Infectious Diseases and
California Workmen's Compensation

I. INTRODUCTION

A heavy drill press breaks a bit while in operation. A piece of metal flies, and the operator is injured. This setting provides the classic formula for invoking workmen's compensation coverage on behalf of the employee. The employer or his insurer becomes strictly liable for the injury under a statutorily determined formula, without regard to negligence. Another common scenario features the coal miner. Through years in the mines, coal dust destroys the ability of his lungs to function. Disabled, the miner is certainly an industrial victim who is covered by workmen's compensation. Suppose, however, that the disability is an infection of the eye. The employee works at a shipyard, servicing foreign cargos. The infection is of foreign origin, but has recently been prevalent in the area. The incidence of the disease among shipyard employees is greater than among the populace at large. Did the employee contract the infection at home or at work? If it was contracted at work, was the employment the cause of the infection? Can the disease be compensable in any case? What special procedural factors might affect recovery? The infectious disease requires a unique perspective on the workmen's compensation area.

Workmen's compensation laws did not develop through a need to meet the social impact of infectious disease in employment. With the Industrial Revolution the injured worker became a social problem inadequately covered by the tort system of negligence. The desire to achieve just, adequate distribution of loss in this area led to workmen's compensation statutes. The theory behind workmen's compensation is that industry should bear the cost of the human machinery, an expense naturally becoming a cost of the product. Concern for disease was not as compelling as concern for accidental traumatic injury, perhaps because of the sudden, brutal reality of the

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latter. In any case, the first English statute, modeled in 1897 on the original German act, covered "personal injury by accident arising out of and in the course of the employment." Thus, the structure and thrust of the workmen's compensation system in Britain was already determined when the English Workmen's Compensation Act of 1906 extended compensation to cases of six diseases, arising in specified employment settings. Since the structure did not originally cope with disease, it is natural that special problems arose when coverage was extended.

The development of the law in California followed a similar pattern. In 1913 the State enacted its first workmen's compensation statute making employer participation and liability mandatory. This act provided compensation when the injury was caused by accident. To extend the coverage to diseases, the Legislature deleted the words "by accident" from the law two years later. The 1917 overhaul of the entire workmen's compensation law defined the term "injury" to include any "disease arising out of the employment." The 1937 enactment of the Labor Code maintained this basic framework, and it remains the law today. In the case of San Francisco v. I.A.C., the California Supreme Court held that disease is compensable under this law. Yet, the basic concept and structure of the law did not originally contemplate coverage of disease. Various revisions over the years have served to help graft the coverage of disease onto the existing system. It is not surprising to discover that problems remain today in this hybrid field.

This article will deal with California workmen's compensation law from the factual perspective of infectious disease. It is intended to serve as a guide to the practitioner dealing with this kind of case. As such, it will cover those areas where special problems may arise due to the nature of infectious disease. These areas of special inquiry are: (1) the circumstances under which disease is compensable; (2) the problems raised with the burden of proof; (3) the provisions of the statute of limitations. In the last two areas, the scope of the article goes beyond examination of the existing law. Analysis of statutes and cases reveals inadequacies in the current framework. In light of

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3Prosser, supra note 2, at 530.
460 & 61 Vict., Ch. 37 § 1(1).
5Edw. 7, Ch. 58 § 8, and Sched. III.
6Cal. Stats. 1913, Ch. 176, p. 279 (repealed, Cal. Stats. 1937, Ch. 90, § 8100, p. 326).
7Cal. Stats. 1913, Ch. 176, § 12(a), p. 283 (repealed by Cal. Stats. 1937, Ch. 90, § 8100, p. 326).
8Cal. Stats. 1915, Ch. 607, p. 1079; Hanna, supra note 1, at 1-24.
10Cal. Stats. 1937, Ch. 90, § 3208, p. 266.
11183 Cal. 273, 191 P. 26 (1920).
these inadequacies, proposals for revision are made. Thus, beyond serving as a guide to the area, the article suggests ways to improve the handling of infectious disease cases.

II. CIRCUMSTANCES UNDER WHICH INFECTIOUS DISEASE IS COMPENSABLE

A. GENERAL STANDARDS

The Labor Code sets forth the general requirements for allowing compensation. The first is that the disease, which is considered a type of injury, must arise out of and in the course of the employment.\(^\text{12}\) In addition, section 3600, which creates the liability, sets forth seven other conditions. Two of these relate most directly to infectious disease: the seemingly redundant requirement that "at the time of the injury, the employee is performing a service growing out of and incidental to his employment;" and the requirement that the employment be the proximate cause of the injury.\(^\text{13}\) These standards are vague at best. The cases give one a better understanding of the breadth of coverage.

In *Pattiani v. I.A.C.*,\(^\text{14}\) a leading case in the field, the petitioner was on a business trip to New York on behalf of a San Francisco firm. New York was in the midst of a typhoid epidemic, and he caught the disease. The Industrial Accident Commission (hereinafter "I.A.C." or "the commission") denied recovery on the theory that Pattiani failed to show that his disease arose out of his employment.\(^\text{15}\) On review, the Supreme Court said that one seeking compensation for an infectious disease must

\[\ldots\text{establish the fact that he was subjected to some special exposure in excess of that of the commonalty, and that in the absence of such showing of special exposure the illness or death of the employee cannot be said to have been proximately caused by injury arising out of his employment.}\]\(^\text{16}\)

While denying the petitioner recovery due to a failure to meet the burden of proof, the court through this language did establish the standard of special exposure.


\(^{13}\) *Cal. Lab. Code* § 3600 (c) and (b) (West 1971). The other five requirements are: that the employer and employee be subject at the time of injury to the Workmen’s Compensation division of the code, § 3600 (a); that the injury not be caused by the intoxication of the employee, § 3600 (d); that the injury not be intentionally self-inflicted, § 3600 (e); that the employee’s death is not willfully and deliberately of his own cause, § 3600 (f); and that, if the injury arose out of an altercation, the employee not have been the initial physical aggressor, § 3600 (g).

