EMPLOYEE ASSISTANCE PROGRAMS:
SUITABLE TOOLS FOR ONTARIO BOARDS OF HEALTH

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An Employee Assistance Program (EAP) is a system designed to offer confidential professional help to employees who have problems that may affect their job performance. Many types of programs are offered under various names throughout the corporate sector. This paper will examine the history and expected benefits of EAP's and explore the prevalence of such programs in a public sector field of employment. The field chosen for review is that of Public Health Services as delivered in the province of Ontario.

The choice of Public Health Services relates both to the type of work conducted and the number of worksites to be studied. The Public Health Agencies in Ontario are charged with delivering health promotion and protection services under the Health Protection and Promotion Act. (RSO, 1990, Chapter H.7) These services are closely related to the issues Employee Assistance Programs are expected to address.

There are forty-two Public Health Units in Ontario covering rural and urban populations for the entire province. This number is much more manageable than the hundreds of local government offices and departments that would need to be reviewed to determine the impact of EAP's on local government. As the Health Units are an integral part of municipal government the examination of EAP's in such bodies will be somewhat representative of the presence and philosophy of EAP's at this level of government.

It must be recognized that Boards of Health are autonomous special purpose bodies. This may have an affect on the presence of EAP's as a reflection of local political philosophy. This seems likely as the enabling legislation requires that in all instances the composition of Boards of Health must provide for more elected officials than public
appointees as members.

The history of EAP's is stated to include the formal introduction of alcohol abuse programs at the work place in the United States in the early to mid 1940's by most authors. Brody suggests that the origins are even earlier:

During the first half of the nineteenth century workers in many occupations drank on the job, often at specified times and frequently at the expense of the employer... In an attempt to have an organized, disciplined work force, employers and farmers made an intensive effort from the 1880's on to eliminate alcohol from the work place.¹

In fact it is probable that the move toward correcting problem behaviours at the work place was fostered by the changes in work place philosophy emerging in the late 19th Century. The Industrial revolution was being augmented by both a social revolution and a greater valuation of skilled labour on both sides of the Atlantic Ocean. The cleaning up of the workhouses, establishment of labour unions and job mobility have all been identified with this period. No doubt the attention to the interference of alcohol in a productive and safe work force was being viewed as an element in the costs of production.

Brody² traces the growth of formal assistance programs from the establishment and rapid growth of the self-help organization, Alcoholics Anonymous in 1935. By 1950 the Yale Centre of Alcohol Studies³ was being supported by several companies that had come to recognize the importance of not only research but also the establishment of

²ibid., p. 14
³ibid.
work place support programs and insurance coverage. The Yale Centre established the "disease concept" of alcoholism and spawned the Yale Plan that encouraged companies to adopt programs accepting alcoholism as a treatable work place problem.

Most authors agree with Shain and Groeneveld that the growth of EAP's was inherent in the maturation of organizational theory into an open system theory supported by "... its insistence upon the importance of interaction with the external environment as a requisite to understanding organizational behaviour." In other words, it became an accepted principle by the late 50's and early 60's that the worker, the work place and the corporate and social community were all interacting to affect the successful management of companies. The health and happiness of the worker could be seen as having an affect on productivity and profitability.

Throughout the 1960's the recognition was dawning that employee problems involved more than alcohol abuse. Brody describes recommendations from the National Council on Alcoholism "that employees be referred to programs with generic titles like "personal counseling", to remove the stigma associated with alcoholism." Despite moves to avoid the total dependence of these programs on rehabilitation of alcoholics most authors agreed with Wrich's observance that "Past experience proves that a significant number of these cases will be alcohol related."

4ibid.
6Brody, Employee Assistance, p. 14
7Wrich, J.T., Guidelines for Developing an Employee Assistance Program, Minnesota: AMA, 1980) p. 7
The growth of EAP's in the United States took off with the passage by Congress in 1970 of the "Hughes Act" - a bill sponsored by recovered alcoholic Senator Harold Hughes. The Act established the National Institute on Alcohol Abuse and Alcoholism (to promote programs for alcoholics in the private and public sector) as well as mandating alcoholism programs in all federal and military institutions.8

The tremendous growth of EAP's in the early 70's in the U.S. was also accompanied by a more formal approach to program elements. Keith McClellan notes that: "Early in the history of occupational programs, policies regarding alcoholism, drug abuse, and mental health problems were informal, unwritten, and often kept quiet. By 1970, however, written policy statements were viewed as essential to the claim of the existence of an occupational alcoholism program within a company."9

Masi describes the shift in the 1970's for EAP's as being toward the identification of impaired job performance as a basis for action. He states:

Two forces were at the root of this change. Alcoholism counsellors realized that their recovered alcoholic employees often had other problems to deal with as well (for example, marital or legal). ... the other rationale was more pragmatic - the term alcoholism was stigmatizing. In some cases changing the name was all it took to make the program more palatable.10

Brody concurs with Masi that "the alcohol programs did not address mental

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8Brody, EAP, p. 14


health or emotional issues..." The problem with this approach was not only the obvious one that troubled workers with job performance problems continue as a liability; as well, the underlying decision to focus on alcoholism results in an ethical question: is it right to help an employee with one problem while ignoring other staff with different problems?

The result of the above debates is that during the 70's and 80's most efforts in EAP's appear to be "broad brush" types that consider poor job performance as an indicator rather than looking for symptoms of alcoholism or other diseases. Shain and Groeneveld describe how the acceptance of EAP's by employers may centre around this element: "Essentially when employers opt for an EAP they are often opting for a method of job performance control which is expected to deal with certain kinds of problems for which alternative solutions (discipline, dismissal, retiring or retraining) are becoming increasingly impractical." They also discuss the probability that some notice is taken that the cost of replacement goes up as a person becomes more senior and competent. This is a selling point for EAP's as they generally serve existing employees rather than new ones (an exception here is the use of pro-active intervention by police and fire departments).

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11Brody, Employee Assistance Programs, 1988, p. 15

12Shain & Groeneveld, EAP's, p. 29

13ibid.

