

**COMPENSATION FOR INDUSTRIAL DISEASE UNDER
THE WORKERS' COMPENSATION ACT OF ONTARIO**

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COMMENTARY BY JOHN I. LASKIN

COMMENTARY BY KATHERINE LIPPEL

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Industrial Disease Standards Panel
September, 1989

FOREWORD

In the Autumn of 1988, the Industrial Disease Standards Panel commissioned Prof. T.G. Ison of Osgoode Hall Law School, York University, to write a paper on compensation for industrial disease under the Ontario Workers' Compensation Act. Upon receiving this paper, the Panel commissioned Prof. Katherine Lippel, Mr. John I. Laskin, and Mr. David Starkman to provide written commentaries on Prof. Ison's paper.

The Panel believes that it is in the public interest to ensure the widest possible distribution of this paper and the commentaries so as to stimulate discussion among all who have an interest in compensation matters in Ontario and elsewhere. Additional copies are available from the Panel office on request.

J. Stefan Dupré
Chairman

COMPENSATION FOR INDUSTRIAL DISEASE UNDER
THE WORKERS' COMPENSATION ACT OF ONTARIO

by

TERENCE G. ISON, LL.D.

1. INTRODUCTION

This paper has been written for the Industrial Disease Standards Panel established under the Workers' Compensation Act of Ontario. I have been asked to discuss some of the problems of medico-legal interaction that arise in the adjudication of claims for disease. In particular, I have been asked to address, though not to be limited by, the following matters:

- (1) The nature of Schedules 3 and 4 under the Workers' Compensation Act (the "Act") and of Policy Guidelines or eligibility rules with respect to the Act as instruments for structuring the discretion of the Workers' Compensation Board (the "Board") with respect to the adjudication of industrial disease claims. The paper should include diseases recommended to be included in Schedule 4 (under section 122(9a) of the Act);
- (2) The role of Policy Guidelines or eligibility rules in the adjudication of claims involving (a) non-scheduled diseases, and (b) scheduled diseases;
- (3) The nature and importance of the Board's general and unstructured discretion with respect to the adjudication of disease claims; and
- (4) The significance of subsection 3(4) of the Act with respect to the adjudication of industrial disease claims according to IDSP Report #4.

The word "discretion" has been a cause of great confusion in claims adjudication and it may be helpful to explain the sense in which that term is used in law. The Workers' Compensation Act, like many other legal regimes, creates certain "rights" and "duties", and it also creates a range of "discretionary powers". Some questions arising under the Act must be determined as a matter of "right" while others should be determined as a matter of "discretion". For example, the Board has a discretionary power to provide rehabilitation assistance, and it also has a discretionary power to commute a pension. Certain facts must be established before the worker becomes eligible for the exercise of the discretion, but even when those facts have been established, the Board has a discretionary power to say yes or no. In exercising that discretion, the Board has a free choice, and it is legitimate for the Board to take into account its own

value judgments about policy goals. Conversely, on the threshold question of whether a disability is compensable under the Act, the Board generally has no discretionary powers. Thus on a claim for industrial disease, regardless of whether the disease is scheduled or any guidelines exist, the Board has a duty to marshal the evidence, to arrive at conclusions of fact, and to determine whether the disability is compensable under the Act. This process may involve elements of judgment (for example, conflicting evidence may have to be weighed in the balance) but it does not involve any "discretion" in the sense of free choice. In particular, it would be unlawful for the Board to take into account any value judgments of its own on any alternative policy goals.¹

It is not always easy to distinguish between a question of judgment and one of discretion, but the difference has important implications. For example, when the Board is deciding whether to exercise a discretionary power, it is legitimate to consider the cost implications of the choices; but when the Board is deciding whether a claim should be allowed, that judgment involves a question of right (not discretion), and the Board has a duty to exclude from its mind any thought of the cost implications of a decision either way.

Under the terms of the Act in Ontario, claims for disease are not, in this respect, treated any differently from claims for injury. Whether a claim should be allowed must be determined as a question of right. The Board has a duty to exercise a judgment in gathering and weighing the evidence, but it has no discretionary power. To avoid confusion, therefore, it is better to avoid any use of the word "discretion" in relation to any question of whether a claim should be allowed or denied.

2. BURDEN OF PROOF

It is a general principle of common law litigation that a burden of proof lies upon the claimant (the "plaintiff"). That principle applied to systems of employers' liability, and it was adopted in some systems of workers' compensation that were modelled upon employers' liability. In Ontario, however, that principle was rejected. The decision was made to discard a regime of common law litigation and to replace it with a system of social insurance. One of the rationales for this change and one of its consequences was to relieve the worker of the burden of proof. The system was to be run by a Board which would be responsible not only for

1. The matter is a little different in some other jurisdictions. For example, in British Columbia, where a disease is not scheduled, the Board has a measure of discretionary power to determine whether it should be recognized as an industrial disease.

adjudication but also for initiative and investigation. Thus under section 75 of the Act, the Board has exclusive jurisdiction to "examine into" as well as to determine all matters that arise. Workers, employers and physicians have duties to supply to the Board information that they have or which it is in their power to obtain, and to respond to enquiries from the Board, but none of them has any "burden of proof". Where the information obtained from these reports is insufficient for a reliable conclusion to be reached, the onus of obtaining further evidence lies upon the Board, and there is no burden of proof upon anyone except the Board.

This principle has been recognized by the Board for decades, and indeed, it does not seem to be controversial that this is the principle that ought to be applied.² Thus, in addition to reviewing the information contained in the standard form reports, it is normal practice for the Board, particularly in disease cases, to make further enquiries by letter, by telephone, and sometimes by field investigator. It is also normal practice for the Board to conduct medical examinations of workers, or to arrange for such examinations to be conducted by consulting physicians. The purpose of these enquiries and examinations is not to play a partisan role, but rather to obtain the evidence (whether favourable to the claim or adverse) that the Board considers necessary to arrive at a conclusion. Apart from any enquiries that might be made in a particular case, the Board has also initiated or supported various research projects relating to the etiology of disease. Thus, the general principle that the burden of proof lies on the Board seems to be recognized both by the terms of the Act and by Board practice.

The Act includes some presumptions that apply to particular situations, but it does not include any general presumption. Thus, if there is no evidence on a particular point, and if no presumption applies to the particular case, the lack of evidence calls for further inquiry. It does not justify a conclusion either way.

With regard to the etiology of disease, it seems to be normal, or at least common, in the natural sciences to begin the enquiry with an assumption of the negative. That assumption seems to remain unless displaced by positive data, so that at the end of the inquiry, the absence of positive data leads to a negative

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2. In practice, however, there is often a propensity to put a burden of proof on the worker. See for example, the Decision of the Board of Directors reviewing Decision No. 72 of the Appeals Tribunal, Ontario, 1988, p.11. For an example of a case in which the Appeals Tribunal accepted that the burden of proof lies upon itself, see Decision No. 46, Ont., 1987, p.4.

conclusion. However valid that approach may be for other purposes, it is unlawful if used in claims of adjudication. With regard to the etiology of disease, as with any other issue, the correct starting point for the adjudicator is a neutral position, an open mind, no assumption either way, and an equal willingness to come to a conclusion either way according to the evidence.

3. STANDARD OF PROOF

Even greater difficulties of medico-legal interaction have occurred in relation to the standard of proof. Not only are there differences between the two disciplines with regard to standards of proof that they commonly use, but there are also differences within each discipline. For example, if the question being addressed by a surgeon is whether to advise a patient to undertake a high-risk operation, the surgeon as well as other people might feel that it should first be established, almost to a certainty, that the patient has the condition for which the operation is the cure. Conversely, if the question being addressed by a physician is whether to prescribe a remedy which might be beneficial, and which at worst would be harmless, it might well be a sound professional judgment to prescribe the remedy if there is merely a possibility that the patient has the condition for which the remedy could be the cure.

Similarly in law, we have different standards of proof for different purposes. For example, if the question being addressed is whether someone should be sent to jail or otherwise punished for criminal activity, we insist that the person's guilt must be proved "beyond reasonable doubt". Conversely, if the question is whether A should be required to pay compensation to B in respect of damage done to B by the negligence of A, we only require that the matter should be proved "to the balance of probabilities".

The Workers' Compensation Board was established by statute for the purpose of administering, *inter-alia*, a regime of statutory rights to compensation. The eligibility criteria were prescribed in general terms in the Act, and it was the essence of the system that decisions should be made according to law. The discipline of medicine is called upon to provide an input on medical issues, but the output of the organization is legal decisions, and it follows that the standard of proof to be applied must be that prescribed by law, and not a standard developed by the scientific community, or by any sector of it, for other purposes.

This proposition, however, became obscured by the way in which the boards were organized. Lawyers were not generally engaged for claims adjudication purposes, and within the claims departments of

the boards,³ doctors were usually the only professional group. From this structure, it followed, perhaps inevitably, that where an issue depended upon medical evidence, and this would be common in disease cases, the standard of proof that is sometimes used in medicine has tended to prevail over that prescribed by law.

An aggravating factor was that in many jurisdictions, including Ontario, the standard of proof was not explicitly stated in the Act. It could be derived only by inference. Since our system of workers' compensation replaced the common law liability of employers for negligence, it was generally accepted that the standard of proof to be applied in workers' compensation cases should be the same as that used in civil litigation, i.e., the balance of probabilities. This standard was entrenched and slightly modified with the enactment of section 3(4). This prescribes that "...where it is not practicable to determine an issue because the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in favour of the claimant". It is a logical corollary of that prescription that where the evidence weighs more heavily in favour of one conclusion than the other, the decision must be made according to the weight of the evidence, or in other words, according to the balance of probabilities.

Thus the current position in Ontario is that a claim must be decided according to the standard of proof used in civil litigation, i.e., the balance of probabilities, subject only to the modification that if the evidence either way is approximately equal in weight, the matter must be resolved in favour of the claimant rather than being resolved in the negative.

4. THRESHOLD REQUIREMENTS

Sometimes it seems to be suggested that before any conclusion can be reached, the evidence in support of that conclusion must be of a type or weight that meets some minimum threshold requirement. There is, however, no such rule of law, and for the Board to adopt any such rule would be unlawful. For example, it has sometimes been objected that the evidence in support of a proposition is weak or "speculative". That may well be so, but such evidence cannot lawfully be discarded. The Board has a duty to reach its conclusion in accordance with the weight of the evidence, and that duty applies regardless of how strong or weak the evidence may be. Thus, however weak the evidence in support of a proposition, the Board still has a duty to decide the matter in accordance with that evidence unless there is evidence to the contrary which the Board determines to be of greater weight.

3. This is described more fully under heading 11.

Thus, the Board's conclusions of fact, including its decisions on etiology, are always a matter of comparative judgment. The Board must identify the alternative hypotheses, weigh in the balance the evidence in support of each of them, and reach whatever conclusion it decides is supported by the stronger evidence. There is no minimum threshold that the evidence in support of any proposition must cross.

Similarly, it is sometimes assumed that for a disability to be compensable, there must be a diagnosis. Here again, there is no such rule of law. A diagnosis is a pre-requisite to the application of the presumptive schedules, but if Schedule 3 or 4 is not needed to establish a claim, neither is a diagnosis. Of course a diagnosis may be useful in establishing the existence and gravity of a disability, and there are many cases in which a diagnosis is a stepping stone to a determination of etiology. There are, however, other cases in which that is not so. There are, for example, many cases of lung disease in which the advising physicians are agreed upon the existence of the disability, though they have divergent views about the diagnostic label that should be applied. In some of these cases, it may be easier to reach a conclusion on etiology than on diagnosis. If, in such a case, it appears to the Board that the disease resulted from employment, the lack of a diagnosis is no bar to a claim.

Sometimes the word "objective" has been used to create an unlawful threshold requirement. For example, in some cases, it seems to have been asserted or inferred that a disability must be proved by objective medical findings. Such a requirement has appeared in other legislation of this Province⁴ but there is no such requirement in the Workers' Compensation Act. Nor is there any requirement that the evidence of a worker or of an employer must be corroborated. With regard to the existence of a disability, epithets such as "objective", "subjective", "medical", or "non-medical" might sometimes be of some use in assessing the weight of the evidence, but they cannot lawfully be used to establish any threshold requirement.

Finally, it is sometimes suggested or inferred that on a claim for disease, the evidence in support of the claim must satisfy certain exposure criteria. For example, it is sometimes suggested that the worker must have had a particular duration or intensity of exposure, or that a particular latency period must have expired before the onset of disability, or that there must be proof of exposure in excess of the threshold limit values (or maximum permissible levels) that have been recommended or established for regulatory purposes. Such criteria may sometimes be defensible if they are used cautiously as guidelines for the weighing of

4. Family Benefits Regulations, RRO 1980, reg. 318, 1 (3).

evidence,⁵ but it would be unlawful to treat any of them as a legal threshold that must be met before a claim is allowed.

5. MULTIPLE ISSUES AND THE STANDARD OF PROOF

As mentioned elsewhere,⁶ there is cause for concern that the medical input into claims adjudication commonly seems to import a standard of proof going beyond the balance of probabilities that is prescribed by law. In particular, the confidence limits that are sometimes used in epidemiological research seem to demand a degree of probability higher than an even chance. The matter is further complicated when there are multiple issues. It may help to illustrate the point with an example (though this is purely a theoretical example, and in no way descriptive of how the Board actually makes decisions). Suppose that on a claim for disease, the adjudicator addresses the following questions and produces the following answers:

Q. Did the claimant work in Ontario?

A. Clearly so.

Q. Was the industry in which the claimant worked one that is covered by the Act?

A. Clearly so.

Q. Was the claimant a worker in the industry?

A. Clearly so.

Q. Was the claimant a "worker" under the Act?

A. Clearly so.

Q. Does the worker have a disease?

A. Having studied the conflicting medical opinions, it is concluded that there is about a 60% probability that the worker has the disease.

Q. Was the disease caused by occupational exposure?

A. Having studied the conflicting medical evidence, and having regard to sections 1 and 122 of the Act, it is concluded that there is at least a 60% probability that the disease resulted (at least in part) from employment exposure, rather than from general environmental exposures or genetic causes.

Q. Was the relevant employment exposure that which occurred in the industry in Ontario, or was it employment exposure in another jurisdiction before coming to Ontario?

5. For further discussion of this, see heading 9.

6. See headings 3, 11 and 12.

- A. Having studied the conflicting evidence, it is concluded that there is about a 60% probability that the employment exposure in Ontario was at least a significant contributing cause.

On those findings, should the claim be allowed? In other words, should the balance of probabilities test (and the benefit of the doubt) be applied separately to each issue, or should it be applied only to the aggregate, i.e. to the general question "Is the claimant a worker who has a compensable disability?"⁷ If the matter were not determined by the terms of the Act, two views would be possible.

- (1) On the hypothetical questions and answers listed above, the probabilities in favour of the claimant are $60\% \times 60\% \times 60\% = 21.6\%$. Thus on the general question of eligibility for compensation, the balance of probabilities is negative and the claim should be denied.
- (2) Applying the balance of probabilities to each issue, all issues must be determined in favour of the claimant, and therefore the claim should be allowed. Arguments in favour of this view might include that the former view involves unrealistic assumptions of mathematical precision,⁸ that it demands complex inquiries about the extent to which the issues are dependent or independent, and that it would tend to focus too much on epidemiological research to the neglect of variables present in each case. Except where the evidence on all issues consists exclusively of numerical data, a mathematical approach might produce an illusion of precision that is out of accord with ordinary notions of reality.

There is no need to pursue these arguments further because the question is determined in the Act itself. Section 3 (4) provides that:

In determining any claim under this Act, the decision shall be made in accordance with the real merits and justice of the case and where it is not practicable to determine an issue because the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in favour of the claimant.

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7. For discussion of a similar question in the context of a jury trial in a criminal court, see R.V. Morin, (1988) 88 NR 161.
 8. For a discussion of probability theories in relation to legal decision-making, see Evidence, Proof and Probability, second edition, R. Eggleston, 1983, Weidenfeld and Nicholson, London.

This subsection distinguishes between determining any "claim" and determining an "issue", and it is a basic principle of statutory interpretation that where different words are used they must be given different meanings. Thus the benefit of the doubt is applicable to each issue separately; not simply to the general question of whether the claim should be allowed. Where the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in the favour of the claimant. It is also a principle of statutory interpretation that the singular generally includes the plural, so that more than one issue may be resolved in that way per claim.

It follows that a claim cannot be denied simply because there are "too many doubts". Conclusions of fact must be reached on each issue, and because the benefit of the doubt is potentially applicable to each issue, it follows that the balance of probabilities test is also applicable to each issue.

6. THE SIGNIFICANCE OF SCHEDULE 3

The inclusion of a disease under Schedule 3 of the regulations has legal and administrative implications. Section 122(9) of the Act provides that:

If the worker at or before the date of the disablement was employed in any process mentioned in the second column in Schedule 3 and the disease contracted is the disease in the first column of the Schedule set out opposite to the description of the process, the disease shall be deemed to have been due to the nature of that employment unless the contrary is proved.

