

SOUTH AFRICAN LABOUR BULLETIN

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FOCUS ON INDUSTRIAL HEALTH IN SOUTH AFRICA

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isations and companies.

COMMENT 1INDUSTRIAL DISEASES AND ACCIDENTS IN SOUTH AFRICA

This Bulletin deals with a much neglected aspect of health care in South Africa - industrial diseases contracted and accidents suffered by workers. It draws mainly on papers delivered to the Economics of Health Care Conference held at the University of Cape Town in September, 1978. This was jointly sponsored by SALDRU (Southern Africa Labour and Development Research Unit) and SAMST (South African Medical Scholarships Trust). While a very useful summary of all the papers dealing with Occupational Health has been published in Social Dynamics (Vol. 4, No. 2, Dec. 1978) we are printing a selection of amended papers together with other contributions.

The most recent source of information about industrial diseases - the Erasmus Commission of Enquiry into Industrial Health of 1976 - is summarised by Phillipa Green and Shirley Miller. Some of its findings are devastating: lead absorption among workers in lead - using industries in South Africa is so high that if Swedish standards were applied, 45,6% of the workers would have to be withdrawn because they showed an overdose of lead. Many of the factories, were they located in Sweden, would have to be closed. In a survey of a chrome factory, workers revealed that they expected to suffer perforated nasal septa in the course of their working-lives. Seventy-five per cent of workers in fact had active lesions of the nasal passages and 4% had complete perforations. Green and Miller also make justifiable criticisms of the Erasmus Commission. In the light of its own findings it makes astonishingly lenient recommendations about employers' responsibilities and it would apparently like to restrict the role of autonomous worker organisation in industrial health issues.

The Erasmus Commission also decided that occupational accidents did not fall within its terms of reference even though it acknowledged that 'a great many accidents are so

closely bound up with a particular industry that they may be regarded as acute diseases and indeed as occupational diseases' (para.2.36).

In order to correct this omission to some extent, we include a paper on accidents on South African mines by Alide Kooy. The results show how serious the omission of accidents by the Erasmus Commission is. On average, every year between 1970 and 1977, approximately 28 000 workers were injured. H.J. Matthysen of the National Occupational Safety Association has calculated that every year South Africa's workers suffer serious injury to 110 000 hands, 50 000 feet and 40 000 eyes. In addition more than 2 000 workers are killed.

These high rates of mutilation and injury are an indictment of our social system. They also raise further issues which are considered in this Bulletin: namely the reasons why industrial diseases and accidents are so prevalent in South Africa; the principles on which Workmen's Compensation is based; and the nature and extent of medical services for workers.

These issues are examined by four other contributors to this Bulletin. Taffy Adler argues that industrial accidents are so frequent because they are often not perceived by managements as a major cost. The Workmen's Compensation Act ensures that medical expenses and compensation are paid by the Workmen's Compensation Commissioner and that management is protected from any claims instituted directly against it by injured workers even if the accident is a result of the employer's negligence. Adler also shows that the principle on which protective legislation is based - that adequate protection can be established purely by statutory bodies - is incorrect. The essential requirement is for safety and health conditions at work to be part of the collective bargaining process between management and unions. This is demonstrated by the experience of the Metal and Allied Workers' Union: the union has been denied access to the

details of the rules concerning the prevention and protection measures required at factories, by the Department of Labour's Factory Inspectorate. The union has also found that workers have no right to hear the outcome of any investigations they might have requested. A letter informing the union that such an investigation was 'strictly a matter between the employer and the department' underlines the validity of Adler's argument.

In a paper dealing mainly with the incidence and prevalence of silicosis on the gold mines in the first quarter of this century, Elaine Katz also points out the discriminatory nature of compensation between white and African mine workers. In the case of compensation for tuberculosis the ratio of white to African awards has increased from 5,9 to 8,3 between 1921 and 1973. It is noteworthy that white mine workers have a strong trade union whereas African mine workers do not.

The provision of medical services for workers is considered by Diane Cooper who examines Industrial Council medical schemes. The paper reveals a bias in favour of skilled and white workers. It also calls into question whether the sick pay benefits which are part of the medical benefit schemes are really an improvement on the sick leave provisions of the Factories Act and the Unemployment Insurance Act, which by law they should be. Whereas workers are not required to pay contributions under the Factories Act, they contribute an amount equal to employer's contributions to sick pay benefits. Furthermore although sick pay benefits are paid for a longer period, full pay is accorded by the Factories Act whereas sick pay benefits are on average 45% of the minimum wage (as calculated by Cooper on available statistics).

The mutilation of many workers in South Africa's industries indicates the need for drastic action. There is much that has to be done and we want to pinpoint only three areas requiring careful attention. The first is that much more research is required into the incidence, causes and prevention of industrial accidents and diseases. The Erasmus Commission for instance found that there is no schedule of maximum threshold limit values for hazardous substances used in various industries in South Africa (nor did they recommend such a schedule). Research is required to establish these limits.

The second concern stems from the fact that symptoms resulting from exposure to hazardous substances and submission to poor working conditions sometimes only become evident years later, often only after the worker has left the work place where he contracted the disease. In the United States of America, for instance, the National Cancer Institute and National Institute of Environmental Health Sciences have recently calculated that at least 20% of the cancer incidence in the United States is attributable in whole or in part to occupational exposure to carcinogenics in the work place. The carcinogenics include asbestos, arsenic, benzene, chrome, iron oxide and nickel. However, most of these cancers will only manifest themselves in the next 30 to 35 years. Although diseases could have multiple causes, it is important to establish which diseases have occupational links, which industries are responsible for the diseases, how these can be prevented and how to calculate financial responsibility for compensation. The latter is an aspect that the Erasmus Commission totally neglects, while the Workmen's Compensation Act makes inadequate provision for it.

The third concern is about the period of time which has lapsed before any action has followed the Erasmus Commission findings and recommendations. The recent appointment (December 1978) of the Commission of Inquiry into Compensation for Occupational Diseases is very welcome. However, legislation based on the Erasmus Commission recommendations has still to be introduced, and the question arises of how effective such laws can be when the Commission omits industrial accidents from its purview, relies mainly on voluntary persuasion of management to attain desirable health standards and wishes to exclude trade unions from direct participation in the determination and enforcement of health conditions at work.

Workers cannot expect employers to improve working conditions when this involves additional costs unless they are forced to do so. Nor can they expect the State to introduce - and enforce - strict statutory protection which would run counter to employer interests. What is required are strong trade unions to bargain effectively for improved working conditions. In order to achieve this, full trade union rights for African workers becomes a necessity. Experience in Industrial Councils has shown that the interests of African workers are severely neglected because they do not have direct trade union representation. (See, for instance, the article by Scheiner in SALB Vol. 3 No. 10). There is also an awareness of this need amongst some members of the medical profession as the article by a group of Johannesburg doctors indicates.

It has been argued that trade unions can strengthen their bargaining power by incorporating health and safety issues into their organisational strategy. How precisely each union does so depends upon the situation in which it finds itself. Some argue that at present the unions are too weak and to set up sub-committees on safety is premature. We publish in this edition an article by Johann Maree which proposes one way that a union could proceed. Whatever

strategy is pursued, an essential requirement for a union that provides medical services is to incorporate the services in such a way that workers are mobilised to assume as much responsibility as possible for their own health. Care needs to be taken however, not to start turning the union into a mere benefit society by the introduction of medical services.

COMMENT 2
WORKMEN'S COMPENSATION AND UNCLAIMED MONEYS

'More than R150 000 awarded to 3 200 workers in South Africa who have been injured is unclaimed ... The amounts range from R6 to R3 500. Many workers are black contract workers, although whites, coloured people and Asians are also included. A spokesman for the Department of Labour in Cape Town said today all efforts were made to trace the people to whom compensation money was owed. "Once their claim has been processed a cheque is sent to the address supplied on the claim. When the cheque is returned we then inquire from their employers whether they know of their whereabouts. In the case of blacks we ask the local authority of the Administration Board to try to trace them. If all else fails the person is listed in the Government Gazette" he added' (The Argus, 29 Sept., 1978).

A serious shortcoming in the administration of the Workmen's Compensation Act is the failure of the Workmen's Compensation Commissioner to trace many of the injured workers to whom compensation is due. Many of the workers who do not receive their compensation payments are African contract workers, the very people who are most often in dire need. This unsatisfactory state of affairs has existed for many years now. As the Labour Bulletin's recommendations to the Wiehahn Commission on the Workmen's Compensation Act show, the total sum of unclaimed moneys due to workers and their dependents amounted to over R2,7 million by the financial year 1974-75. (We reprint the recommendations elsewhere in this Bulletin).

The time is long overdue for tightening up the administration of the Workmen's Compensation Act in order to ensure that all workers entitled to claims under the Act, do in fact receive these claims. This can be achieved by redesigning prescribed forms (such as W.CI.100: Employer's report of an Accident to a Bantu Workman) to include both the urban and rural residential addresses of all contract and other workers with rural

dependents. It should also be made compulsory for employers to provide both these addresses and the address of dependents or next-of-kin. Serious consideration should also be given to establishing closer co-operation between the Workmen's Compensation Commissioner and the Divisional Inspector of Labour to whom all accidents have to be notified forthwith by employers in terms of Section 31 of the Factories Act. The factory inspectorate could then be mobilised to ensure compliance with the regulations of the acts. To become effective the inspectorate's manpower should be expanded. At the time of the Erasmus Commission only 29 of the 66 posts allocated for factory inspectors had been filled. In order to acquire the manpower to achieve this desired level of efficiency, the control of Workmen's Compensation should be placed in the hands of a statutory commission which includes elected trade union representatives.

It is however not enough to rely on statutory bodies for the efficient administration of claims under the Workmen's Compensation Act. Trade unions are necessary to educate workers about their rights, to inform and assist them in making their claims for compensation, to arrange legal assistance and medical examinations where necessary, and to keep their own records of the urban and rural addresses of workers and their dependants. Only through their own organisation can workers really ensure that they are adequately compensated when they suffer industrial accidents or disease.

COMMENT 3
RECOMPOSITION OF THE SALB EDITORIAL BOARD

The South African Labour Bulletin (SALB) produced its first issue in April 1974, - some five years ago. To begin with the SALB was centred in Durban as the composition of the Editorial Board indicated. However, in 1975 when Eddie Webster moved to Johannesburg we tried to constitute the Board on a national basis. This took some time to settle as we tried to find suitable people who could devote sufficient time to the SALB. In 1977 and 1978 a reasonably workable arrangement in Johannesburg and Cape Town was reached.

However, it was increasingly apparent that the Durban Board members had less and less time to devote to the SALB and this was an unsatisfactory situation.

To try and overcome these difficulties and to cover each centre more effectively the Editorial Board has reconstituted itself. An additional Board member, Alida Kooy, will come on in Cape Town. In Durban Ravi Joshi and John Mawbey will leave the Board since we all feel that their full-time labour involvement has made it very difficult to give much time to the SALB. However, the SALB will continue to draw on their advice and experience. Foszia Fisher, a founder member of the Board, will also leave since she has increasingly become involved in community work and has not been able to devote as much time to the bulletin. Charles Meth and Liz Hosken have been appointed in Durban. Liz is the new Managing Editor and will be able to work full-time at the job with the assistance of Neru Naidoo who will be dealing with subscriptions, typing, records etc.

The Board hopes that this arrangement will make for a smoother functioning of the SALB.

However, we would like to pay tribute to the role and help of Foszia Fisher and John Mawbey.

Foszia Fisher was a founder member of the Board and must be credited with all the initial hard work in getting the Bulletin going. She established a range of contacts for the Bulletin and initiated many of the earlier articles and comments.

After Foszia left the Institute for Industrial Education (I.I.E.) at the end of 1975 she was increasingly less able to play an active role in the Bulletin and will no longer serve on the Board.

John Mawbey started on a part-time basis as Managing Editor at the beginning of 1975 whilst still teaching at a high school. In April 1975 he became full-time Managing Editor. Being a Managing Editor in Durban has never been an easy task as the TUACC Unions have all too often made demands on John to help with numerous tasks and crises. During part of 1976 he was the Acting Secretary of the Chemical Workers Industrial Union and later in the year after the bannings in November, he provided considerable help to both the registered and unregistered textile unions. Shortages of staff during 1977 and his involvement in TUACC in 1978 made it difficult to carry out his task as he would have liked.

