

# Experience rating and occupational disease: a New Zealand case study

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## Abstract

Occupational disease claims raise distinct challenges for the experience-rating model, demonstrating that it is not wholly effective in preventing occupational diseases or accurately attributing the claims costs of compensation or rehabilitation to employers. Experience rating is also incapable of effectively incentivising employers to manage most occupational disease claims, as there is likely to be a mismatch between the employer where exposure occurred, and the employer where the disease manifests itself. In fact, there may be a perverse incentive on employers, where employers may not be concerned about exposing workers to potential diseases as the employer is unlikely to be accountable for them.

## Key words

Accident Compensation Corporation, experience rating, occupational disease, workers' compensation

## Introduction

The workplace is a common source of infections and diseases. For some occupations, the hazards are readily recognised; for many others, they can be obscure. Workers are often at risk of being infected with diseases that rarely affect the general population. For example, farmers, meat workers and veterinarians are exposed to zoonotic diseases, such as leptospirosis and brucellosis.<sup>1</sup> Leptospirosis is a bacterial infection that causes enlargement of the spleen, jaundice and inflammation of the kidneys. In some cases, those infected may develop meningitis.<sup>2</sup> Brucellosis is a chronic disease that can persist for life, with complications such as arthritis, spondylitis, meningitis, hepatitis and endocarditis.<sup>2</sup>

Workers are often exposed to risks that may not be fully understood by the medical or scientific professions, for example, the potentially hazardous effects of biotechnology and nanotechnology. In addition, the health impacts on workers who carry out shift and night-time work are only now beginning to emerge.

Workers' compensation schemes typically cover both acute injuries and diseases incurred in a workplace. Many of these schemes have introduced experience rating – a method of modifying levy rates based on an individual employer's claims experience – as a mechanism for incentivising an employer to 'reduce the frequency and gravity of occupational disabilities'. However, there is little evidence to support the view that experience rating achieves this aim.<sup>3</sup>

This paper will explore the distinct issues that arise when managing occupational disease claims through experience rating. The authors will propose, using the New Zealand workers' compensation scheme and occupational cancer as an example, that experience rating is not an adequate model; and that the most equitable method of funding occupational disease claims is to create a flat-rate levy across all employers that is not subject to experience rating.

New Zealand employers are levied to fund treatment, compensation and rehabilitation for workers who sustain occupational injuries or illnesses. Experience rating was introduced into New Zealand's accident compensation scheme on 01 April 2011. To experience-rate occupational disease claims accurately, the experience-rating system would need a mechanism to place liability for the cost of occupational disease on the employer in whose employment the worker was exposed to the agent that caused the occupational disease. This paper will explore whether this is possible and conclude that, in the New Zealand context, it is not.

For the purposes of examining the efficacy of experience-rating occupational disease claims, this paper distinguishes between occupational injury and occupational disease:<sup>4</sup>

Although the distinction between injury and disease is not always clear-cut, the classification is useful because the work-relatedness of injuries can more often be attributed for individual cases than can that of diseases... Injuries are commonly discrete events with immediate effects, and are related to current work practices... By contrast, cases of occupational disease occurring today may reflect the prevalence of exposure to workplace hazards many years (even decades) ago.

The ILO<sup>5</sup> defines occupational disease as a 'disease contracted as a result of exposure over a period of time to risk factors arising from work activity'. An occupational disease can therefore be distinguished by its exposure over time, compared to an occupational injury, which is a specific incident.

### Experience rating and occupational disease

Experience rating is suggested to 'recognise and reward those business owners with good claims experience. It also encourages businesses to improve their workplace safety, which will make them better places to work'.<sup>6</sup> However, many academics hold concerns about the viability of experience rating as an injury prevention incentive. There is little empirical evidence to suggest that experience rating is successful in reducing occupational injury and disease.<sup>3</sup> There is also the suggestion that experience rating leads employers to encourage employees not to lodge claims, to decline more claims, and to force employees to return to work before full rehabilitation is provided.<sup>3</sup>

There is a concern that experience rating creates a perverse incentive on employers to decline otherwise valid claims. The ILO<sup>3</sup> states that experience rating:

... is sometimes also used in social insurance systems of workers' compensation, and its use in these systems has been expanding in recent years, but to a large extent, it is incompatible with the rationale for their creation. A major advantage of a social insurance system is that in the adjudication of claims, it can avoid the adversarial processes. The use of experience rating deprives the system of that advantage.