\(^{14}\) 199 Cal. 596, 250 P. 864; 49 A.L.R. 446 (1926).

\(^{15}\) 199 Cal. at 599, 250 P. at 864-865; 49 A.L.R. at 447 (1926).

\(^{16}\) 199 Cal. at 601, 250 P. at 865; 49 A.L.R. at 448-449 (1926).
The requirement, then, is that the employment present some special hazard. That the employee contracted the disease during the employment, or that the employment in fact caused the disease, is not enough. Special exposure is a concept of proximate cause. If the disease is one of general hazard to the community, the requirement is not met if the employee contracted it while at work. Since he could have contracted it as easily at home, the employment is not the proximate cause of the disability. However, if the employment presents some special hazard, then the disease is "a natural or reasonably probable result of the employment or conditions thereof."\textsuperscript{17} If the employment does not pose some special hazard, then

\ldots the illness of the employee cannot be said to have been proximately caused by an injury arising out of his employment or by reason of a risk or condition incident to the employment.\textsuperscript{18}

Within the terms of this general standard, cases of compensable infectious disease arise in three situations. These are exposure to the infectious organism, lowered resistance to the disease resulting in infection, and aggravation of pre-existing infection. It is useful for the practitioner to understand the distinctive features of these situations. Consideration of these cases also helps in the later analysis of other problems.

\section*{B. EXPOSURE TO THE INFECTIOUS ORGANISM IN THE COURSE OF EMPLOYMENT}

\subsection*{1. CASES OF THE EMPLOYEE BEING SENT TO THE AREA OF EPIDEMIC}

\textit{Pattiani},\textsuperscript{19} discussed above, represents a case where the employer sent the employee to a place where disease was epidemic, and the employee contracted the disease. This is a special type of case in which the employee is exposed to the infectious organism in the course of employment, and it raises special problems. The first is the requirement that the employee be acting in the course of his employment. This requirement is usually met by the fact that the employee is on a business trip. Thus in \textit{Fidelity and Casualty Co. of N.Y. v. I.A.C.},\textsuperscript{20} the fact that the employee, while on a business trip, had been instructed to visit certain of the employer's concerns in areas infected with typhoid served to fulfill the requirement that he be "engaged in performing the duties of his employment."\textsuperscript{21} While his wife prevailed in an action seeking recovery on his death, a different

\begin{footnotes}
\footnotetext{\textsuperscript{17} Bethlehem Steel Co. v. I.A.C., 21 Cal. 2d 742, 744, 135 P.2d 153, 154 (1943).}
\footnotetext{\textsuperscript{18} Id.}
\footnotetext{\textsuperscript{19} 199 Cal. 596, 250 P. 864; 49 A.L.R. 446 (1926).}
\footnotetext{\textsuperscript{20} 84 Cal. App. 506, 258 P. 698 (1927).}
\footnotetext{\textsuperscript{21} 84 Cal. App. at 508, 258 P. at 699 (1927).}
\end{footnotes}
result would have followed if he had visited the areas in question for private reasons, as a side venture to his business trip.

Another problem in this type of case is defining the term "commonality" in order to determine whether the exposure the employee received was "in excess of the commonality." Is the "commonality" the general population in the area of the employment from which the employee was sent, or is it the population in the locale of the epidemic to which he was sent? The cases imply it is the latter. Thus, in *Pattiani* the court said

... the mere fact that there was an epidemic of typhoid fever in said city during the period of the petitioner's visit there constituted an exposure or risk of the commonality in general and was not peculiar to or characteristic of his employment, and for that reason compensation to the applicant was properly denied. 22

However, if the local inhabitants have built up a resistance or are less subject to infection than a foreigner, then the fact that the employee is thus more prone to contract the infection will amount to a special exposure in excess of the commonality. 23

This approach in defining the term "commonality" may in some cases be too rigid. The limiting of "special exposure" through employment to that exposure which is "in excess of the commonality" seems designed to insure that it is the employment, rather than the conditions of the general populace surrounding the employment, which caused the special exposure. If the employment is such that the worker must, for example, move to a new office in an area of epidemic, his place of employment becomes for some time the new office. It is entirely reasonable to say that the "commonality" must be the general populace in the area surrounding the new office. Likewise, a salesman regularly traveling through certain areas with local diseases has simply a broadened base of "commonality" consisting of the general populace in the areas traveled. However, an employee who generally works in only one location, and whose employment requires him for one occasion to travel to a diseased area on a special, limited assignment, presents a different case. The general populace surrounding the employment remains, with the employment, in the original location. Although none of the reported cases turn exclusively on this point, or even present the facts necessary to raise the distinction, it would seem improper in such a case to deny recovery on grounds that the commonality in the diseased area was subject to the same exposure as the employee whose site of employment never changed, if the general populace of the original location was not

22 199 Cal. at 603, 250 P. at 866; 49 A.L.R. at 450 (1926).
subject to the same exposure.