Baum-Baiker discusses the very real advantage to top level managers with alcohol problems that the stress amelioration style of intervention program offers: "the frame of stress rather than alcohol abuse is one which corporate decision makers can accept without indicting themselves, their companies, or their employees".16

All of these ethical considerations and shifting of emphasis to the entire work environment typified the burgeoning influx of EAP's in the U.S. in the 1970's. The features most notable of the 80's programs seem to have been the involvement of Unions with management in the introduction of EAP's along with the growth in the U.S. of third party insurance coverage for patients referred to treatment centres and outpatient clinics for alcohol, mental or emotional problems. McClellan reports that efforts to extend insurance coverage have been less than 100 percent effective. He theorizes that "Due to the nature of the problem, the prospects of insurance coverage for cost-effective outpatient treatment of alcohol, drug abuse, and emotional problems are tied to Federal legislation rather than company action or even state legislation".17

Several sources confirmed the difficulty in obtaining insurance coverage for outpatient services and office visits to psychiatrists and social workers. An observation might be made that the job of selling alcoholism and mental or emotional problems as "diseases" has been too well done. As a practitioner of public health in Ontario, I am

15Streiner, Bella, Stress Management for Emergency Responders, Presentation to Woodstock, Ontario Firefighters, 1990

16Baum-Baiker, Cynthia, "Treating and Preventing Alcohol Abuse in the Workplace", (Pennsylvania: American Psychologist, April 1984)

17McClellan, An Overview, 1982, p. 10
only too well aware of the perception by most of the population that "diseases" should be "treated" by doctors in hospitals. Intervention therapy on an individual or societal basis in North America is a tough sell. For example, while in excess of 50% of Ontario's tax dollars go to Health Care and elected officials and senior bureaucrats continue to espouse a belief in intervention therapy close to 90% of the Health Care funding still goes to active treatment.18

Perhaps this is a good spot to trace the history of EAP's in Canada as compared to the development already described for the United States. Although the existence of EAP's in Canada have been documented by the Addiction Research Foundation since the early sixties,19 the development of the programs has been somewhat different.

Paul Walker quotes Brenda Broughton of the Employee Assistance Group for Family Services of Greater Vancouver as stating a major difference as follows: "Managed care came upon the EAP field in the U.S. like a great big fast moving monster. For whatever reason, there seems to be a wall at the border."20 The reason that "managed care" and cost-efficiency marketing of EAP's are anomalies in Canada appears to be because of socialized medicine in Canada. Most of the services managed by U.S. EAP's are already covered under the various provincial medical care plans. As a matter of fact, it has been possible to obtain specialized services in this area from U.S. facilities and

18Ontario Ministry of Health Annual Report, Toronto: Queens Printer, 1990

19ARF symposium, Other Benefits, Toronto: 1982, p. 8.2

have the fees paid by provincial plans (The Ontario Hospital Insurance Plan has recently changed some of its policies regarding this in an attempt to stem the flow of Canadian taxpayers' funds to U.S. centres where appropriate treatment is available in Ontario).

Walker also sees some of the differences between U.S. and Canadian EAP's as being based on cultural differences. He describes the variation as follows:

In a very general sense, the American Culture is largely based on the rights of the individual. Therefore you can not do anything which is seen as an infringement of those rights. ...In Canada you have what is known as the common good, the Commonweal - the Commonwealth of Canada. ...The individual sees government intervention as a benefit rather than an infringement of their rights.21

In light of current constitutional concerns and questions of Canadian unity the above statement may seem unlikely to be verifiable! Be that as it may, the fact remains that Canadians generally have most if, not all, costs for treatment services covered post referral from EAP's and generally view such coverage as a right.

Walker22 confirms that EAP's in Canada generally began in the 1970's and were not primarily based in Occupational Alcohol Programs. As an outcome of the benefits of socialized medicine Walker23 states that the same cost efficient rationale was not necessary to sell EAP's in Canada. He quotes Ray Johnston, the senior manager of the EA program for the Bank of Montreal as saying: "In Canada, EAP's are seen as contributors to a reduction in workplace personnel problems, and are almost seen as an

21Walker, Canadian EAP's, p. 13
22Walker, Canadian EAP's, p. 19
23ibid.
Walker goes on to say that "Most large companies (in Canada) have EAP's and they are fast becoming a fact of life in the medium-sized businesses. The major challenge is to get them down into smaller companies, ones with less than 100 employees." The Addiction Research Foundation provided evidence of this when they studied Ontario worksites with 50 or more Employees. Public sector programs exist for both Federal and Provincial Civil Servants but municipal level programs are not common in rural areas not serviced by regional governments.

An interesting observation in the ARF report was confirmed by Walker that: "Canadians believe confidentiality is a very strong issue. On site EAP's can offer confidentiality but Canadians believe they are better served in this area with external EAP's." Richard Weiss questions the idea of greater acceptability of EAP's off-site when he analyses the U.S. Conference Board's Report, "Dealing With Alcoholism in the Workplace - 1980." He states "these analyses revealed that confidentiality was related to clients decreasing their drinking; confidentiality was not related to other anticipated outcomes, such as employees' willingness to co-operate with the program, the proportion of an organization's employees referred into the program, and program clients' ability

\[\text{MacDonald, S. and Dooley, S., Ontario Worksites With 50 or More Employees: The Nature and Extent of EAP's Programs & Worksite Characteristics, ARF: Toronto 1989, p. 23} \]

\[\text{ARF Report, p. 17} \]

\[\text{Walker, p. 20} \]
Weiss cautions readers to examine all claims of EAP success rates and all statements of either costs of problem workers or benefits of program introduction. He believes that many statements are made without empirical data in this area. As well, he feels much research is flawed because scientific methods are not employed and variables other than those being measured are seldom controlled. He undercuts the base data used by almost every author reviewed when he states:

Although the accurate determination of the prevalence of as complex a health problem as alcohol addiction might appear to require extensive social epidemiological research, no current personnel texts refer to systematic data on this question. Rather, their general agreement that roughly 5% to 10% of a company's employees are alcoholics has been based on statements by alcoholism program administrators and by journalists who have depended on them for information. ...the possibility that these respondents are biased towards perceiving a high prevalence must be considered.

His purpose in casting such doubts does not appear to be to destroy the premise of EAP's but rather to encourage sound research and the printing of data found to be unfavourable to the interests of consultants and program administrators. The criticisms may be less of a problem in Canada as it has already been stated that bottom lines and costs of employee problems appear to be less of an issue. Nevertheless any research done on such programs should be able to withstand the scrutiny of purists like Mr. Weiss if they are to gain credibility.