Thus once it is shown that:

- (1) the claimant was at the relevant time a "worker" under the Act;
- (2) the worker has a disease listed in the first column of the Schedule; and
- (3) the worker was employed in the process mentioned in the second column opposite to that disease;

it is presumed that the disease was due to the nature of that employment unless the contrary is proved. It would be unlawful for the Board to impose any additional requirement before applying the presumption.⁹

9. Evans v. Workers' Compensation Board, (1982) 138 DLR (3d) 346.

Where the presumption applies, the Board must conclude that the disease was due to the nature of the employment if the only available evidence is consistent with that view, or if the evidence does no more than raise a doubt. To rebut the presumption, there must be an alternative hypothesis and evidence in support of that hypothesis. The Board must then weigh that evidence in the balance against the strength of the presumption and any evidence in support of the presumption. The presumption holds unless there is evidence to the contrary which is persuasive to a point going beyond the balance of probabilities.

Unfortunately, a negative conclusion has sometimes been reached where the evidence to the contrary has consisted only of a medical opinion which was based on nothing except the absence of positive data. In other words, the advising doctor was unable to discover any positive data to support the hypothesis of employment causation, and his opinion concluded, as it had begun, with a presumption of the negative. To act upon such an opinion is manifestly contrary to the presumption contained in the Act. Where the presumption applies, any medical opinion that reaches a negative conclusion because of the absence of positive data is legally irrelevant. It is not evidence rebutting the presumption.

It is sometimes said or implied that where a disease is not listed in the Schedule, the burden of proving occupational causation lies upon the worker. That is not, however, the legal position. Where the Schedule applies, it creates a presumption of the affirmative; but where the Schedule is inapplicable, that does not create a presumption of the negative. It leaves the position neutral. As explained under heading 2 above, there is no presumption in the Act that is of general application. There are presumptions of the affirmative that apply in some circumstances, but where those circumstances are not present, there is no presumption at all. The starting point for inquiry is then a neutral posture, not a presumption of the negative.

Related to the legal implications of the presumption, Schedule 3 has implications for the administrative and adjudicative processes. First, a claim for a disease that is listed in the Schedule cannot be rejected summarily. If the disease and the employment exposure are established, the claim cannot be rejected without substantial evidence against the presumption of employment causation. Secondly, there is sometimes a tendency for a burden of proof to be placed improperly upon the worker. The inclusion of a disease in the Schedule helps to reduce the probabilities of that happening. Thirdly, it sometimes happens that a conclusion against occupational causation is reached without having identified an alternative hypothesis about the cause of the disease. Here again, the inclusion of a disease in the Schedule helps to reduce the probabilities of that happening. In other words, it helps to ensure that the claim will not be

denied simply because of weakness in the evidence of occupational etiology, and that the matter will be adjudicated properly by a comparative judgment.

7. THE IMPLEMENTATION OF SCHEDULE 4

In addition to Schedule 3 (the presumptive schedule), the Act now provides for a Schedule 4 (a conclusive schedule). Thus section 122(9a) provides that:

If the worker at or before the date of the disablement was employed in any process mentioned in the second column of Schedule 4 and the disease contracted is the disease in the first column of the Schedule set out opposite to the description of the process, the disease shall be conclusively deemed to have been due to the nature of the employment.

Although this wording standing on its own would imply that the Schedule is a schedule to the Act, section 2 provides that it is a Schedule to the regulations. Section 122(16) provides that the Schedule may be amended by the Board, subject to the approval of the Lieutenant-Governor in Council.

The inclusion of a disease in Schedule 4 would have two consequences. First, as with Schedule 3, it would confirm that the disease comes within the definition of "industrial disease" under section 1 of the Act. Secondly, the inclusion in Schedule 4 would create a conclusive presumption that the disease is due to the nature of the employment. This would satisfy the etiological requirement under section 122(1), and it would logically follow that compensation is payable if the worker is disabled or his death is caused by the disease.

The idea of using a conclusive schedule in disease cases is novel, but the use of a conclusive presumption has a precedent. In British Columbia, the Act was amended in 1974 to provide that:

Where a deceased worker was, at the date of his death, under the age of seventy years and suffering from an industrial disease of a type that impairs the capacity or function of the lungs, and where the death was caused by some ailment or impairment of the lungs or heart of non-traumatic origin, it shall be conclusively presumed that the death resulted from the industrial disease.¹⁰

10. Workmen's Compensation Amendment Act, SBC 1974, s.8. That provision now appears as section 6 (11) of the Act in British Columbia, though with an accidental alteration.

I do not recall any figures of the number of cases in which that presumption has been applied. A quantitative estimate of its significance would be difficult because there would be no record of how many of the claims in which it was used would have been allowed without the presumption. It is known, however, that a number of claims have been allowed pursuant to the presumption.

The rationale for that presumption was that where a death from heart failure occurred of a worker whose lung function was impaired by an industrial disease, it was impossible to determine as a matter of science what the significance was of the impairment of lung function in relation to the death. Since the relationship of the employment exposure to the death could not be determined by scientific inquiry case by case, it was considered that the question of whether such deaths should be compensable could only be decided rationally as a matter of law on the basis of a political choice.

That particular example could not be adopted in Ontario as the legislation now stands, because Section 122(9a) permits a conclusive presumption to be created by regulation only in relation to processes that are to be mentioned in the second column of the Schedule. However, the British Columbia example may be of some interest in showing that, in relation to claims for disease, a conclusive presumption can be workable.

In Ontario, the panel has already recommended the inclusion in Schedule 4 of asbestosis and mesothelioma, and I have been asked to comment on that proposal. With regard to the merits of scheduling these two diseases, I think that the relevant test should be this: "Given the eligibility criteria contained in the terms and general principles of the Act, would the scheduling of these diseases promote the payment of compensation in cases in which it is due without creating too great a risk of compensation being payable in cases in which it is not otherwise due under the Act?" Subject to the following comments, the proposal seems to pass that test.

The scheduling of these diseases would not bring an end to controversies about them (and in saying that, I have in mind particularly asbestosis). Since etiology would no longer be debatable, it is predictable that controversy would shift to diagnosis. If, therefore, the scheduling of these diseases is to be effective, the identification of each of them in the first column should include not only a diagnostic label but also a diagnostic definition.

The only significant reservation that I have about the proposal is with regard to cases in which the worker may have had a more substantial exposure in another jurisdiction. Suppose, for example, that a 42 year old worker in Ontario is diagnosed as having asbestosis. The evidence is that 6 months prior to the

diagnosis, she worked for a period of one month on the fabrication of asbestos products, where she was exposed to very low levels of asbestos. Suppose that there is also available evidence that for 20 years between the ages of 15 and 36, the worker was employed in an asbestos mine in another jurisdiction. Should there be a conclusive presumption that would make this disease compensable in Ontario?

My inclination would be to resolve that problem by:

- (a) including those diseases in Schedule 4, but providing in the second column "except where the worker received a more extensive and more relevant exposure to asbestos in another jurisdiction"; and
- (b) including those diseases also in Schedule 3 without that qualification.

The net effect of adopting these suggestions would be that:

- (a) unless there is evidence of a more extensive and more relevant foreign exposure, the conclusive presumption would apply;
- (b) where there is evidence of a more extensive and more relevant foreign exposure, compensation would still be payable unless that evidence is of sufficient credibility and weight to rebut the presumption.

A legal quibble could be raised about whether the Board has any authority under section 122(9a) to include in the second column any qualification of the type suggested. My inclination would be to preclude any dispute about that by seeking an amendment to section 122(9a). Such an amendment is desirable in any event. The absence of such an amendment to permit qualifications to be included in the Schedule could restrain very severely any prospect of that Schedule being used in the future.

With regard to the drafting, my inclination would be to omit the list of industries (mining to demolition). The inclusion of specific industries invites the Board to reach the conclusion (which I do not believe is intended) that a worker who is exposed to asbestos while engaged in some other industry is not covered by the Schedule. Column 2 would then read "any process involving exposure to asbestos".

Also with regard to the drafting, I assume that in using the word "asbestos", the Panel intends to embrace asbestos of any type and in any form. If so, it would be my inclination to preclude any argument on that point by saying so specifically. In other words, if this is what the Panel intends, express that intention in

column 2 by having it read "any process involving exposure to asbestos (of any type and in any form)".

8. THE GUIDELINES

In relation to several diseases that are not included in Schedule 3, the Board has developed adjudicative guidelines. These are part of a general collection commonly known as "Board Policy". That term is, however, ambiguous and misleading. These guidelines have the character of rules, not policies. They are rules of thumb to be used for the determination of diagnosis and etiology.

The use of such guidelines has some advantages. The guidelines tend to promote an appearance of consistency in claims adjudication, and they also expose to public view some of the criteria used by the Board in the determination of diagnosis and etiology. The guidelines also facilitate the speedy acceptance of some claims with a minimum of adjudicative cost. There are, however, also a range of problems. Some relate to the content of particular guidelines, and others relate to the use of any etiological guidelines at all. I will comment first on the former.

One difficulty is that some of the guidelines relate to diseases of a type which can be caused by employment or by other exposures, and they attempt to identify which cases constitute the employment excess. For the reasons explained below,¹¹ this is likely to result in a denial of compensation in cases in which employment exposure probably was a significant contributing cause, and in which there was, therefore, entitlement.

Some of the provisions in the guidelines are clearly unlawful. For example, the Board's "Policy Statement and Guideline" relating to gold miners states:

(III) In order for a gold miner to qualify for compensation for cancer, a number of conditions must be met.

One example of the required conditions is "evidence of 'dusty gold mining' experience (as defined by the Ontario WCB coding system) in Ontario prior to 1945". The criteria of eligibility for compensation for disease are prescribed in the Act, and the Board has no authority to impose other restrictive conditions. (Perhaps the guideline was meant to say that these conditions must be met for the claim to be accepted without further enquiry, and that when those conditions are not met, enquiries should be made on an

11. See under this heading, and under heading 12.

individual basis to determine etiology in the particular case. But that is not how the guideline reads).

As another example, some of the guidelines require "clear and adequate" evidence of occupational exposure. There is no requirement in law that evidence must be "clear" and the Board has no authority to create such a requirement. The word "adequate" implies that the weight of the evidence must pass a minimum threshold test, and as explained above,¹² that is not the legal position.

Several of the guidelines also use the word "specific" when its use is unwarranted; again creating an improper restriction.

These content criticisms could be met by revising the particular guidelines, but there are more fundamental criticisms that relate to the use of any medical guidelines at all. These are as follows.

1. It is a responsibility of the Board under section 122 (16) to consider what amendments should be made to Schedules 3 or 4. One might have thought, having regard to developments in scientific knowledge over the years, that that responsibility would have included the addition of several or many diseases, at least to Schedule 3. However, the Board abandoned the role of revising the Schedule and produced the guidelines instead. The production of the guidelines, therefore, has meant that workers have not received the benefit of the presumption that they were intended to receive under section 122.
2. The guidelines tend to divert attention from rather than towards the legally relevant question: i.e., what cause or causes have contributed to the disablement of this worker?
3. Although it is common for a guideline to state that cases falling outside the guideline should be considered on their merits, there is a tendency for the guidelines to become not merely fixed rules, but also rules of exclusion. In cases lying outside of the guidelines, claims are often denied without further enquiry or consideration. Where the cause or causes of a disease are unknown, it is the responsibility of the Board to determine etiology on the best available hypothesis. This may involve an exploration of the possibilities and a comparison of occupational with other possible causes. Guidelines of the type that are used tend to divert from that quest rather than to assist in its execution.

12. See under heading 3

This problem has been recognized by the IDSP. For example, in its Report on the Ontario Gold Mining Industry, 1987, it recommended a guideline by reference to exposure and latency periods. Then in recommendation number 4,¹³ the Panel recommended that "the Board draw from all the circumstances of the case and from the evidence discovered by or presented to it every reasonable inference in favour of that claimant". Based on past experience, however, it would seem unrealistic to hope that such admonitions, even if adopted by the Board in its own manuals, would be sufficient to outweigh the propensity to treat the guideline as an exclusionary rule.

4. Several of the guidelines focus on a particular contaminant as the cause of a particular disease. Thus they divert attention from the significance of mixtures. In many industries, it would be unusual for a worker to be employed for many years without being exposed to several toxic substances, either concurrently or in succession, and guidelines which focus the enquiry on exposure to a single contaminant can cause a diversion from reality. A guideline which focuses on a particular contaminant can encourage an enquiry that is too confined; for example, by looking for a history of exposure to a particular chemical and distracting attention from chemical combinations, or from other circumstances relevant to the significance of the exposure.
5. The guidelines take the form of rules of inclusion, but they are, by implication, also rules of exclusion. Typically they require certain time periods and exposures that must be found for a disease claim to be accepted. The guidelines do not indicate criteria that must be met before a claim is denied. Thus they imply that the absence of positive data requires a negative assumption, and in this way too, they distract from the responsibility of the adjudicator to determine the best available hypothesis about the cause of the disease. Adjudicators are encouraged to search for evidence showing that the guideline criteria have been met, but the enquiry begins with a presumption of the negative. A corollary is that if the guideline criteria have not been met, the claim may be denied without a weighing of the evidence of occupational etiology against the evidence supporting any alternative hypothesis. Thus not only are the burden and standard of proof distorted by the content of particular guidelines, but it is the very essence of the guidelines to distort the burden of proof.
6. The guidelines tend to create the impression that a diagnosis is a pre-condition of eligibility for

compensation. As explained above,¹⁴ that is not the case. Related to this, the guidelines can tend to focus discussion on whether the right diagnostic label is being applied rather than on the more relevant question of the cause of whatever it is that the worker has. These objections have nothing to do with who produces the guidelines. They relate to the use of such guidelines at all. Hence these objections would not be met by having the guidelines produced by the Panel rather than by the Board.

A suggestion that has sometimes been made is that whenever a guideline is developed, the disease should be listed in Schedule 3, and the guideline should be used only as an aid in the determination of whether the contrary has been proved. The guidelines would, of course, have to be revised to be used in that way. This idea could mitigate some of the problems, and could well be helpful, but it would not be a solution. When adjudicating upon a claim for disease, it is the legal responsibility of the Board to consider what is the best available hypothesis about the cause of the disablement of that particular worker. I am apprehensive that as long as etiological guidelines are used at all, they will tend to detract from that enquiry.

A related matter is the basis on which the Panel generates its recommendations. In its Annual Report for 1986-87, the Panel states¹⁵ that in making such findings [i.e., findings as to whether a probable connection exists between a disease and an industrial process, trade or occupation] the Panel will test its judgments with the following question:

Is there a sound scientific basis for establishing that the workplace is probably connected with a burden of disease in workers employed in particular types of work?

While this seems laudable, at least at first impression, it is surely less than optimum. One apprehension is that this approach, once legitimized by the Panel, is likely to spill over into claims adjudication. It is legitimate to require a sound scientific basis for a rule of thumb that allows claims to be paid without further enquiry, but it would be unlawful to deny a claim on the ground that no sound scientific basis has been found for a determination of occupational etiology. Where a claim cannot be allowed by reference to any etiological rule of thumb, it is the responsibility of the Board to determine the best available hypothesis by whatever methods are available. This may involve

14. See heading 4.

15. P.20.

the use of evidence and of inferences that include components of guesswork.

Secondly, this approach would seem to place a severe restriction on the utility of the Panel. If it is only willing to recommend an inclusionary rule when there is a clear scientific basis to support that rule, this may mean in effect that the Panel is only likely to recommend a guideline for the acceptance of claims where the etiology is so clear that the Board would have accepted them anyway. It seems at least arguable that the Panel can play the most useful role in relation to matters on which scientific data is absent, sketchy, uncertain, or in which there is contention about the most reasonable inferences to be drawn from the data.

Thirdly, as mentioned above, rules of inclusion become in practice rules of exclusion. It is clear from statements of the Panel that this is not what the Panel intends, but it would be a predictable consequence of the recommendation and adoption of rules of inclusion, even if confined to those that can be supported by scientific data. Thus, if recommendations of the Panel are confined in this way, it will tend to entrench adjudicative practices that avoid an inquiry into the best available hypothesis about the cause of the disease in each case.

With regard to the legal status of the guidelines, some comments have been made above about the legal significance of the content of some of them. It may be helpful to mention now the legal status of the guidelines overall.

Prior to the establishment of the Industrial Disease Standards Panel, the medical guidelines were developed in the medical department of the Board. There was no specific statutory authority for this, but under the general principles of "administrative law" it is generally considered permissible and sometimes desirable for a tribunal to develop guidelines as an aid to adjudication, at least if the tribunal is one that must process large numbers of claims. To be lawful, however, such guidelines must be consistent with the terms and principles of the Act. Thus in relation to the etiology of disease, the guidelines must, if they are to be lawful, be a vehicle for implementing the criteria prescribed in the Act, not a way of deviating from those criteria.

Under section 86p(7), it is now a function of the Panel "... (d) to advise on eligibility rules regarding compensation for claims relating to industrial diseases". Under subsection (10), that advice is rendered to the Board, and under subsection (11), the Board may accept or reject that advice. Thus the Act clarifies that the adoption and use of eligibility rules for compensation claims for disease is lawful, and it also prescribes a process for the generation of such rules. Moreover, it is clear that this process is intended to be exclusive.