Finally, in cases of the employee being sent to the locale of the infection, the question arises whether knowledge by the employer of the danger is relevant. *Pattiani* and *Fidelity* both imply that it is. 24 No statutory language requires such knowledge for the employee to recover. The dissent in *Pattiani* points out that under the Workmen's Compensation Act, the employer's knowledge or negligence is irrelevant. 25 This approach seems appropriate. The statute specifies that recovery shall be "without regard to negligence," 26 and later cases reject the notion that this factor is an element of the employee's case. 27

2. CASES OF SPECIAL EXPOSURE WHEN THE EMPLOYEE IS NOT SENT TO THE AREA OF EPIDEMIC

Apart from the cases of the employee being sent to the locale of the infection, the employment may otherwise present a special hazard through exposing the employee to the infectious organism. When the organism is introduced at the regular place of employment, the nature of the special hazard may vary. *San Francisco v. I.A.C.,* which originally held that the Workmen's Compensation Act extended to disease, is an example of the common case of hospital employees being exposed to disease through work with infected patients. 28 Exposure to a fellow worker infected with the disease, 29 to disease bearing entities, 30 or traumatic introduction of the infectious organism (e.g., pricking one's self with an ice pick having the infectious material thereon), 31 may all amount to a special exposure. The unifying theme in such cases seems to be that the employment, in a manner peculiar to the particular employment situation, enlarges the scope of exposure to disease. This theme has two elements. The first

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24In *Pattiani*, see 199 Cal. at 603-604, 250 P. at 867; 49 A.L.R. at 450 (1926); in *Fidelity*, see 84 Cal. App. at 508, 258 P. at 699 (1927).
25199 Cal. at 608, 250 P. at 868; 49 A.L.R. at 453 (1926). (Mr. Justice Finch, pro tem., dissenting).
26CAL. LAB. CODE § 3600 (West 1971); see also the statute from which it was derived, CAL. STATS. 1917, Ch. 586, p. 834 (repealed by CAL. STATS. 1937, Ch. 90, § 8100, p. 326).
27See e.g., Pacific Employers Ins. Co. v. I.A.C., 19 Cal. 2d at 629, 122 P.2d at 573; 141 A.L.R. at 803 (1942), in which the court affirmed an award for a traveling salesman who contracted coccidiodal granuloma (San Joaquin Valley fever) saying that the injury suffered need not be of a kind anticipated by the employer.
28183 Cal. 273, 191 P. 26 (1920); see also Lowery v. French, 11 Cal. Comp. Cas. 175 (1946), the case of a student nurse contracting tuberculosis.
30Hartford Accident and Indemnity Co. v. I.A.C., 32 Cal. App. 481, 163 P. 225 (1917); see also San Francisco v. Workmen's Comp. Appeals Board, 37 Cal. Comp. Cas. 534 (1972).
is that the employment itself enlarges the scope of exposure. In any instance in which the employment exposes the employee to disease, this element will be satisfied. That is, the presence of the disease in the employment setting always "enlarges the scope of exposure" beyond that which would otherwise exist. Thus, the idea is one of cause in fact. The second point is that the exposure must be in a manner peculiar to the employment situation. This relates to the dynamics of the specific employment circumstances, rather than the type of employment in general. The exposure must be enlarged in a fashion peculiar to the particular circumstances of employment. The concept seems to be that of proximate cause.

In practice, a variety of situations may arise to create liability in this area. For example, working with tubercular patients is peculiar to hospital employment, and it enlarges the scope of exposure to tuberculosis. Likewise, working with sharp tools may be part of working in a meat packing plant, and work with cattle remains increases the scope of exposure to undulant fever, so that a traumatic injury by the tools which introduces the disease amounts to a special exposure. However, it is not necessary that the exposure result from the general nature of the employment undertaken. For example, working in close proximity with a certain fellow employee may be peculiar to working in a certain newspaper office. If the employee has the disease, this also enlarges the scope of exposure. In this situation, as in the others described above, the exposure to the infectious organism constituted a special exposure to disease in excess of the commonalty.

C. EMPLOYMENT CIRCUMSTANCES CAUSING LOWERED RESISTANCE TO DISEASE

Circumstances or conditions of an employee's work may lower his natural resistance, and make him more susceptible to infection. This amounts to a type of special exposure through the employment. For example, in Irvin v. L.E. Dixon Construction Co., the employee did construction work outside for a period of days in cold, rainy weather. While he made no showing that his employment put him in contact with the infectious organism causing pneumonia, his employment lowered his resistance, and thus specially exposed him to the infection. Another common type of case is that of forceful or traumatic physical injury lowering resistance and inflaming a dormant tubercular lesion. If circumstances are such that a loss due to the

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32 Id.
34 6 Cal. Comp. Cas. 309 (1941).
initial injury is or would be compensable, then the subsequent inflammation is compensable.\textsuperscript{36}

D. EMPLOYMENT CIRCUMSTANCES AGGRAVATING A PRE-EXISTING INFECTION

The statute does not expressly spell out liability when a pre-existing disease is aggravated in the course of employment. However, section 4663 of the Labor Code assumes liability in this area by providing that compensation is allowable for only the portion of disability due to the aggravation.\textsuperscript{37} The court said in Tanenbaum \textit{v. I.A.C.}:\textsuperscript{38}

The underlying theory is that the employer takes the employee subject to his condition when he enters the employment, and that therefore compensation is not to be denied merely because the workman's physical condition was such as to cause him to suffer a disability from an injury which ordinarily, given a stronger and healthier constitution, would have caused little or no inconvenience.\textsuperscript{39}

Thus, when an injury causes a dormant tubercular lesion to become inflamed, if the injury was in the course of employment, the disability is compensable.\textsuperscript{40}

To a certain extent, aggravation cases may overlap with cases in which the employment caused lowered resistance, and thereby special exposure, to disease. \textit{Baker v. I.A.C.}\textsuperscript{41} is a good example of this. The employee was injured in the course of his employment. The injury lowered his resistance, and a pre-existing tubercular lesion became inflamed. Analytically, the case demonstrates both lowered resistance and aggravation of pre-existing disease. Such overlap may not exist, however, in a case where the physical injury did not lower resistance, yet did aggravate a localized infection, bursting the tissue encapsulating the infectious organism, and thus allowing the infection to spread.