The idea of contracting out for EAP services has been studied by many of the

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30ibid., p. 342
authors reviewed. All agree that smaller companies are more likely to be serviced by external agencies. Wrich\textsuperscript{31} saw the cutoff as being established around companies with fewer than 1,000 employees in a given geographical area. McClellan also noted that "the incidence of alcohol impairment of American Workers is not frequent enough to make alcoholism a major part of the day-to-day routine of work life in most work settings."\textsuperscript{32} As well, he notes "work-based alcoholism and employee assistance programs have a lower priority than many other personnel and production problems."\textsuperscript{33} For these reasons he feels many small businesses might consider opting for a consortia\textsuperscript{34} to service their EAP needs.

The successful marketing of such consortia will depend on marketing skills and timeliness of approach. Success rates can be expected to be better with clients who are experiencing or have experienced a problem with employees with work performance problems not easily dealt with through traditional supervision or discipline. Consortia may involve employers, employees, employee organizations and community representatives in a joint effort. Questions need to be answered about start-up funds, operating funds, possible self-sufficiency, confidentiality and other issues; but consortia may be a less confrontational way to offer assistance in problem solving.

It appears that two distinct schools of thought exist over the role of supervisors

\textsuperscript{31}Wrich, \textit{Guidelines for Developing an Employee Assistance Program}, p. 52

\textsuperscript{32}McClellan, \textit{An Overview}, p. 10

\textsuperscript{33}ibid., p. 11

\textsuperscript{34}ibid.
in worksites employing EAP services. Although all seem to agree that supervisors and managers should never perform as employee counsellors there is a debate over their exact role.

One school of thought centres around the doctrine of "constructive confrontation". Several authors described this function with most of them taking Wrich’s position that: "Until job performance has been adversely affected, the company has no right to demand changes in an employee’s personal life."\(^{35}\) Once job performance has been affected the position becomes one of confrontation by a supervisor requiring a response by the employee. Shain and Groeneveld describe this method of intervention in an unsubtle fashion:

> The threat of "economic capital punishment" through dismissal is likely to be most effective means of breaking through what is perceived to be the ironclad denial system of the alcoholic. Get alcoholics into treatment while they still have something at stake, becomes the motto.\(^{36}\)

McClellan disagrees with this approach because:

> ... given current rates of job turnover; growing threats of job insecurity due to changes in markets, lifestyles, automation, and technological change; and continued professionalization of the work force, it seems clear to many that threats of job loss by supervisors for poor job performance have less influence than they did twenty years ago.\(^{37}\)

\(^{35}\)Wrich, *Guidelines for Developing and Employee Assistance Program*, p. 31

\(^{36}\)Shain and Groeneveld, *EAP's*, p. 2

\(^{37}\)McClellan, *An Overview*, p. 16
In either model it is clear that the traditional methods of discipline, retraining, altered supervision, etc. are not working to control some kinds of employee concerns. The possible catalyst to more growth of the EAP field may come from the legal system. Anthea Stewart told of the growing trend of successful "wrongful dismissal" suits by employees "on two major issues: the issue of "cause" and the issue of "inaccurate documentation". The EAP, if it is properly designed, provides information to support both of these areas."

Ms. Stewart also refers to the shift in Canadian workplaces to pay more attention to physical fitness. She sees this "holistic health" approach as lending itself well to the use of EAP's as a kind of "mental health checkup".

The final element she sees (as well as most other authors reviewed) is the role of organized labour in EAP's. She considers the role of labour in promoting the lot of workers as being a logical support arm for EAP's. As she acknowledges, unions will be very cautious about participating in any program that seems to be intent on identifying problem workers unless absolute job security and individual protection is guaranteed. She contends, however, that: "Effective integration between the EAP, union, and management markedly reduces the number of terminations, appeals, grievances, and wrongful dismissal suits."
The literature indicates that Employee Assistance Programs have existed in the corporate sector in a substantial way since the 1940's. There is little reference to such programs in the public sector in many sources but there is acknowledgement that such programs do exist. Municipal governments have been involved in EAP's throughout Canada. It is difficult to determine the exact level of interest across municipalities or the various departments, boards and commissions that make up this level of government.

One agency that might be expected to pursue programs to assist employees with problems that might affect their well being and ability to perform in the workplace is the local public health office. Health Units and the preventive health care field in general have always espoused support for programs to amend community life-styles in the direction of self appraisal and behaviour modification to improve the health of Canadians.

A significant stone in the path of recognition of the benefits of preventive health care activities was the 1974 Lalonde report. This report revealed that the major threat to the health of Canadians was disorders caused by our lifestyle. Lalonde emphasized that far greater benefits could be reaped by spending health dollars to promote healthy lifestyles than by continuing to support the ever escalating primary care budgets. It is fair to say that some movement in that direction has occurred in Ontario. Various other reports funded by the provincial government have lent greater credibility to the Lalonde conclusions and have resulted in changes in the Ontario Ministry of Health.

In the area of public health these pressures resulted in the provincial Ministry of

42Lalonde, Marc, A New Perspective on the Health of Canadians, Information Canada, Ottawa, 1975
Health replacing the Public Health Act with the Health Protection and Promotion Act in 1983. Subsequent to the proclamation of this prevention based Act the provincial government gave Cabinet approval to a set of mandatory Programs in Public Health in April, 1989. These programs are listed in the Mandatory Health Programs and Service Guidelines and are passed pursuant to sections 5 and 7 of the Health Protection and Promotion Act.

This set of guidelines for Ontario's Health Units have some interesting statements relative to the health of the citizens residing in the province. Presumably the provincial government intended the strategies outlined for the provision of a mandatory level of public health services to apply to the staff of Health Units as well.

Four main programs are outlined in the above named document: Healthy Growth and Development, Healthy Lifestyles, Communicable Disease Control and Healthy Environments. Each of these has a stated Health Goal. The goal for Healthy Lifestyles is shown as: "All people in the community will have the opportunity to adopt and maintain health promoting practices for themselves, their family and the community." The explanation of the programs to be directed to achieving this goal includes the statement:

Available epidemiological evidence indicates that a small set of behaviours increases likelihood of premature death and disability. Behaviours more likely to result in good health include: abstaining from the use of tobacco; not abusing drugs, alcohol and other substances; sound nutrition practices and regular physical activity.

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43Ont. Ministry of Health, Mandatory Health Programs and Service Guidelines, Queens Printer, Toronto, 1989, p.3
44ibid., p. 9
45ibid.
The guideline requires a number of primary and secondary programs that are expected to contribute to achievement of the stated goal. These need not be described here as the noted document is available to anyone interested in examining the programs. The point is that the statements reproduced here could as easily have been used as introductory rational for an Employee Assistance Program or Workplace Wellness effort. In light of this, it seems fair to expect that most if not all Ontario Public Health Units would have some form of Employee Assistance program in place.