It takes a particular kind of tenacity and loyalty to persist through all this and still produce a journal at the end of it. For anyone who has been involved in publishing they'll know that the normal frustrations and difficulties of the job don't need to be compounded.

The Board would, therefore, like to express a particular debt of gratitude to John as an activist deeply committed to labour's cause.

THE COMMISSION OF ENQUIRY ON OCCUPATIONAL HEALTH

Phillipa Green and Shirley Miller

This article summarises the findings of the Erasmus Commission (Commission of Enquiry on Occupational Health) and attempts briefly to assess its recommendations, which are situated within the Commission's own ideological framework.

The first part of the article is primarily a summary of the Commission's findings. The relative importance of various diseases could be overlooked here as they have been listed in much the same order as they are found in the Commission. The Commission for example, attaches particular importance to the widespread incidence of Pneumoconiosis in its various forms and although we do not wish to belittle the importance of dust-induced diseases, we consider it necessary to draw attention to the apparently, 'harmless' industries e.g. the ice-cream manufacturing industry where the use of carbon bisulphate can cause severe gastrointestinal damage. Furthermore in industries where lead is used, e.g. the manufacture of glass, paint or matches, the number of workers in South Africa potentially exposed to lead poisoning exceeds 158 000. The Commission itself points out that, if Swedish standards relating to maximum levels of lead in blood and urine were applied in South Africa, many factories would have to be closed.

Another area which is often overlooked is the fact that noise is the most common physical danger to which the vast majority of industrial workers are exposed. There is not a single industry in which some area is not described as a noise zone. Heat radiation and asbestosis are other alarmingly common diseases among industrial workers.

In the article we have been fairly unambitious in following the actual structure and content of the Erasmus Commission except for the sketchy impressions and criticisms included at the end. Its aims are to make accessible information on occupational disease to people more directly involved in the struggle for workers' rights.

The Commission's approach to its investigation is revealed in the following paragraphs (3.57, 3.58 and 3.59) of its introductory chapters:

'Because the Republic, although still a young country, has developed into a vigorous industrial country within the space of the last quarter century and has a tremendous potential in this sphere, it is only natural that these tremendous developments should have some of the characteristics of the so-called first industrial revolution but it is clear to us that this development is not yet showing any signs of the oppressive and heart-rending conditions, for instance, described in the literature on the industrial revolution in England. As yet, we cannot really speak of threatening unrest, malnutrition, starvation wages, appallingly long hours of work, unemployment, and other conditions arising from problems that have a bearing on industrial health.

'The spectre seen by some people in the features remembered of industrial history in other countries has been conjured up here and an unscientific attempt has been made to seek such a theoretical parallel in conditions with a totally different orientation. This has been done partly by people who are unconnected with industry and in whose eyes enough can never be done for the Black worker, by political agitators, by prophets of doom and by people who have no ethnological background - an essential requirement in labour matters in the

multiracial Republic and the Territory of South West Africa.

'No-one would deny that, in a sense, the discovery of diamonds and gold resulted in an industrial revolution, or perhaps more of an economic revolution, in South Africa. Here, too, there was an influx of people, but the greatest number came from beyond the borders of the Republic. The disruption of family life has therefore taken place mainly outside the Republic, and the disruption of families within the Republic has been on a smaller scale not comparable with that in England.'

This attitude colours the report of the Erasmus Commission. Nevertheless the Commission's own findings frequently reveal extremely dangerous working conditions and a high increase of occupational disease. Torn between the need to exonerate industry from any ill will and the belief that the incidence of occupational disease is unnecessarily high, the Commission tends to represent the appalling lack of concern on the part of industry as mere neglect rather than a necessary concomitant of the economic system.

There is a basic assumption that the crux of the problem is that industrialists are ignorant of the economic benefits which they would derive from improving working conditions. The proposition is that better working conditions would increase productivity but this view fails to consider that in many cases, given the dangers of the industrial processes involved, the provision of safer working conditions might cut down profits (1). For many industrialists it is cheaper to continue with existing practices, especially as most occupational diseases only manifest themselves many years after employment and thus do not impair workers' fitness during employment.

Caught in their own contradictions, the Commission, in the main, concludes that Industrial Hygiene may be left largely in the hands of industrialists.

Before examining the findings of the commission it is necessary to point out that the terms of reference were interpreted to exclude industrial accidents. The Commission considered that the tendency to group accidents and occupational disease together and to classify occupational diseases as accidents arises from the 'historical struggle by workers to extend the scope of the laws relating to workmen's compensation or to interpret existing laws as widely and as favourably as possible to themselves' (Page 3 para 2.34).

Despite the fact that most occupational diseases only manifest themselves some time after exposure, the Commission restricted their brief to an examination of 'the position of workers while still employed and not after they have already left their employment and can no longer be regarded as "industrial and other production workers"' (Para 2.44 page 4).

Similarly they considered 'compensation as having no bearing on the prevention of an occupational disease or alleviation or curing of such a disease' and thus ignore it (para 2.50 page 4).

The Commission found that 5,78 million (71.9%) of the 8 million economically active people in South Africa were not covered by legislation relating to occupational disease. It pointed to a growing realisation by employers that the workers themselves are responsible

for the utilisation of the earth's resources, but also found that industrialists have put little money, time or organisation into the prevention of occupational disease. Industrialists seem to show little awareness that these are sound long term investments. The commission explicitly excluded the gold, iron and asbestos mining industries from these criticisms.

Generally, however, the commission found that management were not industrially health oriented. This lack of interest was reflected in the small number of medical personnel with specific industrial health expertise. Except for those covered by the Department of Mines, industrialists did not pay much attention to the visits of departmental inspectors. Further these inspectors were hampered by the fact that in South Africa there is no specific industrial health training as in most continental countries. Where industrial health measures were applied this was either because it was compulsory by law or economically advantageous. For example workers at precious stone mines had to leave their working clothes on the site at the end of each shift. Considerations of industrial hygiene were rarely the motivator.

Pneumoconiosis

The Commission considered Pneumoconiosis, the occupational disease most frequently contracted by workers and thus devoted considerable attention to it. Pneumoconiosis is the generic name given to diseases caused by any type of dust. It can affect workers in such industries as mines, quarries, sand blasting works, foundries and potteries. The Commission estimated that 25% of all workers exposed to dust suffer from Pneumoconiosis. Because the disease often manifests itself some time after exposure it is difficult to establish a clear picture of the incidence. The commoner examples of such diseases in South Africa are silicosis, asbestosis and anthracosis.

Silicosis is caused by inhalation of small particles of silicon dioxide in its free form. Figures relating to silicosis and TB among black miners between 1966 and 1971 show that despite a decline in the more serious palpable island formation, the actual incidence of silicosis rose.

In South Africa asbestos is found in three forms, the most dangerous one being Cape Crocidolite (Cape Blue Asbestos). Exposure to asbestos can cause thickening of the pleura and cancer. The high incidence of cancer after exposure is confirmed by figures which reveal that out of 465 cancer patients examined, 57,7% had been exposed to asbestos. Because of the vast number of uses for asbestos, there are a large number of potentially exposed workers. Despite this there were at the time no statutory threshold levels in South Africa. The Department of Mines had proposed 40 fibres per cc. (hoping to reduce this to 5 by 1976), as a guideline for surface and underground mining activities. Other industries tended to follow this guideline. These figures compare most unfavourably with thresholds in the United Kingdom where the maximum permissible concentration of asbestos in the working atmosphere is 2 fibres per cc. The use of the particularly dangerous Cape Blue Asbestos is even more strictly controlled - the permissible concentration is 0,2 fibres per cc. and special permits are required for its use. In South Africa no special regulations govern its use. The U.S.A. regulations are similarly much more stringent with the maximum permissible concentration of asbestos fibres per cc. being 5 fibres and this is being reduced to 2.

The Commission's findings indicate that Pneumoconiosis occurs not only amongst workers in the more obvious mining and quarrying industries, but also in secondary industries such as asbestos - cement, scrap-iron, ceramic and refractory goods and

sandblasting. The Commission points out that Pneumoconiosis in itself does not impair the workers' fitness for work, but in conjunction with other complications such as chronic bronchitis, emphysema and cardiac diseases, may cause unfitness for work and even death.

The Commission's figures indicate that although the number of deaths in the case of silicosis has dropped the number of workers contracting the disease has increased.

OCCUPATIONAL DISEASES CAUSED BY EXPOSURE TO GASES AND CHEMICALS

Looking at diseases associated with the use of gases and chemicals in industry, the Commission found a general ignorance among workers and management of the specific dangers of substances in use. This lack of knowledge, it concluded, could be attributed to the fact that in South Africa, industry was developing quickly and consequently a growing number of chemical substances were being used.

The danger of chemicals and similar substances lies not only in their particular properties but in their concentration, their manner of absorption and the period of exposure. While low concentrations might reveal no chronic occupational disease (as did high chronic exposure) they were partly responsible for the development of cancerous conditions many years after exposure.

Ammonia

High concentrations of ammonia gas irritate the eyes as well as wet skin. Liquid ammonia irritates the mucosa, eyes, nose and skin. The effect on the eye ranges from watering eyes to oedema of the eyelids, corneal sores and blindness. The liquid causes corrosive burns and water blisters. Ammonia when

inhaled in large concentrations is an extremely toxic asphyxiating gas which can cause death. Even if one should survive exposure, bronchitis and pneumonia may set in. The Commission's investigations revealed that there were a wide range of industries in which exposure to ammonia could take place. Seventy two different groups of workers were at risk. This involved a total of 6 794 factories with a total workforce of 589 672.

Ozone

In basic chemical manufacture, oxygen subjected to ultra-violet rays produces ozone. Exposure to high ozone concentrations over a long period can result in oedema, haemorrhage, chronic bronchitis and bronchiolitis. Chronic exposures to relatively low concentrations cause headaches, malaise, shortness of breath and drowsiness. Some 21 categories of workers amounting to 175 605 people in 3 793 factories and works are exposed.

Vinyl Chloride

One of the liquids used to form plastic material in the plastic industry is vinyl chloride. Tests on animals have shown that it is responsible for cancer of the liver (angiosarcoma), kidneys, lungs and brain. Also associated with exposure to this material is acro-osteolysis (shortening of the fingers). There were 23 767 workers potentially exposed in 451 plastic products factories, and a further 585 workers in 14 secondary industries (for example petroleum products).

Carbon Bisulphate

Carbon Bisulphate is a skin irritating solvent used in industries such as the metallurgical industry, ice

cream manufacture, pottery and fertilizer. Chronic exposure results in mania, depression and hallucinations. The gastro-intestinal functions are affected. The heart, liver and kidneys can also be damaged. Sixty six thousand and three hundred and ninety eight workers could be exposed to carbon bisulphate. This involves 845 factories and 58 different occupations. The Commission accepted researchers' estimates that 'only' 5 000 of these workers are at high risk.

Cyanide

Ten different occupations involve the use of powdered cyanide. Inhalation of this substance adversely affects the vascular and central nervous systems. Dermatitis and skin allergies arise from contact.

Benzine

The commission found that solvent benzine was freely used in South African industries. People working with the substance were not only generally unaware of the dangers associated with its use, but as a consequence of benzine frequently appearing under a trade name, were in some cases unaware that they were using benzine. Benzine is a primary irritant when in contact with the eyes, mucous membranes and upper respiratory tract. Exposure to high concentrations affects the central nervous system and can cause headaches, dizziness, unconsciousness, convulsions and death. Chronic exposure to low concentrations affects the haemopoietic system. In addition benzine is also carcinogenic and forms of leukaemia have often been identified among persons who have worked with benzine. There are 68 occupations in which workers are exposed to benzine. The commission considers that 'only' 40 000 of the 595 440 potentially exposed workers are at high risk.