Another important factor in cases of aggravation is the possibility of apportionment, as provided by section 4663 of the Labor Code, noted above.\textsuperscript{42} In \textit{Fernandez v. Market St. Ry. Co.},\textsuperscript{43} the commis-

\textsuperscript{36} Contrast the approach in this area with that in the \textit{Fidelity} case, supra, 84 Cal. App. 506, 258 P. 698 (1927). In that case, the employment did not physically lower the employee's resistance. Instead, the employee was moved to an area where he had a resistance level lower than that of the commonalty. The employee's relatively lower resistance was his natural state, and the employment put him in contact with disease. Here, the employment serves to lower the resistance, while the employee comes in contact with the disease in a manner other than through his employment.

\textsuperscript{37} CAL. LAB. CODE § 4663 (West 1971).

\textsuperscript{38} Cal. 2d 615, 52 P.2d 215 (1935).

\textsuperscript{39} Cal. 2d at 617, 52 P.2d at 216 (1935).

\textsuperscript{40} Baker \textit{v. I.A.C.}, 135 Cal. App. 616, 27 P.2d 769 (1933).

\textsuperscript{41} Id.

\textsuperscript{42} CAL. LAB. CODE § 4663 (West 1971).

\textsuperscript{43} 4 Cal. Comp. Cas. 119 (1939).
sion said that apportionment is to be between the disability incurred and the disability the employee would have had if no injury had been suffered. For the latter portion of the disability, the employee receives no compensation. If the disease was and would have remained dormant, the disability may be fully compensated. Addressing itself to such a situation, the court said in *Tanenbaum*:

... there is no authority for prorating the extent of the disability due to the accident itself on the one hand and that due to the aggravation caused by the employee's physical condition on the other.\(^{44}\)

This rule fits the general theory the court sets out in *Tanenbaum*. The employee should be compensated to the extent that the work related injury creates disability. If the disease would have remained dormant, this means full compensation. If the disease would have inflamed anyway, then the employee only receives compensation for that portion of the disability that the injury caused. The injury may increase disability by accelerating the disease, or causing the disease to be more serious. The employer takes the employee as he finds him, but he is not responsible for that portion of the disability that would have occurred in any case.

### III. PROBLEMS REGARDING THE BURDEN OF PROOF

#### A. GENERAL STANDARDS

Infectious disease creates special problems in the application of the general rule that the claimant has the burden of affirmatively showing that he suffers from a disease arising out of and in the course of his employment.\(^{45}\) The nature of traumatic injury is within the bounds of lay knowledge. One can easily observe and understand the principles involved when a piece of metal strikes a person and causes a wound. No special medical evidence is necessary to show causation. An infectious disease is of a different nature. The infectious organism is microscopic, so that one can observe neither it nor its work without special equipment and training. The questions of how the organism enters the body and what affect it has on the body vary with the disease. The principles establishing the relationship between the organism and the symptoms are derived through scientific study. Certain symptoms of a disease may be apparent to a layman, while others become apparent only through the use of specialized diagnostic techniques and equipment. For example, where an

\(^{44}\) Cal. 2d at 617-618, 52 P.2d at 216 (1935); see also, Pacific Employers Ins. Co. v. I.A.C., 13 Cal. Comp. Cas. 103 (1948).

employee develops tuberculosis as in *Baker v. I.A.C.*, a lay observer could tell that a person was coughing, and perhaps had a fever. A doctor, with X-ray equipment and specialized training, would be necessary to observe tubercular development of the lungs, and decide how and where the disease arose. Thus, the nature of the origin and development of infectious disease is peculiarly within the bounds of medical knowledge.

Because infectious disease is peculiarly within the bounds of medical knowledge, the burden of proof must be met by expert medical opinion testimony. If a finding is not based on expert medical opinion testimony, then it is “predicated upon a possibility which is merely surmise and conjecture.” Thus, in *Hartford Accident and Indemnity Co. v. I.A.C.*, the court annulled the compensation award because of a lack of medical testimony that tuberculosis arose from the employment.

To understand the philosophy and operation of this rule, one must recognize a distinction between medical data and medical opinion or conclusion. Medical data may include symptoms or surrounding circumstances, such as the fact that the employee worked with a person who had the infection. A medical expert will give his opinion on the origin of the disease based upon various kinds of data. A finding that the disease arose out of the employment must have its basis in the expert medical opinion. The fact finding body cannot receive medical data and then reach its own medical opinion.

*Children’s Hospital Society of Los Angeles v. I.A.C.* demonstrates this principle well. The employee nurse contracted polio, and sought compensation. No expert medical opinion evidence linked the polio to the employment. The referee who heard the case found that the disease arose out of the employment, on the basis of the circumstances. These included the fact that the nurse spent 90% of her time at the hospital, seldom went out, and that the hospital was treating at the time two active cases of polio, and a number of convalescent out-patients. The court condemned the “law of averages” reasoning and overturned the award, saying that “there was a total lack of evidence to support the finding and the award.” Certainly there was evidence in the case, but the evidence amounted to medical data — facts and circumstances upon which a medical opinion could be based. There was, however, no expert medical opinion evidence on

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50 22 Cal. App. 2d at 368, 71 P.2d at 85 (1937).
51 22 Cal. App. 2d at 369, 71 P.2d at 85 (1937).
the origin of the disease. To allow the referee and the commission to make an award would be to allow them to draw their own medical opinions and conclusions. Clearly they are not competent to do this, since the field of infectious disease is susceptible only of professional medical expertise. Only medical experts can be competent for this purpose. The commission, like any fact finding body, can make findings based upon medical opinions, or can decide between two conflicting opinions in evidence. It cannot, however, act as a board of medical experts drawing medical conclusions on its own.

Expert medical opinion testimony is a critical part of a claimant’s case. However, he need not present the opinion of an expert who reaches his conclusion to a certainty. It may be impossible to state exactly how a given infection arose. As Dr. Rachmel testified in Baker v. I.A.C., “... medicine cannot be classified as an exact science.” What the law requires is medical opinion evidence of a reasonable probability. The cases do not go much beyond the phrase “reasonable probability” in describing the requirement. Those cases which review the medical expert evidence show that the type of evidence held sufficient is what the doctor thinks, what he believes, or what he says the overwhelming probabilities are. The law seems to require, then, that the experts feel there is a reasonable probability.