The question of the merits of experience rating generally is covered in other papers in this issue of *PPHS*. This paper will focus specifically on the shortcomings of the experience-rating model in its application to occupational disease claims.

When the New Zealand government introduced experience rating into the accident compensation scheme, it excluded the most common occupational disease claims from experience rating: those relating to asbestos-related disease and hearing loss. Furthermore, it did not explicitly confront how other occupational disease claims would be experience-rated.

The authors conclude that experience rating is incapable of incentivising employers to prevent injury because the compensation and rehabilitation costs of occupational disease claims cannot be accurately attributed to a particular employer (or employers). This is due to the long latency of many occupational diseases – the employer where the disease manifests is unlikely to be the same employer where exposure to the disease-causing agent occurred.

#### Challenges with occupational disease claims

Occupational disease claims have distinct characteristics. The risks that were prevalent at the time when an employee was exposed to the cause of an occupational disease (and presumably not or inadequately controlled for by the employer), are often different to those that prevail when the employee has moved to another employer, by which time the symptoms of the disease have developed.<sup>3</sup> Moreover, a worker may have sustained exposure to the cause of their disease in the employment of one or more employers throughout their working life.

Occupational diseases often have a long latency period between exposure and the emergence of symptoms and/or incapacity.<sup>7</sup> A worker may not be able to pinpoint which employer they were working for when they were exposed to the agent leading to their disease. As an example, a builder who has developed an asbestos-related disease may have worked in multiple locations, and have been employed by many different employers, throughout their working life. It may be impossible to determine, therefore, which employer was 'responsible' for exposing the worker to asbestos fibres.

There also can be a mismatch between the industry that the worker is working in when they are exposed, and the industry the worker is in when the disease manifests itself. For example, a worker who was exposed to coal as a miner may develop a pneumoconiosis disease in a new role in the retail industry.

The aforementioned issues regarding the attribution of responsibility to a particular employer could lead to litigation to determine who is responsible to pay for the associated costs of a disease and compensation for the worker.

#### An ongoing problem?

It is not far-fetched to think that, with greater awareness of disease-causing agents, there will be different (or more) occupational diseases being recognised. The problem of occupational disease is not confined solely to exposure to chemical agents. Due to the typical long latency of occupational diseases, their causes (agents or working conditions) may not become evident until workers exposed to them become symptomatic. For example, the implications of emerging fields such as biotechnology and nanotechnology are still relatively unknown.<sup>8</sup> In fact, there is growing evidence<sup>9</sup> that the novel properties of some nanoparticles will bring 'unforeseen human and environmental health and safety risks'. There are numerous studies that voice concerns regarding the potential impact of nanotechnology in relation to workplace health and safety. However, there is little or no evidence<sup>8</sup> addressing concerns surrounding the potentially adverse human health effects and environmental pollution from exposures to particles smaller than 100 nanometres.

Research<sup>8</sup> has demonstrated that the nature of work has become increasingly non-standard and precarious – the workforce is becoming more casualised, and there are greater numbers of temporary and part-time employees, some with multiple job holdings. This has occurred particularly since the deregulation of the labour market from the early 1990s. Casual, temporary, part-time and multiple job-holding workers represent the sector of the workforce

most at risk of developing occupational diseases; workers in precarious employment tend to carry out the most hazardous jobs, work in poorer conditions, and receive less occupational safety and health training. The lack of control these workers have over their work environment could have grave implications for their health in the long term. These workers are least inclined to take sick days or time off work for fear of jeopardising their future employment.<sup>8</sup>

The increasingly non-standard and casualised workforce poses new risks for workers. For example, there is some evidence<sup>8</sup> to suggest that shift work, particularly involving night work, may be causative of the development of peptic ulceration, ischaemic heart disease, female reproductive disorders, obesity, diabetes mellitus, hypertension, disorders of the immune system, and some forms of cancer.

The example of some occupational-related cancers fits into this trend; in 2007, the International Agency for Research on Cancer<sup>10</sup> concluded, 'that shift work that involves circadian disruption is probably carcinogenic to humans'. Based on this finding, the Danish government has begun compensating women who have developed breast cancer following long exposures to night-time work shifts.<sup>11</sup> However, the author acknowledges the often-multifactorial nature of occupational-related cancers.