Chlorinated Hydrocarbons, Carbon Tetrachloride, Ethyl
and Naphthylamine

These are not only manufactured in South Africa but used in various industries. The Commission was unable to determine the extent of occupational disease arising from exposure to these substances mainly because of the lack of records and statistics. Small quantities of chlorinated hydrocarbon can affect people adversely. Repeated exposure causes fibrillation of the ventricle and may lead to death. Twenty thousand people are involved either in its manufacture or use. Carbon tetrachloride is used in the dry cleaning industry. Hepatotoxin in small quantities causes cirrhosis of the liver but is only detected years after exposure. Twelve thousand and seven hundred workers are exposed. Naphthylamine, used to protect clothing against moths causes cataracts. Here 26 000 workers are exposed.

OCCUPATIONAL DISEASES ARISING FROM INDUSTRIAL METALS

Lead

One of the most startling findings of the Commission was the extremely dangerous conditions prevalent in industries using lead. In fact the Commission revealed an increase in the number of notified cases of lead poisoning since 1972. They pointed to the abnormally high level of lead absorption amongst workers and pointed out that there was no maximum permissible level of lead in blood in South Africa. They found, moreover, that if South Africa were to be submitted to Swedish standards, 45,6% of workers would have to be withdrawn because they showed an overdose of lead. Similarly by USA and U.K. standards 44,0% and 26,1% respectively of the workforce would be withdrawn. In South Africa only 3,2% are withdrawn and this represents a 'voluntary withdrawal as against a

compulsory withdrawal. The Commission points out that many factories would have to be closed if one were to apply Swedish standards.

Among the symptoms of lead poisoning are gastrodynia, headaches, muscular fatigue, tetania and myodynia, loss of appetite, nausea, vomiting, loss of weight, anaemia, paleness and a blue lead line on the gingival margin. The most general form of organic lead poisoning is through tetraethyl lead which affects the central nervous system.

The Commission reveals the danger of unscrupulous employers who might try to create a favourable picture by giving their workers calcium versenate which, though it reduces the lead count in urine, can itself lead to chronic nephritis and permanently affect the kidneys.

The Commission found that even where legislation prevailed, for example, in the case of women who are forbidden to work in industries where high lead absorption occurs, it was not strictly applied.

158 678 workers are potentially exposed to lead poisoning in a wide variety of industries. Poisoning results from inhalation of lead fumes or dust.

Manganese

Manganese, affects two systems in the body.

Manganese dust causes pneumonia which can develop into chronic bronchitis. An investigation in one factory showed that there was a higher incidence of chronic bronchitis in manganese workers than in a control group. The fumes from manganese also affect the central nervous system.

Manganese has a large number of uses and thus about 89 826 are exposed. There is no threshold for the concentration of manganese in the atmosphere and sample concentrations in S.A. smelts compare very unfavourably with those of the U.S.A.

Platinum

Platinum itself is not toxic, but during the refining process platinum salts are formed which may cause platinosis - an irritation and chronic inflammation of the whole respiratory canal - and also an allergic dermatitis. The number of workers exposed includes not only 18 000 workers in 16 types of occupations covering 252 factories but also an unknown number of workers in chemical laboratories. In tests in 3 refineries 27% of workers were found to suffer from platinosis. The commission felt that platinosis could be completely prevented with proper measures.

Iron

In spite of the fact that S.A. is emerging as a major iron producer, there is no statutory ruling as to maximum thresholds. The commission found that where workers were exposed to high concentrations of dust with iron oxide and silica they could develop advanced pulmonary fibrosis. This could affect 10 486 workers.

Chrome

The commission was disturbed to find that in the chrome industry there was an apparent lack of concern about the physical welfare of workers. Exposure results in traumatic atrophic rhinitis. It also found that the incidence of bronchogenic carcinoma was abnormally high amongst chrome workers. In one

survey of a chrome factory workers accepted that perforated nasal septa were an almost inevitable consequence of their jobs. 75% of these workers had active lesions while 46% had complete perforations. 165 777 people in 102 different occupations working in 2 145 factories are in contact with chrome.

Vanadium

South Africa produces 40% of the world's vanadium. The commission considered that research into the effects on workers of this metal should be given high priority. The dangerous element is vanadium pentoxide which damages the red blood cells and leads to chronic bronchiolitis, emphysema and cancer of the lung. 27 616 workers exposed to vanadium are found in 17 different kinds of occupations in 408 factories.

Mercury

Exposure to mercury is limited to those industries where metallic mercury or organic or inorganic mercury compounds are used in one form or another during manufacturing processes. Although some compounds are skin irritants, the most common problems arise from inhalation of mercury dust and fumes. Acute exposure results in one or more of the following: gastrodynia, vomiting, diarrhoea, gingivitis, pneumonia, kidney injury and cardiac and respiratory failure. Chronic exposure causes gingivitis, emotional instability, headaches, sleeplessness, auditory loss and visual restrictions. Poisoning from certain organic mercury compounds results in other symptoms such as ataxia and tremors. Mercury is used in 55 different industries with a total of 77 132 people working in 715 factories. Although mercury is used in the gold refining industry, the Department of Mines does not include mercury poisoning as a scheduled disease.

Other metals

According to the commission, industrial diseases associated with cadmium (emphysema, reduction of erythrocytes, and kidney damage) have not been positively detected in South Africa. Similarly the extent of metal fume fever which occurs among bronze welders is not known. As far as aluminium is concerned the commission found no evidence of any cases of Shaver's disease (an acute interstitial condition of the lung) when it visited the aluminium plant at Richards' Bay.

OCCUPATIONAL DISEASES ARISING FROM PHYSICAL AND BIOLOGICAL FACTORS

Radiation

Unlike other industrial health hazards which have largely been ignored, protection against radiation has been recognised as being of prime importance. The commission considered this to be a consequence of the fear of nuclear war and the related concern with nuclear energy. This has resulted in careful monitoring and though the number of registered radiation workers grew from 4 000 to 7 000 between 1964 and 1974 there was only an average of 3 people per annum who received a dose exceeding the maximum permissible level. Even in the mining industry where a large number of people are exposed to uranium under conditions which are difficult to control, the incidence of persons exposed to dangerous doses has been low. Other dangerous beams include non-ionising parts of the electro-magnetic spectrum e.g. microwaves and infra-red and ultra-violet radiation.

Noise

The most common physical danger to which workers are exposed is noise. If a sound reaches a level of 85 decibels and is sustained for a sufficient length of time, whether the noise is pleasant or not, it will cause deafness. If noise equivalent to 85 db is sustained for an eight-hours period, auditory loss is a real danger. There is not a single industry in which some area is not described as a noise zone. Of the 1 598 070 workers in 30 097 factories 15% (239 711) work in noise zones. The Commission considered that workers were ignorant of the dangers in non-obvious areas and thus of the necessity for wearing ear-muffs.

Heat

Though heat stroke is a particular problem on deep gold mines, other workers are faced with the danger of excessive heat and the potential working population exposed to heat is about 300 000. Excessive heat may cause dermatitis, dehydration, heat exhaustion and heat stroke. All these reactions are reversible and disappear if exposed persons are removed from heat. The Commission points to the successful program of heat acclimatisation ('world famous') on the gold mines which has succeeded in reducing heat stroke mortality from 14 per 100 000 per annum to 4 per 100 000 per annum. Workers exposed to heat radiation at coke furnaces, glass furnaces and foundries can be rendered sterile for protracted periods by the intense heat radiation.

Zoonoses

Not only farm workers but factory workers (e.g. in abattoirs, meat canneries, factories producing plant and animal oils and by-products) are potentially exposed to zoonoses - that is various diseases transmitted by contact with animals. The commission

felt that it was a moot question whether zoonosis could be designated an occupational disease. There was apparently some justification in the case of veterinary surgeons, stock inspectors and farmworkers but the Commission was less sure whether it could be applied to other workers although a further 48 333 workers in 790 concerns could be affected. Zoonoses inter alia, include the following disease: anthrax, brucellosis, TB leptospirosis, glanders, foot and mouth, herpes, marbury virus, trypanosomiosis, tick bite fever, ringworms and malaria. Because there has been no follow-up on patients who have been discharged from hospital, it is almost impossible to determine if there has been any permanent damage from these diseases.

Insects and Vermin

Forestry workers face the additional hazard of insects and vermin. Because agricultural forestry workers are so regularly exposed to such diseases as malaria and bilharzia the Commission considered that there was a strong case for their inclusion as an occupational disease. However, in their evidence, the Department of Forestry maintained that 80-90% of all blacks in the Eastern Transvaal suffer from bilharzia. The commission considered that without pre-employment medical examinations it was difficult to ascertain whether black workers contracted the diseases in the course of their employment.

Insecticide Poisoning

The Commission found that deaths from agricultural chemicals were minimal. However, the carcinogenic effects of pesticides had not yet been established. But where they appeared positive, as in the case of D.D.T., their use had been restricted to a minimum. A further 146 835 factory

workers who handled agricultural products were also exposed to pesticides and insecticides. This included such activities as the canning, storing, sorting, grading and packing of fruit and vegetables; the handling of grain and manufacturing of grain products; the manufacture of sugar, cocoa and sweets; the manufacture of wine, spirits, beer, fruit juices and cool drinks; the manufacture of sundry foodstuffs.

The table below indicates the large number of workers potentially exposed to dangerous substances and illustrates the non-obvious industries where they may be found in.

INDUSTRIES IN WHICH WORKERS ARE
EXPOSED TO DANGEROUS SUBSTANCES

<u>Toxic Substance</u>	<u>Type of Industry</u>	<u>No. of factories Mines or Works Involved</u>	<u>No. of po- tentially exposed workers</u>
<u>Ammonia</u>	Textile & artificial Fibre weaving	671	230 173
	Leather & rubber	838	63 285
	Pressing, paper & associated industries	1 107	68 704
	Chemical industries	2 563	192 547
	Metal plating & paintwork	167	6 532
	Photographic pro- cessing labs.	110	2 410
	Laundries, dry- cleaning	1 338	26 021
		<u>6 794</u>	<u>589 672</u>
<u>Ozone</u>	Metal plating	289	4 704
	Steelworks where there is welding	3 324	155 371
	Photopressing	110	2 410
	Basic chemical manufacturing	70	13 320
		<u>3 793</u>	<u>175 605</u>
<u>Vinyl Chloride</u>	Plastic production	451	23 767
	Secondary industries in petroleum manufacture	14	585
	<u>565</u>	<u>24 352</u>	
<u>Benzine</u>	As ammonia	6 794	589 672
	Paint industry	111	5 768
		<u>6 905</u>	<u>595 440</u>

<u>Toxic Substance</u>	<u>Type of Industry</u>	<u>No. of Factories Mines or Works Involved</u>	<u>No. of po- tentially exposed workers</u>	
<u>Carbon Bisulphide</u>	Metallurgical	131	27 214	
	Ice cream	35	1 261	
	Pottery	25	27 002	
	Fertilizer	22	4 557	
		<u>845</u>	<u>66 398</u>	
<u>Lead</u>	Tanneries	33	2 211	
	Rubber & rubber pro- ducts	406	24 842	
	Printing works	756	34 271	
	Typesetting	7	288	
	Paint manufacture	104	5 688	
	Explosives & fireworks	5	4 577	
	Match manufacture	6	1 212	
	Agricultural remedy manufacture	22	4 557	
	Brickworks	301	32 624	
	Pottery, sanitary ware & tiles	5	6 001	
	Glass manufacture	196	12 240	
	Lead smelting	15	768	
	Cable manufacture	146	19 343	
	Galvanizing works	14	842	
	Battery manufacture	31	3 537	
	Copper alloys	39	5 677	
		<u>2 086</u>	<u>158 678</u>	
	<u>Manganese</u>	Manganese ore works	17	5 160
		Ferromanganese works	5	1 806
Battery manufacture		31	5 677	
Brickworks		301	32 624	
Explosives & fireworks		5	4 577	
Match manufacture		6	1 212	
Glass manufacture		196	12 240	
Rubber		406	24 842	
Paint manufacture		104	5 688	
		<u>1 011</u>	<u>89 826</u>	