For reviewing findings of fact by the Workmen’s Compensation Appeals Board, the courts have derived a substantial evidence requirement. Thus, as long as some expert medical opinion testimony supports the finding by the board on the origin of the disease,

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52 See Pacific Employers Ins. Co. v. I.A.C., 19 Cal. 2d at 632, 122 P.2d at 575; 141 A.L.R. at 805 (1942), which points out the lack of medical evidence as the flaw in respondent’s case in Children’s Hospital Society of Los Angeles.
53 Hartford Accident and Indemnity Co. v. I.A.C., 140 Cal. App. at 486, 35 P.2d at 368 (1934).
54 135 Cal. App. at 623, 27 P.2d at 772 (1933).
56 Bethlehem Steel Co. v. I.A.C., 21 Cal. 2d at 747, 135 P.2d at 156 (1943).
58 Pacific Employers Ins. Co. v. I.A.C., 19 Cal. 2d at 626, 122 P.2d at 572; 141 A.L.R. at 801 (1942).
59 But see Pacific Employers Ins. Co. v. I.A.C., 13 Cal. Comp. Cas. 103, in which the doctor said inflammation of an infection "may" have been activated by a work related injury, but that probably only a small portion of the disability could be attributed to the injury. The commission made an award without apportionment between work related and non-work related causes. The case has aspects relating to the apportionment cases, discussed supra.
60 The Workmen’s Compensation Appeals Board is the successor to the I.A.C., and will be referred to hereinafter as the appeals board. Board members are still referred to as commissioners. For the current structure, see CAL. LAB. CODE § 110 et seq. (West 1971).
61 Bethlehem Steel Co. v. I.A.C., 21 Cal. 2d at 750-751, 135 P.2d at 157 (1943).
it will not be disturbed. Conclusively, the fact that some medical evidence supports the claim is not conclusive when other medical evidence conflicts.

B. THE ROLE OF PRESUMPTION IN THE AREA OF BURDEN OF PROOF

1. THE EXISTING PRESUMPTION

Regarding the burden of proof and fact finding in the area of disease and workmen’s compensation, a statutory presumption exists that in some situations the disease arose out of the employment. For certain public employees in fire fighting and law enforcement, the Labor Code provides a rebuttable presumption that pneumonia and tuberculosis, as well as hernia and heart disease, arose out of the employment. In California, by statute, rebuttable presumptions are of two kinds — those affecting the burden of coming forward with the evidence, and those affecting the burden of proof. A presumption affecting the burden of coming forward with the evidence does not affect the burden of proof if evidence is presented on the issue, but if neither party presents evidence, the fact in issue must be assumed according to the presumption. Presumptions affecting the burden of coming forward with the evidence implement no policy beyond facilitating the determination of a given action, while presumptions affecting the burden of proof, which give a litigant a greater advantage, are designed to implement some greater public policy. The Labor Code does not indicate the character of the presumption regarding certain diseases arising out of the employment. In McCutcheon v. Workmen’s Comp. Appeals Board, the board determined the presumption affects the burden of coming forward with the evidence.

Despite this determination by the appeals board, the reasons behind the statute have sometimes been given in terms of a broad social policy that may well be sufficient to support a presumption affecting the burden of proof. In Stephens v. Workmen’s Comp. Appeals Board, the court said that the presumption relating to heart disease amounted to a legislative mandate that these specific stressful occu-

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62 San Francisco v. I.A.C., 183 Cal. at 283, 191 P. at 29 (1920).
63 Hartford Accident and Indemnity Co. v. I.A.C., 140 Cal. App. at 486, 35 P.2d at 368 (1934); see also Pacific Employers Ins. Co. v. I.A.C., 19 Cal. 2d at 628, 122 P.2d at 573; 141 A.L.R. at 802 (1942).
patients can and do cause the disease.\textsuperscript{69} If this is the policy, then presumably a similar policy underlies the presumptions concerning pneumonia and tuberculosis. The reasoning would be that the conditions of these specific types of employment can lead to pneumonia or tuberculosis through a special exposure to disease. Some writers, however, have suggested other reasons for the presumptions that are not necessarily public policies. One considers these presumptions as part of a larger scheme of preferential treatment for law enforcement and fire fighting personnel.\textsuperscript{70} Another suggests bluntly that the basis for these presumptions may simply be effective lobbying on the part of these groups.\textsuperscript{71}

2. CRITICISM AND ANALYSIS

Whatever the underlying policy, the presumptions are open to criticism at least with regard to pneumonia and tuberculosis. A policeman may well be subject to special exposure to tuberculosis. Is not the same true of a nurse working in a tuberculosis ward? If so, then why is the presumption limited to policemen?\textsuperscript{72} If special treatment for public employees is desired, why not give it directly, rather than through the indirect route of the workmen’s compensation law? Why are the presumptions limited to pneumonia and tuberculosis? What of the medical technologist working with various samples of influenza virus? Going beyond these specific points, one reaches the threshold question of whether a presumption should exist at all.