Therefore, it is concluded that the problems associated with occupational disease and experience rating will persist (or worsen) despite advances in medical and scientific understandings of causes of occupational diseases. The health impacts of developing technologies and the changing nature of the workforce have yet to be seen.

### **New Zealand's accident compensation scheme**

New Zealand has a unique accident compensation scheme. The Accident Compensation Act 2001 ('the Act') established a no-fault, 24-hour social insurance scheme for personal injury.\* The scheme created a 'social contract' through which individuals gave up their right to sue for compensatory damages in exchange for comprehensive accident insurance cover and compensation, for which they qualify whether or not they are at fault. The Accident Compensation Corporation (ACC) is the single government agency that manages and delivers New Zealand's accident insurance scheme. As it is a statutory scheme, employers must pay the ACC levies used to fund the scheme. They cannot contract-out of the ACC scheme and private insurers cannot act in the place of the ACC. Some employers may apply to the ACC to manage their own claims under the 'Partnership Programme', however the ACC must agree to this.

The ACC scheme covers both work and non-work-related personal injuries. This paper is concerned solely with occupational disease claims, which are deemed as 'work-related personal injuries' for the purposes of the ACC scheme.

The ACC was created out of a set of guiding principles, now known as the Woodhouse principles. Regarding the first of these principles – 'community responsibility' – the Woodhouse Report<sup>12</sup> states:

... just as modern society benefits from the productive work of its citizens, so should society

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\* The ACC first came into being in 1974, with the passage into law of the Accident Compensation Act 1972. A number of subsequent Acts and amendments have been made to the original legislation.

accept responsibility for those willing to work but prevented from doing so by physical incapacity.

The second principle is 'comprehensive entitlement'. The Woodhouse report<sup>12</sup> states:

... in the national interest, and as a matter of national obligation, the community must protect all citizens (including the self-employed) and the housewives who sustain them from the burden of sudden individual losses when their ability to contribute to the general welfare by their work has been interrupted by physical incapacity.

The third principle is 'complete rehabilitation': the nation has a clear duty and vested interest in promoting 'the physical and economic rehabilitation of every adult citizen whose activities bear upon the general welfare'.<sup>12</sup> The fourth principle is 'real compensation': the costs of a worker's injury and rehabilitation should be borne by the nation. The fifth principle is 'administrative efficiency': the nation's accident and injury compensation scheme must be efficient and cost-effective in providing entitlement, compensation and rehabilitation.

Under the ACC scheme, a worker is able to claim for cover for a work-related personal injury that is suffered while they are at any place for the purposes of their employment, including a personal injury caused by a work-related gradual process, disease or infection.<sup>13</sup> An occupational disease claim is typically considered under the work-related gradual process, disease, or infection sections of the Act.

Section 30 of the Act sets out two routes for establishing cover for personal injury caused by an occupational disease. First, section 60 of the Act establishes a presumption of cover for certain work-related exposures to hazardous substances known to cause occupational disease. Causation is presumed if a claimant can prove, on the balance of probabilities, that there has been occupational exposure to any of the hazardous substances described in Schedule 2 of the Act.<sup>13</sup> If work-related exposure can be established, to decline cover, the burden is on the ACC to establish that the claimant's injury arose from another cause. The 41 types of hazardous substances and diseases listed in Schedule 2 are generally accepted by the medical profession as being connected with occupational exposures. The diseases included in the Schedule have strong and repeatable criteria for diagnosing the disease, and the occupational-related diseases comprise a considerable proportion of the cases of that disease in the overall population.<sup>14</sup>

Second, the Act establishes a three-part test for proving causation for an occupational disease that is not covered under Schedule 2. The specific criteria<sup>13</sup> for cover when it is thought that occupational disease has caused personal injury include:

1. A property or characteristic in the workplace caused or contributed to the personal injury;
2. That property or characteristic is not found to any material extent in the person's non-employment activities or environment; and
3. The risk of injury is significantly greater for persons performing that task in that environment.