<u>Toxic Substance</u>	<u>Type of Industry</u>	<u>No. of Factories Mines or Works Involved</u>	<u>No. of potentially exposed workers</u>
<u>Manganese</u>	Manganese ore works	17	5 160
	Ferromanganese works	5	1 806
	Battery manufacture	31	5 677
	Brickworks	301	32 624
	Explosives & fireworks	5	4 577
	Match manufacture	6	1 212
	Glass manufacture	196	12 240
	Rubber	406	24 842
	Paint manufacture	104	5 688
		<u>1 011</u>	<u>89 826</u>
<u>Platinum</u>	Platinum refineries	5	1 461
	Glass factories	196	12 240
	Ceramics	56	6 271
	Chemical Laboratories (unknown number)		
<u>Chrome</u>	Chrome mines	17	3 514
	Soap factories	59	6 094
	Factories using lead wastes	<u>2 086</u>	<u>158 291</u>
		<u>2 162</u>	<u>168 291</u>
<u>Vanadium</u>	Ceramic	196	12 240
	Petroleum refineries	13	2 644
	Glass factories	196	12 240
	Vanadium smelters	<u>3</u>	<u>452</u>
	<u>408</u>	<u>27 576</u>	

<u>Toxic Substance</u>	<u>Type of Industry</u>	<u>No. of Factories Mines or Works Involved</u>	<u>No. of po- tentially exposed workers</u>
<u>Mercury</u>	Leather tanneries	33	2 211
	Paint factories	104	5 688
	Potteries, sanitary ware and tiles	196	12 240
	Agricultural remedy manufacture	22	4 557
	Paper & paper products	186	29 907
	Basic chemical factories	70	13 320
	Factories in which mercury lamps, flour- escent light & mercury containing lamps are manu- factured	99	4 632
		<u>715</u>	<u>77 132</u>
<u>Zoonosis</u> ¹	Abattoirs, butcheries, meat canneries, etc.	513	28 921
	Dairy produce factories	247	13 677
	Plant & animal oils & fats & by-products of these	30	5 735
		<u>790</u>	<u>48 333</u>

(This does not include farm workers, veterinarians, stock inspectors and factory workers)

¹ Zoonosis is of course any infectious disease of animals that may affect man and not a toxic substance.

<u>Toxic Substance</u>	<u>Type of Industry</u>	<u>No. of Factories Mines or Works Involved</u>	<u>No. of po- tentially exposed workers</u>
<u>Pesticides and Insecti- cides</u>	Canning, storing, sorting, grading & packing of fruit and vegetables	107	30 503
	Handling of grain & manufacture of grain products	1 297	56 460
	Manufacture of sugar, cocoa & sweets	93	26 081
	Manufacture of wine, spirits, beer, fruit juice & cool drinks	312	24 396
	Manufacture of sundry foodstuffs	165	9 395
		<u>1 974</u>	<u>146 835</u>

(A further 2.5m agricultural workers can be added to the above total).

THE COMMISSION'S RECOMMENDATIONS

This section deals briefly with the recommendations of the Commission, pointing firstly to their inadequacy in terms of the Commission's own findings and paradigm and secondly to the way in which their recommendations highlight their ideological position.

The Commission points to an alarmingly high rate of occupational disease in industry and on the mines. This rate is probably, in fact, even higher than the Commission's findings reveal for

- i) accidents are specifically excluded,
- ii) the health of the working class community as a whole is not taken into account and
- iii) the Commission itself notes a lack of information in many critical areas.

The recommendations are surprisingly diffident. Great emphasis is laid on co-operation between workers and employers as a means of securing industrial safety and health. The mines, the railways the Departments of Defence and Industries should be allowed, the Commission recommends, to retain direct control and a large amount of discretion in health matters affecting their employees.

While the Commission emphasises the need for legislative action to be taken, even here, they see the 'over-hasty enforcement of sanctions' as being unnecessary. Rather 'advice' persuasion and warnings' should be used. They point out that there is a need for a single uniform Act covering all matters pertaining to Industrial Health. They argue that it is necessary to make it compulsory for all industries to engage industrial health staff in proportion to the number of workers they employ.

The Commission repeatedly expresses concern at the high incidence of occupational disease in terms of cost of production. Promotion of health, they argue, 'should be as important and normal as production and marketing'. A person operating at management level should be responsible for health matters and should liaise with government industrial health inspectors and workers or their representatives. This would ensure that management would adhere to lawful requirements and report any serious occupational disease or problem, and also that they would consider complaints and requests by workers or their representatives in connection with industrial health problems and would thus provide 'an effective safety valve for workers' pent-up emotions'.

They recommend that it be the responsibility of management to provide medical welfare services and pre-employment and other medical examinations. These are important as they can disclose the existence of occupational disease which might save workers' lives or even prevent disease spreading or being transmitted to family or fellow-workers. The Commission continually stresses the importance of pre-employment examinations to establish where occupational disease is contracted to ensure that the responsible body contributes to compensation.

Management should ensure that working conditions are suitable and should supply industrial health equipment (ear-muffs etc.).

The Commission concludes that the onus is mainly on management, although the co-operation of workers must also be sought, but not 'solely by freely recognising pressure groups or acceding to demands'.

They point out that in Britain, since 1872 coal miners have had the right to appoint representatives to inspect the mines on their behalf. This was extended to all mines in 1954. These representatives are appointed by trade unions and have the right to inspect the mines at least once a month. The Commission identified 3 reasons why such rights should not be granted to mine and other workers in South Africa:

'Firstly, the history of trade unions in the Republic does not go nearly as far back as that of trade unions in England. Secondly, on the mines of the Republic we have various races with different norms, and these groups cannot always agree among themselves about their demands. Thirdly, a great number of our miners are blacks who come from beyond our borders. By giving trade union rights to these workers, who have little or no interest in the Republic's welfare, they may become the biggest pressure groups with the most unreasonable demands, and as aliens they may even seek to dictate labour

policy in in this country. No country could tolerate such such a state of affairs' (Page 41, para. 11 507).

Having thus severely circumscribed the role of worker organisations in dealing with matters pertaining to industrial health, the Commission proceeds to support the establishment of 'joint committees' comprising management and employees for periodic discussion of industrial health matters. However the Commission does not consider it necessary for specific legislation to be enacted providing for such joint committees. The Commission considers that 'if mutual trust is to be achieved there must be some level at which employer and employee may meet to consider the employees' work environment and health'. It sees the constitution of these committees being left for the time being to the discretion of management.

The Commission points out that South Africa is one of the few industrially developed countries without a comprehensive health system for the protection of all industrial workers and the prevention of occupational disease.

They attribute the 'lack of crises' in the industrial sphere to the 'generally sound conditions' in South African industry. This 'lack of crisis; bears out the 'esteem in which our mining industry is held and of the fairness of the compensatory legislation covering mines and other productive workers'.

In arguing the case for all industrial health matters to be placed under one single body, the Department of Health, the Commission contends that 'a large number of workers are and will continue to be indispensable citizens and it is the duty of the State to protect them against employers'.

Their argument here is essentially contradictory. While realising on the one hand the need for 'some' workers to be protected against employers, on the other hand, they

repeatedly assert the existence of good grounds for co-operation' between employers and workers in matters pertaining to industrial health. The Commission sees a constructive role for white trade unions in advancing industrial health (in co-operation, of course, with employers). At the same time, however, it is concerned that industrial disease should be controlled by employers and the State before it becomes an area of operation for 'pressure groups'. Thus far, the Commission suggests, industrial unrest has been sparked off by 'political agitators' and not by dissatisfaction with working conditions.

The Commission repeatedly expresses concern at the lack of research into diseases other than those that are dust induced. The Pneumoconiosis Research Unit (PRU), they point out, was originally commissioned in 1955, solely for research work on pneumoconiosis. In 1964, an Asbestosis Research Project was launched. With the rapid growth of industry, it was felt that resultant serious industrial health problems should be tackled and researched at a national level. This led to an enlargement of the PRU. In 1969, at the International Conference on Pneumoconiosis, grave concern was expressed over the lack of research on occupational diseases other than those dust-induced. But the Commission considers that international norms are not generally suitable for South African industry. To quote the Commission: 'Although there are international safety norms for many other occupational diseases, it is generally acknowledged that these norms are not definitive and do not hold good under all circumstances. For this reason, it would not be safe for the Republic to rely solely on international norms and it was generally felt that it was essential for the Republic to do its own research in view of the fact that its workers consisted of different races and that local conditions differed so widely from those in most other countries'.

Nevertheless it was agreed that there were 'hosts' of

industrial health problems urgently requiring attention.

In 1974, the activities of the PRU were integrated with the National Research Institute for Occupational Diseases (NRIOD), under the auspices of the Departments of Health and Mines. NRIOD does basic research which it applies to an industrial population. The Commission agrees with the Department of Mines that NRIOD should be separated from the Medical Research Council (MRC) and be integrated with the Department of Health. The Commission proposes that NRIOD as such, should disappear, and an Industrial Health Development Branch should become an auxiliary branch of the Department of Health.

The Commission thus recommends that a unified Industrial Health Inspectorate be formed within the Department of Health.

The Department of Health, they suggest, should be responsible for the determination of standards and threshold limit values to be observed by industries.

Industrial workers are subject to occupational diseases that are caused by exposure to excessive concentrations of hazardous substances over periods exceeding certain minima. However individuals differ greatly in susceptibility.

Because the origin of occupational disease is a function of the concentration of harmful substances in the environment, the period of exposure, the method of handling substances and individual susceptibility, the Commission considers it more rational to lay down maximum threshold values for various substances, than to lay down rigid fixed standards. The maximum threshold limit values for the factor environment relate to concentrations of harmful substances in the air and represent those conditions to which workers may be repeatedly exposed without harmful consequences.

However, the Commission only goes so far as to suggest

that maximum threshold limits be used as indices and not as 'fine dividing lines'

In biological monitoring, the maximum threshold limit values represent the maximum permissible quantity of hazardous substances (or metabolites produced by them) in the blood or body fluids. When the threshold limit value is reached, the worker must be withdrawn from work and given the necessary medical treatment. The object of industrial hygiene is to keep concentrations as far below these values as possible. In South Africa, there is no schedule of maximum threshold limit values for hazardous substances used in various industries. Much has been done to lower the concentration of dust in the mines, but there is still no system for determining dust concentration, the type of particles and the period of exposure likely to cause pneumoconiosis. The relative toxicity of a series of dust particles has been worked out experimentally, but can only serve as a guide.

In some cases, standards determined by international organisations are applied in South Africa, but the Commission points out that the formation of standards and threshold values for industries requires the greatest accuracy and care, not only for the protection of the worker and the public, but 'also because they have financial implications that may have serious, and sometimes disastrous consequences for an industry.

On sanctions, the Commission's recommendations are extremely mild. They recommend that the maximum threshold values for different substances serve only as guides. Thus, they foresee that litigation and prosecution will be greatly reduced. If sentences are necessary, for contraventions of industrial health legislation, they should be as 'constructive' as possible, i.e. they should take the form of suspended sentences. Industrialists should have the right of appeal.

Rather than enforcing strict sanctions, they suggest

that a system of licensing be introduced to promote industrial health. The issue of a permit or a licence could be refused or withdrawn if certain conditions pertaining to industrial health were not complied with. But licensing should be applied selectively.

SOME IMPRESSIONS OF THIS ENQUIRY

Exactly what the Commission means by 'constructive' sentences and 'selective' licensing is questionable, but it is certainly indicative of the general equivocation with which the Commission approaches the problem.

It is clear that the Commission's recommendations are very limited and the limitations stem primarily from the restrictive ideological assumptions under which they operate.

Most importantly, the Commission assumes that there is a congruence of interest between workers and employers. This is obvious in the recommendations, which are made on the assumption that workers and employers can and will co-operate in applying standards of health and safety, thus obviating the need for strict state enforcement. However, as has been pointed out earlier, the Commission implicitly contradicts this basic assumption by pointing out the need for the protection of 'some' workers against employers by a supposedly 'neutral' state.