Upon receiving a recommendation from the Panel, subsection (12) provides that "...the Board may accept the findings of the Panel with or without amendments or may reject the findings". Thus for any new eligibility rule to be legally valid, it must be one which has been;

- (a) recommended by the Panel and accepted by the Board; or
- (b) recommended by the Panel, amended and then accepted by the Board.

The Board has the right of final decision, but the Panel has the exclusive right of preparation, and it would now be unlawful for the Board, in relation to claims for disease, to develop new eligibility rules where none have been recommended by the Panel.

With regard to the legal status of the rules, the transfer of the preparatory function from the Board to the Panel does not alter their status as delegated legislation. Nor is that status altered by the circumstance that the authority to create such rules is now specified in the Act. The rules remain subordinate to the general terms and principles of the Act, and like the eligibility rules that were created by the Board, their legality depends upon their being consistent with those terms and principles. As with the earlier rules developed by the Board, they must, to be legally valid, be a vehicle for implementing the etiological criteria prescribed in the Act, and not a way of deviating from those criteria.

9. UNSTRUCTURED DECISIONS

This term is used here in relation to decisions on disease claims where the case is not covered under any schedule or guideline. In these cases, the Board has a duty to investigate the claim, and to arrive at a decision pursuant to the criteria prescribed in the Act, particularly in sections 1 and 122. As explained above,¹⁶ these decisions are not discretionary. It must be considered whether the disability results from a disease that is due to the nature of the employment, and in the alternative, whether it is a disablement arising out of and in the course of employment. As mentioned above,¹⁷ the Board must reach its conclusions on the balance of probabilities (or in other words, must determine the best available hypothesis).

16. See heading 1.

17. See headings 2, 3, and 6.

In practice, there seems to be a propensity to become diverted from this task. As mentioned above,¹⁸ the guidelines are one diversion. The inquiry is often considered to be at an end when the facts of a particular case do not meet the criteria prescribed in the guideline.

Another diversion has been the propensity to assume that a positive conclusion has to be supported by medical evidence. That is no more defensible than would be the proposition that a negative conclusion has to be supported by medical evidence demonstrating the negative.

I recall a case in British Columbia some years ago in which the diagnosis was chronic obstructive lung disease. The worker was a miner with a long history of substantial exposure to a variety of mining dusts. He had always been a non-smoker. The case had been considered by several specialists, and the Board had obtained their reports, including their opinions on etiology. When those opinions were analyzed, the essence of their conclusions was that we do not know. The Board felt that no further light could be shed by further enquiries. The Commissioners therefore concluded that they must make the best guess that they could as laymen. The possibility that the long exposure of the worker to mining dusts had caused the disease seemed to be credible, and no alternative hypothesis had been identified. The claim was, therefore, allowed.

That is the correct approach. In adjudicating on the etiology of a disease, the Board must obtain an input of the available medical knowledge and opinion, but if the answer lies outside the current state of medical knowledge, that does not justify any resort to a presumption of the negative. The Board must still make the best guess that it can.

Another diversion seems to be the use of a recognition principle. In British Columbia, the Act provides that for a disease to be compensable, it must be included in the Schedule or must be "recognized" by the Board as an industrial disease. Thus in British Columbia, the Board can decide, as a matter of policy choice, whether a disease should be recognized as industrial. There is no such provision in the Ontario legislation, and yet it sometimes seems to be assumed that there is. For example, in the Annual Report of the Panel for 1986-87,¹⁹ a communication from the Board asks (*inter-alia*) "...should there exist multiple, concordant studies of this nature before a condition is recognized as a compensable?" In Ontario, no condition has to be

18. See heading 8.

19. P. 15.

"recognized" as compensable. Where it appears that the worker has a disability, the Board must decide, according to the etiological criteria prescribed in the Act, and according to the balance of probabilities, whether the disability resulted from the employment. There is no authority to create minimum evidentiary standards that must be met "before a condition is recognized as compensable".

10. BENEFIT OF THE DOUBT

There appears to be a common belief that where there is doubt about the occupational etiology of a disease, that doubt should be resolved in the negative. In New Brunswick, that is the legal position. Thus in that province, the Act provides that no compensation is payable under the industrial diseases section "Where the Board is not satisfied that the industrial disease is due to employment within the province..."²⁰

In Ontario, it is entirely different. Section 3(4) provides that:

In determining any claim under this Act, the decision shall be made in accordance with the real merits and justice of the case and where it is not practicable to determine an issue because the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in favour of the claimant.

That subsection applies in the determination of "any claim" under the Act. Thus it applies in disease as well as in injury cases. Where the case is one that is covered by a presumptive schedule, this provision is superfluous on the question of etiology. There is already a presumption in favour of the worker on that issue. However, section 3(4) might still be applicable on other issues, such as: Did the worker have the disease mentioned in the first column? Was the worker employed in the process mentioned in the second column? Is the worker disabled by the disease?

One way of looking at section 3(4) is to see it as making a marginal shift in the point of balance. It reverses the ordinary habit of the legal and medical professions to assume the negative unless the affirmative has been proved by a preponderance of the evidence. Section 3 (4) recognizes that where there is a preponderance of evidence in favour of one probability, the matter must be decided according to that evidence, but where that is not practicable because the evidence for or against the issue is approximately equal in weight, that issue must be resolved in favour of the claimant. The word "claimant" indicates that the provision applies in fatal as well as in disability cases.

20. Workers' Compensation Act of New Brunswick, s.85 (2).

For the benefit of the doubt to apply, there is no precondition that the evidence must be of any particular type or of any particular weight. As explained above,²¹ there is no threshold that must be met. However weak the evidence in support of the claimant may be, the issue must be resolved in favour of the claimant unless an alternative hypothesis has been identified that is supported by stronger evidence.

A difficult theoretical question is what the result should be when there is a total absence of any evidence either way. The logical conclusion would seem to be, in the words of the Act, that "it is not practicable to determine an issue because the evidence for or against an issue is approximately equal in weight". On the other hand, the words "the evidence" could be read as requiring at least some evidence. I mentioned this as a theoretical question, because I doubt whether it will ever arise in practice. There is always some evidence, if only circumstantial evidence, from which inferences can be drawn.

11. MEDICO-LEGAL INTERACTION

1. Introduction

When the present system of workers' compensation was introduced in Ontario, it was to be a system of social insurance, not a system of employers' liability. It was to replace, among other things, claims against employers for personal injury or disease in the court system. The process of litigation in the courts had many problems, but it had at least one virtue. The interactions of law and medicine, and of the legal and medical professions, were clearly defined. It was also clear who was to be the decision-maker and who was to provide input. It was clear that (except for jury trials) a legally qualified judge was to decide the general issue, and that medical issues were to be determined by receiving an input of expert evidence from the profession. Implicit in this was the proposition that, in relation to the adjudicative process, the perimeters of the discipline of medicine were to be defined by lawyers, though this too was a matter on which the conclusion might be informed by expert evidence from the profession.

When our workers' compensation system was established, no structure was prescribed in the Act for medico-legal interaction. In practice, the only type of professional hired for constant participation in claims adjudication was doctors. The result was that doctors came to play a dominant role. They became decision-makers rather than consultants. They functioned as

21. See heading 4.

judges, rather than as expert witnesses. They tended to decide the general issue rather than simply to provide an input of medical advice on medical questions.

Thus we moved from a regime in which the determinative role was played by a legally trained judge, with input from doctors on the medical issues and from lawyers on the legal issues, to a regime in which the determinative role is played by doctors with input from other doctors on both the medical and legal issues, and usually no legal input at all (although this changes if and when a case reaches the new Appeals Tribunal).

2. Separation of Legal from Medical Issues

One consequence of this structure is that legal and medical issues are not separately identified and separately resolved. Often a file is referred by an adjudicator to a Board doctor without the legally relevant medical question having been identified. The file may be referred with a general question, such as "is this Board responsibility?" The doctor is being asked to advise on and perhaps even to decide the general issue. Commonly the response is an overall conclusion, such as "Deny claim".²² Such responses include, usually implicitly, assumptions of non-medical fact, and often an opinion on law and policy, as well as any opinion on a question of medical science. Thus questions of non-medical fact, law, policy and medicine become blurred, instead of being separately identified and correctly resolved. The Board doctor, in effect, is deciding the general issue.²³

The reaching of conclusions in this manner has a range of unfortunate consequences. One is that there may not have been any adequate determination of the non-medical facts before the medical opinion is obtained.²⁴ Secondly, the conclusion commonly includes an opinion on a question of law, and often such opinions are erroneous.²⁵ Perhaps the most common errors made in

22. See Decision No. 131, Ont., 1986, WCAT, p.5.

23. For examples of a Board doctor expressing an overall conclusion, or deciding the general issue, see Decision No. 5, Ont., 1986, WCAT, p.4.; Decision No. 134/87 L, Ont., 1987, WCAT, p.1; Decision No. 513/87, Ont., 1987, WCAT, p.6.

24. See, for example, Decision No. 41, Ont., 1986, WCAT, p.4

25. For example, the opinion reported in Decision No. 572 L, Ont., 1987, WCAT, p.4.

this way relate to assumptions about the relevant evidentiary criteria.

With regard to disease cases, the nature and extent of any exposure of a worker to contamination is often treated in the adjudication process as if it were a medical question, and yet it is usually a question of non-medical fact. The initial assumptions or starting hypotheses, the burden of proof and standard of proof are all commonly treated as if they were questions of medicine, and yet when the purpose of the process is to determine legal rights, they are clearly questions of law.

The functioning of Board doctors in this way may reflect not only the adjudicative structure of the Board but also the traditional habits of the medical profession. In other contexts and for other purposes, it is normal and acceptable for doctors to be deciding, or at least advising on, the general issue. It is understandable, therefore, that there should be some difficulty in giving up this role when an inquiry is being conducted for the purpose of claims adjudication.

Regardless of whether these explanations of the phenomenon are correct, it seems to be an observable phenomenon that there is a propensity in the medical profession, both outside and within the Board, to want to decide, or least to advise upon, the general issue. The most vivid example of this that I can recall occurred when deciding an appeal on a case involving a detached retina. The worker alleged that the detachment was due to an accident that had occurred several weeks prior to any noticeable symptoms. The appeal was being decided without a hearing, but the Chairman felt that the assistance of a consulting ophthalmologist was needed, and arrangements were made for one to attend. The Chairman described to him the Board's conclusions of fact relating to the accident, and then put to him a range of questions about the causes of a detached retina, and in particular, about the possibilities of a time lag between a causal event and the occurrence of any symptoms noticeable to the patient. Finally, the ophthalmologist was asked for his opinion on the probabilities that this detached retina was caused by the accident that had been described, compared with the probabilities of it having occurred in some other way. He expressed the opinion that it was about an even chance. The Chairman then thanked him for his assistance and drew the interview to a close; but the ophthalmologist was reluctant to go. He left the room and was closing the door behind him when he opened the door again, put his head around the door and called "I would pay her 50 per cent". Whatever the explanation may be, he seemed to be dissatisfied with the role of simply providing an input of medical advice. He wanted to decide, or least to advise upon, the general issue, notwithstanding that this would include an opinion on a question of law.

Similar examples can be found in relation to disease. Thus with regard to the CGE Lamp Plant, a study was conducted, and the Board then apparently retained an outside medical consultant to review the study. He is reported to have concluded that "I do not feel it is appropriate that the study be regarded as sufficient for compensation purposes at this time".²⁶ No doubt that conclusion incorporates an opinion on a question of medical science, but it is a composite or general conclusion, which incorporates also an opinion on questions of law and policy.

Probably the most common errors of law that result from this structure involve erroneous assumptions about the standard and burden of proof. For example, the enquiries tend to begin with a strong presumption of the negative. Related to this, a conclusion against employment etiology is commonly reached without any alternative hypothesis having been identified.²⁷

There are, also other errors of law that are commonly made. For example, diagnostic norms developed in the medical profession for other purposes tend to be applied in compensation decisions without a clear judgment being made by anyone trained in compensation law on whether they are legally relevant in that context. Similarly the existence of a "disability" under the Act tends to be treated as if it were purely a medical question. It is obviously a medical matter to arrive at clinical findings and to determine the physiological and psychological significance of the features discovered, but it is then a question of law and policy to determine whether those features should be classified as a "disability" for the purposes of the Workers' Compensation Act.

Confusion is also caused by divergent habits in the disciplines of law and medicine relating to evidentiary categories. For an adjudicator who is trying to determine a question of etiology according to law, the incoming medical evidence might be positive, negative, or neutral; but it is not the habit of physicians, when writing opinions in individual cases or when reporting epidemiological studies, to reach conclusions in those three categories. It is more normal to utilize only two categories, positive and negative; and the negative category will include conclusions which should for adjudication purposes, be

26. Report of the IDSP on the CGE Lamp Plant Issue, November 1988, Appendix A, p.2.

27. There are, however, examples of consultants recognizing the relevance of a comparative judgment. Thus in one case, an external consultant is reported to have concluded that "in the absence of any explanation to the contrary, the exposure must be regarded as "casual". Decision No. 211, Ont., 1988, WCAT, p.14.

classified as neutral. Thus, when an adjudicator receives an epidemiological report or other medical opinion that concludes in the negative, the reasoning in the body of the report should be scrutinized to see whether that conclusion rests upon anything other than the absence of positive data. If it does not, that report or opinion should usually be classified, for claims adjudication purposes, as neutral.

Unfortunately, reports and opinions that conclude in the negative seem to be accepted at face value without contemplation on whether such acceptance accords with the criteria prescribed by law.

The failure to separate legal from medical issues is a common cause of problems in disease cases involving multiple etiology. Commonly the consulting physician, whether at the Board or elsewhere, will advise, and perhaps be expected to advise, on "the cause" of the disability. It may well be that several circumstances contributed to the result, but the physician may not have been asked to identify those circumstances and to explain how they contributed. These questions obviously relate to matters of medicine, but the compensation consequences that should flow from the answers are questions of law. If, in these situations, the advising physician selects one of the causative factors to identify as "the cause", that selection is a determination of law, not of medical science, and it is likely to be an erroneous determination of law.

3. The Process of Enquiry

Another consequence of the failure to separate legal from medical issues is that the investigation of medical questions tends to proceed without any guidance from determinations of legal relevance. Consider, for example, the investigation of familial history and other extrinsic factors. Such an investigation may or may not be relevant, depending upon the question to be decided. Consider the following examples:

1. The available evidence establishes, on a balance of probabilities, that an employment exposure probably had causative significance in producing a disease. It is alleged that familial history shows that the worker was particularly vulnerable to disease from that type of exposure. Even if that is factually correct, it would be legally irrelevant. Therefore, an investigation of familial history would be inappropriate in the adjudication of that claim.
2. The disease is of a type which can be caused by:
 - (a) employment exposure (regardless of familial history),

- (b) the combined impact of familial characteristics and employment exposure, or
- (c) familial characteristics (regardless of any employment exposure).

In this type of case, it is appropriate to investigate all three hypotheses to determine whether, in the particular case, (c) is more or less credible than (a) or (b), or the combination of (a) and (b).

Also because enquiries are often initiated by those who are trained in medicine rather than in adjudication, the manner in which questions are asked is sometimes cause for concern. In particular, when a Board doctor is seeking an opinion from another Board doctor or a consultant, the question is sometimes asked in a form that indicates the expected answer. This has also happened in relation to questions put by the Board to the Panel.²⁸

4. Uncertainty, Guesswork and Inference

There are some claims, including some claims for disease, in which conclusions can be reached with a degree of probability close to a certainty. Commonly, however, that is not the case. Often there is uncertainty about the nature and degree of the worker's exposure, and often there are no available data about the significance of particular exposures to whatever disease the worker may be found to have. These gaps in knowledge may preclude the reaching of any conclusion in any scientific way.

In the court system, there are various ways in which judges cope with this problem. One way is to say simply that the party upon whom lies the burden of proof has not discharged that burden, and therefore the matter should be concluded against that party. There are, however, other ways of coping with uncertainty. In particular, the legal system does not require that all evidence should be direct, nor does it require that matters of causation must be determined in a scientific way. Circumstantial evidence can be considered, and inferences can be drawn from the evidence. If the evidence which is lacking is evidence that is not

28. See, for example Report of the IDSP on the CGE Lamp Plant Issue, Appendix A, p.2. In that case, the questions were asked in a neutral form, but they were preceded by the statement that Board staff "...consider that the available evidence assessed in terms of strength, consistency, temporality, and specificity of the association is currently insufficient to allow the development of a defensible and equitable policy with respect to breast or gynecological cancers for this occupational group".

available (rather than evidence which a party chose not to produce) judges often strive to do the best that they can with the evidence that they have rather than simply deciding the matter by reference to the burden of proof. A scientist might object that this is a process of guesswork, and that might well be so. A lawyer might see that objection as an unkind statement, not because it is wrong, but because the use of that term suggests a lack of recognition or of sympathy for the differences in function between the two. A scientist might decline to reach any conclusion on the ground that the data required to determine the matter are not available. An adjudicator, whether in a common law court or at a board, may have an obligation to decide the matter, and to decide it now, and to do it as best one can with the available evidence. Of course a judge in a common law court does not usually refer to "guesswork" in the "reasons for decision"; but it is normal to speak of "drawing the best inference that one can from the evidence". Commonly the difference between guesswork and inference is not one of logical content. "Guesswork" and "inference" are words which can be and sometimes are used in relation to the same mental process. The difference between them is simply whether one wishes to refer to that process disparagingly or approvingly.