An analysis of this question requires a view of the broad policies in the workmen’s compensation field. The general theory behind all workmen’s compensation legislation is that industry should bear the cost of the human machinery.\textsuperscript{73} In California this philosophy is augmented by the legislative mandate that the procedural provisions of which the presumptions are a part “shall be liberally construed by the courts with the purpose of extending their benefits for the protection of persons injured in the course of their employment.”\textsuperscript{74} In addition, from the above discussion regarding the general standards in the area of burden of proof, two points are apparent — first, that diseases present special problems of medical proof (e.g., the requirement of expert medical opinion evidence), and second, that the general standards become those of medical probability. As to the first point, these problems of medical proof could be minimized by a presumption that the disease arose out of the employment. Regarding the second issue, such a presumption should not arise, though,

\textsuperscript{69} 20 Cal. App. 3d 461, 465, 97 Cal. Rptr. 713, 715 (1971).
\textsuperscript{70} HANNA, supra note 1, at 6-8.
\textsuperscript{71} Giammattei, supra note 2, at 678.
\textsuperscript{72} CAL. LAB. CODE § 3212.6 (West 1971, West Supp. 1973).
\textsuperscript{73} PROSSER, supra note 2, at 530.
\textsuperscript{74} CAL. LAB. CODE § 3202 (West 1971).
unless the medical probabilities are that the disease arose out of the employment. To go beyond the medical probabilities would go beyond the philosophy of workmen's compensation, since industry would bear the cost of more machinery than it used. Conversely, a presumption that corresponds to the medical probabilities of a situation would serve this broad policy of requiring industry to bear the cost of its toll on its employees. A proper presumption, then, would minimize litigation difficulties, and serve the broader purpose of workmen's compensation, if it would operate when the medical probability is that the disease arose out of the employment.

3. A PROPOSED PRESUMPTION

Having decided that a presumption may be proper if it operates under the correct circumstances, the task becomes to design a presumption to meet these requirements. As noted above, this requires structuring the presumption so that it will operate when the medical probability is that the disease arose out of the employment. In this regard, the author believes that it is generally improper to limit the statute either by the type of employment or the type of disease. Both society and the bounds of medical knowledge are too complex. There are simply too many types of employment situations, and too many diseases. The statute should thus be couched in general terms.

In deciding what these general terms should be, it is useful to consider the present statute. In the Stephens case, the court indicated that for heart disease the presumption means that stressful work can and does cause the disease. The thrust of the statute is that if the circumstances of the work, e.g., stress, cause the disease, e.g., heart disease, then the disease is presumed to arise out of the employment. The broad proposed presumption could follow the general thrust of this pattern. That is, where the employment involves exposure to circumstances that are known to lead to the disease, or where the employment involves chronic exposure to the disease itself, then it will be presumed that the disease arose out of the employment. Thus the presumption would arise in favor of a claimant on a showing that (1) he contracted the disease, and (2) either the employment involved a chronic exposure to the disease, or the employment involved exposure to circumstances that lead to the disease. Regarding the second of these, when chronic exposure is alleged, the fact finder need only find the chronic exposure. However, when exposure to circumstances leading to disease is alleged, the trier of fact must find both that certain circumstances cause the disease, and that the employee was subjected to those circumstances. Thus in the case of an employee claiming to have contracted pne-

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75 20 Cal. App. 3d at 465, 97 Cal. Rptr. at 715 (1971).
monia through exposure to cold, damp conditions, the trier of fact must find that cold, damp conditions do lead to pneumonia, and that the claimant was exposed to the cold and damp. Such findings would meet the second requirement above. The fact that the employee contracted the disease would meet the first requirement, and thus on these findings the presumption would arise that the disease was an injury in the course of employment.

The court in *Stephens* says that the current presumption goes beyond this general type of assertion, and amounts to a medical judgment on the part of the Legislature that stress does cause heart disease.\(^{76}\) Thus, the Legislature mandates that a specific circumstance or factor be recognized as a cause of a specific disease, even though certain segments of the medical community dispute this determination. Arguably, a legislative judgment of this type may be valid where the disease in question creates a substantial social problem. To the extent that such a rule should be applied, it should identify the specific factor and the disease which it is said to cause, and go no further. To limit the presumption by occupation is to succumb to the vice of the current statute. Thus, such additional legislative determinations would be in the form of added code sections stating that for the purposes of the general presumption section, the specific circumstance in question is deemed to lead to the disease in question. Whether the circumstance exists in a given employment situation is a manageable question of fact for the appeals board and the courts. Where the Legislature takes this approach, it is not necessary that the trier of fact find that the circumstances lead to the disease. The Legislature will have made that determination.

To give an example of the operation of these special rules, the Legislature may decide that pneumonia presents a particular social problem requiring a legislatively determined standard. It may wish to mandate that exposure to cold and dampness causes pneumonia.\(^{77}\) An additional section could then provide that, in cases of pneumonia, exposure to cold and dampness is deemed to be a circumstance that leads to the disease, for purposes of the general presumption section. Thus, whether the employment involved exposure to cold or dampness is the only question the trier of fact must decide in order to bring the presumption into operation, once it is established that the employee did indeed contract pneumonia. The special rule itself would save much controversy and duplication of effort in providing medical proof. However, since such provisions are fraught with the danger that the Legislature may make an incorrect scientific judgment, they should only be added to the law after the most

\(^{76}\) *Id.*

careful and exhaustive investigation of both the quantum of the social problem which necessitates the addition and the available medical evidence concerning the disease in question.

Having determined that a presumption should exist, and that it should arise in the fashion outlined above, the last question is whether the presumption should affect the burden of coming forward with the evidence or the burden of proof. As noted above, a presumption affecting the burden of coming forward with the evidence will only benefit the claimant if no evidence is presented on the issue. To go further and affect the burden of proof, that is, to require that some defined quantum of proof be provided, a presumption should serve some public policy beyond the mere determination of a given case.78 The presumption proposed here is meant to facilitate the broad public policy behind workmen’s compensation that industry should bear the cost of the human machinery. Further, the proposed presumption is designed to reasonably serve this policy by arising only when the medical likelihood supports the presumption. Thus, since the presumption serves a public policy beyond the mere determination of a given case, it should affect the burden of proof, once the employee establishes the elements necessary to raise the presumption. The employer would then be required to prove by a preponderance of the evidence that the infectious disease did not arise in the course of employment in order to rebut the presumption.