The Commission's findings, although horrifying enough in themselves, should, however, be treated with some degree of circumspection. Health in the workplace is separated, conceptually and practically, from health in the community; in this way 'industrial health' can be separated from 'public health'. This convenient distinction enables the Commission to ignore completely the problems of workers outside the workplace. In South Africa in particular, the political institution of the 'homelands' makes it possible for employers to dismiss those problems of workers and their families which do

not relate directly to the factory or mine. Rural communities, from whence most of the labour force comes, are nevertheless profoundly affected by industrial disease in the 'industrial areas'.

Industrial and mining accidents are also specifically excluded from the report, even though, as the Commission itself points out'..... a great many accidents are so closely bound up with a particular industry that they may be regarded as acute diseases and indeed as occupational diseases'.

Another major assumption of the Commission is that some degree of disease is inevitable in production. In some cases, it considers that disease can be minimised but it rarely considers the complete elimination of disease. A striking example of this is in the mining industry, where it is probably cheaper to arrest pneumoconiosis or TB in their advanced stages. Further the Commission says in its own words: '..... in this way (it is possible to) retain the services of such workers and prevent their becoming permanently dependent on the state'. However, the Commission seems to conclude that under prevailing conditions of production, it is not possible to prevent pneumoconiosis - or most other diseases - entirely.

The important question for the Commission is not the health of the worker as it affects either the worker or his community, but the health of the worker as it affects production and the employer. Thus pre-employment checks are recommended by the Commission, partly to ensure that unhealthy workers are not employed, and partly so that responsibility for the disease can be avoided as far as possible and costs can be shifted backwards to fall ultimately on the worker himself.

In a sense the Erasmus Commission serves as an attempt to pre-empt autonomous worker organisation on the issue of industrial health. It is concerned that industrial

disease should be controlled by employers and the state before it becomes an area of operation for 'pressure groups'. So far, the Commission suggests, industrial unrest had been sparked by political agitators, and not by dissatisfaction with working condition:

'It is the Commission's considered opinion that the only dissatisfaction among black workers about their living conditions at works, mines and factories does not arise from safety or industrial health hazards or their knowledge of these matters, but is due to outside influences' (Page 7 para. 13.92).

While the Commission sees a constructive role for white trade unions in advancing industrial health it does not see this role extended to all workers. On the contrary it ascribes industrial peace to the '.... absence of black trade unions in the Republic and a striking absence of industrial organisation in certain factories....' (Page 7, para. 3.93).

The mining industry attracts little criticism and a great deal of praise from the Commission.

'The comparatively peaceful labour conditions in which the gold and diamond mines, the Republic's first major industries, could continue their operations was due to the fact that the worker's safety and health were their constant concern, and created an undeniable climate of industrial peace in the industrial life of the Republic, which overseas countries, which knew little about it, find difficult to understand' (Page 7, para. 3.84 and 3.85).

Even if the 800 annual deaths due to mine accidents are ignored, the high number of victims of dust-induced diseases surely warrant closer attention.

It is important to consider the question of why this

Commission was appointed at this time. One tentative answer is that a high and increasing incidence of occupational disease and accidents, which is impairing production - and proving a burden on the State - has itself called forth a response. The Commission itself repeatedly expresses concern at the high incidence of occupational disease, sometimes explicitly in terms of its costs to production. Furthermore, it is possible that the appointment of the commission was prompted by a concern that deteriorating working conditions might facilitate the development of politically effective "pressure groups".

FOOTNOTE:

1. "At an electroplating plant in a large printing works, the Commission interviewed an electroplater who was most dissatisfied with his working conditions. He was already showing signs of traumatic atrophic rhinitis. The preventative measures were inadequate, and according to the management's testimony this worker and his colleagues were paid a bonus as an inducement to continue working in the poor conditions" (Para. 7.245 page 21).

NOTES ON MINE ACCIDENTS

Alide Kooy

Between 700 and 800 workers have died in mine accidents and an average of nearly 28 000 have been injured every year between 1970 and 1977 (1).

The immediate causes of these deaths and injuries are clear. On gold mines, falls of ground (including rockbursts) account for more deaths and injuries than any other kind of accident, and accidents with trucks and tramways are the second most frequent cause of death or injury (see Table 2). On coal mines falls of ground cause the highest number of deaths and accidents, trucks and tramways cause the highest number of injuries. Writing about mine accidents in 1977, the Government Mining Engineer points out that rockburst fatalities rose from 85 in 1976 to 114 in 1977 on the gold mines, and constituted 35 per cent of the fall of ground fatalities on these mines.

However, it is less easy to identify the conditions under which these accidents are likely to occur, and the decisions which give rise to these conditions.

The Department of Mines categorisation of accidents as due to 'danger inherent in work or misadventure' and to 'defective plant or machinery' only obscures the issue. Thus, the Department finds that in most years about 98 per cent of all accidents and some 80 per cent of fatal accidents fall into these two categories (2). This is equivalent to saying that 'mining is dangerous work' as if this were both an explanation of and a justification for high casualty rates.

But accidents are not random events. The Government Mining Engineer notes that the increase in fall of ground fatalities on the gold mines 'is undoubtedly related to the increased depth and extent of workings' (3). Deeper

mining means higher temperatures, humidity and pressure, and more frequent rockbursts.

The first question, then, if depth and danger are related, is: in terms of what criteria, is the decision to increase the depth of mines, made?

Second : to what extent can the consequences of falls of ground be minimised, and other accidents prevented, if the quality of safety work keeps pace with the degree of risk involved?

The Mining Engineer points to the following factors as 'militating strongly against the work that is being done to promote safety' : 'the impact of the fall-off in labour quality, a lack of job enthusiasm, inexperienced (recruits ?) and excessive turnover'. Breach of contract is increasing, he writes, resulting in a man working for seven months, 'whereas previously his services extended over nine months - leading to the loss of a fully trained and more experienced recruit for two months'.

In this connection, writing of the coal mines, he points out that operators of shuttle cars, continuous miners, mechanical loaders and other mobile equipment 'are drawn from an unsophisticated transient labour force with a high turnover rate.' This, plus 'excessive absenteeism', helps, he says, to create a more favourable climate for accidents.

It is probable that a 'lack of job enthusiasm' and 'excessive absenteeism' should be seen as a result of the highly dangerous nature of the work rather than as a cause. In this connection it has been persuasively argued that absenteeism and breach of contract should be seen as a form of worker consciousness - the response of tightly controlled and unorganised labour to, among other things, highly dangerous working conditions (4). It has also been suggested that the alarming incidence of outbreaks of violence on South African mines in the last 6 to 8 years - much of it dismissed as 'faction fighting' - is related to

dangerous and unpleasant working and living conditions (5). Certainly it is difficult to see how greater 'enthusiasm' would have prevented the death of 10 workers when 'collapse occurred around the supports after a 'seismic event' at Hartebeesfontein gold mine in 1977, or the death of 6 workers trapped by a flood of water when a plastic pipe failed at Randfontein Estates gold mine the same year.

It is likely that the risk of accident is increased when men are sent underground to do work for which they are often not properly trained or supervised. It is likely also that danger is increased by 'speed-up', which may mean putting men to work under faulty hangings, with a high risk of rockfalls and by poor compensation rates for low-paid miners, which mean that the fear of having to pay compensation does not stimulate mine owners to spend money on increased precautions which would, in addition, slow down production.

In general, the graphs of death rates per 1 000 workers supplied by the Department of Mines (see fig 1) show roughly constant trends for gold mines and for all mines between 1961 and 1977. At least, there is no dramatic improvement. The vast majority of accidents on the mines are almost certainly outside the control of the miners themselves (6). Clearly the remedy for 'defective plant or machinery' is in the hands of those who own the plant.

The high death and injury rates of the mines must be seen in the context of the specific structure of the South African mining industry, based on a system of migrant labour. Van Onselen has written that in Rhodesia 'the economics of death suited the Rhodesian mining industry because it relied not on the capacity of a fully developed proletariat to reproduce itself, but on a flow of migrant labour created within a regional economic system. As long as the flow of cheap labour continued, there was little stimulus to pay compensation, and as long as there was no compensation there was little incentive for any

co-ordinated attempt to reduce disease in the compounds or accidents underground' (7).

The necessity to pay compensation probably induces effort to reduce the accident rate. But the fact remains that while the labour force reproduces itself outside the mining industry, and compensation is paid as a proportion of wages (so that even if compensation is paid to dependants it is based on wages below labour's reproduction costs) the relationship between the cost to the industry of accidents and the costs of accident prevention is such as to work against the maintenance of safe working conditions.

NOTES

1. Department of Mines, Mining Statistics, various years. See Table 1.
2. Department of Mines, Mining Statistics, various years.
3. Report of the Government Mining Engineer, in Report of the Department of Mines, 1977, R.P. 27/1978. All further references to the Mining Engineer are from this source. See also the article by Miklos Salamon, Research Adviser to the Chamber of Mines, in which he writes 'the fact that the total potential energy change is proportional to the depth of mining suggests that, at greater depths, if everything else is equal, the rockburst hazard is greater.' Source: Metalworker, (Journal of the Amalgamated Engineering Union of South Africa), January 1979, p. 21. Salamon also describes some of the attempts made by mine-owners to minimise the effects of rockbursts (while still mining at great depths).
4. See, for example, the work of I.R. Phimister and Charles van Onselen on Rhodesian miners.

5. Dudley Horner and Alide Kooy, Conflict on South African Mines, Saldru Working Paper no. 5, Cape Town, 1976.
6. The value of some of the activities - such as poster displays and safety films - of the Committee for the Prevention of Accidents, as described in the January issue of The Indicator, (Journal of the S.A. Engine Drivers', Firemen's and Operators' Association) must be assessed in this light. The Association itself, however, takes the view that accidents are under the control of workers 'Die Komitee vir die Voorkoming van Ongelukke probeer om die mynbedryf op die maniere wat hierbo uiteengesit is, van diens te wees, maar in werklikheid kan ongelukke net deur die werker self - dus deur u - voorkom word' (p. 7).
7. Charles van Onselen, Chibaro (London, Pluto Press, 1976), p. 60.

TABLE 1 : ACCIDENTS ON SOUTH AFRICAN MINES, 1960, 1970 - 77

YEAR	CATEGORY (1)	GOLD MINES		DIAMOND MINES		COAL MINES		OTHER MINES		TOTAL	
		DEAD	INJURED	DEAD	INJURED	DEAD	INJURED	DEAD	INJURED	DEAD	INJURED
1960	1	592	18 464	16	138	491	2 298	34	778	1 133	21 678
	2	40	10 515	2	47	3	438	8	358	53	11 358
	3	33	252	1	8	2	37	1	23	37	320
	TOTAL	665	29 231	19	193	496	2 773	43	1 159	1 223	33 356
1970	1	483	15 080	16	119	73	1 425	114	1 809	686	18 433
	2	32	9 764	2	58	5	319	22	1 333	61	11 474
	3	9	173	3	9	1	13	10	106	23	301
	TOTAL	524	25 017	21	186	79	1 757	146	3 248	770	30 208
1971	1	475	14 590	11	139	62	1 431	83	1 665	631	17 825
	2	57	9 721	5	69	31	321	13	997	106	11 102
	3	14	142	2	15	1	24	11	55	28	236
	TOTAL	546	24 453	18	223	94	1 776	107	2 717	765	29 168
1972	1	476	14 065	6	121	52	1 147	87	1 640	621	16 873
	2	22	9 415	1	70	8	275	31	862	60	10 622
	3	13	108	2	9	0	24	4	70	19	211
	TOTAL	511	23 588	9	200	58	1 446	122	2 572	700	27 816
1973	1	491	14 371	13	99	45	1 203	86	2 594	635	18 967
	2	24	8 999	2	38	7	231	21	1 319	54	10 487
	3	24	142	1	10	0	26	23	112	48	291
	TOTAL	539	23 412	16	147	52	1 460	130	4 125	737	29 144