Thus one consequence of having disease claims decided by those who are trained in medicine, rather than by those who are trained in adjudication, is that "guesswork" (or as a lawyer might say "drawing reasonable inferences from the evidence") tends to be perceived as illegitimate and to be avoided. In this way too, a presumption of the negative tends to creep into the process.

12. THE ROLE OF EPIDEMIOLOGICAL RESEARCH

This is the topic about which I feel the most diffident, partly because my experience in relation to this has not been as extensive as in relation to the topics mentioned above, and partly because I have no strength in mathematics. However, I will explain the way in which the matter appears to me.

In ordinary court proceedings, epidemiological evidence, when it is presented, tends to be treated with scepticism.²⁹ While the reasons for this are not always articulated, at least three reasons can be found.

- (1) The discipline of epidemiology seems to demand a talent for investigating and analyzing the credibility of data sources,

29. However, cf. Rothwell et al. v. Raes et al., (1988) 66 OR (2d) 449. There the epidemiological evidence was treated with great respect and the whole case depended upon it.

and also a talent for statistical analysis. These two types of talent seem to be rare in the same person.

- (2) When an epidemiological study is produced in evidence, the study has not usually been made for the purpose of that particular legal process. Hence, it may be irrelevant, or even if relevant, a diversion from the main point. For example, an epidemiological study may have been undertaken for the purpose of identifying which contaminant that is causing a particular disease. That may be vital if the purpose of the study was to prevent the disease; but the study could be irrelevant for the purposes of compensation, or at least it could be a diversion from the central question of whether the disease resulted from the employment.
- (3) Judges have been apprehensive that an epidemiological study might be treated as showing more than it really does in relation to the cause of a disease in the particular case. (This apprehension has been shown particularly by judges conducting jury trials in the United States.)

The difficulties of medico-legal interaction that are mentioned above³⁰ are illustrated vividly in relation to epidemiological research. The problems seem to begin with the identification of the relevant question. Where the issue being considered is whether a particular disease is caused (wholly or partly) by a particular employment, there seems to be a tendency to begin with a perception of the task as being to investigate the hypothesis that this disease was caused by that employment. The legally correct approach would be to begin by identifying the alternative hypotheses about the cause of the disease. If assistance is then to be sought from epidemiology, the relevant question is what, on the balance of probabilities, is the most likely cause (or what are the contributing causes) of the disease: in other words, what is the best available hypothesis?

Just as epidemiological studies sometimes begin with what is legally the wrong question, so they also sometimes adopt (or appear to adopt) standards of proof that are inconsistent with the standards prescribed by law. The cluster issue discussed in the report of the Panel on the CGE Lamp Plant may illustrate the point. On the question of whether the cancers were caused by employment or whether the cluster occurred by chance, there is discussion of whether the test of statistical significance should be 1 in 20 or 1 in 10. If the standard of proof prescribed by law is to be used, employment etiology could not be discounted unless the probabilities of the cancers having occurred by chance are greater than 1 in 2.

30. See heading 11.

Some discussion of the cluster issue might help to illustrate further some of the problems of medico-legal interaction. As I understand it, the contention in the CGE Lamp Plant report was that an epidemiological study which includes the original cluster (the index cases) that gave rise to the hypothesis of employment causation cannot verify that hypothesis. I do not see anything wrong with that proposition (though it may give some false impressions). What could be legally wrong, however, would be to move from that proposition to the conclusion that such a study is legally irrelevant to the question of employment causation.

Let me take a hypothetical example. Suppose that plant X has been in operation for 30 years and that during the first 20 of those years it employed a total of 200 female workers. Suppose that the union notes that 8 of those workers have suffered from breast cancer, and it suspects or alleges that this resulted from the employment. Suppose that an epidemiological study is then undertaken which concludes:

- (1) It is correct that those 8 workers have suffered from breast cancer; and
- (2) Based on aggregate data drawn from the general population of the same sex and age range, the expected number of cancers among that population would be 4.

Such a study does not "verify" the hypothesis. It does not demonstrate that the hypothesis is correct by reference to any data that are independent of the index cases. However, it does not logically follow that the epidemiological study is legally irrelevant. For example, if the study included clinical examinations of the workers or a scrutiny of medical records, it may confirm the accuracy of the data on which the hypothesis was formulated. Secondly, statistical analysis lies within the disciplinary expertise of epidemiology rather than law. Thus on the question of what the probabilities are that the excess occurred by chance, an epidemiologist may contribute a valuable input even without the development of new verifying data.

Perhaps the matter becomes clearer if the study concludes that the number of breast cancers among the work force is different from the number first alleged by the union. Suppose, for example, that the epidemiologist discovers that it is 4 rather than 8. In relation to the hypothesis of employment causation, that would tend to support a negative conclusion (though the Board must still weigh the epidemiological evidence in the balance with any other types of evidence that may be available in the particular case).³¹ Conversely, suppose that the epidemiologist discovered that it

31. For example, Decision No. 773/88 L. Ont., 1988, WCAT, p.4.

was 15 rather 8. There would now seem to be 2 ways in which the data might logically be used.

- (1) One might exclude the index cases from the sample and say that there are now 7 cases out of the 200, and that this study "verifies" the original hypothesis of employment causation; or
- (2) One might include the indexed cases in the sample and say that although the hypothesis has not been "verified" by independent data, it is shown to have a stronger data base than it was first thought to have. (Unless I am missing something, the probability of 15 having occurred by chance is less than the probability of 8 having occurred in that way.)

Let me reiterate that I am not questioning the propriety of the methods used in epidemiological research for other purposes. The point being made is that if an epidemiological study does not "prove" or "verify" a hypothesis of employment causation as those terms are used in the natural sciences, it does not logically follow that such a study should be cast aside for the purposes of claims adjudication. The legally relevant question is "What is the best available hypothesis about the causes of the disease among the workers being studied?" If an epidemiological study contributes something that helps to piece together an answer to that question it is legally relevant and should be weighed in the balance, regardless of whether, by the standards used in the natural sciences for other purposes, it "proves" or "verifies" a hypothesis. If an epidemiological study has methodological weaknesses, that is usually relevant only to the weight that should be attached to it; not to its admissibility as evidence.

It is possible that some confusion in this regard may have been enhanced by the divergent functions of the Panel. By the terms of the Act, the Panel is responsible for the production and marshalling of scientific knowledge; but when it proposes criteria to be used in claims adjudication, the Panel also has a responsibility for a legal output. There is, therefore, a risk the views of scientists may be converted into a regulatory form without first being subjected to the evidentiary criteria prescribed by law. When that happens, the result is likely to be the development of adjudicative criteria which conflict with the basic provisions of the Act, rather than criteria which illustrate and implement those provisions.

Another difficult matter is exactly what use can be made of epidemiological studies in the adjudication of individual claims. Perhaps the most widely recognized use is that epidemiological research can prove or disprove (or help to prove or disprove) a causative connection between a contaminant or type of employment and a disease. An advantage of epidemiological research over some other types of proof is that it may establish a causative

connection between a type of employment and a disease notwithstanding that the causative agent may be unknown. In some cases, epidemiological research can go further; it can determine the issue of causation in the particular case. This may be so, for example, with regard to claims for mesothelioma, where it has been demonstrated that this disease is not contracted in the absence of exposure to asbestos.

A more difficult and controversial question relates to cases involving a disease of a type that could have been caused by employment exposure or that could have been caused by other factors. In cases of this type, can epidemiology play any role in deciding whether, in the particular case, the disease resulted from employment? In other words, where it is known that there is an "excess" of a disease among workers at a place or in a particular type of employment, can epidemiological research be used to determine which cases constitute the "excess"? The guidelines used by the Board seem to be perceived as performing that role; but I do not see how epidemiological research can properly be used in that way.

First, the view that epidemiology cannot be used in that way seems to be shared among at least some epidemiologists.

Studies permit epidemiologists to state generally the incidence or prevalence of a given condition, but they do not permit explanations of individual causality. ...Epidemiologic statistics do not permit one to pinpoint the actual source of the disease afflicting any specific member of the exposed population'.³²

Secondly, the use of guidelines based on epidemiological research to identify which cases constitute the excess seems to assume that there is a dose/response relationship; and yet for several of the diseases covered by the guidelines, no such relationship is known to exist. If there are significant variations in individual susceptibility, the employment exposure might have been a significant contributing cause among some of those who were less exposed, and yet not among some of those who were more exposed.

Thirdly, any attempt to use epidemiological data for the decision of individual claims would seem to assume that an excess has been correctly calculated. This assumes that the incidence of the disease among an exposed population has been compared with the incidence of that disease in a population that was not exposed to the same contaminant or employment conditions. Yet with regard to

32. "Use and Misuse of Epidemiologic Data in the Courtroom; Defining the Limits of Inferential and Particularistic Evidence in Mass Tort Litigation", H.M. Ginzburg, (1986) 12 American Journal of Law and Medicine 423,431.

many contaminants, this will be close to impossible. With regard to asbestos, for example, there is no difficulty in identifying a population that is not known to have been exposed, but it would be and virtually impossible to identify a population that is known not to have been exposed. It is possible, and could well be probable, that significant numbers in the "non exposed" population were actually exposed. If that is so, the excess would be higher than the reported "excess". Moreover, with regard to cancers, for example, some of those who have the disease among the general population may have been exposed to similar contaminants or conditions at other places of employment.

Fourthly, the use of epidemiological research in this way is most consistent with an assumption that each disease results from a single cause. It is more difficult to reconcile with the reality that diseases commonly result from multiple etiology; and hence it tends to divert attention from that reality. Partly for this reason, the notion that certain cases can be identified as constituting the excess could be a misconception.

Perhaps the greatest problem with using epidemiological research in this way is that it generates rules of inclusion, which in practice will become rules of exclusion, and as mentioned above,³³ such rules tend to divert attention from the investigation and analysis of the facts of each case to determine the most likely cause of the disease in that case.

For these reasons, as well as the reasons mentioned earlier, it would be preferable to abandon any further production of etiological guidelines of the type that have been used by the Board, and to engage instead in revising Schedule 3. If it has been shown by epidemiological or other research that a disease can result from a particular process, the inclusion of that disease in Schedule 3 is the best prospect for helping to ensure that the facts of each case will be investigated, and that each claim will be determined by a process that integrates the epidemiological research and the facts of that particular case.

13. INTERIM ADJUDICATION

Another matter relevant to the functioning of the Panel is interim adjudication. There appear to be some cases in which the decision on a claim for disease is delayed for months, or sometimes even for years, pending the results of an epidemiological study or other research. Where some delay is inevitable in reaching a final conclusion, it may be appropriate

33. See heading 11.

for the Board, and may sometimes now be appropriate for the Panel, to consider interim adjudication.

The decisions of the Board to allow or deny claims are generally intended to be final. However, section 76 provides that:

The Board may, at any time if it considers it advisable to do so, reconsider any decision, order, declaration or ruling made by it and vary, amend or revoke such decision, order, declaration or ruling.

It has been recognized at the Board in other contexts that this power to reconsider imports a power to decide on an interim basis. Suppose, for example, that the Board receives a claim for disease in which there is a hypothesis of employment causation which is supported by some evidence, but which needs further testing. Suppose that the Board or the Panel decides to undertake an epidemiological study with a view to confirming or disproving the hypothesis. The study may take a year or two. What should the Board do about the claim in the meantime?

If the Board decides to allow the claim, it is open to the objection that it has made a commitment to benefits which may include a permanent pension while the evidence relating to employment etiology is still being sought. Conversely, if the Board postpones any decision pending the result of the epidemiological study, it is open to the objection that wage loss benefits are being denied while the best evidence that is currently available indicates a valid claim. The system was established in the first place to provide for income continuity, and on the best evidence currently available, the worker has a statutory right to payment. Moreover, a postponement of any decision pending the result of the epidemiological study might be seen as worse than a denial of the claim because it frustrates the worker's right of appeal.

A solution that may well be appropriate in at least some cases is interim adjudication. If the best evidence that is available for the time being indicates a probability of employment causation, the claim could be allowed for wage loss benefits on an interim basis. The decision would inform the worker, as well as the employer and attending physician, that the claim has been allowed on this basis and that it will be reconsidered under section 76 when the results of the epidemiological study become available. If the final decision is negative, the result would not be an overpayment because the payments that have been made were lawfully due during the period to which they relate.³⁴

34. For a decision on interim adjudication in another jurisdiction, see Decision No. 236, B.C., (1977) 3 Workers' Compensation Reporter 100.

14. THE TERMS OF THE ACT -- "INDUSTRIAL DISEASE"

A contributing cause to some of the confusion in the adjudication of disease claims is the anachronistic retention in the Act of the word "industrial". This is the traditional term that has been used in workers' compensation in Canada, and it was appropriate when disease claims were limited to those diseases that were listed in an exclusive schedule. Nowadays, however, the legislation provides for a disablement from disease to be compensated if either:

- (a) the disease is one that is caused exclusively by industrial exposures (though there may be other contributing causes); or
- (b) the disease is one that occurs in the population at large and that may be caused in a variety of ways, provided that the evidence warrants a conclusion that in the particular case, employment exposure was probably a significant contributing cause.

The retention of the word "industrial" in the Act seems to be a historical accident and it is open to several objections.

- (1) It tends to create the impression that only diseases resulting from occupations that are perceived as "industrial" are compensable. Thus it diverts from a recognition that a disease contracted by an office worker or a health care worker may be compensable.
- (2) The term "industrial disease" is perceived as requiring definition, and when that happens, duplicative, multiplicative or conflicting etiological prescriptions appear in the definitions section and the operative section of the Act.
- (3) The adjective "industrial" is superfluous.
- (4) The term tends to create the impression that only those diseases that are caused exclusively by employment are compensable.

Some Canadian provinces have substituted the word "occupational". That may sound more contemporary, but it is open to some of the same objections. It would be better drafting, and would certainly contribute to a better understanding of the work of the Panel, if the Act used only the word "disease", without definition, and with the intended etiological prescription being contained in the operative section of the Act.

15. THE ETERNAL DILEMMA

A major difficulty in the context in which the Panel must work is that workers' compensation rests, and always has rested, on a false assumption. In relation to disease, the system assumes the feasibility of determining the etiology of disease, not just in general, but case by case. Of course it may be an easy matter where a worker has a history of exposure to a particular contaminant that is known to cause the disease that the worker is known to have; but there are relatively few disabilities of that type. Commonly a worker will have been exposed to a variety of contaminants, sometimes concurrently and sometimes consecutively, and the combined and possibly synergistic impact of the total is commonly unknown. In many industries such as construction and more particularly demolition, no exposure records are kept; and in other industries, exposure records are of unknown accuracy or of unknown relevance in relation to a particular worker. Even when exposures are known, there is commonly no research base from which any doctor could express an opinion on the significance of the total employment exposure in comparison with other possible causes of the disease. No system of compensation will ever work with efficiency, justice and consistency if the eligibility for benefits depends upon establishing the etiology of each disablement. The work of the Panel, however, can be useful in achieving marginal improvements.

Under a comprehensive plan of compensation for disablement regardless of cause, epidemiological research could be used, and used more effectively, than under present systems in relation to cost distribution³⁵ rather than in relation to eligibility for benefits. Similarly, the Panel could play a more determinative role in relation to cost distribution than it can ever play in relation to claims adjudication.

35. See, for example, "Human Disabilities and Personal Income", T.G. Ison, 1977, Cases in Canadian Tort Law, Butterworths, Toronto.

COMMENTARIES ON THE ISON PAPER

Terms of Reference for Commentaries

Commentaries by:

John I. Laskin

Katherine Lippel

David K.L. Starkman

TERMS OF REFERENCE

for the Commentaries on the Ison Paper entitled:

**'COMPENSATION FOR INDUSTRIAL DISEASE UNDER THE
WORKERS' COMPENSATION ACT OF ONTARIO'**

Professor Ison was asked to address medico-legal problems that arise in the adjudication of industrial disease. In particular, he was asked to focus attention on four areas of the Ontario Workers' Compensation Act (the "Act") and its interpretation by the Workers' Compensation Board (the "Board") which pertain to industrial disease adjudicatory practice:

1. The nature of Schedules 3 and 4 and of Policy Guidelines (eligibility rules) as instruments for structuring the Board's discretion with respect to the adjudication of industrial disease claims;
2. The role of Policy Guidelines (eligibility rules) in the adjudication of claims involving: a) non-scheduled diseases; and b) scheduled diseases;
3. The nature and importance of the Board's general and unstructured discretion with respect to the adjudication of disease claims;
4. The significance of Section 3(4) of the Workers' Compensation Act with respect to the adjudication of industrial disease claims (A copy of the Board's interpretation document [No.33-02-01] of the benefit of doubt policy is attached).