Finally, it should be noted that the presumption will not arise in all cases wherein liability will ensue. The special exposure in the course of employment may not amount to a chronic exposure to the disease. Indeed, except in cases of hospital employees, the exposure will probably not be chronic. Nor may the particular circumstances of employment be such as would be considered to lead to the disease contracted. In either case, the claimant would still have the opportunity, as under present law, to simply meet his burden of proof by showing a special exposure to disease, without the aid of the proposed presumption.

IV. THE PROVISIONS OF THE STATUTE OF LIMITATIONS

Separate from the area of burden of proof, infectious diseases raise problems with the statute of limitations. In the statute of limitations provisions, the Labor Code draws a distinction between disease which is occupational and that which is mere injury in the course of employment. The problems in this area arise in defining these terms and the distinction they embody.

The general statute of limitations in workmen’s compensation

cases is one year from the date of injury.\textsuperscript{79} Prior to 1947 courts held that the date of injury in cases of latent injury or disease was the time the employee knew or should have known he had sustained a compensable injury.\textsuperscript{80} In that year, however, the Legislature added two new provisions to the Labor Code. The first, section 5411, provides that, except in cases of occupational disease, the date of injury is the date during the employment of the alleged injury or exposure.\textsuperscript{81} The second, section 5412, provides that in cases of occupational disease, the statute runs from the time the employee suffered the disability and knew or should have known that the disability was caused by his present or prior employment.\textsuperscript{82} The limitation on actions for disease that is not occupational is obviously more strict than that on occupational disease. The pre-1947 standard is abandoned, and for disease that is not occupational, the statute runs from the date of last exposure. If the disease is occupational, the statute does not begin to run until the concurrence of (1) disability, and (2) the time the employee knew or should have known that the disease was work related. The case of \textit{Johnson v. I.A.C.}\textsuperscript{83} dramatically demonstrates the operation of these two sections. The petitioner, a recreation director, was exposed once to polio in the course of her employment on July 21st. The first symptoms forced her to leave the job on August 3rd. A claim filed the following year on August 2nd was barred, since the disease resulting from a single, fortuitous exposure was not occupational.

The Labor Code does not define the term “occupational disease.” Presumably, the term means something narrower than “disease,” if the modifying word “occupational” is to be given any effect. Since there can be liability for cases of mere “disease” it follows that not all cases of liability for disease are cases of occupational disease. This is the approach taken in \textit{Johnson}.\textsuperscript{84} The problem is that while the Legislature attached special significance to the distinction between “disease” and “occupational disease,” in failing to define these terms it failed to define the distinction.

A variety of cases in California and other jurisdictions have dealt with the term. Unfortunately for purposes of dealing with the current statute, much of this decisional law uses the term “occupational disease” in a context that does not contemplate the specialized distinction the Legislature made in 1947. This is certainly true of Cali-

\textsuperscript{79} \textit{Cal. Lab. Code} § 5405 (West 1971).
\textsuperscript{81} \textit{Cal. Lab. Code} § 5411 (West 1971).
\textsuperscript{82} \textit{Cal. Lab. Code} § 5412 (West 1971).
\textsuperscript{84} \textit{id}. 

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fornia case law decided prior to that year. It is also true of non-
California case law. At times, various nebulous verbal formulas have
been used. Thus, in the Johnson case, the court after reviewing the
law using this term both in and out of California settled on “natural
incident and concomitant of petitioner’s work” in defining occupa-
tional disease. Charles L. Swezey, a referee for the appeals board,
has compiled eight factors that courts have looked to at various times
to establish what an occupational disease is. These factors are:

... (1) gradual development although the rate of progress may vary;
(2) usually a continual absorption of deleterious substances; (3) con-
tinuous exposure to a particular work situation finally causing physi-
cal breakdown; (4) disease not previously existing but building up
over a period of time; (5) natural and reasonably to be expected
results of following a particular occupation for a considerable period
of time; (6) first and early stages not always perceptible; (7) peculi-
arity to a given occupation; (8) latency and progressive develop-
ment.

While the list is not exhaustive, as Swezey concedes, it does serve as a
useful basis for analysis.

The statute itself gives some idea of the Legislature’s intent. First,
the use of the word “occupational” to limit “disease” indicates that
the disease should relate peculiarly to the employment, beyond the
general concept of “arising out of the employment.” Swezey’s fac-
tors three, five, and seven relate to this idea. The statute also is
concerned with the date the employee suffered disability. This indi-
cates that exposure and disability may not be substantially con-
temporaneous, the disability occurring some time after the exposure.
Factors one, three, four, six, and eight of Swezey’s analysis operate
on this concept. Finally, the statute deals with the time the em-
ployee knew or should have known the disease was employment
related. This seems to reflect a legislative inclusion of diseases that
creep up on the individual, giving little warning of their nature or
source until late stages of development. Swezey’s factors four, six,
and eight deal with this consideration.

Swezey’s second factor, the continual absorption of deleterious
substances, remains for consideration. This factor does not seem to
correspond to any elements of the current statute. Continuous ab-
sorption of deleterious substances is present in such diseases as si-
lcosis and asbestosis, commonly considered occupational.

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See e.g., Marsh v. I.A.C., 217 Cal. 338, 18 P.2d 933; 86 A.L.R. 563 (1933),
which makes pronouncements concerning the nature of occupational diseases,
but was decided in 1933.

Swezey, Disease as Industrial Injury in California, 7 Santa Clara Law 205,
209 (1967).
J. Page and M. O’Brien, Bitter Wages 11-46 (1973); Swezey, supra note 87,
at 207-208.
loss, on the other hand, may be occupational for an employee in a noisy factory, but does not involve the absorption of deleterious substances. Thus, this element seems to be common to many cases of occupational disease, but not an actual requirement in establishing that the disease is occupational.

