Jardine, E.L., & Liebermann, R. (1993). The role of EAPs in occupational stress claim risk management. Behavioral Healthcare Tomorrow, July/August, 30-35. Claims based study finds lower rates of stress-related workers compensation claims after introduction of EAP.

Smith, G.B., & Rooney, T. (1999). EAP intervention with workers' compensation and disability management. In J. Oher (Ed)., The Employee Assistance Handbook (pp. 337-360). NY: Wiley.

Turner, S. (1993). Safety, workers' compensation and EAP. EAPA Exchange, Oct., 2.

Yandrick, R.M. (1993). Workers' compensation: Beating the blame game. EAPA Exchange, Oct., 6-8.

Part 3: Organizational Consulting Services

Direct Services to the Organization:

1. **Management Consultations**
2. **Training / Wellness Seminars**
3. **Crisis Management Services**

The final part of the analysis estimates the financial value of EAP services other than the individual clinical cases. Thus, this section recognizes the business value provided by the full range of EAP functions. The general logic is that the counselors and EAP staff create and provide services for the organization that have a business value simply in that they are delivering a service that would cost the organization a certain amount of money to deliver from some other source if it were not done by the EAP.

A. Consultation Services to Management/Supervisors

The time spent on working with individual managers and supervisors for assistance with employee and work-team issues can be considered a cost per hour if similar consulting was provided by professionals other than the EAP staff.

B. Educational Trainings & Wellness Seminars

The department or the agency sponsoring the training usually defines the educational value of trainings and workshops. The time and expenses to develop and deliver these kinds of trainings represent cost value that would have been paid to a non-EAP provider.

C. Crisis Risk Management

This part of the organizational savings includes the possibility that a violent or other traumatic incident, if not handled well by the EAP Crisis Management Team, could result in a very problematic outcome and a lawsuit against the organization. While speculative and difficult to prove a non-event (a lawsuit that was avoided), the literature on the outcomes and challenges of critical incident stress management by EAPs suggests that it is something that should be considered as a business value component.

Research Articles on the Effectiveness and Business Value of EAP Crisis Services

Everly, G.S., Flannery, Jr., R.B., Eyler, V., & Mitchell, J.T. (2001). Sufficiency analysis of an integrated multicomponent approach to crisis intervention: Critical Incident Stress Management. Advances in Mind-Body Medicine, 17, 160-196. Research review of published literature showing effectiveness of CISM services.

Flannery, R.B. (2001). The assaulted staff action program (ASAP): Ten year empirical support for critical incident stress management (CISM). International Journal of Emergency Mental Health, 3, 5-10. Review of many empirical research studies on the effectiveness of CISM services for helping employees in schools and hospitals cope with on the job violence and trauma.

Gemignani, J. (2001). When behavioral health benefits count. Business & Health, Nov/Dec, 43-44. Editorial review of how EAPs can help employees deal with trauma and crisis, the nature of post traumatic stress disorder, and the potential for medical saving costs by EAPs referring employees for access to proper mental health treatment for depression and PTSD.

Lewis, G. (2002). Post-crisis stress debriefings: More harm than good? Behavioral Health Management, July/August, 23-25. Critical review of issues and research on how EAPs can effectively deliver CISD services for employees.

Talbot, R. Lessons learned from September 11th: Aftercare planning is core to EAP critical incident response. Paper presented at Employee Assistance Professionals Association National Conference, Boston. Review of rational and outcomes associated with organizational response to employee trauma through the EAP provider – based on experience at Cigna Behavioral Health.

Attridge, M., Bergmark, R.E., & Parker, M. (2002, June). Impact of terrorist attacks on use of critical incident stress management services. Presented at the American Psychological Society Conference, New Orleans, LA. Presentation of utilization data showing dramatic increase in CISM service use levels after terrorist attack on US in 2001. Also includes CISM evaluation survey instrument and results from several years of data from Optum company.