In your paper, would you comment on Ison's interpretations and conclusions in each of the above areas. An attachment to these terms of references contains a list of conclusions extracted from the Ison report (along with page references) and is provided for your assistance. As part of your paper, would you include comments on these conclusions. Would you ensure as well that the Ison report has comprehensively covered the issues posed above.

There is an aspect of the Act upon which Professor Ison chose not to comment and concerning which I solicit your views. This involves the question of the nature of the diseases which might be more appropriately assigned to Schedule 3 (rebuttable presumption) than to Schedule 4 (conclusive presumption). The Royal Commission on Asbestos suggested that such workplace-specific diseases as asbestosis and silicosis are more appropriate candidates for the latter schedule than, say, lung cancer.

ATTACHMENT

CONCLUSIONS REACHED IN THE ISON REPORT

- I. Workers, employers and physicians have duties to supply information to the Board, but none has any "burden of proof." There is "no burden of proof upon anyone except the Board" (p.5). "Thus the general principle that the burden of proof lies on the Board seems to be recognized both by the terms of the Act and by Board practice" (p.5). However, footnote 2 states "In practice...there is often a propensity to put a burden of proof on the worker."
- II. Re S.3(4):
- The benefit of doubt is applicable to each issue separately (p.10). Where a claim is covered by a Schedule, S.3(4) is superfluous re etiology (p.23). Where a claim is covered by a Schedule, S.3(4) applies to issues that arise within each column (p.23).
- III. Re Schedules:
- a) Use of the Schedules makes diagnosis a prerequisite (p.8). Where a Schedule applies, it creates presumption of the affirmative (p.11). Where a presumption applies, any medical opinion that reaches a negative conclusion because of the absence of positive data is legally irrelevant (p.12).
- b) Re Schedule 3: To rebut, there must be an alternative hypothesis and evidence in support of that hypothesis. Evidence in support of the presumption must be weighed and the presumption holds unless evidence to the contrary is persuasive to a point of going beyond the balance of probabilities (p.12).
- c) Re Schedule 4: The two columns in this schedule preclude the B.C. use of a conclusive presumption where a matter could not be determined scientifically (p.13).
- d) Re asbestosis and mesothelioma: It is desirable to have not only a diagnostic label in column 1 but a diagnostic definition (p.14). Note p. 13-15 re an interesting refinement in the use of Schedule 4 where most exposure is outside Ontario (p. 13-15).
- IV. Re Guidelines:
- a) Guidelines have the character of rules, not policies (p.16). Beware lest they become rules of exclusion (p.17). (This is

not what the Panel intends: p.20) Beware lest they create impression that diagnosis is a prerequisite (p.18). The law does not require a diagnosis (p.8).

- b) If rules are rules of thumb, it is legitimate to require a sound scientific basis (p.19).
- c) Given S.86p(7), it is now unlawful for the Board to develop new rules where none has been recommended by the Panel (p.21).
- d) Words like "clear and adequate" are wrong because the law doesn't require "clear", and "adequate" implies a threshold test (p.17). There is no minimum threshold to admit evidence (p.7).
- e) Note the practice of treating exposure as a matter of medical evidence when it is not (p.26).

COMMENTARY

by

JOHN I. LASKIN

COMMENTARY ON:
COMPENSATION FOR INDUSTRIAL DISEASE UNDER
THE WORKERS' COMPENSATION ACT OF ONTARIO

by

TERENCE G. ISON, LL.D.

Submitted by

JOHN I. LASKIN

Davies, Ward and Beck
Barristers and Solicitors

September 13, 1989

In my opinion, Professor Ison has written an excellent paper. His discussion of the adjudication of disease claims, the evidentiary issues arising from the interaction of law and medicine and the use of presumptions and eligibility rules is perceptive, well-reasoned and thought provoking. There is little in the paper with which one can strongly take issue. I do have, however, a number of specific comments on various aspects of this paper which I have organized under headings for ease of reference.

STATUTORY ENTITLEMENT AND DISCRETION

In my view, the point made by Professor Ison at the beginning of his paper is significant and often overlooked. A disabled worker's claim for compensation because of industrial disease is not a matter of discretion with the Board, but of statutory entitlement under the Act so long as the statutory requirements of Section 122(1) are satisfied. It follows that the Board cannot in its discretion withhold compensation where those requirements are met and it cannot apply internal rules or guidelines which in any way enlarge upon or make more onerous the statutory requirements. It also follows that Schedules 3 and 4 under the Act cannot be viewed as instruments for structuring the Board's discretion.

Of course Board adjudicators in going about their task of determining whether the requirements of section 122(1) have been met, have a wide latitude in their assessment of the evidence before them and of the weight they give to any particular piece of evidence. In this context, Schedules 3 and 4 may well play an important role in structuring the Board's decision making.

BURDEN OF PROOF

In our ordinary court system, the parties present the evidence and the Tribunal adjudicates. Discussions of burden of proof and standard of proof are premised on these different roles for the parties and the Judge. Professor Ison observes that the Board has not only an adjudicative role, but an investigative role as well; it has a duty not only to decide the case, but to gather the evidence necessary to reach a decision. In this sense, I agree with Professor Ison that there is no burden of proof on the worker (or for that matter on the employer). In some cases, however, the distinction is more theoretical than real. In the final analysis, unless all of the evidence favours the worker's claim (or is evenly balanced so that Section 3(4) applies) the worker will be denied compensation. The result is to cast a practical burden on the worker in some cases to gather evidence to support his claim for fear the Board will otherwise reject it. In my experience (admittedly very limited) it was especially in industrial disease claims characterized by long latency periods and often potential multiple causes where workers have had to be particularly sensitive to the need to ensure all evidence supporting their claim was before the Board. This observation may say something about the evidence gathering resources and abilities of the Board, but it remains a practical issue, and in turn invites the importance of considering Schedules 3 and 4.

PRESUMPTIONS AND SCHEDULES 3 AND 4

Section 122(9) of the Act establishes a rebuttable presumption of law in favour of the claimant in respect of Schedule 3 diseases. Professor Ison discusses this presumption at pages 11 to 13 of his paper. The rebuttable presumption, of course, shifts the burden of proof and requires that there be evidence to the contrary to rebut it. Professor Ison suggests the presumption holds unless there is evidence to the contrary which is persuasive to a point going beyond the balance of probabilities. He cites no authority for this proposition. I would have thought that absent some special rule, the standard of proof required to rebut the presumption is simply on the balance of probabilities.¹

Even this statement in my view does not really address the critical question which is how the presumption operates in practice. Wigmore suggests² that the effect of a presumption of law is only to invoke a

1. There are exceptions. For example, the presumption of legitimacy can only be rebutted by evidence which meets a higher standard. Perhaps this is what Professor Ison had in mind.

2. 7 Wigmore on Evidence, Section 2491(2).

rule compelling the adjudicator to reach the conclusion in the absence of evidence to the contrary. If there is even some evidence to the contrary, the presumption disappears as a rule of law and the case is in the hands of the adjudicator free of any rule. The Supreme Court of Canada seems to have adopted this position.³ As Sopinka and Lederman state in the Law of Evidence in Civil Cases at page 402, once rebutting evidence is adduced, the statutory presumption is spent and the evidence giving rise to the presumption has no more force than its own probative value. I should add that I agree with Professor Ison that the use of presumptions, either conclusive or rebuttable, will have the practical effect of shifting the inquiry to the diagnosis of the disease itself. This was precisely the issue in the British Columbia Court of Appeal in the Evans case, referred to at footnote 9 of Professor Ison's paper.

Professor Ison refers to the use of a conclusive presumption in Section 6(11) of the British Columbia Workers' Compensation Act. What is of some significance to me is that the rationale for this conclusive presumption in the British Columbia legislation is quite different from the rationale for the conclusive presumptions contemplated by Schedule 4 of the Ontario Act. In British Columbia, a policy decision was made to compensate a worker who died with lung function impairment because it was impossible scientifically to determine causality, that is, to separate out employment exposure and lifestyle factors. By contrast, Schedule 4 in Ontario is designed to deal with industry specific diseases,⁴ such as asbestosis and mesothelioma (I recognize contrary to Professor Ison's statement at page 34 of his paper that there are some mesotheliomas for which there is no known or likely asbestos exposure, but those cases are rare) where causality is not seriously an issue once the diagnosis is made and the worker's employment in the relevant industry is identified. It may be appropriate to continue to use Schedule 4 for this purpose. Professor Ison, apart from limited reference to asbestosis and mesothelioma, does not comment upon which diseases should be included in Schedule 4.

Up until now, Schedule 3 to the extent it has been used at all, has addressed itself largely to industry specific diseases. Several of these diseases could likely be considered for inclusion in Schedule 4 given the rationale for Schedule 4. In addition, in my judgment, there is also a good case to be made for substantially broadening the use of Schedule 3. Few diseases today are industry specific; for most, causation inquiries are complicated by lifestyle and other non-work related factors. Using Schedule 3 to cover these diseases (lung cancer

3. Circle Film Enterprises Inc. v. Canadian Broadcasting Corporation, [1959] S.C.R. 602 per Judson, J.

4. See Report of the Royal Commission on Asbestos, Volume III, pages 706-7 for the rationale.

or heart failure are prime examples) would be in keeping with the object of the Act and would likely improve the ability of workers to obtain compensation where employment is one (but not the only) factor likely responsible for the illness.

GUIDELINES OR ELIGIBILITY RULES

Professor Ison has drawn attention in his paper both to the advantages and what he perceives to be the disadvantages of guidelines or eligibility rules. I think it is fair to say that he is very critical of the use of guidelines and ultimately (at page 35 of his paper) rejects them in favour of revising (and presumably expanding) Schedule 3. I endorse his conclusion, although I remain less sceptical than he, about the negative impact of guidelines. Professor Ison's chief concern (see pages 17 and 18 of his paper) is that eligibility rules will become rules of exclusion and will foster a negative mindset in the adjudicator in cases not coming within them. This was a concern of the Royal Commission on Asbestos in respect of the asbestos related disease guidelines then used by the Board. A study done for the Commission by Professor Barth could find no basis in fact for this negative mindset.⁵

Nor do I think it entirely fair, as Professor Ison does, automatically to dismiss guidelines for use of language such as "clear and adequate exposure" etc. As long as individual cases not coming within the basic eligibility criteria are judged on their own merits from, to use Professor Ison's language, a neutral starting point, such language would not in my view constitute an improper or illegal fettering of the statutory requirements. One can, however, certainly critique the phrase "clear and adequate exposure" on substantive grounds as tending to make the guideline a rule of exclusion rather than inclusion.

Even if guidelines or eligibility rules are made public and are the subject of prior discussion within interested parties, (obviously necessary prerequisites for their use), I am of the view that Professor Ison's preference for an expanded use of Schedule 3 is sound. Expanding Schedule 3 would widen the classes of cases in which workers can presume to be compensated absent other evidence. Eligibility rules as now structured employ exposure and latency criteria developed from the scientific literature. This leaves a number of cases that have to be judged individually because they fall outside the eligibility criteria. If instead Schedule 3 were utilized, in its present form, most of the cases now judged individually would enjoy the benefit of the presumption. To me, that is how it should be under a statutory scheme whose primary object is to compensate injured workers.

5. See Volume III of the Report of the Royal Commission on Asbestos at pages 698-99.

I should say that the use of guidelines or eligibility rules is now well recognized in administrative law (as promoting predictability and consistency and thus fairness). They are seen as a proper and effective means to structure the discretion of an administrative tribunal in matters of policy. Their use in such situations has been endorsed by the Supreme Court of Canada.⁶ Here, however, the issue is not structuring the discretion of the Tribunal on a question of policy, but structuring the determination of whether the evidence on the balance of probabilities meets general statutory criteria for compensation. The case for eligibility rules is perhaps the same-- ease of adjudication and consistency -- but it may be questioned whether they promote fairness for those intended to benefit from the Act, namely, workers. They will only promote fairness for those intended to benefit from the Act provided they are not applied in Professor Ison's words as rules of exclusion. This is because, as Professor Ison has pointed out, compensation is not a matter of policy or discretion; it is a matter of determining statutory entitlement.

THE ROLE OF THE IDSP

At page 21 of his report, Professor Ison concludes that for any new eligibility rule to be legally valid it must have been first recommended by the Panel. He further states it would be unlawful for the Board in relation to claims for disease to develop new eligibility rules where none have been recommended by the Panel. I confess to having some difficulty in accepting these conclusions. There is nothing in the statute which says that the Panel alone is to develop eligibility rules. Section 86p (7)(d) prescribes that it is one function of the Panel to advise on eligibility rules. This language indeed suggests that the rules may originate elsewhere; it does not in any event suggest to me that the Panel and no one else can prepare these rules. Moreover, it is not at all clear that an eligibility rule requires recommendation by the Panel before it is legally valid. Professor Ison refers to Section 86p (11) and (12) of the Act. These Subsections, however, refer to "findings" which on its face seems to be a reference to Section 86p (7)(b) and not (d). In short, there is a distinction between findings and advice and the statutory requirements for notice and Panel recommendations appear on their face to apply to the former but not to the latter.

6. See Capital City Communication Inv. v. C.R.T.C., [1978] 2 S.C.R. 141 at 171. See also the long discussion on structuring discretion in Evans et al Administrative Law, Cases, Text and Materials, 2nd Edition, Ch. 13.

EPIDEMIOLOGICAL RESEARCH

Although not specifically requested to address it, Professor Ison has added a very useful section on the role of epidemiological research and evidence in the adjudication of disease claims. I do not agree that epidemiological research begins with a negative perspective as Professor Ison seems to suggest (see p.27 of his paper). Epidemiological studies begin from a neutral position and are carried out for the purpose of investigating the relationship between a particular condition existing in the workplace or the environment or the general population and a particular disease or medical condition. Professor Ison rightly concludes that an epidemiological study cannot of itself prove individual causation. This makes it difficult to understand his comments at page 31 of his paper. Precisely because of Professor Ison's conclusion, his discussion of tests of statistical significance in relation to legal standards of proof is less than clear. Statistical confidence intervals have to do with the strength of the association suggested by an epidemiological study. This is entirely different than the standard of proof in an individual case.

Mr. Justice Osler (of the Ontario High Court) in his thoughtful and sensitive judgment in *Rothwell v. Raes*⁷ observes that an epidemiological study may, however, justify an inference that a statistical association reflects a causal connection. The extent to which any inference about causality may be drawn goes well beyond tests of significance and is usually assessed against the nine guidelines set forth by Sir Bradford Hill in 1965 and now widely accepted. They are: strength of the association, consistency of the association, specificity of the association, temporality of the association, biological gradients, plausibility, coherence, experiment and analogy. It is important to appreciate that not all epidemiological studies carry the same degree of reliability. Case reports or anecdotal episodes are a form of epidemiological study, but their probative value in determining cause and effect relationships is likely to be very weak if not entirely non-existent. At the other end of the reliability spectrum is the randomized trial. In between are case control studies and cohort studies, the latter being frequently employed if only because they are the only practical alternative in many cases.

I think it is correct to observe that epidemiological evidence has been treated rather cautiously in Canadian courts, Mr. Justice Osler's judgment being an exception.⁸ One explanation is that lawyers in this

7. (1988), 66 O.R. (2d)449. A Notice of Appeal has been filed from the Judgment of Mr. Justice Osler.

8. The American court system is far more familiar with such evidence. See for example McCormick on Evidence, 3rd Edition, Ch. 20.

country have been slow to recognize the value of such evidence in tort claims and have as a consequence been slow either to gather this evidence or present it in a way that is meaningful to judges. To deal effectively with epidemiological evidence, a lawyer must know more than the rules of evidence. He or she must understand the scientific principles that govern the reliability of such evidence.

COMMENTARY

by

KATHERINE LIPPEL

COMMENTARY ON:

COMPENSATION FOR INDUSTRIAL DISEASE UNDER
THE WORKERS' COMPENSATION ACT OF ONTARIO

by

TERENCE G. ISON, LL.D.

Submitted by

KATHERINE LIPPEL, LI.I., LI.M.

Professor of Law
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May 23, 1989

I read Professor Ison's paper with great interest, and entirely agree with the substance of the vast majority of his conclusions. Where I have a divergent view, I have mentioned it specifically in the following paper. I would also like to point out that in reading Professor Ison's paper I came across many important conclusions that did not appear in the "Attachment". I have, when possible, pointed out those elements I thought to be particularly worth while.

1. **The nature of Schedules 3 and 4 and of Policy Guidelines (eligibility rules) as instruments for structuring the Board's discretion with respect to the adjudication of industrial disease claims;**

I will consider the specific conclusions emphasized in your paper entitled "Attachment": Conclusions reached in the Ison Report (henceforth referred to as "Attachment"), under item III, Re Schedules. I agree with conclusions described in paragraphs a) and b) of this subsection, however, I would make the following specific comments regarding two of these conclusions.

Professor Ison is quoted to conclude that "use of the Schedules makes diagnosis a prerequisite". What he actually says on page 8 is that diagnosis is not a prerequisite to compensation, although reliance on Schedule 3 or 4 necessitates a diagnosis, as it is the disease that is presumed to be related to the specific employment, and the identification of the disease designated in the Schedule as being that of the claimant is necessary for the presumption to apply.