The types of disease usually considered occupational, such as asbestosis, berylliosis, or silicosis, are not infectious. Thus, an important questions is whether an infectious disease can be occupational, and if so, when. In Brown v. Cudahy Packing Co., the commission mentioned undulant fever as an occupational disease. It did so, however, prior to the 1947 additions to the code giving the term special significance, and by quoting non-judicial authority. The Johnson case discussed above held that an infectious disease arising from a single, fortuitous exposure is not occupational.

The case of Layden v. Industrial Indemnity Co. demonstrates the difficulties the code raises with some infectious diseases. The claimant was exposed to tuberculosis on the job as a clerical worker for nearly four years, ending July, 1956. She encountered neither disability nor knowledge of the source of the disease until September, 1957, more than one year after the last exposure. Apparently, her claim was filed shortly thereafter, and she could not have reasonably had knowledge of the disease before her disability. Thus, if the tuberculosis was occupational, her claim would be allowed under section 5412. If the disease was not occupational, the claim would be barred by the operation of the one year limitations under section 5411. The referee held that the statute of limitations did not bar her claim, saying:

Sections 5411 and 5412 of the Labor Code should be taken to mean that whenever a working man suffers a compensable injury of an insidious character, so that as of the date of injury or exposure, he has no actual disability, and neither knows or in the exercise of reasonable diligence should know that he has suffered such an injury, the statute of limitations will run from that date on which there is a concurrence of both disability and actual or constructive knowledge of job connection.

This seems close to a return to pre-1947 case law. In light of the 1947 code changes, it fails to account for the meaning of the word "occupational" in the new law. Tuberculosis hardly relates in a peculiar fashion to employment as a clerk. The referee relies on no

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89 Sweszey, supra note 87, at 208.
91 15 Cal. Comp. Cas. 197 (1940).
post-1947 cases. The *Johnson* case is distinguished.95 A panel of the commission, affirming the referee, stated:

The panel does not believe that to be an occupational disease the disease must be one peculiar to the occupation in which the injured is employed. It is sufficient that the occupation produces the hazard, which was true in the applicant’s case.96

The commission’s result is certainly appealing on these facts. The disease arose out of the employment, but did not relate peculiarly to the type of employment, and did not manifest itself until more than one year after the last exposure. For the statute of limitations to bar the claim would certainly appear unjust. However, the broad language the panel uses would suffice to bring under the term “occupational disease” any disease that is covered within the terms of the general liability section of the Labor Code, section 3600.

The commission took a more restrictive approach in Pedrotti v. I.A.C.97 An ulcer with immediate symptoms, rather than an incubating disease, was involved. The commission held that mere hazard of the occupation was not sufficient to bring the affliction within the terms of the more liberal limitations for occupational diseases, and barred the claim.

The difficulty in this area is obvious. The term “occupational disease” should be and usually has been taken to mean something narrower than the term “disease.” The Legislature attached importance to this distinction in enacting sections 5411 and 5412 of the Labor Code. Close analysis of these sections indicates something of the nature of the distinction involved, but the lack of a legislative definition leaves the area unclear. The *Johnson* case finds a difference between the new law and the pre-1947 case law.98 If the term “occupational disease” is narrower than “disease,” then a disease may arise out of employment, may not meet the requirements for “occupational disease,” and may not manifest itself until more than a year after the last exposure. A single, fortuitous exposure, in the course of employment, to an infectious disease which does not manifest any symptoms for a particularly long time may be an example. Under *Johnson*99 such a disease is not occupational, yet because it fails to manifest itself for over one year only a clairvoyant claimant could avoid the statute of limitations.

The existing code is, then, inadequate. Special provision should be made for latent disease. If the disease is such that it does not manifest itself within a reasonable time from the last exposure, then the

95 *Id.* at 44.
96 *Id.* at 46.
99 *Id.*
statute of limitations should extend a reasonable period beyond the
time the disease is manifest. In addition, in cases where the manifest-
tation of the disease does not readily lead to a recognition of the
connection with the employment, which may be likely because the
time of exposure and manifestation are so remote, an extension
should be made to reasonably allow the claimant a chance to recog-
nize the connection. These are the basic elements of what section
5412 provides for occupational diseases. Thus, the term occupational
disease should be defined. Beyond that, the terms of section 5412
should be expanded to include latent diseases which do not manifest
themselves within a reasonable period of the last exposure. This will
serve to extend the provisions of the less strict limitations to cover
those latent diseases which may not be occupational.

V. CONCLUSION

Infectious disease presents certain special problems under Califor-
nia workmen’s compensation law. If in the course of employment
the employee is subject to a special exposure to the disease in excess
of the commonalty, the disease is compensable. Special exposure
may arise when the employee is actually exposed to the infectious
organism, or when the employee’s resistance is lowered resulting in a
subsequent inflammation or infection. Also, if circumstances of the
employment aggravate a pre-existing infection, the employer is liable
to the extent of the aggravation.

To prove his case the claimant must make an affirmative showing
of the elements of liability. Expert medical opinion evidence is re-
quired to make such a showing. For some public employees, a rebut-
table presumption exists that certain diseases arise out of the em-
ployment. The scope and operation of this presumption is open to
criticism, such that the existing law should be modified. A rebuttable
presumption affecting the burden of proof that the disease arose out
of the employment should arise when the employment involves a
chronic exposure to a given disease, or exposure to circumstances
that are known to lead to disease, and the employee contracts the
disease.

Finally, the statute of limitations provisions make a distinction
between disease that is merely industrial, and disease that is occupa-
tional. The limitation provisions are less strict as to the latter. How-
ever, the law is unclear, because of a statutory failure to define
“occupational disease.” This term should be defined, and the pro-
visions of the less strict limitations should be extended to cover those
latent diseases which may not be occupational.

Albert Locher