Cover for occupational disease claims is granted from the deemed injury date – first incapacity\*

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\* In the Act, incapacity is defined as where the claimant is unable, because of their personal injury, 'to engage in employment in which he or she was employed when he or she suffered the personal injury'.<sup>13</sup>

or first treatment, whichever is the earliest.<sup>3</sup> Therefore, dates of exposure to occupational disease are irrelevant unless they coincide with treatment or incapacity, as they do with many traumatic injuries.\*

New Zealand's compensation and rehabilitation scheme appears to be a good model for addressing work-related disease.<sup>15</sup> The no-fault aspect provides comprehensive cover to ensure workers benefit from assessment, treatment, rehabilitation and compensation. Historically, the ACC has rated favourably compared to other workers' compensation schemes in other countries.<sup>16</sup>

The New Zealand government has chosen to fully fund the ACC scheme, requiring the ACC to have enough assets to meet all its liabilities.<sup>†</sup> The ACC has three sources of funding:

- income from levies that people and businesses pay
- contributions from the government
- income earned on its investments.

This paper is largely concerned with the income that is raised through levies on employers and businesses.

All work-related claims (including occupational disease claims) that have occurred after 1999 are funded out of the 'work account'. The account has net levy revenue of NZ\$540 million per annum. In the year ending 31 March 2011, employers paid an average levy of NZ\$1.47 per NZ\$100 of liable earnings into this account. This levy was adjusted depending on which 'levy risk group' an employer was placed in. There are 143 levy risk groups, which are categories of employer based on both industry and exposure to risk. The use of levy risk groups ensures that the costs of work injuries and diseases are shared fairly among industries with similar risk characteristics.

The government<sup>13</sup> has also established a 'residual claims account', from which it pays for work injuries (including occupational diseases caused by work exposures) that occurred prior to 1999. In 2010/2011, New Zealand employers paid an average levy of NZ\$0.41 per NZ\$100 of liable earnings to fund this account.<sup>‡</sup> The account has net levy revenue of NZ\$496 million per annum.<sup>17</sup> Residual claims are not subject to experience rating; therefore, occupational disease claims pre-1999 are not subject to the problems that experience rating raises. This paper is concerned with the work account and post-1999 occupational diseases claims.

### The introduction of experience rating into the work account

The government introduced experience rating into the ACC scheme from 01 April 2011 by way of the Accident Compensation (Experience Rating) Regulations 2011 ('the regulations'). It was introduced as a system to 'recognise and reward those business owners with good claims experience. It also encourages businesses to improve their workplace safety, which will make them better places to work'.<sup>6</sup>

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\* In the case of someone injured in a car crash, for example, the date of first treatment and date of first incapacity are likely to be the same.

† The current and future costs of existing claims.

‡ Targeting full funding for residual claims by 2019.

All claims need to be funded out of a prescribed account; the account also needs to be funded by contributors. All employers in the work account are experience-rated (in one form or another). However, an employer in the Partnership Programme\* meets the cost of its own workplace injury and disease claims, and therefore is not subject to experience rating. The residual claims account is also not experience rated.

The introduction of experience rating will affect approximately 6,670 larger businesses and 259,600 smaller businesses.<sup>6</sup> It is a mandatory change, although there are eligibility rules. Experience rating has only been introduced into the work account; as stated earlier, experience rating will not apply to the residual claims account.

The ACC will use three years' worth of an employer's claims history to determine whether the employer will receive a discount or a loading on their work account levy.<sup>18</sup> The experience rating period for 2012 began on 01 April 2007 and ended on 31 March 2010. All workplace personal injury claims in this period will be considered in determining an employer's levy.

The regulations define which claims qualify for experience rating ('qualifying claims'). Qualifying claims do not include claims for a work-related personal injury caused by exposure to asbestos or exposure to work-related noise resulting in hearing loss. Asbestos disease-related claims and occupational-noise related hearing loss were excluded from being qualifying claims due to their long latency periods. These claims are deemed to have exposure outside of the period over which claims will be counted for experience rating purposes and would be difficult to attribute to an employer. The majority of remaining work-related occupational disease claims are, according to the ACC, 'capable of being attributed to a specific employer/s, and workers that have exposure during the period over which claims will be counted for experience rating purposes are included'. The government chose not to exclude all occupational disease claims from being experience rated, as this would 'potentially have removed the incentive for employers to effectively manage claims that they do have some influence over'.<sup>19</sup>