Diagnosis need only be as specific as the condition provided for in the Schedule. If Column 1 is very specific as to the nature of the disease, diagnosis must be equally specific in order for the presumption to apply. For example item 15 in Column 1 reads as follows:

"Ulceration of the corneal surface of the eye, due to tar, pitch, bitumen, mineral oil or paraffin or any compound, product or residue of any of these substances"

while the corresponding comments in Column 2 specify the following process:

"Handling or use of tar, pitch, bitumen, mineral oil or paraffin, or any compound, product or residue of any of these substances"

Had column 1 simply read "ulceration of the corneal surface of the eye", a broad diagnosis would have been sufficient to permit the presumption to apply. Some current disease descriptions in the schedule are so specific one wonders whether there is any point to their inclusion: once a worker handling tar proves that he suffers from ulceration of the corneal surface of the eye due to tar, one would hope that compensation would be granted without the need for reliance on a legislative presumption. If proof of the etiology of the condition is intrinsic to the description of the disease, as is the case with item 15 of Schedule III, this is tantamount to denying all benefit of a presumption.

Some jurisdictions use the technique of presumption to presume diagnosis itself. Thus a coal worker suffering from respiratory or pulmonary impairment is legislatively presumed to be suffering from coal workers' pneumoconiosis (C.W.P., or Black lung disease)¹.

I would thus conclude that the statement "Use of the Schedules makes diagnosis a prerequisite", is too broad. All will depend on the description of the "disease" appearing in column 1. The diagnosis need be only as specific as the description therein.

My second comment on paragraphs a) and b) of the conclusions regarding the Schedules relates to the description of evidence needed to rebut the presumption of schedule 3. I entirely

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1. Richard Robblee, "The Dark Side of Workers' Compensation: Burdens and Benefits in Occupational Disease Coverage", (1978) 2 Indus. Rel. L.J. 596, at 625-626. I would strongly recommend this article, which contains many interesting elements, including a discussion as to the relevance of epidemiological studies in the compensation process.

subscribe to Professor Ison's comments on these matters as quoted (p.11-12). I wish to add that to be relevant such evidence must be different from that which was before the Panel or the Board when the inclusion of the presumption was made. New scientific evidence, or evidence specific to the case of the worker could conceivably rebut the presumption. An American commentator has made the following warning, which I feel applicable to the Ontario situation:

"Care must be taken not to permit rebuttal evidence based on the same inaccurate diagnostic information which established the need for a presumption"².

As to conclusion c) regarding the Schedules, I feel that as articulated it does not accurately reflect Professor Ison's meaning. Professor Ison states at p.13-14 that a legislative modification of section 122(9a) would be necessary to permit the adoption of an irrebuttable presumption similar to that currently in force in B.C.. The B.C. presumption presumes cause of death, and Professor Ison accurately points out that section 122(9a) does not as it now reads delegate the power to presume cause of death, although such a power could be obtained by legislative amendment to the Act. Professor Ison nowhere implies that "The two columns in this schedule preclude the B.C. use of a conclusive presumption where a matter could not be determined scientifically"³. On the contrary, it is highly likely that the impossibility of scientifically determining a specific issue would be a perfectly valid reason for including a given disease in Schedule 4. For example if epidemiological data supports a high degree of relatedness between a given disease and a given process, its inclusion in Schedule 4 would be legitimate, even if, and perhaps particularly if it was impossible to scientifically determine the reasons for relatedness in a given case.

Legislative modification of section 122(9) and (9a) may be advisable in order to broaden the nature of presumptions to be enacted. Professor Ison provides one example, in referring to presumption of cause of death. I have above provided another example, in regard to presumption of diagnosis. But no legislative amendment is needed to permit inclusion of diseases and processes in Schedule 4, even if the scientific determination of an issue is impossible. Such a conclusion would be legally erroneous, and nowhere in Professor Ison's paper have I found an indication that he espouses such a conclusion.

2. Ibid, at 630.

3. Quoted from "Attachment", at item III c.

As to conclusion d) regarding asbestosis and mesothelioma, I agree that the inclusion of these diseases in Schedule 4 would be advisable, and also that there is a danger of controversy regarding diagnosis. However I fear that an exhaustive diagnostic definition in Column 1 would tend to be underinclusive, given the irrebuttable character of that presumption. I would prefer to see a diagnostic presumption, which would eliminate much controversy. Professor Ison's idea of a diagnostic description may be advisable, but on the condition that it does not serve to exclude claims for asbestosis that do not correspond to the diagnostic description.

As to the issue of non-Ontario exposure, I feel that section 122 does not permit refusal of compensation when "most exposure is outside Ontario"⁴. Only in those cases where the worker has been exposed to dust in Ontario employment for less than 2 years could a claim be thus refused (section 122 (11)(15)). I am thus not convinced as to the advisability of Professor Ison's suggestion.

Finally I would like to comment on an issue relating to the Schedules but not raised in Professor Ison's paper: the naming in column 1 of Schedule 3 of diseases without specification as to the corresponding process. This treatment of illness such as Tenosynovitis, and the pneumoconioses, to name only two examples, seems to create a fourth category of industrial diseases where Parliament had only envisaged three: Schedule 4 diseases, irrebuttably presumed to be related, Schedule 3 diseases, rebuttably presumed to be related, and unscheduled diseases, where no presumption as to relatedness exists. Cryptic inclusion in Schedule 3 of a disease without a corresponding process is at best meaningless and at worst a message that only those suffering from these diseases need apply. One is left with the worrisome impression that only those diseases listed are known to be sometimes work-related, thus implying that those not listed are excluded. It may well be worthwhile for the Board to publish a list of diseases sometimes work-related for which it is willing to compensate. This would probably encourage more claims. But such a list should not appear in the Schedules unless the intention is to create a presumption. All named diseases in the Schedules should have a corresponding process, even if that process is broadly described (ie. repetitive movements).

2. **The role of Policy Guidelines (eligibility rules) in the adjudication of claims involving: a) non-scheduled diseases and b) scheduled diseases:**

Three important elements appear in Professor Ison's analysis:

4. Term used in "Attachment" at item III d.

- . The legal status of Guidelines (p.20-21).
- . The confusion and potential illegalities that may arise when doctors are acting as decision makers (p.24-28).
- . Recognition of the right to compensation, and thus by ricochet the role of Guidelines, should not be limited to those diseases in which a sound scientific base for compensation exists (p.19-20).

I endorse Professor Ison's position on these issues, which I feel are not adequately reflected in the document entitled "Attachment". Given my agreement with Professor Ison I will not reiterate his analysis relating to these issues. I wish, however, to emphasize that the legal value of Guidelines is in my experience even more tenuous than Professor Ison would allow us to believe.

Guidelines or directives have no legal value in law unless the authorizing legislation specifically provides for them by delegating power to a subordinate authority. Section 86p(7) of the Act gives some legislative recognition to such Guidelines, and only those Guidelines adopted in accordance with the procedures therein described would have legal status. As Professor Ison points out, Guidelines may not contradict the statute, as they are delegated legislation at best, and at worst tolerated practices of administrative expediency.

As a consequence, any Guideline which would artificially exclude legitimate claims for industrial disease as defined in section 1 of the Act, would be illegal. Thus diagnosis is not essential to compensation, and any refusal of a claim based solely on the lack of clear diagnosis, or its non-conformity with the conditions set out in the Guidelines would be unfounded. This position has been confirmed by the Workers' Compensation Appeals Tribunal⁵.

The danger of Guidelines being perceived as rules of exclusion has been noted by others, including Professor Paul Weiler, who recommends that formulation of such Guidelines emphasize their non-exclusionary character⁶.

5. See W.C.A.T. Decision 425.

6. Paul C. Weiler, Protecting the Worker from Disability: Challenge for the Eighties, April 1983, p.41 and 45.

Thus I agree with the conclusions cited in paragraph IV a) of the "Attachment", in the context previously described.

The conclusion described in paragraph IV b) of the "Attachment" does not appear to me to accurately reflect Professor Ison's thinking. I agree with his original statement, but disagree with the conclusion as quoted. The accurate statement appears on page 19 of the text and states:

"It is legitimate to require a sound scientific basis for a rule of thumb that allows claims to be paid without further enquiry, but it would be unlawful to deny a claim on the ground that no sound scientific basis has been found for a determination of occupational etiology."

The essence of Professor Ison's position is that the Panel should not limit itself to those diseases where sound scientific bases exist for establishing that the workplace is probably connected with a burden of disease in workers. This position is not reflected in the conclusions appearing in the "Attachment", and I feel it to be of major importance.

I agree with conclusions IV c) and d), and wish only to point out that conclusion e), regarding doctors, is only an illustration of a far more complex analysis of the role of doctors in legal decision making.

As to eligibility rules in the context of Scheduled diseases, I seriously doubt that such rules could limit the plain meaning of the Schedules themselves. Further, whenever possible a disease should be included in the Schedule rather than simply referred to in Policy Guidelines, otherwise, as Professor Ison notes, workers will lose the benefits intended by the Legislature when enacting the Schedule system.

3. The nature and importance of the Board's general and unstructured discretion with respect to the adjudication of disease claims;

It is quite clear that the Board does not have a discretion in the recognition of an occupational disease. I wholly subscribe to Professor Ison's comments on pages 3 and 4 of the document, and feel them to be most relevant and important.

Assuming the question to relate to the evaluation of claims not provided for either in the Schedules or in the Guidelines, I would make the following comments, firstly regarding Section 1 of "Attachment", and henceforth regarding other conclusions of Professor Ison I feel to be relevant.

While I agree in theory with Professor Ison's position to the effect that the worker does not carry the burden of proof, and

that it is the Board's burden to elucidate and justify the claim where that is possible, I feel that in practice many decision-makers act as if the worker has a burden of proof. I thus find the Panel's own position to this effect revealing:

"Through the operation of a Schedule, the burden of proving that the disease is due to the workplace is shifted away from the worker to the employer"⁷.

If workers become convinced that they do not carry a burden of proof, while decision-makers continue to act under the belief that the worker carries the burden, chances of a worker making a successful claim will be very slight indeed. It is true that the decision-makers shoulder the obligation of investigating the claim fully, and that they should not simply rely on the worker, yet this is a very common practice, particularly in Quebec, and it would be illusionary to believe the contrary.

Professor Ison makes several important statements regarding legal proof, and evaluation of evidence. The Board's role, as previously pointed out, is not to exercise discretion but to weigh the evidence before it and make the best possible finding in the light of that evidence. If the evidence is weak in favour of the claim, but non-existent against it, then the claim should be allowed. If there is no evidence in favour of a claim, then it should not be allowed. Evidence that is not credible, is not evidence. However, evidence that is inconclusive is still some evidence.

I find Professor Ison's comments as to the danger of imposing a threshold requirement (p.7-9), as to multiple issues and the standard of proof (p.9-13), and regarding the role of doctors in decision-making (p.24-30) particularly relevant. Discussion of these issues in depth may also be found in much of the legal literature relating to industrial disease⁸.

Case law both in Canada and in England concludes that work need not be the sole cause of a disease for disability to be compensable. If conditions at work seem on a balance of

7. Industrial Disease Standards Panel Annual Report 1986-87, at pages 5-6.

8. See Jane Stapleton, Disease and the Compensation Debate, Oxford University Press, 1986.

probabilities to have contributed to the acquisition of the disease, then causation is sufficiently demonstrated⁹.

The issue of epidemiological data is a complex one. Personally I believe it should be admissible to support a claim, although the absence of epidemiological data should never be used to refuse a claim. Among difficulties that are emphasized in the legal literature¹⁰, the issue of multiple exposures seems to me to be most relevant. Epidemiological studies tend to isolate individual substances. Workers exposed to an interaction of substances must be evaluated individually, and not refused on the pretext that epidemiological data regarding one of those substances demonstrates it to be innocuous. Other factors mitigating the relevance of such studies include those enumerated by Professor Ison at pages 30-35.

I am no more of a mathematician than is Professor Ison. I do, however, feel wary of the reasoning appearing on page 31 regarding statistical analysis. A study without a high degree of statistical significance, may still be very relevant, given that the law in the absence of conclusive evidence must go to the most probable (often best guess) solution. This does not confirm, to the best of my understanding, Professor Ison's statement at page 31 that "if the standard of proof prescribed by law is to be used, employment etiology could not be discounted unless the probabilities of the cancers having occurred by chance are greater than 1 in 2". In any case I do not feel that a "negative" epidemiological study should ever be used to refuse or disprove a claim, so my reservation as to Professor Ison's comment is perhaps academic.

4. The significance of Section 3(4) of the Workers' Compensation Act with respect to the adjudication of industrial disease claims.

Perhaps the most important statement of Professor Ison's paper is that the benefit of the doubt is applicable to each issue

9. Re Workers' Compensation Appeal Board and Penney, 112 D.L.R. 3d 95 (Nova Scotia Supreme Court, Appeal Division). See also McGhee v. National Coal Board (1972) 3 All E.R. 1008.

10. For an interesting discussion of epidemiological data in the field of industrial disease compensation see: Joan Hansen, "Scientific Decision making in Workers' Compensation: A Long Overdue Reform", (1986) 59 Southern California Law Review 911; see also Richard Robblee, "The Dark Side of Workers' Compensation: Burdens and Benefits in Occupational Disease Coverage", (1978) 2 Industrial Relations Law Journal 596 at 605-611.

separately. This means that even when etiology is presumed, 3(4) must apply if diagnosis or disability is in doubt. If two diagnoses are equally plausible, that which favors the worker's claim should be retained. This is the true meaning of the conclusion described in the "Attachment" at II, in fine.

COMMENTARY

by

DAVID K.L. STARKMAN

COMMENTARY ON:

COMPENSATION FOR INDUSTRIAL DISEASE UNDER
THE WORKERS' COMPENSATION ACT OF ONTARIO

by

TERENCE G. ISON, LL.D.

Submitted by

DAVID K.L. STARKMAN

Vice Chair

Workers' Compensation Appeals Tribunal

June, 1989

1. INTRODUCTION

The Industrial Disease Standards Panel (the "I.D.S.P.") established under section 86p of the Workers' Compensation Act of Ontario (the "Act") has asked me to review a report prepared by Professor Terence G. Ison of Osgoode Hall Law School at York University and entitled Compensation For Industrial Disease Under The Workers' Compensation Act Of Ontario.

Professor Ison was asked to address medico-legal problems that arise in the adjudication of industrial disease which included the following matters:

1. The nature of Schedules 3 and 4 of the Workers' Compensation Act and of Policy Guidelines or eligibility rules with respect to the Act as instruments for structuring the discretion of the Workers' Compensation Board (the "Board") with respect to the adjudication of industrial disease claims;
2. The role of Policy Guidelines or eligibility rules in the adjudication of claims involving (a) non-scheduled diseases, and (b) scheduled diseases;
3. The nature and importance of the Board's general and unstructured discretion with respect to the adjudication of disease claims; and
4. The significance of subsection 3(4) of the Act with respect to the adjudication of industrial disease claims.

The I.D.S.P. has specifically requested my comments on a number of conclusions which they extracted from Professor Ison's report and which are posed as follows:

1. Workers, employers and physicians have duties to supply information to the board, but none has any "burden of proof." There is "no burden of proof upon anyone except the Board" (p.5). "Thus the general principle that the burden of proof lies on the Board seems to be recognised both by the terms of the Act and by Board practice" (p.5). However, footnote 2 states "In practice....there is often a propensity to put a burden of proof on the worker."

2. Re S.3(4):

The benefit of doubt is applicable to each issue separately (p.11). Where a claim is covered by a Schedule, S. 3(4) is superfluous re etiology (p.23). Where a claim is covered by a Schedule, S. 3(4) applies to issues that arise within each column (p.23).

3. Re Schedules:

a) Use of the Schedules makes diagnosis a prerequisite (p.8). Where a Schedule applies, it creates presumption of the affirmative (p.12). Where a presumption applies, any medical opinion that reaches a negative conclusion because of the absence of positive data is legally irrelevant (p.12).

b) Re Schedule 3: To rebut, there must be an alternative hypothesis and evidence in support of that hypothesis. Evidence in support of the presumption must be weighed and the presumption holds unless evidence to the contrary is persuasive to a point of going beyond the balance of probabilities (p.11-12).

c) Re Schedule 4: The two columns in this schedule preclude the B.C. use of a conclusive presumption where a matter could not be determined scientifically (p.13-14).

d) Re asbestosis and mesothelioma: It is desirable to have not only a diagnostic label in column 1 but a diagnostic definition (p.14). Note p.14-15 re an interesting refinement in the use of Schedule 4 where most exposure is outside Ontario.

4. Re Guidelines:

- a) Guidelines have the character of rules, not policies (p.16). Beware lest they become rules of exclusion (p.17). (This is not what the Panel intends: p.20). Beware lest they create impression that diagnosis is a prerequisite (p.18). The law does not require a diagnosis (p.8).
- b) If rules are rules of thumb, it is legitimate to require a sound scientific basis (p.19).
- c) Given S. 86p(7), it is now unlawful for the Board to develop new rules where none have been recommended by the Panel (p.20-21).
- d) Words like "clear and adequate" are wrong because the law doesn't require "clear", and "adequate" implies a threshold test (p.17). There is no minimum threshold to admit evidence (p.7).
- e) Note the practice of treating exposure as a matter of medical evidence when it is not (p.25-26).