YEAR	CATEGORY (1)	GOLD MINES		DIAMOND MINES		COAL MINES		OTHER MINES		TOTAL	
		DEAD	INJURED	DEAD	INJURED	DEAD	INJURED	DEAD	INJURED	DEAD	INJURED
1974	1	460	13 876	21	109	64	1 320	164	2 879	709	18 184
	2	20	8 492	2	37	15	274	15	1 380	52	10 183
	3	9	126	0	5	5	22	16	87	30	240
	TOTAL	489	22 494	23	151	84	1 616	195	4 346	791	28 607
1975	1	450	11 914	10	64	83	1 300	127	2 382	670	15 660
	2	29	7 224	1	30	12	279	18	1 180	60	8 713
	3	19	98	2	4	5	29	9	108	35	239
	TOTAL	498	19 236	13	98	100	1 608	154	3 670	765	24 612
1976	1	507	12 917	9	57	73	1 478	122	2 165	711	16 617
	2	26	7 643	3	27	10	285	8	1 356	57	9 311
	3	24	168	-	2	3	18	1	67	28	255
	TOTAL	557	20 728	12	86	86	1 781	141	3 588	796	26 183
1977	1	"	"	"	"	"	"	"	"	"	"
	2	"	"	"	"	"	"	"	"	"	"
	3	"	"	"	"	"	"	"	"	"	"
	TOTAL	594	19 973	"	"	120	2 061	"	"	890	25 579

" denotes not available

TABLE 3
A. DEATH RATES PER 1 000 WORKERS, 1960, 1970 - 77

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Gold mines	1,46	1,23	1,28	1,24	1,25	1,21	1,32	1,39	1,40
Coal mines	7,48	1,04	1,28	0,77	0,71	1,14	1,30	1,03	1,24
Diamond mines	1,08	0,98	0,88	0,44	0,78	1,11	0,66	0,69	..
Other mines	0,52	1,06	0,79	1,00	0,91	1,16	2,23	1,96	..
All mines	1,97	1,16	1,16	1,11	1,09	1,19	1,22	1,21	1,27

B. INJURY RATES PER 1 000 WORKERS, 1960, 1970 - 77

	<u>1960</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>	<u>1976</u>	<u>1977</u>
Gold mines	64,14	58,74	57,51	57,17	54,39	55,68	50,90	51,57	47,0
Coal mines	41,82	23,20	23,27	19,19	19,88	21,84	20,91	21,25	21,3
Diamond mines	10,96	8,66	10,87	9,77	7,20	7,31	4,94	4,94	"
Other mines	14,09	23,47	20,10	21,12	28,77	25,86	22,64	20,33	"
All mines	53,61	45,67	44,39	44,12	43,00	42,91	39,17	39,42	36,4

TABLE 2 : ACCIDENTS, DEATHS & INJURIES, BY TYPE OF ACCIDENT, 1977

Category	GOLD MINES		DIAMOND MINES		COAL MINES		OTHER MINES	
	No. of acci- dents	Injured	No. of acci- dents	Injured	No. of acci- dents	Injured	No. of acci- dents	Injured
Category 1								
Falls of ground : rockbursts other falls	506	114	567	-	-	-	2	4
Machinery	4332	208	4260	13	2	12	5	471
Trucks & tramways	185	6	182	6	-	6	8	96
Fall of material	4231	99	4145	23	-	24	1031	908
a) on surface	370	6	372	4	-	4	69	123
b) below surface	2823	27	2825	12	1	13	178	394
Falling in shafts, excavations etc.								
a) on surface	29	6	25	1	-	1	-	24
b) below surface	119	35	85	8	3	8	2	21
Struck by cage or skip	64	11	57	-	-	-	3	8
Travelling by cage or skip	48	6	49	3	2	1	2	2
Breaking of haulage ropes & connections	-	-	-	-	-	-	-	3
Travelling by ladder	14	-	7	-	-	-	-	2
Overwinds & runways	40	7	33	2	-	2	17	5
Directly caused by electricity							12	18
Boilers & steam pipes	11	15	23	-	-	-	-	2
Due to underground fires	17	17	11	2	2	-	-	6
Inundation by water or mud								7
Total Category 1	12789	557	12648	74	10	71	1678	145
							109	2069
							1627	2150
Category 2								
Miscellaneous								
a) Explosion of gas	3	-	3	-	-	-	1	2
b) Subsidencé								
c) Burning & scalding	206	1	213	4	-	4	33	71
d) Falling & slipping	1672	2	1672	5	1	4	113	283
e) Splinters	552	1	552	1	-	1	7	78
f) Elevators	1	-	1	-	-	-	-	-
g) Heat stroke	16	4	12	-	-	-	-	-
h) Heat exhaustion	89	-	90	-	-	-	-	-

i) Sundry	4708	22	4699	33	1	32	248	2	247	803	9	800
Total Category 2	7247	30	7246	43	2	41	402	9	402	1237	13	1231

Category 3

Explosives:

a) Drilling into misfired holes	11	1	24	-	-	-	2	-	3	9	2	22
b) Due to fumes	18	2	17	3	1	4	-	-	-	26	1	45
c) During blasting operation	9	2	7	3	-	3	16	2	18	12	2	15
d) Handling detonators	8	-	8	-	-	-	2	-	2	7	-	7
e) While charging	4	1	8	-	-	-	2	-	4	-	-	-
f) Withdrawing charges	2	-	2	-	-	-	-	-	5	10	1	18
g) Sundry	11	1	13	-	-	-	3	-	5	10	1	18
Total Category 3	63	7	79	6	1	7	25	2	32	64	6	107

Total all categories	20 099	594	19 973	123	13	119	2 105	120	2 061	3 451	164	3 407
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SOURCE: Department of Mines, Mining Statistics 1977, R.P. 70/1978, pp. 21-22.

NOTE: (1) Figures in these Columns do not add up these totals.

C. DEATH AND INJURY RATES COMBINED PER 1 000 WORKERS, 1960, 1970
- 77.

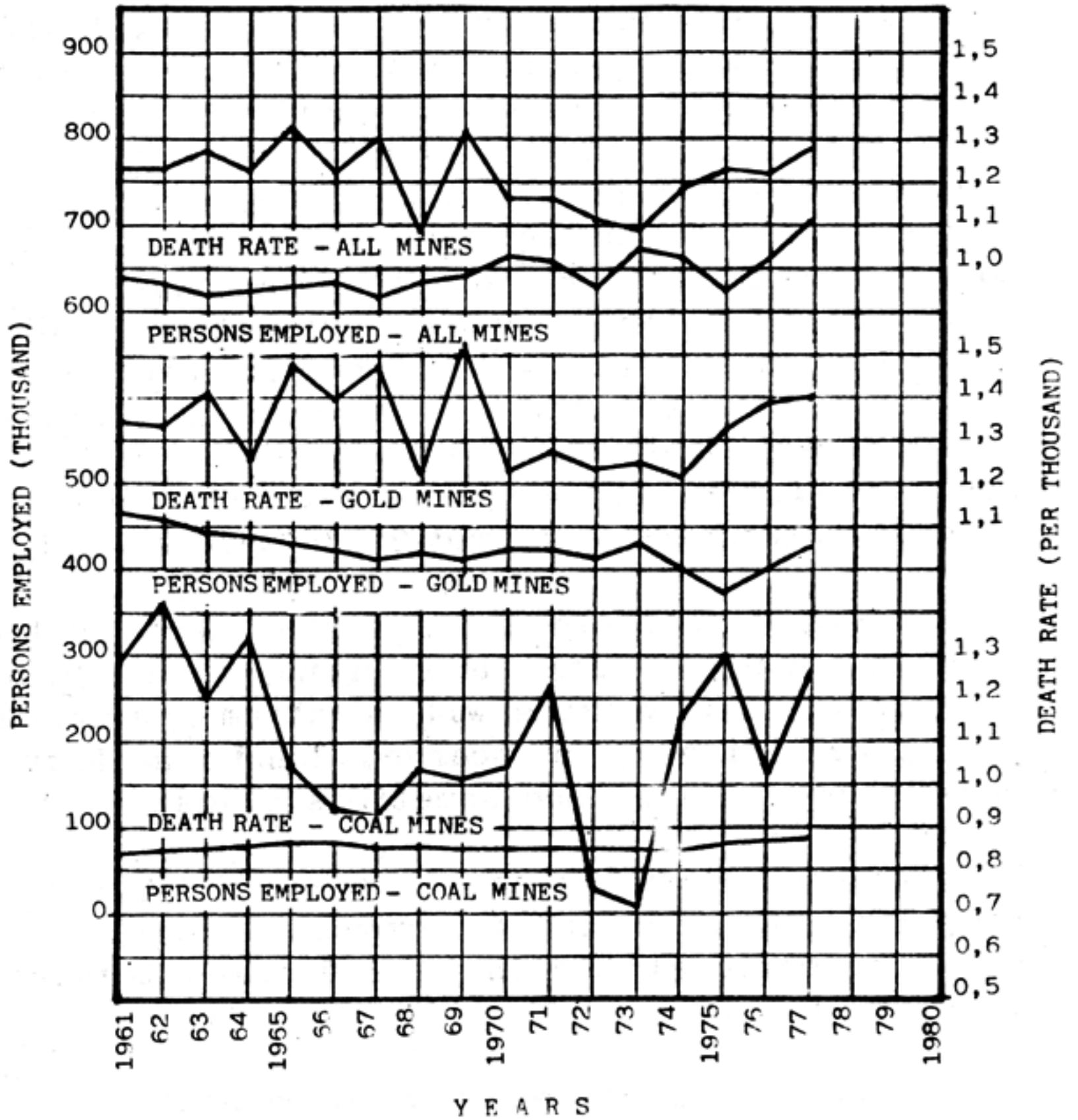
	1960	1970	1971	1972	1973	1974	1975	1976	1977
Gold mines	65,60	57,97	58,80	58,41	55,64	56,89	52,22	52,96	48,39
(1)									
Coal mines	49,30	24,24	24,51	19,96	20,59	22,98	22,21	22,28	22,50
Diamond mines	12,04	9,63	11,74	10,21	7,98	8,42	5,60	5,63	"
Other mines	14,61	24,53	20,89	22,12	29,68	27,02	24,87	22,29	"
All mines	55,58	46,83	45,55	45,23	44,09	44,10	40,39	41,03	37,71

SOURCES: As in Table 1.

- NOTES: (1) These figures were swelled by the Coalbrook disaster on January 21, 1960, in which 437 miners died.
- (2) The figure of 75,17 in Mining Statistics for 1972 has been assumed to be an error.
- (3) Figures for 1975 and 1976 have been corrected for an obvious error.

Fig. 1

PERSONS EMPLOYED AND DEATH RATE - MINES



Source : Report of the Department of Mines for 1977 (R.P. 27/1978) p. 18.

THE PREVENTION OF OCCUPATIONAL DISEASES AND
INDUSTRIAL ACCIDENTS IN SOUTH AFRICAN INDUSTRY.

Taffy Adler

If asked, workers will convincingly confirm that most factories are dangerous and unpleasant places to work in. Workers have to put up with the incessant noise from machines, dust from grinders or drills, heat from furnaces or the exposure to chemicals and gas fumes that are involved in various production processes. Workers will also tell that in the majority of factories, protective clothing is at a minimum and protective devices such as hand covers on machines, or air blankets to blanket fumes, or fans to blow away dust, are not often provided. This lack of protection results in many injuries, and in 1974 it was estimated that 100 000 hands, 50 000 feet and 40 000 eyes were badly injured, 31 000 men and women would be permanently maimed, several hundred were injured severely enough not to be able to return to work, and 2 284 were killed.

Workers quite clearly are a marked part of the population in South Africa, and anyone in frequent contact with production workers will confirm the frequency of a disfigured finger, a scarred hand, a lost thumb, a broken nose, a limp and sometimes a lost hand or foot.

The workers view is confirmed by official reports. Reporting in 1975, the Government Commission of Enquiry into Occupational Health (the Erasmus Commission noted (R.P. 55/1976):

'.... it is regrettably to be stated categorically that, except in the mining industry, industrial health not only occupies a secondary position in industry in this country, but that industrialists have put very little time, money and organisation into the prevention of occupational diseases' (para. 4.111).

This observation applies to the prevention of industrial accidents as well.

The figures that are available from the Workmen's Compensation Commissioner support these observations.