To determine the actual level of program existence a brief survey of Ontario Health Units was conducted in May of 1993 (see Appendix A for questionnaire). The intent was to determine the prevalence of Employee Assistance Programs, the relationship between this and the size of the workplace as well as the corporate structure. Some information was also collected regarding the possible reasons for the lack of an EAP in any of the Health Units. A further question was designed to determine any preference for contracted EAP services versus "in house" or corporate programs. The survey was sent to 42 Health Units with a response from 38 for a return rate of 90%.

The information collected from the survey is shown in the following tables in the form of raw data arranged to reflect the questions asked.
TABLE (i)

PREVALENCE OF EMPLOYEE ASSISTANCE PROGRAMS IN LOCAL HEALTH UNITS IN ONTARIO:

<table>
<thead>
<tr>
<th>STATUS</th>
<th>REGION</th>
<th>COUNTY/CITY</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAP</td>
<td>9 (69%)</td>
<td>7 (28%)</td>
<td>16 (42%)</td>
</tr>
<tr>
<td>No EAP</td>
<td>4 (31%)</td>
<td>18 (72%)</td>
<td>22 (58%)</td>
</tr>
<tr>
<td>TOTAL</td>
<td>13</td>
<td>25</td>
<td>38</td>
</tr>
</tbody>
</table>

Note: 56% of EAP's are purchased as a contract service (external), with the other 44% being provided as part of an existing corporate structure (in-house)

TABLE (ii)

REASONS GIVEN FOR LACK OF AN EMPLOYEE ASSISTANCE PROGRAM

-Based on Agencies responding NO to EAP question

<table>
<thead>
<tr>
<th>Reason</th>
<th>REGION</th>
<th>COUNTY/CITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Never Considered EAP</td>
<td>1 (33%)</td>
<td>8 (47%)</td>
</tr>
<tr>
<td>2. Cost</td>
<td>1 (33%)</td>
<td>4 (24%)</td>
</tr>
<tr>
<td>3. Lack of Perceived Need</td>
<td>1 (33%)</td>
<td>5 (29%)</td>
</tr>
</tbody>
</table>

Note: One agency from each group did not respond to this question

TABLE (iii)

RELATIONSHIP TO SIZE OF WORKPLACE

<table>
<thead>
<tr>
<th>EAP IN PLACE</th>
<th>Structure</th>
<th>&lt;100 Employees</th>
<th>&gt;100 Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional</td>
<td>0 of 2</td>
<td>9 of 11</td>
<td></td>
</tr>
<tr>
<td>County/City</td>
<td>0 of 10</td>
<td>7 of 16</td>
<td></td>
</tr>
<tr>
<td>TOTALS</td>
<td>0 of 12</td>
<td>16 of 27</td>
<td></td>
</tr>
</tbody>
</table>
The information collected does show some trends within local Health Units. Probably the most startling is the fact that only 42% of these agencies provide Assistance programs to their staff. In the County/City Health Units where these programs are not part of a regional government structure the level drops to just 28%. It was possible to show a significant relationship between corporate structure and the presence of EAP’s in this study (Appendix B), and it may be a relationship worth further exploration. The real significance would be in the usage these Health Units actually make of these regional programs.

A significant relationship was shown between number of employees and presence of an EAP in Health Units (Appendix C). This is consistent with the findings of a study carried out in 1989 by the Addiction Research Foundation. This ARF study referenced previous work that confirmed the presence of EAP’s was related to size of the worksite.

Table (ii) shows the responses of those agencies where a reason for the absence of an EAP was given. Approximately half of the Units had never considered providing such a program. As most of the responses to this question were from County/City Health Units it may be that a certain degree of sophistication in Administration is needed before these types of ventures are considered. Certainly regional governments are larger and generally contain more human resource management positions than do county structures. As well, financial incentives and more opportunity for advancement may draw the human resource staff with more training and consequently more

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opportunity to be exposed to EAP programs and build support for them.

The other reasons for negative responses were almost evenly divided between "cost" and "lack of perceived need". Although a space was provided for "other" reasons for no EAP, no one used this spot to describe any other barriers to implementation. Eight responders used this line to suggest that their agency was currently considering an Employee Assistance Program.

Health Units responding to the questionnaire showed an approximately equal tendency to use either contracted EAP services or an in-house service. When examined by regional government versus County/City structure there is no change as approximately half report in-house services this way also. This finding was in close agreement of that of the ARF study which showed 48.4% of the worksites they studied used EAP contracted services. Based on the ARF information it is likely that most, if not all, of the Health Unit programs utilize outside resources for any treatment.

The Addiction Research Foundation study reported that 90.5% of the worksites providing EAP's in their sample were "broad brush", as they included treatment mechanisms for alcohol problems and at least one other type of problem. This question was not asked in the questionnaire for the Health Unit survey. Telephone contact was made with eleven agencies after the questionnaires were collected. In all cases where EAP's were in place (7 on contact list) they fit this description as being

\[\text{ibid.}\]

\[\text{ibid.}\]

\[\text{ibid.}\]
broad based and all permitted family members to use the EAP. In the ARF study this feature was available in 70.6% of the sample sites.

The data collected in May of 1993 suggests that Public Health Units in Ontario tend to have a higher level of EAP’s in place than the general workforce. This is consistent with the ARF findings that “government, health and education services were more likely to have EAP’s”.\(^{50}\) The overall rate in Ontario Work Sites with greater than 50 employees was 16.1% while the level for Health and Education services was 29.5%.\(^{51}\) The average for Public Health Units (42%) is high, while the rate for County/City Units (28%) is consistent with the above findings. This overall higher level of interest is encouraging but it still leaves the question as to why more than half of Ontario Health Units have not developed a program to provide support for the health and well being of their employees. As outlined earlier, such programs are consistent with the mandate of these worksites and that programs to provide such support for their local communities are mandatory under the Health Promotion and Protection Act.

An exploration of the reasons for EAP’s or wellness programs being ignored by half of the public health sector may lead to a broader understanding of the place such programs could or should hold in other areas of municipal government. The starting point for such an exploration might be the area of the above mentioned questionnaire that dealt with the reasons Health Units provided for the lack of such programs. Although the responses were no doubt affected by the wording of the question, the two

\(^{50}\)ibid., p.(iii)  
\(^{51}\)ibid., p. 11
areas covered were developed from the review of many of the sources referenced in the early sections of this paper.