I enjoyed reading Professor Ison's excellent report and am pleased to have the opportunity to offer my comments on compensation and adjudication of industrial disease under the Act. I am cognizant however of my position as a Vice Chairman of the Workers' Compensation Appeals Tribunal who is required to adjudicate disease claims on a regular basis and have endeavoured to keep this primary responsibility foremost when making my comments.

Many of the issues discussed in Professor Ison's report have been addressed in a variety of ways in published decisions of the Workers' Compensation Appeals Tribunal of which a partial list is appended to this critique. The comments in this critique are my own and do not reflect the opinion of the Appeals Tribunal.

2. **THE COMPENSATION ADJUDICATION MODEL**

Any discussion of the manner in which disease claims are adjudicated must recognize the investigative nature of the compensation system and its obligation to resolve claims expeditiously.

It is the responsibility of the compensation system to investigate claims and determine entitlement to benefits in accordance with the Act. It is the duty of workers, employers and others to provide information to assist in this determination but there is no burden on the worker or employer to prove or disprove anything.

It is the systems burden to investigate and to determine every claim on its "real merits and justice".

An investigative model of this nature, because adversarial parties are not defining the parameters of the inquiry, requires co-operation and assistance from persons with relevant information and in particular that of the worker, employer and examining physicians. One of the hallmarks of workers' compensation adjudication, as contrasted with an adversarial civil litigation process, is the expeditious resolution of claims.

In order to achieve an expeditious result in hundreds of thousands of cases the Board's administrators have developed policy guidelines to instruct adjudicators as to how the Act is to be interpreted and how to process a claim. Guidelines for the adjudication of disease claims indicate what facts must be established and what evidence is needed to establish those facts before a claim will be accepted. Claims which do not meet the eligibility criteria specified in the policies are not allowed.

In claims involving determinations about the diagnosis or etiology of an illness, the Board employs a number of physicians to whom the matter can be referred for an opinion. The adjudicator is not bound by the opinion of the Board doctor but it is a rare case when these opinions are not accepted.

Most cases are determined by adjudicators without a hearing on the basis of the report of accident filed by the worker and employer. If the injury is serious or esoteric the Board will obtain the examining physician's first report and subsequent reports as needed. If the information provided does not fit squarely into the established guidelines then the issue is referred to a Board doctor whose opinion is generally determinative.

By proceeding in this way the Board has developed a mass adjudication model which does not necessarily meet the legal requirements of natural justice but which does allow for the expeditious resolution of most claims. Natural justice deficiencies can be cured if either the worker or employer appeals the adjudicator's decision, which is a relatively rare occurrence.

If however, the Board were not to publish guidelines and policy manuals which were binding on its adjudicators specifying with some particularity under what facts and circumstances claims would be compensable, and in every case the adjudicator was required to make an independent determination, then claims would not be resolved expeditiously or consistently.

If the Board cannot promulgate eligibility rules or guidelines for the adjudication of diseases without first receiving the recommendation of the I.D.S.P. then the adjudication process will be severely delayed. Every time there is new information which

might impact upon the adjudication of a disease the Board would then have to comply with the process specified in section 86p of the Act. Section 86p(12) however makes it clear that the Board is not obliged to accept the opinion of the I.D.S.P.. If the opinion is not accepted, surely the matter is not left unresolved, but rather, the Board is entitled to proceed to publish guidelines and adjudicate disease claims in accordance with the Act.

It is preferable for the Board however to recognize the desirability of consulting with the I.D.S.P. on as many issues as possible in order to have the benefit of an expert outside opinion. If however the Board does not wish to consult the I.D.S.P. or rejects the recommendation of the Panel they would nevertheless be entitled to promulgate eligibility rules for the adjudication of disease claims.

3. DISEASE AND DISABLEMENT

The Act in section 3(1) mandates entitlement to compensation when a worker has a "personal injury by accident arising out of and in the course of employment". Accident is defined in section 1(1)(a) as including:

- (i) a wilful and intentional act, not being the act of the worker,
- (ii) a chance event occasioned by a physical or natural cause, and
- (iii) disablement arising out of and in the course of employment.

It also mandates entitlement to compensation in section 122(1) in the following words:

122(1) Where a worker suffers from an industrial disease and is thereby disabled or his death is caused by an industrial disease and the disease is due to the nature of any employment in which he was engaged, whether under one or more employments, the worker is or his dependents are entitled to compensation as if the disease was a personal injury by accident and the disablement was the happening of the accident...

The Act is intended to compensate workers for injuries and disabilities arising out of and in the course of employment, yet at the present time it curiously has separate entitlement sections for the recognition of entitlement for diseases and disablements.

The categorization of an illness or disability as a disease or disablement, apart from considerations of scheduled diseases, has little to do with medical or scientific considerations but has implications for the adjudication process.

At the present time for example, the Board adjudicates epicondylitis, fibromyalgia, psychotraumatic illnesses, and ligamentous back strains as accidents or disablements under section 3(1). On the other hand, they consider hearing loss, white finger syndrome, and silicosis as industrial diseases to be adjudicated under section 122.

If entitlement is recognised under either section, the quantum and duration of benefits to the injured worker is similar, but the process for establishing entitlement, and the ramifications for the accident cost records of individual employers and the accident fund generally can be much different.

If the question being adjudicated is whether a worker's hearing loss arose out of and in the course of his employment there does not seem to be any compelling reason to determine this matter under the disease provisions of the Act rather than under the disablement definition of accident. There is however a marked difference in the manner in which the adjudication proceeds.

For a disablement claim to be allowed the adjudicator must be satisfied on the balance of probabilities that the worker has a disablement which arose out of and in the course of employment. On the other hand, if the claim is adjudicated pursuant to section 122 then it must be shown not only that the disease arose out of and in the course of employment but that the hearing loss is an industrial disease which is defined in section 1(1)(n) as including:

- (i) a disease resulting from exposure to a substance relating to a particular process, a trade or occupation in an industry,
- (ii) a disease peculiar to or characteristic of a particular industrial process, trade or occupation,
- (iii) a medical condition that in the opinion of the Board requires a worker to be removed either temporarily or permanently from exposure to a substance because the condition may be a precursor to an industrial disease, or
- (iv) any of the diseases mentioned Schedule 3 or 4.

In this hypothetical hearing loss claim the only way that compensation can be recognised under section 122 as an industrial disease is if there is a determination that hearing loss is a disease peculiar to or characteristic of a particular industrial process, trade or occupation. Hearing loss is not a scheduled disease and definitions (i) and (iii) are not applicable. For the claim to be allowed, the adjudicator must be satisfied on the balance of probabilities, that the worker has a hearing loss which is characteristic of the particular industrial process, trade or occupation where the worker was employed.

If the worker was employed in a manufacturing or resource extraction industry an adjudicator may be reluctant to make a finding that hearing loss is peculiar to or characteristic of that industry because there may be insufficient evidence to make this broad determination, and because such a finding would have broad implications for other workers in that industry and for the assessments of the industry concerned.

Apart from scheduled diseases and from questions of employer assessments and cost transfers (which are discussed under heading 7) there seems little rational for maintaining the distinction between a disease and disablement arising out of and in the course of employment and it seems most expedient to process non-scheduled disease claims as disablements.

The definition of industrial disease in section 1(1)(n)(iii) which was part of the 1985 amendments to the Act defines industrial disease as including a medical condition which is a precursor to an industrial disease requiring a worker to be removed temporarily or permanently from exposure. This amendment gave legal authority to the Board's special rehabilitation programmes for asbestos workers and miners exposed to silica dust. These programmes were designed to provide vocational rehabilitation assistance to workers who had not suffered a personal injury by accident within the meaning of the Act but who, in the Board's opinion, may become injured if their workplace exposure continued.

It is a far reaching amendment as, for the first time, it authorizes the payment of compensation benefits to workers who are not injured. The rationale for the amendment is self-evident. What is not evident however is the basis for not making this provision applicable to those workers whose continued work in a particular industry may result in a disablement within the meaning of the Act. By confining this definition to include only those workers exposed to 'substances' the legislation makes the characterization of a disability as being either a disease or disablement of great significance which is something which cannot be rationally supported.

4. BENEFIT OF DOUBT

A discussion of the applicability of principles of benefit of doubt is always of great academic interest and has an impact on the adjudication process. It must be remembered however that compensation adjudication is done by lay adjudicators and has historically avoided a legalistic approach.

The benefit of doubt provision in section 3(4) provides that:

In determining any claim under this Act, the decision shall be made in accordance with the real merits and justice of the case and where it is not practicable to determine an issue because the evidence for or against the issue is approximately equal in weight, the issue shall be resolved in favour of the claimant.

This provision applies to resolve situations where the evidence for or against an issue is approximately equal in weight and would clearly apply to the major issues in a claim such as: is the claimant a worker within the meaning of the Act; is the worker disabled; did the worker suffer a personal injury by accident arising out of and in the course of employment. Conceivably the benefit of doubt could also apply to sub-issues which must be determined in order to resolve one of the main issues referred to above. If used in this way however it can lead to the proliferation of sub-issues all of which must be determined prior to a claim being resolved and all of which it may not be necessary to resolve to determine the claim.

It is conceptually difficult to separate a myriad of sub-issues and particularly when the evidence being considered is relevant to more than one issue. When determining guilt in a criminal case the judge or jury asks itself whether they are satisfied beyond a reasonable doubt as to the accused's guilt. Similarly, it would be preferable if compensation adjudicators would ask themselves with respect to each major issue whether they are satisfied on the balance of probabilities. If the evidence on a major issue is equally divided then it is resolved in favour of the claimant. Minor issues are not adjudicated separately but are all considered together in resolving the major issue. If the compensation adjudication system is allowed to become divided into an ever increasing number of small compartments it will be impossible to determine the effect of a disability on the whole person and will encourage unnecessary legalism and complexity.

A difficult matter which often arises is whether, when there is no evidence either for or against a particular proposition, the evidence can be said to be equally divided. The suggestion that there will always be some evidence, albeit circumstantial, is not entirely sanguine. Because of the nature of the adjudication

process (as discussed under heading 1), the Board is reluctant to make decisions based on circumstantial evidence. If the system is to routinely treat such evidence as reliable and sufficient in and of itself, it will necessitate further and better investigative procedures. This can be beneficial but it will delay the resolution of claims, make it more expensive and most importantly will result in far greater examination of the worker's and their families' personal and in particular medical history.

There can be no threshold test for benefit entitlement and there is no minimum threshold to admit evidence. Nevertheless the evidence admitted must be probative and when considered together of sufficient weight to give the adjudicator confidence that they have made the right decision.

The benefit of doubt provision in its present form is confusing because it mixes the concept of deciding each case according to its "real merits and justice" with the concept of weighing evidence. Everyone recognizes that the Act is remedial legislation and should be given such interpretation as to best accomplish its remedial intent. Does the requirement of a decision according to the "real merits and justice" of the claim add something more? Is resolving evidence equal in weight in favour of the claimant synonymous with making a decision in accordance with the real merits and justice of the claim?

There would appear to be a tendency for compensation adjudicators not to resolve cases by applying a benefit of doubt concept. Perhaps this is because it is confusing as to how the concept is to be applied. More probably however, it is because reliance on a benefit of doubt clause can lead to less rigorous investigative practices and ultimately to reliance on discretionary and unexplained decision making.

The situation where there is a total absence of evidence about what the result should be is not an uncommon occurrence in disease claims. Consider a worker who has a liver disease which all medical practitioners and scholars characterize as being of unknown etiology. This means that the disease could be caused by occupational or congenital factors or could be caused by eating blue cheese or any combination of the above or other factors.

Consider a worker who has a disease and who worked for more than twenty years in a variety of jobs which and advised that he was exposed to variety of chemicals, dusts and fumes. In determining the question of entitlement to compensation the evidence is equally divided; that is the evidence concerning etiology equally points to workplace causation as to causation by other factors. Did the legislature intend that workers with diseases of unknown etiology be entitled to compensation and if so is the benefit of doubt provision the mechanism for accomplishing this?

This problem exists even with respect to unscheduled diseases for which there has been some medical research concerning causation. If the worker is claiming entitlement for chronic obstructive lung disease and there is some radiological evidence of damage to the lung(s) and/or some evidence of decreased lung capacity. What intensity and/or duration of exposure must be shown for the worker to be entitled to benefits?

The difficulty is that exposure levels and what the worker was exposed to may be unknown. There may be great debate over whether there is a safe threshold level below which there is minimal or no risk. This is certainly the approach taken by the Occupational Health and Safety Division of the Ministry of Labour when it promulgates its designated substance regulations and guidelines and often causes great difficulties because the worker is arguing before the Board, which is responsible to the Minister of Labour, that his disease is causally related to workplace exposures that may be below the level established by the Ministry as being safe.

Once entitlement is established ongoing benefits are paid if the workplace injury was a significant contributing factor to the severity or prolongation of the disability. There is no comparable provision with respect to the recognition of a disease or disability as being initially compensable. Rather, it must be shown on the balance of probabilities that the disease arose out of and in the course of employment. If employment was a significant contributing factor to the development of the disease, the claimant is not necessarily entitled to compensation because there may be other significant factors which lead an adjudicator to believe that the non-occupational factors caused the disease.

5. SCHEDULES 3 AND 4

The use of Schedule 3 is a mechanism for simplifying the adjudication process and avoiding difficult decisions concerning the etiology of a particular disease by providing that:

122(9) If the worker at or before the date of the disablement was employed in any process mentioned in the second column in Schedule 3 and the disease contracted is the disease in the first column of the Schedule set out opposite to the description of the process, the disease shall be deemed to have been due to the nature of that employment unless the contrary is proved.

It is interesting that this section uses the words disablement and disease interchangeably.

This sort of schedule is intended to establish entitlement under the Act for workers with certain diseases and who worked in certain processes unless the contrary is shown. To rebut the presumption there must be an alternative hypothesis and evidence in support of that hypothesis. The Board must then weigh the evidence and determine whether the presumption has been rebutted on the balance of probabilities. There is no basis for asserting that the "evidence to the contrary must be persuasive to a point going beyond the balance of probabilities".

The usefulness of the presumption is to resolve the question of causality where etiology is unknown or where the extent or duration of exposure cannot be determined or is of lesser degree than the existing medical information would recognize as being a causal factor in the development of a particular disease. In these cases it is presumed that there is a causal connection between occupational factors and the development of the disease. In situations where the evidence concerning causation is unknown or unavailable it will be very difficult to rebut the presumption. In situations where the medical and other evidence is widely available there would probably not have been a need to resort to the presumption in the first place because the claim would have otherwise been established on the balance of probabilities.

Consider a worker who was exposed for twenty years to silica dust and fifteen years after the first exposure develops silicosis. This disease and the process are in Schedule 3 and the presumption would apply. The evidence in this case would most probably be seen as supportive of a causal link and would have supported a claim for compensation without the presumption raised by the schedule. If however the evidence of exposure was for only a two week period the worker would benefit greatly from the presumption as conceivably there may have been non-occupational factors which may have caused the disease. If the standard for rebutting the presumption is evidence to the contrary which is persuasive to a point going beyond the balance of probabilities then it is difficult to argue that the same standard should not apply to the recognition of entitlement for non-scheduled diseases.

Schedule 3 is notoriously inadequate. Many of the diseases described in column 1 do not have processes opposite them in column 2 so the presumption cannot apply. It is difficult to imagine why things such as infected blisters, teno-synovitis, and dermatitis venenata are included in a schedule of diseases rather than being considered as disablements.

Furthermore, the description of a disease as "poisoning and its sequelae by arsenic, benzol, beryllium...." (emphasis added) raises the question of whether the poisoning must be established on the balance of probabilities before the presumption in the schedule becomes operative. Arsenic and the other substances listed in the schedule are recognised as being potentially

dangerous. If a worker develops arsenic poisoning and has been exposed to arsenic the presumption that the poisoning arose from the employment would apply. If however the worker develops eye irritation, gastrointestinal cancer or hearing loss after being exposed to arsenic it would first have to be shown on the balance of probabilities that the worker's disease was causally related to the exposure to arsenic before the presumption would apply.

If the word *by* were eliminated following the words 'poisoning and its sequelae' and replaced by the words 'following exposure to' then it would be clear that a worker who has exposure to arsenic for example and who develops any disease, would have the benefit of the presumption. In cases where the disease contracted was hearing loss the presumption would be easily rebutted whereas in other cases where the etiology of the disease was less well known, the worker would be entitled to compensation. This speaks to including in Column 1 not only a list of diseases but a list of known potentially dangerous substances where the precise nature of the diseases caused by exposure to these substances is unknown.

The diagnosis of a disease is for the most part an art not a science. Medical practitioners have been making diagnosis for years for the purpose of determining prognosis and treatment. A diagnosis is for the most part a short form way of communicating to the patient and others what the physician has concluded the symptoms being experienced indicate. In other words rather than having to explain every time the basket of symptoms, the physician simply states that the patient has a broken arm or tonsillitis.