TABLE 1

Year	Total Accidents	Permanent Disability	Fatalities	Manhours lost through accidents
1974	359758	32019	2284	30191054
1975	355615	31819	2232	29927332
1976	340063	33752	2546	32534762

Source: Annual Reports of the Workmen's Compensation Commissioner. Note: The Report for 1976 notes that the lower figure for total accidents is a result of the decrease in employment in that year.

The accidents noted in table 1 are the reported accidents which take place in the factories. In most cases they are the more serious accidents. There is no reliable record of the number of minor accidents that do take place.

In addition, most of these accidents are those which result in external injury. There are no conclusive figures available for the incidence of internal injury sustained as a result of working in the dust and grind of many factories, or as a result of exposure to substances, chemicals and gases used in the production process. While it is known that injuries as a result of such exposure do occur (and the second schedule of the Workmen's Compensation Act provides compensation for diseases such as chrome ulceration, dermatitis, lead and phosphorus poisoning and silicosis) it is extremely difficult to isolate the

location and cause of such injuries and diseases. They develop over a long period of time and require large resources to establish the location of the cause. Large scale medical examinations are required, and back up services such as X-Ray and testing facilities are necessary. These are not available to any significant extent in South Africa, and it is therefore probable that internal injuries arising out of the workplace are far more widespread than can be proved statistically.

Now that the extent of industrial disease and industrial accidents has been noted, the obvious question becomes, why is it that in South Africa, industrial health has such a low priority?

The answer, I submit, is two fold:

1. Industrial accidents and disease (outside the mining industry perhaps) do not present a major cost to management.
2. The enforcement of protective measures is left to statutory bodies; in particular the Workmen's Compensation Commissioner and the Department of Labour Factories Inspectorate.

I will examine these two propositions below.

INDUSTRIAL ACCIDENTS DO NOT PRESENT A
MAJOR COST TO MANAGEMENT

When a worker is injured, aside from the manhours lost, there is no major cost to management. Normally the only cost management would have to pay is the levy to the Workmen's Compensation Commissioner. All further costs related to medical expenses and compensation are paid directly by the Commissioner.

It would also seem that it is cheaper for management to replace injured workers than to improve the protection for

them. This is of course truer for those workers who are employed in unskilled and semi-skilled positions, where the migrant labour system and the absence of formal collective bargaining rights allow workers to be available in large numbers at a low price. In situations such as foundries, for example, where protection is badly needed, workers are generally unskilled, migrant and paid at the lowest rates permitted in the Metal Industry, viz 70 cents per hour or R31.50 per week. Given these conditions, it is simply cheaper for management to replace such workers when they are hurt than to prevent them from being hurt.

Indeed, management is protected from any claims instituted directly against it by the injured worker. Section 7 of the Workmen's Compensation Act notes:

7. Substitute of Compensation for other Legal Remedy from and after the fixed date
- a) no action at law shall lie by the workman ... against such workman's employer to recover any damages in respect of an injury due to an accident resulting in the disablement or the death of such workman; and
 - b) no liability for compensation on the part of such employer shall arise save under the provisions of this Act in respect of any such disablement or death.

It is true that a worker may proceed legally against any third party responsible for the accident (Section 8) and that where accidents do occur as a result of the negligence of the employer, the workman may apply for increased compensation (Section 43). It is also true that where a factory is accident prone, the employer can be forced to pay a higher levy to the Commissioner (Section 7). However, none of these measures seem to have had the desired effect and the fact still remains that the costs of an accident are mainly borne through the Commissioner and that there is no way of significantly forcing employers to pay for accidents which are a result of their negligence.

This is true, as we have seen, even if the accident is a result of the employer's negligence. Workers must be content with the highly inadequate compensation paid out by the Commissioner (2). Hence the lower income groups are hit harder by the loss of a limb.

While employers are protected by the Act for damages arising out of their own negligence, the same allowance is not given to the worker. In terms of Section 27 of the Act:

27. Rights of a Workman to Compensation

- b) if the accident is attributed to the serious and wilful misconduct of the workman, no compensation shall be payable under this Act unless the accident results in serious disablement or the workman dies in consequence thereof leaving a dependent wholly dependent upon him, and the Commissioner or, if authorised by the Commissioner, the employer individually liable may further refuse to pay the cost of medical aid or such portion thereof as the Commissioner may determine.

In this way the Workmen's Compensation Act defeats its own objectives. It does not protect workers adequately and it does not encourage management to observe the workers' right to protection. In cost terms, management escapes from bearing the damages.

THE ENFORCEMENT OF PROTECTIVE AND PREVENTATIVE MEASURES

The drawing up of the requirements for the physical protection of workers and the enforcement of these requirements is the responsibility of the Department of Labour. Within the Department there is a factory inspectorate whose broad mandate is to enforce the Factories, Machinery and Building Work Act. The broad outlines for industrial protection are laid down in Chapter V of the Act, and in Chapter 111 of the published regulations of the Act. The Inspectorate then enforces these rules at its

discretion, and guided by professional groups such as the C.S.I.R. and the National Institute for Research into Occupational Diseases, formulates more specific rules within these very broad guidelines.

The first problem that confronts one here is the non-availability of the detailed rules concerning the prevention and protection measures. These are not public documents, and one's access to them depends on the whim of the individual factory inspector. In some cases the documentation has been made available, in most this is not so.

The workers' ability to enforce the right to protection therefore becomes a very ad hoc affair. Denied knowledge of what the requirements are, workers and their organisations are very much at a disadvantage when dealing with management. They are unable to state with certainty what the legal requirements are. They also need to go to an enormous amount of trouble by way of research, discussions with professional bodies and comparative examination to find out what are considered normal protection measures. In most cases this is beyond the means of individual workers, and barely within the resources of most unregistered trade unions in particular. The result once more is that the workers' right to protection suffers.

A second problem relates to the use by the Factory Inspectorate of the secrecy provisions in the Factories Act. Workers have no right to hear the outcome of any investigation they might have requested. They do not have the legal right to know whether the investigation they requested had been instituted. We have on record a reply from a factory inspector in relation to an investigation which was requested, which notes:

This office cannot furnish any organisation with reports of investigations carried out by officials of this office. This matter is strictly a matter between the employer and the department.

The Metal and Allied Workers Union had requested an investigation into the fact that some of its members in a factory were handling fibre glass without any protection. Its investigation revealed that constant exposure to fibre glass could lead to a form of industrial dermatitis. Recommended protection measures were: a) the issuing of gloves b) the provision of cleansing cream c) the provision of proper washing up facilities d) the provision of overalls which could be left on the factory premises.

To this day the Union does not know the outcome of the investigation it requested. Its members have reported that no gloves were issued and no special measures taken to protect workers. Once more we see that management has a right which workers are denied.

The third major problem relates to the fact that the Factory Inspectorate at this point in time has the sole legally sanctioned mandate to enforce protection in the factories and that it does not have the staff to do so.

Table 2, drawn from the Erasmus Commission Report vividly illustrates the point:

From a practical point of view, therefore, it becomes impossible for the Factory Inspectorate, however well intentioned, to perform its tasks adequately. They do not have the manpower to do so, especially in view of the massive neglect of protection measures in the factories.

TABLE 2POSTS ALLOCATED AND FILLED - OCCUPATIONAL SAFETY SECTION
(FACTORIES) DEPARTMENT OF LABOUR

INSPECTORATE	POSTS ALLOCATED	POSTS FILLED	FACTORIES	EMPLOYEES
Johannesburg	14	4	5713	268299
Benoni	4	2	2058	132454
Vereeniging	3	1	1401	77823
Germiston	5	2	2337	159534
Durban	10	6	4904	330837
Cape Town	10	5	4763	254301
Port Elizabeth	4	3	1892	98664
East London	3	2	1195	51440
Pretoria	7	3	3214	158331
Bloemfontein	6	1	2620	66393
TOTALS	66	29	30097	1598076

Source: Commission of Enquiry into Occupational Health.
RP 55/76, Table XXI.

STATUTORY ENFORCEMENT OF WORKERS' RIGHTS TO PROTECTION
FROM INDUSTRIAL DISEASE AND INDUSTRIAL ACCIDENTS.

Thus far I have outlined the rights (and the limitations of those rights) presently offered to workers under the Workmen's Compensation Act and the Factories, Machinery and Building Work Act. The discussion has been limited to pointing out the problems that arise out of the establishment and administration of these two Acts.

However, I wish to argue that the dismal picture I painted in the introduction to this paper is a result, not of imperfect administration of the Acts, but of the principle underlying them.

The basic principle is that through the enforcement of

legislation by statutory bodies, adequate protection can be established in the factories. Through neutral state agencies a common standard of protection can be achieved and maintained. This standard will be acceptable to both workers and management.

The reason that the principle is wrong is because, like everything else in the factories, adequate protection is not an agreed constant standard plucked from the mutual desire of employers and workers to have good conditions. The status of industrial health in the factories is a result of a process wherein employers and workers have bargained over conditions. As a general rule it will be possible to show that high standards of industrial protection exist where a) the production process has demanded this and where lack of protection does represent a significant cost to management (some chemical processes or some of the more technical engineering processes, for example) b) where workers organisations have been strong enough to demand adequate protection over a period of time. Where the production process is not overtly highly dangerous and very clearly the prevention of industrial accidents are a major cost, and where workers are not strongly organised, protection against industrial health hazards will be poor.

It is therefore not adequate to leave the enforcement of industrial health protection entirely in the hands of statutory bodies. It is wrong in principle, because those most intimately concerned with the maintenance of standards, the workers, are excluded from the setting and maintenance of standards. It is wrong in practice, because the statutory agencies are vastly understaffed and under-trained.

However, it would not be possible to remedy the problems simply by hiring more factory inspectors and providing better training. It is clear that at this stage it is necessary for certain minimum standards to be laid down by law. The Factory Acts here and in other countries are a

result of the struggles of workers for better working conditions and of the recognition of society that it cannot continue to bear the heavy financial and social cost of irresponsible management.

To really obtain good working conditions, they must be seen as one aspect of the collective bargaining process. Clearly, wages and healthy and safe working conditions (e.g. good protective clothing, safety guards on machines, safe but expensive processes) are a cost to management which tend to reduce profits. Both wages and working conditions can only be significantly improved by collective bargaining, not by reliance on the good intentions of employers, who are primarily concerned with good year-end results. Employers must be forced to accept good working conditions by organised labour. The State can only confirm these conditions, since the State is not "on the firing line" in any way remotely approaching the position of the workers directly involved.

How can workers achieve better conditions? Collective bargaining implies the recognition of their trade unions, and of the right of those unions to bargain on behalf of their members on all matters concerning their work situation. It is very clear that in countries where unions are strong, industrial health standards are high. Further, the effective policing of these standards can only be done by the workers on the shop floor, who are every day exposed to these conditions. The effective enforcement can then only be carried out by the unions of which these workers are members, through collective bargaining.

At present, these basic conditions for good industrial health are explicitly denied to the majority of workers in this country. Unions of African workers cannot be registered, and so suffer from being unable to take part in national bargaining. Further, unions are widely denied recognition and are prevented from establishing an effective bargaining role in most companies, at least in part through the use of the statutorily established

Liaison and Works Committees. Secondly, the participation of unions (and, indeed, of workers) in the enforcement of industrial health standards is explicitly prevented (for all unions) by the use of the secrecy provisions of the various Acts and by the exclusion in the Workmen's Compensation Act of civil actions against negligent employers. Thus, the statutorily established standards are not seen as basic minima, but are the only standards and policing procedures allowed. The essential role of collective bargaining is excluded.

We therefore suggest that the following are basic for the improvement of the very sorry industrial health record which we have outlined:

1. The establishment of free collective bargaining rights for all workers;
2. The recognition of the right of unions to include working conditions and the enforcement thereof in the arena of collective bargaining and in industrial agreements;
3. Right of access by workers and unions to standards and research of semi-government bodies such as the C.S.I.R. and the N.R.I.O.D.;
4. The withdrawal of the secrecy provisions in the various Acts covering industrial health;
5. The withdrawal of the clause in the Workmen's Compensation Act preventing civil actions for damages by workers against negligent employers. This would allow workers, primarily through their unions, to make employer's negligence a very expensive matter, and the award of punitive damages in a few cases would greatly assist the unions engaged in collective bargaining in obtaining safer conditions.