Experience rating will be applied in one of two ways. First, if an employer pays more than NZ\$10,000 in ACC levies per year, their work account levies will be calculated to take into account the number of claims made by employees for work-related injuries (with medical costs of NZ\$500 or more) over a three-year experience period – the length of time employees receive weekly compensation – and any fatal injury claim. This information is then compared with other employers in the same levy risk group. Levies can increase or decrease up to 50 per cent based on this comparison.<sup>18</sup>

Second, if an employer pays less than NZ\$10,000 in ACC levies, they will receive a no-claims discount of 10 per cent, provided they have had no weekly compensation or fatal injury claims in the previous three years.<sup>18</sup> There is no discount or loading for employers

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\* The Partnership Programme offers significant levy discounts to employers who are willing and able to take responsibility for their own workplace health and safety and the management of workplace injuries. There are two plans: the Partnership Discount Plan and the Full Self Cover Plan. Employers in the former pay 50 per cent of the standard work levy for a one-year plan, or 58.2 per cent of the standard work levy for a two-year plan. Employers in the latter have full financial and claims management responsibility for a selected period of time.

generating between one and 70 weekly compensation days\* paid; however, a loading of 10 per cent will be applied for businesses that generated more than 70 weekly compensation days paid or any fatal injury claim.<sup>18</sup>

### Incidence of occupational disease in New Zealand

In New Zealand, occupational disease accounts for considerable morbidity and mortality.<sup>15</sup> It is almost impossible to establish exactly how many people die from work-related causes each year. More than 80 per cent of work-related deaths (most due to disease rather than injury) are not documented or reported, and are not investigated.<sup>7</sup> However, there are an estimated 17,000 to 20,000 new cases of work-related disease per annum, of which between 2,500 and 5,500 are classified as severe.<sup>20</sup> Despite there being 17,000 to 20,000 new cases each year, on average only 1,035 claims are lodged with the ACC, of which only 554 are accepted.

It is also estimated that there are approximately 700 to 1,000 deaths from occupational disease per annum. Despite this, on average, only 10 ACC claims per year involve the fatality of a claimant. Approximately 30 to 40 per cent of work-related deaths are attributable to cancer, mostly cancer of the trachea, bronchus, lung and pleura (including mesothelioma). Around 290 deaths per annum arise from diseases of the circulatory system, such as ischaemic heart disease and cerebrovascular disease. Respiratory diseases such as pneumonia, asthma and asbestosis also account for a significant proportion of the annual work-related mortality burden.<sup>15</sup> Estimates of the true cost of occupational disease are almost impossible to calculate. It is likely that any estimates may not include all factors that could result in costs to all parties, including costs to replace an injured employee, rehabilitation costs, costs from lost production, fines, increased compensation costs, legal costs, and intangible costs such as suffering.<sup>†</sup>

As the statistics demonstrate,<sup>22</sup> occupational disease has a grave impact on workers, both financially and in terms of suffering. Occupational disease claimants have high mortality rates and their claims are much more expensive than other types of claim. In 2004–2005, there were an estimated 18,500 workplace disease incidents, attracting a financial cost of NZ\$1.1 billion. This represents 23 per cent of the total cost of all occupational disease and injury cases, despite occupational disease accounting for a mere 6 per cent of the total of all occupational disease and injury cases.<sup>22</sup> When suffering is accounted for, the cost rose to NZ\$5.1 billion.

### Occupational cancer

This paper provides the example of occupational cancer to highlight some of the difficulties that occupational disease claims raise for the experience-rating model.

As noted above, 30 to 40 per cent of work-related deaths are caused by occupational cancers. Neoplasms (cancers) are, per case, the most costly workplace disease/injury,<sup>15</sup> typically costing over NZ\$700,000. When suffering is accounted for, each case costs an estimated NZ\$2.9 million.<sup>22</sup>

However, it has been found that the ACC only compensates for 5.2 per cent of the financial

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\* If an accident occurs at work and an employee is rendered incapacitated while they are off work, they are paid weekly compensation.