The area most frequently suggested as an evaluation method of Employee Assistance Programs is that of cost-benefit analyses. None of the agencies contacted by telephone had conducted an actual cost benefit analyses of EAP programs but 25% of those agencies without such programs gave cost as the reason.

The literature has suggested that small work sites may find in-house EAP's to be prohibitively expensive. Setting up a department or even an office to provide such services to less than 100 employees would likely be unfeasible if we consider such a program simply as a percentage of payroll. Some authors have suggested that unless the benefits of an EAP are explored a fair consideration of the costs is not possible.

As noted earlier in this paper much of the information given for costs and benefits of these programs may be biased. If we allow for this bias the support for claims of benefits derived from Employee Assistance Programs is still substantial. The problem in sorting this out is that most practitioners are reluctant to discuss the costs of programs. They are far more comfortable outlining the benefits.

In an interview in May of 1993, Lois Wey of Family Services, London was asked to outline the costs of providing an Employee Assistance Program on a contract basis. Lois explained that each contract is different and is negotiated with the client. She went on to say that in some cases the fees are based directly on a cost per referral basis; the number of cases times the cost per case is charged to the employer. According to family services statistics, the expection is that 5% of the employer's workforce will access the
program in any year. With average cost per case defined by Lois as approximately $600 to $700 per year, it is possible to come up with costs based on unit size. For workplaces of less than 100 employees, Family Services will generally negotiate a minimum and maximum range. In some cases smaller work sites negotiate a fee per employee per month as a base rate.

A small number of researchers have attempted to develop a cost benefit relationship for EAP's. Linda Gallant-West of Employee Assistance Services with the Government of Canada explained in a recent interview that the cost of EAP's would vary greatly with the services provided and the level of professional staff involved. She described the current rates charged by private consultants as ranging from approximately $4.00 per employee for single service programs (generally substance abuse) to as much as $20.00 for a thorough "broad brush" package with an average of about $10.00 to $12.00 per employee for programs in general. Sandra Knapp, the Ontario Regional Co-ordinator for Employment Assistance Services, confirmed those numbers for Ontario. She also expressed considerable concern that currently some firms offer services that they are unequipped to provide properly due to a lack of trained staff.

This issue of unqualified counselling was also a concern for Lois Wey of London Family Services. Lois pointed out that no legislation exists to cover who can offer counselling. Although family problems are recognized as some of the most stressful and complex, it is possible for anyone to "hang out their shingle" and offer services as a marriage counsellor in Ontario. Lois explained that the various professional designations (e.g. psychiatrist, phycologist, etc.) are protected by legislation, but the practice of some
of their skills is not limited to those who have proper training. It would seem that any attempt to compare EAP services on a fee per employee must take these differences into account. Certainly municipal government must ensure that their staff are not exposed to poorly trained counselling if an EAP is to prove beneficial. Unfortunately the Ministry of Labour Task Force on EAP's found "...that there is no agreement on criteria for evaluating programs. Although there are a variety of program models there is no systematic effort being made to compare their effectiveness."52

The cost of EAP's is given by Wilfred List53 as being from $15.00 to $50.00 per employee per year with Crown Life (a large EAP provider in Canada) charging a rate of $34.20. These figures are somewhat higher than those listed above and may represent the Toronto base of Crown Life. This source also lists employee average use rate of between 4% and 15% of total employees. This much wider range needs to be considered as the two extremes could mean a significant difference in costs. Studies of use rates within EAP's currently in place in public health units in Canada might be helpful for determining costs for those considering such programs.

Patrick Coulon advises that "Like suits on a rack, however, EAP's seem to come in a wide variety of styles that can initially puzzle companies eager to explore the concept.54 He goes on to describe programs such as:

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52Ontario Ministry of Labour, Report of the Advisory Committee on Employee Assistance Programs to the Minister of Labour, Queens Printer, Toronto, 1990


54Coulon, Patrick, "Show You Care", Canadian Business, Vol. 60, no. 4, April, 1987, p. 66
the Imperial Oil effort with "an annual EAP budget of $130,000.00 and runs "the equivalent of a private practice within the company" working closely with Imperial Oil's health staff of 16 nurses and 13 doctors". 

And the Air Canada model which is managed by a system of 150 volunteers from the company and unions that act a referral system to get troubled employees in touch with appropriate outside help.

These various approaches to how EAP service is provided affect the cost of the programs.

In fact, Kirsteen MacLeod suggests, finding the right EAP for an organization is a matter of research. She explains the Warren Shepell Consultants Corp. view on determining costs as follows:

Shepell recommends two year contracts because they allow enough time for the EAP to be implemented and properly evaluated. "Most companies prefer a one-year (term), but we have an arrangement where the price won't change for two years to encourage them." 

EAP's can be paid for on a fee-for-service or flat rate basis. Shepell says a flat rate lets both provider and purchaser do better financial planning because the rate is not affected by how many people use the service.

In summary Health Units that see cost as a possible barrier to the introduction of EAP's can expect some ambiguity on the part of third-party service providers. Many, like Lois Wey and Sandra Knapp, when asked about costs respond that they would rather not concentrate on costs but would prefer to discuss these costs relative to benefits.

55 Ibid.

56 MacLeod, "Finding Right EAP a Matter of Research", Canadian HR Reporter, July 18, 1990, p. 12
(i.e. a percentage return on each dollar invested). In any case, Shain et al have outlined the following factors that will affect price of these services and it is suggested they be considered when deciding on type of program and potential suppliers:

a) the size of the estimated case load per year with most firms suggesting a probable first year load of 5% of the workforce.

b) the amount of direct time to be spent per case by various professionals on staff. If the vendor is pipelining cases to other agencies the cost should be considerably less than if they are prepared to do intensive case-work, follow-up, training, education and program maintenance.

c) the range of services provided beyond assessment, referral and face to face counselling (e.g. 24 hour hotline, promotion of the EAP on site, education of staff, training of supervisors).

d) the qualifications and expertise of staff will influence the type of assistance the vendor can supply and the scope of problems they are able to deal with (and affect cost accordingly).

To turn to the cost-benefit issue it is possible to find much in the way of positive statements, but more difficult to reference exact studies that back up the often quoted savings figures. Some good work has been done and more research into the Canadian scene is underway. Many of the past studies dealt with alcohol or substance abuse programs and the analyses reflects the rather narrow field of effects of such programs.