With respect however to a great many conditions a diagnosis such as chronic obstructive lung disease, chronic pain, fibromyalgia, or asbestosis is very unspecific and merely serves to give the listener a broad and general outline of the symptoms the patient is experiencing. This problem will not be substantially corrected by a diagnostic definition for it would not be practicable to indicate with sufficient specificity the nature or type of symptoms which are intended to be compensated. It is preferable to describe medical conditions in the broadest possible terms and to let adjudicators resolve the cases which do not fit within the definition. Otherwise any schedule will act as a rule of exclusion more powerful than eligibility rules or guidelines.

Any provision which precludes compensation where the worker received a more extensive and more relevant exposure in another jurisdiction leaves open the possibility that a worker will be denied compensation in both jurisdictions or will have to wait a considerable number of years before being compensated. It is preferable for such claims to be adjudicated in any province where the worker was exposed and for the respective Board's to consider the transfer of costs for the payment of such claims pursuant to inter-jurisdictional agreements.

If Schedule 3 were updated and applied there would probably be no need for a Schedule 4. Workers' compensation is intended to compensate workers only for work related diseases. Before a disease could be included in Schedule 4 there would therefore have to be very strong evidence that it was exclusively caused by workplace exposures. If the evidence is that strong workers would be routinely compensated by including the disease in Schedule 3. The resources of the compensation system should not be constantly diverted to a discussion about the establishment or expansion of Schedule 4 when its usefulness will be minimal.

6. MEDICO-LEGAL INTERACTION

The question of whether a worker is entitled to benefits is not a medical determination. However, in many cases adjudicators rely on medical opinion because they have experience and information which is relevant and for which there is no alternative. It is easier for an adjudicator to consider a claim when there is a diagnosis and also an opinion with respect to causation from a medical practitioner.

The medical profession has historically been interested in the question of causation for the purpose of making a diagnosis and for prescribing treatment. The absence of information on causation from a medical viewpoint is not an absolute impediment to diagnosis or treatment and medical practitioners while endeavouring to establish causation have not focused on the question because it is not integral to their primary function as treating physicians.

In compensation adjudication the question of causation is often central to the injury and may be the central question which must be determined. Adjudicators often fail to recognize that: 1) medical practitioners are not necessarily well suited to render opinions about causation; 2) medical causation does not necessarily equate with causation for questions of entitlement under the Act; and 3) answers to questions of causation are more of an art than a science.

Adjudicators and administrators continue to rely however on the medical profession to provide opinions on these questions because it provides a way of determining and resolving difficult adjudicative questions. It is fine to say that in every case of a claim for an unscheduled disease the adjudicator should examine the evidence and make their best guess as to the causative relationship but there are too many cases involving novel and difficult issues.

It is for this reason that Board has historically consulted the medical profession and endeavoured to draw up a set of guidelines to assist adjudicators. These do tend to operate as rules of

exclusion. If a worker meets the criteria their claim is recognised as compensable. If they are outside the guidelines their claim is denied or it is referred to a medical consultant for an opinion with respect to diagnosis and/or etiology. Medical practitioners strive to find the correct diagnosis for the symptoms exhibited. The failure to diagnose a problem, from a medical viewpoint, is a severe restriction on the physician's ability to provide treatment. The adjudicator invariably adopts the opinion expressed by the consultant because they have no basis for disagreeing with it. In the case where there are differing opinions from a number of medical practitioners the adjudicator invariably accepts the opinion of the medical practitioner to whom he has referred the matter for an opinion. If there is no diagnosis provided it is difficult to adjudicate the claim because it does not fit within any of the established entitlement guidelines.

Asbestosis claims are a good example. The testimony before the Royal Commission on Asbestos indicated that if the medical reports from the worker's examining physicians did not support a diagnosis of asbestosis the claim was denied. If they did support such a diagnosis the claim was referred to the Advisory Committee on Chest Diseases whose opinion on diagnosis and etiology was routinely accepted by the adjudicator. If the worker was seen to have respiratory problems, but there was no diagnosis of asbestosis or any other recognised disease then the claim in most cases would not be allowed.

7. ASSESSMENTS AND COSTS

It is impossible to discuss the adjudication of disease claims without recognizing the assessment and cost framework within which this discussion takes place. At the present time the system functions within a certain cost framework and any changes to the manner in which diseases are adjudicated or compensated has the potential to alter those costs.

With respect to accidents compensated pursuant to section 3(1) the Board has established a Second Injury and Enhancement Fund to relieve the last employer from having to pay the entire cost of accidents where the injured worker had a pre-existing disability which contributed to the severity of the accident or prolonged the recovery.

With respect to disease claims compensated pursuant to section 122 however, the Board charges the cost of the claim to the last employer and rarely allows the employer any relief pursuant to the Second Injury and Enhancement Fund. There is no provision in the legislation which allows the Board to apportion the costs of temporary benefits as between compensable and non-compensable factors.

With the increase in the number of experience rated employers it is inevitable that there will be a growing concern about the number and cost of claims and in particular those claims which are charged on the cost statements of individual employers. In the area of diseases, exposure, diagnosis and etiology are often difficult to determine. If the worker was employed by a number of employers it is even more difficult to apportion the costs of a claim as between them.

The compensation system at the present time is funded by the users and it is necessary to clarify the cost implications and cost allocations of any proposed changes in the adjudication of disease claims if such changes are to be rationally considered and effectively implemented.

APPENDIX TO THE COMMENTARY BY
DAVID K.L. STARKMAN

DECISIONS OF THE WORKERS' COMPENSATION APPEALS TRIBUNAL

1. DECISION NO. 93* Catton/Heard/Apsey 28/08/86

Aggravation disablement allergy standard of proof significant contribution re condition (conjunctivitis) industrial disease.

The worker, a welder for a mining company, received compensation for periods of lay off from December 1979 to November 1980 for an eye disability (bilateral follicular conjunctivitis) which he claimed arose out of and was aggravated by his working environment. The Appeals Adjudicator denied entitlement for a lay off during May 1984, as medical evidence indicated the disability was a result of an allergic reaction. The Tribunal allowed the appeal. Evidence indicated that the worker's condition improved when his work environment changed and when he was put on medication for his allergies. There was no evidence that the worker suffered from a similar condition when he was not working. The Tribunal stated that whether or not the work was the sole cause of the disability is not critical to the determination of benefits. It is simply necessary for the work to be a significant contributing factor in the onset of the disability. In its findings that the injury was compensable under s. 3 of the Workers' Compensation Act as it was disablement arising out of and in the course of employment, the Tribunal noted that, on the facts of this case, it was not possible to find bilateral conjunctivitis as a disease "peculiar to and characteristic of a specific industrial process" as defined by the ACT in effect during the relevant period.

2. DECISION NO. 239* Thomas/Fox/Preston 16/10/86

Employment disease not due to nature of disablement arising out of the course of industrial disease bursitis hip repetitive movement cashier.

The worker appealed a decision of the Appeals Adjudicator denying benefits for hip bursitis. The worker was a cashier for 24 years and claimed that bursitis was caused by continual standing and repetitive movements. Bursitis is listed in Reg. 951. Sch. 3 as an industrial disease. The Tribunal stated that it must be established that the bursitis was due to the nature of the employment. The Tribunal reviewed the medical reports and articles on occupational health disorders of cashiers, and decided that it had not been established that the worker's bursitis was due to the nature of her employment, although the articles showed a relationship between cashier work and shoulder, elbow, lower back, and leg pain. The bursitis did not arise out of her employment. Therefore, it was not established that the

worker suffered an accident within the disablement definition and the appeal was denied.

122(1) Reg. 951, Sch. 3

3. DECISION NO. 46* Thomas/McCombie/Preston 11/12/86

Causation significant contribution arising out of in the course of employment disablement industrial disease bronchitis procedure evidence investigation by Tribunal smoking respiratory condition dust asthma.

The worker appealed a decision of the Appeals Adjudicator denying entitlement for chronic asthmatic bronchitis. The worker had maintained machinery in a manufacturing plant since 1956. He began to experience respiratory problems in 1965, and was forced to stop working in 1982. The worker claimed his condition was a disablement. Tribunal Counsel submitted that it might be considered whether the condition was an industrial disease. However, the tribunal found that the condition did not come within the definition of industrial disease in [old] s. 1(1)(n) in that there was no evidence that the bronchitis was peculiar to or characteristic of the particular industrial process. The work environment was not a significant cause of the respiratory problems as it was not particularly dusty. Moreover, the worker was a cigarette smoker, and this may have been a significant factor. The Tribunal noted that evidence of employment exposure was fundamental to establishing entitlement for respiratory problems. In a non-adversarial system, neither the worker nor the employer should be burdened with collecting exposure evidence to prove or disprove the claim. After considering the available evidence, the Tribunal would decide whether it should investigate further. In this case, no further investigation was required. The appeal was denied.

1(1)(a)(iii) *1(1)(n) *122(1)

4. DECISION NO. 850* Thomas/Acheson/Seguin 02/03/88

Establishment - Industrial disease - Standard of proof - Asthma-Formaldehyde.

The worker appealed a decision of the Appeals Adjudicator denying entitlement for asthma. The worker worked in a tropical fish department where she treated fish tanks with a formaldehyde solution.

On the basis of medical literature and medical reports, the Tribunal found that exposure to formaldehyde can result in contracting asthma. In this case: 1) the worker had significant exposure to formaldehyde; 2) the onset of symptoms was closely related to exposure; 3) the worker did have a particular susceptibility, but this does not bar entitlement; 4) the failure to show specific sensitivity to formaldehyde in challenge testing was explained by anxiety and

medication the worker was taking; 5) failure to recover after removal from the workplace was explained on the basis of medical literature and evidence and 6) the weight of medical evidence supported a relationship between this worker's asthma and her exposure to formaldehyde.

The worker was not entitled to benefits on the basis of industrial disease. The Tribunal was not prepared to conclude, on the evidence, that asthma was peculiar to or characteristic of a process that involved exposure to formaldehyde, within the definition of industrial disease in s.1(1)(n) of the pre-1985 Act. That would require exceedingly complex medical and scientific analysis to establish.

However, the condition did constitute a disablement. A common sense interpretation of the disablement definition would include disablement that results from contracting a disease at work. The gradual onset of symptoms normally associated with disablement fits with the classic description of the onset of symptoms for a disease.

The Tribunal also noted that there would be significant implications from designating an industrial disease but that in proceeding by way of disablement, the decision would not have general application.

The appeal was allowed. The matter was referred back to the Board for determination of benefits.

1(1)(a)(iii), *1(1)(n), *3(1), *40(1), *122(1), *122(9)

5. DECISION NO. 1296/87* Newman/Higson/Seguin 20/05/88

Disablement (exposure) - Exposure (chromium compounds) - Significant contribution (of employment to disablement) - Multiple causes - Smoking - Medical opinion (chromic mist exposure) - Evidence (circumstantial)- Cancer, lung.

The widow of a deceased chrome plater appealed the decision of the Appeals Adjudicator denying her claim for survivor's benefits for the worker's death from lung cancer. The worker was exposed to chromic acid mist from 1970 to 1976.

The Panel did not want to make the determination of whether lung cancer from exposure to chromic acid mist in the chrome plating process was an industrial disease without input from the Industrial Disease Standards Panel. The Panel, therefore, considered this case on a disablement basis.

On the evidence in this case, the Panel was satisfied that there was a possible causal link between exposure to highly soluble hexavalent chromium compounds in the chrome plating industry and an excess risk of lung cancer. There was no precise date as to levels of mist in the worker's period of exposure. Therefore, the Panel considered

descriptive and circumstantial evidence as to the extent of hazard. Considering that the worker suffered from at least five other ailments known to be possible reactions to chromium exposure, the Panel found that the worker was highly exposed to chromium.

The Panel accepted a medical opinion that the risk of cancer from chromium and smoking was comparable. Exposure need not be the sole cause of the disease. The exposure to chromium was a significant causal factor in development of the worker's lung cancer.

The appeal was allowed.

none

6. DECISION NO. 559/87* Ellis/Lankin/Preston 30/09/88

Causation (disc degeneration) - Disablement (vibrations) [vehicular]-
Vibrations (Vehicular) - Industrial Disease (characteristic of
occupation) - Industrial disease (vehicular vibration) - Injuring
process - Disablement (vibration) - Chance event - Accident (definition
of) - Words and phrases (disease, s.122) - Nature of employment-
Medical opinion (vehicular vibration) - Transportation industry (truck
driver) - Disc, degeneration (lumbar) - Disc, bulging (lumbar).

The worker appealed a decision of the Appeals Adjudicator denying entitlement for a low back disability. The worker had been a long distance truck driver for two and one-half years. He was 24 years old in September 1981 when his leg suddenly went numb while he was driving. The medical evidence established that his leg went numb because of a bulging disc. He was also diagnosed as suffering from degenerative disc disease.

The Panel reviewed and analyzed extensively medical literature relating to: low back disability in truck drivers, including a NIOSH study and a literature survey by Seidel and Heide; herniated lumbar intervertebral discs, including studies by Kelsey and by Heliiovaara; a study by Wilder on the mechanics of injury from whole body vibration.

The Panel was satisfied that enforced sitting in a vibrating and bouncing environment can produce fatigue conditions in the disc and ligaments of the spine which have the potential for damaging the disc and leading to disc herniation. The evidence did not establish that sitting in a vibrating environment could cause degenerative disc disease but it did establish that, at least in pre-air-ride seating, long distance truck driving could be a significant factor in development of a disc protrusion or herniation. However, the evidence did not indicate what intensity of exposure over what period of time was required to cause damage.

To be entitled to benefits as an industrial disease in this case, it was necessary to establish a disease peculiar to or characteristic of a

particular industrial process, trade or occupation. The Panel found that the word "disease" referred to any injuring process which meets the criteria for industrial disease, whether or not it would be commonly referred to in any other context as a disease.

The Panel also considered the definition of accident and found that the disablement element of the definition was intended to encompass any injuring process arising out of and in the course of employment, other than a wilful and intentional act or a chance event, including an injuring process in the nature of a disease. As a practical matter, it will generally not be necessary to determine whether a particular injuring process which leads to compensation because it arises out of and in the course of employment is also a wilful and intentional act, a chance event, or a compensable industrial disease.

On the basis of the medical evidence, the worker suffered an injuring process in the nature of an industrial disease. However, to be compensable as in industrial disease, the disability must also be due to the nature of employment. This could not be shown without evidence to establish the amount of exposure required to cause damage.

There was insufficient evidence that long distance trucking causes degenerative disc disease. However, there was evidence of a probable causal relationship between the worker's two and one-half years of employment as a long distance trucker and the disc protrusion. The truck driving aggravated underlying preexisting asymptomatic degenerative disc disease or some other preexisting special susceptibility. The injuring process was the dynamic, cyclical, excessive stress on the lumbar region from enforced sitting in a whole body vibration environment. The injury caused by that injuring process was a personal injury by accident. The worker was entitled to benefits.

1(1)(a)(ii), 1(1)(a)(iii), 1(1)(n), 3(1), 3(3), 122(1), 122(4), 122(8), 122(12).

7. DECISION NO. 214/89* McIntosh-Janis/Cook/Meslin 22/03/89

Disablement (working conditions) [ventilation system]; Industrial disease (characteristic of occupation); Exposure (pigeon droppings); Allergy (extrinsic allergic alveolitis); Medical Report (certainty of diagnosis).

The employer appealed the decision of the Hearings Officer finding that the worker's chest disability was the result of exposure to organic dusts which had collected in pigeon droppings in the air vents at the worker's place of employment. The Hearings Officer accepted a diagnosis of extrinsic allergic alveolitis.

In the spring of 1983, after the summer circulation and breathing supply fans were turned on, the worker became ill. His symptoms

included weakness, fever, chest pain, coughing and a general feeling of malaise. The worker took off the first two weeks in August and his symptoms improved. He returned to work on August 18, but his symptoms returned and he took additional vacation time. By mid-October he had returned to work on three other occasions, but each time the symptoms recurred and he had to leave. In December, the employer cleaned out or replaced the ductwork at the workplace. The worker returned to work in January 1984 and did not subsequently suffer any further recurrences.

The employer was correct in arguing that, in terms of scientific certainty, it was not clear that the worker suffered from extrinsic allergic alveolitis. However, the question was not whether the worker suffered from that condition, but whether the symptoms which caused him to lay off work more probably than not came from an occupational source.

The Panel shared the employer's concern with the Hearings Officer's finding that the worker suffered from an industrial disease peculiar to and characteristic of paper milling. In the absence of specific epidemiological evidence showing a connection between extrinsic allergic alveolitis and paper milling, the appropriate analysis was to ask whether there was disablement arising out of employment.

Testing performed on the worker indicated that his symptoms recurred within four to eight hours of exposure to the substances which were blowing through the air vents at the place of employment. The medical report most supportive of the employer's position should be read as stating that, even if the presence of extrinsic allergic alveolitis based on a reaction to pigeon droppings was not accepted, there was some more general endotoxin in the material which caused the worker's symptoms.

The Panel was satisfied, on a balance of probabilities, that the worker's condition arose out of and in the course of employment.

1(1)(a)(iii), *122