† The cost of suffering is hard to define. The National Occupational Health and Safety Advisory Committee notes that 'the underlying concepts and their measurement are still potentially controversial'.<sup>21</sup>



costs of having cancer, and 1.3 per cent of the total costs, including suffering. Although occupational-related cancers are the most costly of occupational diseases/injuries, they are the least compensated through the accident compensation scheme.<sup>22</sup> Therefore, the costs of claims fall on the individual, the government and the taxpayer. The employer does not contribute towards the majority of the cost through ACC levies, despite the cancer being caused by an exposure in the course of the worker's occupation.

In New Zealand, between 1992 and 2007, the Department of Labour<sup>23</sup> investigated 102 cases of lung cancer caused by exposure to asbestos. Of those, only 3 per cent were said to be due to non-occupational exposures. Of the 97 per cent caused by work-related exposures, the mean age of diagnosis was 70, and the mean number of years since first exposure was 46. These statistics demonstrate the long latency period between exposure to the cancer-causing agent and the onset of symptoms. The statistics also demonstrate that it could be almost impossible to attribute the exposure and causation to a specific employer; it is much harder to diagnose a malignancy, which may not be diagnosed for 46 years after exposure, as opposed to an injury where the symptoms are immediate (such as a broken wrist). Where a worker has had multiple employers or worked on a job site where multiple employers were present, it would be almost impossible to attribute the exposure to a particular employer.

#### Issues

The ACC experience-rating scheme requires attribution of responsibility of a claim to one specific employer, and does not allow responsibility for multiple exposures to be spread across employers. This could be problematic where a worker is working on a site that has multiple employers. Another employer may cause the exposure, but liability for the claim would ultimately lie with the worker's employer.

Moreover, the date of injury for occupational disease claims is deemed to be the date of first incapacity or first treatment, whichever is earliest. This disadvantages current employers, as they are required to pay for exposure that may have occurred with a different employer. Due to the typically long latency period of occupational disease claims, the date of first incapacity or first treatment and current employment may be completely disconnected from the exposure, which could have happened 10 or 20 years earlier.<sup>24</sup>

In addition, an employee who is suffering from an occupational disease may be retired by the time the claim is made. For example, a hearing loss claim (caused by neurotoxicity) is typically first made after a claimant reaches 65 and has retired. As the deemed date of injury is the date of first incapacity or first treatment, there is no employer to attribute the responsibility to for exposing the worker to hazardous substances. This appears to be inconsistent with the purpose of introducing experience rating, as an employer in such circumstances will not be held liable for their true risk taking. In future, it is unclear which account will fund these claims.

Employers may not take responsibility for injury prevention strategies if they are not penalised for exposing their workers to hazardous substances, and equally may not take responsibility for injury prevention strategies if they are incorrectly penalised for other employers not taking steps to protect their workers. This cuts directly across the purpose of introducing experience rating into the accident compensation scheme.

More specifically, for employers who pay less than NZ\$10,000 liable earnings, any weekly compensation claims or work-related fatalities will affect their entitlement to a no-claims discount on their levy. Due to the high costs and high morbidity rates associated with

occupational disease claims, a wrongly attributed occupational disease claim may incorrectly see a discount being denied on, or a loading being applied to, their levy. This also appears inconsistent with the purpose of experience rating.

As it is difficult (if not impossible) to attribute occupational disease claims costs to a particular employer, this will lead to litigation to establish who bears financial responsibility for the exposure. Ultimately, the responsible employer's levy will be experience-rated accordingly. Any litigation will incur further costs in obtaining medical evidence to determine causation and/or when exposure occurred.

A worker with an occupational disease faces immense barriers to getting cover and entitlement under the ACC scheme. Data from the ACC<sup>25</sup> demonstrate that of the estimated 18,500 disease cases in 2004–2005, there were only 1,324 claims lodged with the ACC, of which 686 were accepted. The introduction of experience rating raises the prospect of a further barrier for workers to get cover and entitlement, namely increased litigation over cover. If an occupational disease is attributed to an employer based on the deemed injury date (when the exposure was many years ago), an employer is more likely to litigate whether a disease is caused by occupational exposure. The deemed injury date is definitive, based on first treatment or incapacity. This would be easy for a worker to prove. Therefore, employers would be more likely to challenge causation, leaving a worker having to fund their own litigation to try to establish a link between their occupational exposure and the disease.