The Addiction Research Foundation estimated the annual social cost of alcohol

and other drug abuse in Ontario in 1988 at 9.1 billion dollars. The total cost of treatment for addiction in Ontario for 1990-1991 was 88.3 million dollars while U.S. agencies billed the Ontario Hospital Insurance Plan for $50 million dollars for these services during the same period. These figures express the seriousness of these problems in sheer financial terms. As much of this treatment has traditionally been carried out in residence based programs, it has been expensive and these dollar figures covered 66,538 people. These figures of course do not represent costs for treatment of other problems expected to be covered by EAP's.

The Annual Report of the London Employee Assistance Consortium (Sept. 1, 1990 to August 31, 1991) broke down the reasons for referral to their services as follows:

- marital and family problems - 46%
- personal, behavioural, emotional and financial problems - 42%
- alcohol and drug addiction - 6%
- attendance, work performance problems - 5%

On the basis of this breakdown (Sandra Knapp and Lois Wey felt it was typical of their caseload as well) the costs to society of the various problems EAP's are designed to address is astronomical. It seems that addressing any portion of these workplace difficulties should be explored.

Most promoters of EAP's espouse the view of Jack Santa-Barbara of Corporate Health Consultants Ltd. that "the dominant goal (of EAP's) should be improvement of

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58Addiction Research Foundation, News About New Initiatives for a Health Workplace, Toronto, April 1993, p. 3

59ibid.
employee mental health,60 or of Helen Krafchik EAP coordinator for Warner - Lambert who says "Don't talk to me about dollars and cents when we are dealing with people's lives."61 Every Health Unit in Ontario that has filed a mission and philosophy statement and proposes to deliver the previously noted Mandatory Programs must subscribe to these values. Even so, it is often necessary to consider the cost-benefit ratio at least in terms of expected effect on budgets.

Examples of claims for return on investment for these programs come from both surveyors of programs and consumers:

► Crown Life Insurance Co., a marketer of EAP services, cites projections showing that such plans can return up to 185% of the initial cost in the first year, with subsequent annual returns of 485%. The projections drawn from U.S. and Canadian studies are based on anticipated reductions in absenteeism, occupational and non-occupational accidents and savings in the cost of training replacements for employees fired for inadequate performance.62

► Firestone Tire and Rubber which calculated savings of $1.7 million or $2,350 per person involved. United Airlines reported a return of $16.35 for each dollar the Employee Assistance Program (EAP) cost.63

► Warner - Lambert's EAP) ...costs $36,000.00 a year, our absenteeism is down to under 2% and our turnover rate is around 5% or about half the industry norm.64

60List, Helping Out the Problem Employee, p. 69

61ibid.

62ibid.


64Coulon, Patrick, "Show You Care", Canadian Business, London, April, 1987 p. 111
In 1984, Montreal-based The Royal Bank of Canada spent $280,000 on its EAP and then estimated that it gained about $14 in productivity for every dollar spent on the program.65

Research indicates that, in general EAP's boost productivity by 6.7 days a year and save companies an average of more than $1,000 per employee. An outside consultant found that B.C. Tel's program saved the company $3.80 for every dollar spent.66

Every dollar Health and Welfare invests in its employee assistance program yields a return of $9 through increased productivity, decreased tardiness and absenteeism and fewer accidents on the job.67

These sources all claim benefits exceeding costs of EAP's based on general improvements in the workforce. Ontario Health Units are not immune to the problems of absenteeism, tardiness, reduced productivity, turnover, retraining costs and on-site accidents. It should be possible for these agencies to benefit by introducing Employee Assistance Programs aimed at correcting these workforce problems. It is also consistent with their philosophy and mandate to attempt to provide a safer, more humane and supportive workplace for their employees. Cost of EAP's should not prevent Health Units from proceeding to introduce them.

Bruce Cunningham, a workforce consultant with the Addiction Research foundation is quoted by Nancy Bramm as seeing the whole issue of EAP's as a bottom


67Goddard, Haris, "EAP$ - Programs that Pay Off," CPJ - RPC, March 1989, Montreal, p. 146
line one: "Problems which affect productivity are there, whether the company admits it or not. It's better to deal with them than ignore them, because companies will end up paying one way or the other." Health Units in Ontario should heed this advise and get on with EAP's in all agencies.

The second area touched on in the questionnaire to Health Units as a possible barrier to the inclusion of Employee Assistance to their programs package was listed as a lack of perceived need. In the follow-up telephone contacts this lack of need perception was said to be based on the lack of use of programs that had been offered in the past or input by questionnaire and/or at general staff meetings. In three cases, questionnaires had been completed and returned by staff indicating the staff did not see a need for this service. None of the questionnaires were available for review and it was not possible to obtain the exact wording of the questions. Two of the questionnaires required employees to sign the form while one was stated to be anonymous. In all three cases the questionnaires were to be returned to direct supervisors. In all three cases response rate was close to 100%.

In the situations where EAP's had been tried but dropped, it was difficult to obtain clear information on how the programs had been structured and operated. It was clear that all used internal committees for referral. In one case the system involved a peer committee that an employee could approach on a one on one basis. All were said to be "broad brush" programs that offered referrals to counsellors in the community.

The whole notion of perception of need should be examined to determine if these

programs were dropped (or never undertaken) because of a lack of need or because barriers to a successful program exist within Health Units. The Family Service Association was serving 100,000 workers plus members of their families in 1986. By worksite they found that between 4% and 15% of employees with access to an assistance program use the service. It is logical to then examine the reported lack of use of EAP programs that were offered in the Health Units as well as why some still feel there is not a need for such programs. As it is unlikely that the staff of these agencies are without personal problems that affect their work performance, we should look for evidence of barriers to use of the EAP's and to the introduction of these programs.

Discussions of EAP's invariably touch on the issue of confidentiality and the importance that needs to be attached to this when it comes to referrals, records and follow-up. List discusses the very real concerns that these measures raise around use of EAP's: "Although confidentiality is a sacrosanct and bedrock principle of any employee assistance plan, some unions are sceptical of assurances that confidentiality is inviolable, even though cases where it has been breached are rare. But the perception is as important as the reality."