### Summary

The New Zealand government has been silent on the difficulties associated with reconciling the experience-rating system with occupational disease claims. This paper has established that applying the experience-rating model to occupational disease claims is very complicated. The nature of occupational disease claims do not lend themselves to being easily experience-rated. It may be that the government has been silent on experience rating occupational disease claims as it is almost impossible to do so accurately without creating litigation. It appears that to accurately experience rate would be inconsistent with the purpose of the ACC scheme and the Woodhouse principles.

As stated, the purpose of introducing experience rating into the New Zealand accident compensation scheme was to 'recognise and reward those business owners with good claims experience. It also encourages businesses to improve their workplace safety, which will make them better places to work'.<sup>6</sup> This paper has demonstrated that experience rating is unlikely to meet this purpose for managing occupational disease claims.

### Going forward

It has been concluded that it is almost impossible to experience-rate occupational disease claims accurately in a way that is consistent with the Woodhouse principles and New Zealand's accident compensation scheme.

It is the authors' opinion that post-1999 occupational disease claims should be funded by a flat-rate levy imposed on all employers. The levy should be immune from the introduction of experience rating due to the characteristic long latency period of occupational disease and the difficulties in attributing occupational disease to a specific employer. With occupational disease, experience rating does not provide an incentive to change employer behaviour, as an occupational disease claim is not necessarily matched to the employer where the exposure to harm occurred.

The proposed levy needs to be a flat-rate due to the difficulties in attributing occupational disease to a particular employer or industry. The introduction of such a levy would avoid the risk of litigation to attribute blame to specific employers. All employers, including employers in the Partnership Programme, should be required to pay the levy. The cost of occupational disease is estimated at NZ\$1.1 billion per year.<sup>22</sup> The flat-rate levy would need to cover this annual cost. Such a flat-rate levy would encourage all employers to reduce the incidence of disease-causing exposures in their workplaces. The flat-rate levy could be adjusted annually, like the work account levy, for increases or decreases in the projected costs of occupational disease claims.

As the ACC is fully funded, a projection of the costs of occupational disease claims would need to be calculated. The flat-rate levy would need to provide for the outstanding claims liability for all occupational disease claims lodged after 1999.

### Conclusions

Occupational disease claims raise distinct issues for social insurance workers' compensation regimes. New Zealand has a unique social insurance scheme: the ACC provides comprehensive, no-fault, 24-hour entitlement and compensation for injury. For occupational disease claims, the ACC scheme deems an injury date as the date of incapacity or the date treatment is first sought, whichever is the earliest. This date will not necessarily match the date when the exposure occurred. In other words, by the time a worker has become incapacitated or seeks treatment, they may no longer be in the same job or industry they were working in when they were first exposed to the hazardous substance. It is almost impossible to attribute occupational disease claims to a specific employer, as typically occupational disease claims have long latency periods.

The introduction of experience rating into the scheme on 01 April 2011 has created a further complexity: occupational disease claims do not lend themselves to being experience-rated. As there is often a mismatch between the deemed date of injury and the date of exposure, experience rating will not accurately reflect the risks employers are taking. Some employers will be experience-rated negatively for exposure that occurred at another workplace, while others will avoid being held responsible for exposing employees to disease-causing agents.

The problems associated with occupational disease and experience rating will not necessarily be lessened by advanced medical and scientific understandings of causes of occupational diseases; there is scant research into the effects of 'modern' technology such as biotechnology and nanotechnology; and there is evidence to suggest that changing trends in the workforce may also be causative of occupational disease.

This paper has shown that there is a high incidence of occupational disease in New Zealand, but low numbers of claims being compensated by the New Zealand accident compensation scheme. Therefore, employers are not bearing the full cost of occupational disease. Furthermore, where there is a valid claim it is difficult, if not impossible, to match the employer where the exposure occurred and the employer when the disease manifests. Therefore, the cost of the claim cannot be accurately attributed to the offending employer. For these reasons, experience rating is shown to be ineffective in preventing the occurrence of occupational disease.

The authors propose that a flat-rate levy across all employers would fairly spread the cost of occupational disease claims, as cause cannot invariably be accurately attributed to an industry or a particular employer. The flat-rate levy would not be experience-rated, but would be adjusted upwards or downwards according to proposed estimates of occupational disease claims management liabilities.

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