This perception is even more important in a worksite that is relatively small and departmentalized as most Health Units are. If persons internal to the organization must be approached (as was the case in at least one of the Health Units that dropped the program) the employee will be concerned that other employees will believe that a

69 List, Wilfred, Helping Out the Problem Employee, p. 70

70 Ibid.
problem exists any time one approaches the said reference person. Health Units should have learned this lesson from experience with sexually transmitted disease and family planning clinics. Attendance figures at these clinics generally rise when they are located off site in an unidentifiable building with the belief being that anonymity is important to the clients of these services.

Although almost every vendor of EAP services requires a joint committee of management and union in a unionized setting; not all support peer referrals. In fact labour takes a cautious approach to joint programs: "no matter how well intentioned, the programs cannot help but impinge upon an area of industrial relations. Experience has taught labour to fear co-optation in joint programs and to recognize discipline disguised as help."71 The unions will of course feel even more strongly about programs introduced without their input: "a company that tries to implement helping programs alone virtually forces the union to take the adversarial position."72 Even if Health Units convince themselves that EAP's are a benefit they are providing for the well-being of their workers it is essential to understand these views that unionized employees may hold.

The Canadian Union of Public Employees (CUPE) represents various groups within some of Ontario's Health Units. CUPE has published a guide for EAP's that strongly supports in-house referrals by peers: "Some employers are now purchasing assessment, referral and counselling services from private companies and social agencies

71Johnson, Gord, Employee Assistance, p. 7

72ibid.
- CUPE does not support this practice if the assessment service is used without the benefit of referral agents in the workplace.73

At first glance the Health Units are caught in the proverbial "catch 22" regarding on-site referrals. In fact, the simple answer is that both peer referrals and self referrals should be available if the union will agree. Often unions represent a number of different job groups who may traditionally have different feelings about relationships with their peers. The dual referral would accommodate those who feel the need to confide in a fellow worker and those who would be more comfortable discussing problems with an objective third party.

An issue that stems from CUPE’s position on workplace EAP’s is that of mandatory versus voluntary referrals. CUPE does not believe in mandatory referrals where a supervisor can tell an employee to seek the help of an EAP or risk disciplinary action. According to Gord Johnson, the Canadian Labour Congress Guidelines on EAP’s outline five types of referrals but go on to say: "...the emphasis in EAP is placed heavily on the voluntary referral. The formal referral is considered the last resort and should be used only where all previous attempts have proven unworkable."74

Barbara Butler introduced an interesting possible reason for mandatory referrals while discussing reasons for policies for substance abuse prevention:

Lost productivity or poor quality in the workplace, evidence of alcohol and/or drugs in the workplace, response to employee concerns, concern over legal liability in accidents or incidents...75

73Canadian Union of Public Employees, Helping Ourselves, p. 6
74Johnson, Gord, Employee Assistance, p. 8
75Butler, Barbara, Altered States, p. 13
With Health Unit staff driving motor vehicles on the job, dispensing advice, providing medications (vaccines etc.), Boards of Health may wish to consider the legal liability they may be incurring if their employees are not functioning at an acceptable level.

This view is re-iterated by Goldberg and Klass but with a different source (i.e. employees as opposed to clients) for the liability:

There are also civil cases in which workers have won damages from employers. A number of court decisions have ruled that employers were liable for damages in cases of mental illness and suicide. These cited such factors as understaffing, heavy workloads and tension.76

Brenda Blair discusses the possible benefit of appropriate EAP programing as a defence against some wrongful dismissal suits when an employee has been terminated based on poor performance related to an addiction or other personal problem:

In cases where the EAP, management, and personnel have followed consistent procedures, it is not likely that the individual will be reinstated. But if the individual has not been formally offered the EAP or if the company has failed to follow approved procedures, then reinstatement is likely.77

In short the Health Units in Ontario should consider legal liability and the costs of grievances, suits and possible reinstatements when they are attempting to evaluate the need for EAP's.

Another issue that must be addressed under the reasons some Health Units have

76Goldber, Gerry and Class, Identification and Management of Depression in the Workplace, p. 24

77Blair, Brenda, "Tailoring EAP to the Workplace," Seminars in Occupational Medicine, Vol. 1, Number 4, December, 1986, p. 260
found their EAP's under utilized lies in the makeup of the staff of the organizations. These workplaces contain several groups of professionally trained staff (i.e Public Health Inspectors, Public Health Nurses, Nutritionists, Dentists, Doctors, etc.) as well as secretaries, technicians and others. This complicated and diverse structure brings with it some special challenges to a successful EAP. As Blair states: "The most important point to remember about an EAP is that it is a workplace program. Therefore, it is imperative for an EAP to understand the corporate culture within which it operates."78

This is particularly true of Public Health Units. These agencies are set up with an understanding that they are charged with assisting others to achieve better health and well being. This philosophy transcends the various job titles and provides a pervasive belief to all staff that they are part of the support network in the community. These feelings may make it difficult for any Health Unit employee to come forward and see themselves as now "part of the problem" by accessing the EAP.

By discipline some of the staff of these agencies have become socialized by their professional training to carry certain attitudes that can be counter productive to seeking help for personal problems. The Public Health Nurse is trained within the "Florence Nightingale" cloud of nurses in general. These people are constantly reminded of their "helping" role throughout their training and on the job. To step out of that role and ask for help is possibly going to translate into feelings of personal failure and guilt. If the process of asking for help includes approaching a fellow employee or even an on-site third party (helper!) the stress may be too great to allow the interaction.

78ibid., p. 262
Public Health Inspectors make up the second largest employee group in many Health Units and they also bring ingrained elements of their professional training to work every day. In some roles these people are asked to problem solve for families and business which brings with it the same "helper" problems outlined for nurses. In other roles the inspectors become enforcement officers and suffer the same character tendencies as police officers. This role requires an authoritarian and "take charge" kind of attitude. In such individuals, seeking help from an EAP may well be seen as "losing face", exhibiting weakness or just not measuring up in the employee's own mind.

Others within the Health Unit suffer similar professional or corporately acquired tendencies to shun help. The need to deal with another part of this corporate culture problem has been generally recognized for emergency service personnel. Police, fire, and ambulance workers are generally covered by programs that recognize a need for individual counselling following a job related (or sometimes personal) critical incident. These programs, such as that provided to the Metro Toronto Ambulance Service \(^79\) personnel recognize the after affects of stressful situations. For Public Health workers the conditions described as encompassing a critical incident do occur. Public Health Inspectors enforcing regulations are frequently exposed to reactions from those affected by the action that could be described as: "...causes a profound emotional reaction ... the incident is ...unfair, illogical or senseless... his/her efforts have little control or effect on the outcome... the outcome is negative."\(^80\) These descriptions are

\(^79\) Streiner, Bella, Critical Incident Stress, unpublished, 1990

\(^80\) ibid., p. 1-1
meant to explain the negative pressures exerted on emergency responders but they do apply to some events in the lives of public health workers.

Nurses and Inspectors are often involved intimately with families exposed to disease and disorder and associated family reactions. This is critical in the area of those persons dealing with Aids, family violence, abused children and other such multi-problem cases.

These workers need stress counselling as much as the police, fire and ambulance attendants. The stress present in these public health interventions may be less publicly visible than the death and disaster of the emergency personnel but it is no less real.

There seems no doubt that Employee Assistance Programs have a place in local government and in Ontario's Public Health Units in particular. As outlined in this paper there are guidelines to setting up such programs available from numerous sources. It is essential that such programs be developed jointly by employees (union and non-union) and management. The literature seems to indicate that a good time to introduce these programs is during organizational change.\footnote{Goddard, \textit{EAP}}, p. 146 The management structure in all Public Health Units in Ontario are currently undergoing changes dictated by the introduction of mandatory programs. These changes are all aimed at involving line staff in planning programs and flattening administrative structures. This may be an opportune time to introduce a joint venture EAP in such worksites.

The problems that EAP's address and the programs themselves are undergoing change as well. EAP's are being renamed and revised to reflect the shift in emphasis.
from the traditional problem solving programs to what Barry Dunbar refers to as Workforce Health Programs. These "broad brush" programs are aimed at reducing "stress factors that impact on their (employee's) ability to perform on the job and which might have a negative effect upon their health."

These Health Unit EAP's or WHPs must be tailored to the workforce and be designed to deal with the barriers to use outlined above. They must also reflect the current and future make up of the workforce. As Dunbar says "An emerging challenge for WHPs will be to look at the best program strategies that will help the working mother, in order that she may maintain her work, home, and health at an optimum level."

Programs must be accessible to small worksites in an affordable fashion. A challenge will be to provide programs compatible with the cultural changes that occur as minorities are assimilated in the worksites. Health Units have a very real need to reflect the cultural make-up of their community if they are to understand and work with ethnic cultures. The workplace health programs must be designed accordingly.

As well as the demographic profile of the workplace these new programs must be prepared to address the issues that are creating the stress. The traditional reliance on alcohol and drug abuse as the problem patterns has been shown to be outdated. The issues of the day relate to marital and family difficulties and personal behavioural and

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82 Dunbar, W. Barry, From EAP to Workforce Health Programs, ARF, Toronto, 1989, p. 1

83 ibid.

84 ibid., p. 2
emotional stresses. The most recent issue of the newsletter of the huge Federal Government Employee Assistance Service reveals this switch: The topic discussed is "Family Violence: A Societal Problem." Wife abuse, dating violence, child abuse and neglect, and elder abuse are all described as problems that call for assistance such as is available from their program.

Public Health Units must surmount the barriers to Employee Assistance and strike out as leaders with programs consistent with the agency philosophy to assist their staff and improve the workplace. The available literature shows these programs pay huge dividends in both humane terms and in benefits through a more productive workforce.

The path to such a proposal will have to be chosen carefully and the steps taken must include careful planning. As outlined in this paper it is obvious much preliminary information on size, makeup, interest, needs, beliefs and current management styles within the Municipal work force under review must be gathered. If the preliminary data suggests benefits may accrue from the introduction of an EAP then management and labour (including any unions) must be onside and hopefully prepared to undertake a joint venture.

Perhaps the single best piece of advise before anyone steps forward into the exploration of any EAP or proposal was offered by Shain and Groeneveld:

When it is not clear who wants what and to what extent, it is impossible to speak clearly of outcomes, successful or otherwise. The objectives of different interest groups (employers, unions, and public health agencies) need to be clarified in relation to specific programs.\(^{86}\)

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\(^{86}\)Shaine and Groeneveld, EAP's, p. 20
In deference to Mr. Weiss\footnote{Weiss, R. "Writing Under the Influence"} I should close by saying that all of the above noted steps should be taken with due respect for research methods and statistical relevance and that all successes and failures should be reported!

Addiction Research Foundation, *Other Benefits*, Toronto, 1982


Goddard, Hans, "EAP$ - Programs That Pay - Off" CPI-RPC, Montreal, March, 1989


APPENDIX "A"

QUESTIONNAIRE ON

EMPLOYEE ASSISTANCE PROGRAMS

1. Is an Employee Assistance Program currently available to your staff?  
   Yes_____  No_____

2. If yes, is this a part of your corporate structure or is it a contracted service?  
   Corporate _____  Contracted_____

3. If no, which of the following applies to your organization (please ✓ all that apply)  
   i) EAP never considered by Health Unit/Municipality  
   ii) EAP considered but rejected due to cost  
   iii) EAP considered but rejected due to lack of perceived need  
   iv) EAP in place in past but dropped due to:  
       cost  
       lack of use  
       other (explain)  

   _______________________________________________________
   _______________________________________________________
   _______________________________________________________

4. Approximate number of employees in Health Unit (include Home Care if appropriate)  
   _______________________________________________________
5. Contact person to learn more about your Employee Assistance Program (if applicable):

Name: ___________________________________________ Phone: ___________

Position:________________________________________

6. If you are interested in the results of this questionnaire, please provide name and address:

________________________________________________________________________
________________________________________________________________________

Please Fax completed questionnaire to: 519-539-6206
Mike Bragg, Director of Environmental Health
410 Buller Street
Woodstock, Ontario
N4S 4N2
APPENDIX "B"

### Corporate Structure

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*Cornfield not accurate. Exact limits preferred.

Relative risk = 0.53 (0.29 < RR < 0.95)

Taylor Series 95% confidence limits for RR

Ignore relative risk if case control study.

### Chi-Squares P-values

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APPENDIX "C"

Analysis of Single Table
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Cornfield 95% confidence limits for OR
*Cornfield not accurate. Exact limits preferred.
Ignore relative risk if case control study.

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Chi-Squares P-values
------------------  ----------
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Yates corrected: 9.73  0.0018098 ---
Fisher exact: 1-tailed P-value: 0.003457 --
2-tailed P-value: 0.003719 --

An expected cell value is less than 5.
Fisher exact results recommended.

F2 More Strata; <Enter> No More Strata; F10 Quit