SILICOSIS OF THE WITWATERSRAND GOLD MINES:

INCIDENCE AND PREVALENCE; COMPENSATION; 1902 - 1978.

Elaine N. Katz

"I've witnessed some terrible scenes. I've been a nurse for years, but I must confess all the awful things one sees in life are mere details to those we see on the Rand. I've known great strong men reduced to mere skeletons, gasping, praying and begging of us to get them breath."

Silicosis is an incurable non-infectious occupational disease. It is one of the pneumoconioses, a generic group of lung diseases associated with dusty occupations. Silicosis is caused by continuous inhalation of microscopic particles of free silica (quartz) dust measuring from one to three microns in diameter (a micron is equivalent to 0,0001 centimetres). If these particles penetrate to the deep lung tissue, over a period of time they cause fibrosis. This means they produce an excess of scar tissue in the form of concentric nodules around the tiny lymph, air and blood vessels and thereby cause permanent damage to the lung tissue. If these nodules enlarge and proliferate to an excessive degree, the exchange of gases in the lungs is seriously impaired, and a heart condition - cor pulmonale - becomes the cause of death of the silicotic victim.

Workers are at risk of contracting silicosis in numerous occupations where quartz dust is encountered, including sand-blasting, tunnelling, the manufacture of abrasives and monumental masonry. Silicosis, formerly generally known as miners phthisis, is of crucial importance to the

South African gold mining industry. This is because the matrix in which the gold is embedded contains 60 to 80 per cent quartz; and in certain dust-producing mining processes quartz dust has been measured in high concentrations of 40 per cent.

In the early days of the Witwatersrand gold mining industry - established in 1886 - the incidence, prevalence and mortality from silicosis exacted a heavy toll of the health and lives, particularly of white miners, the majority of whom were of overseas origin. It has often been suggested that silicosis, which emerged as a serious problem on the Witwatersrand mines after the Anglo-Boer War, had its origins from 1892, with the opening of the deep level mines and the introduction of machine-drills in underground dead-end development tunnels lacking ventilation. These solid steel machine-drills were used without jets of water or atomisers, and produced much finer dust in greater concentrations than the earlier hand-held hammer-drills. However it is arguable that development work in the outcrop mines (and other occupations in outcrop and deep level mines) exposed miners to the risk of contracting silicosis in a simple or chronic form. In the absence of X-ray apparatus the disease which was slow developing, was not diagnosed until it had progressed to an advanced stage in miners or considerably older age than of machine-drillers. The latter contracted chronic silicosis in a rapidly developing acute form, or complicated silicosis, known as progressive massive fibrosis, which can be caused by excess concentrations of dust in the lungs.

The Miners' Phthisis Commission of 1902 to 1903 (Milner's Commission) calculated that the average working life of a Witwatersrand machine-driller was seven years, and that the average life-span of a Witwatersrand miner was thirty-seven years, in contrast to gold miners in Australia who on average lived to fifty years. The commissioners also deplored the unsanitary underground conditions as being conducive to contracting infectious diseases. Although it was known that tuberculosis

frequently accompanied silicosis (until the 1930's many medical authorities still believed that silicosis was a form of tuberculosis) it was not yet understood that when tuberculosis is super-imposed on simple silicosis the disease becomes complicated (progressive massive fibrosis ensues) with probable death within two years.

Milner's Commission made numerous general recommendations for the suppression of dust underground and the improvement of ventilation, but new regulations were perfunctory, ineffective and remained largely a dead letter. One of the greatest hazards was promiscuous blasting. Any miner could return to the working place immediately after blasting, while the air was still vitiated with dust and gases, especially nitrous dioxide given off by dynamite. Nitrous dioxide suppresses the defense mechanisms of the respiratory tract and thereby facilitates the penetration of silica dust to the lungs. In 1919 promiscuous blasting ceased with the introduction of the compulsory single-shift day.

Two further commissions of 1907 and 1911 concluded that the prevalence of silicosis - that is the overall number of cases - had not diminished since 1903. Using X-ray equipment the 1911 'Medical Commission' estimated the prevalence of silicosis at 32 per cent, considered the figure of 23 per cent, calculated in 1903, as an underestimation, because many miners had died overseas, and forecast that unless mining conditions improved the prevalence would increase.

The reports of these two commissions and the 1913 general strike (one of the causes of which was the miners' grievance concerning the lack of initiative by the authorities in taking steps to eradicate silicosis) led from 1914 onwards to improvements in the elimination of dust underground. Mechanical ventilation was gradually installed, in 1914 routine dust sampling was introduced, and dust measurement techniques and prophylactic aids

slowly improved. The development of light hollow drills with simultaneous water ejectors continued and in 1921 it was stipulated that no machine-drill could be used on the mines without prior permission of the Department of Mines.

Practical calculations as well as moral considerations led to improvements. By 1914 the Witwatersrand mines, notorious as death traps, no longer attracted itinerant, single overseas miners, as they had in the early palmy days when despite the well-known attendant hazards, miner-contractors hoped to earn, as some had, monthly wages of £90 to £150. Management and the government were obliged to concern themselves with what had by now become a largely permanently settled white mining population.

Of importance was the innovation of 1916, whereby all aspirant white miners—the 'New Rand Miners' — were obliged to undergo a compulsory X-ray and physical examination (followed by periodic medical examinations) before being allowed to work underground. From this time incidence figures for silicosis — the number of cases produced in a single time-span, normally a year, could be calculated. From 1916 to 1930 the prevalence of silicosis for the 'New Rand Miners', who comprised 8 360 (54 per cent) of the white mining force was 42, as compared with the 'Old Rand Miners', a declining population group, amongst whom 321 cases were produced during the period 1928 to 1929.

By 1930, however, the general nature of silicosis in its advanced stages had changed and was far more often complicated than before by the highly dangerous condition, caused by the superimposition of tuberculosis. The increase safeguarding the incidence of co-existent tuberculosis can perhaps be attributed to the fact by 1929 more than 70 per cent of miners were South Africans born, and like African workers who had also been drawn from rural areas, had not yet acquired an urban immunity to tuberculosis.

The incidence and prevalence of tuberculosis amongst Africans is important, because during the period 1902 to 1929, on the few occasions when silicosis amongst

Africans was reported, it was mainly found to be in a form complicated by tuberculosis. From 1902 to 1907 tuberculosis contributed, 18 per cent of the mortality amongst African miners (pneumonia accounting for 40 per cent) at a time when the death rate amongst African miners was very high. For instance, the average death rates from disease amongst African miners in the first and second halves of 1903 were 61,96 and 80,36 per thousand respectively. From 1916 to 1929 the annual incidence of tuberculosis dropped by approximately one-third, possibly because suspected African tuberculosis were referred by the Witwatersrand Native Labour Association (WNLA) or the Mine Medical Doctors to the Miners' Phthisis Medical Bureau for examination. However incidence figures were based only on referred cases and it is probable that many cases remained undiagnosed, and incapacitated Africans returned to die at their kraals.

Intermittency and short periods of service on the mines have usually given us the reasons for the theory as to why the incidence of silicosis is low amongst African miners. However intermittency of service has not yet conclusively been proved to be a valuable safeguard for miners at risk. Also it is highly debateable as to whether periods of service amongst Africans were in many cases as short as has been alleged.

The evidence suggests that Africans spent longer continuous periods working underground in the mines before the Anglo-Boer War than after it. After 1902, despite their shorter contract periods, Africans, especially those from Portuguese East Africa, reindentured several times by 1912, for single periods of eighteen months. It is therefore highly probable that Africans, who from 1897 handled the machine-drills under white supervision, contracted silicosis during the period when the incidence and prevalence of silicosis was at its height. However it may have been misdiagnosed when tuberculosis or pneumonia masked it; and it is also probable that many Africans suffered from or died of undiagnosed silicosis at their kraals, as was alleged by medical authorities in 1903.

The methods of examining recruits also strongly suggest that the official estimates for the incidence and prevalence of silicosis amongst Africans appear to have been underestimated. By 1925, for instance, sixty recruits were stethoscopically examined per hour by a single doctor at the WNLA depot, a method to-day known to be a completely useless diagnostic aid. Only Africans who had worked for five consecutive years and others suspected of having silicosis were sent to the Miners Phthisis Medical Bureau for X-ray examination. Also the policy of repatriating silicotics and tuberculotics after a short period of convalescence, and when they seemed sufficiently fit to travel, probably concealed a higher mortality rate than that conceded be official figures. However even if the incidence of silicosis amongst Africans was underestimated, the evidence indicates that it was considerably lower than that for pneumonia and tuberculosis and certainly lower than the silicosis rate amongst whites. But as late as 1943 a commission reported that the examination, after care and compensation for blacks suffering from lung diseases was a matter of great concern.

During the period 1911 to 1925 a number of acts were passed dealing with compensation for silicotics of all races, the majority of which have been precedents for the legislation of to-day. It is still the function of the Department of Mines to list 'controlled' mines (in 1925 they were called 'scheduled mines' where mineworkers are considered to be at risk. Also each mine is obliged to contribute a levy per surface or underground mineworker considered to be at risk to the compensation fund; and such levies vary from mine to mine according to the incidence of silicosis contracted there. Mine workers at risk now include all those who spend more than fifteen minutes underground per shift.

With the introduction of compensation for tuberculosis in 1916 another precedent was established. If it is believed that any form of minework (in particular underground work)

is responsible for a worker contracting a disease, the disease will become compensable. It used to be thought that chronic bronchitis and emphysema were integral to silicosis. To-day, however, they are listed as a separate compensable disease called Chronic Obstructive Lung (Airways) Disease - COLD. COLD is a complication of chronic bronchitis and/or emphysema which causes an obstruction to lung function or breathing and is diagnosed by lung function tests. In COLD the patient has no difficulty inhaling air, but on exhalation the obstruction is clearly shown because he has literally to squeeze the breath from his lungs. While other non-related mining factors, including cigarette smoking and environmental pollution undoubtedly are important cause/s of COLD, it was made a compensable disease in 1973, because it was believed that inhalation of mine dust over a long period of time might contribute to the condition. Finally, a rare disease, (six cases were diagnosed in 1974) systemic sclerosis was made compensable in 1974. It is a condition in which a diffuse rash spreads on the skin and internal organs including the lungs.

In assessing compensation awards the degree of disability has always been a determining factor allowing for variation in awards. In 1912 differing compensation was awarded to silicotics who had the disease in its primary or secondary stages, and in 1919 an additional ante-primary stage was instituted. To-day the application of this principle is by any standards a flexible one. For compensation awards in the first degree there must be pneumoconiosis or any other disablement of the cardio-respiratory organs between 20 and 50 per cent, while second-degree awards are granted if silicosis (or other forms of pneumoconiosis) are co-existent with tuberculosis, or cardio-respiratory disablement is between 50 and 75 per cent.

The compulsory X-ray and medical examination of white and black miners (those who had five years continuous service) introduced in 1916 and 1925 respectively has continued.

Today every mineworker whose job is considered at risk is obliged to have a certificate of fitness renewable every year (or second year) for whites and every six months for Africans. Only white workers are examined at the Medical Bureau. Mine Medical Officers examine Africans and if they suspect patients of having compensable diseases they send case histories and X-rays to the Bureau for investigation by the Certification Committee.

Once an African is certified as having a compensable disease, he is immediately repatriated and is not allowed to work again on a 'controlled' mine. Compensation is paid to him by the relevant black affairs authority from compensation fund for Africans, either in a lump sum or in monthly instalments at the discretion of the official. In contrast, white miners certified in the first degree receive compensation, but may continue working until they have second-degree disablement, whereupon they receive additional compensation, but have their certificates of fitness removed. Similarly a recovered white tuberculous, after receiving compensation, (unlike the earlier days) may return to the mines provided he performs no risk work.

However the huge differences in compensation awards accorded whites and Africans, a precedent set in 1912, are of great importance to concerned persons interested in eliminating racial inequalities. In 1912 whites who had primary and secondary stage silicosis received £96 and £400 respectively, while Africans in the same categories received £1 to £30, and £30 to £50. In 1919 with the introduction of the ante-primary stage of silicosis the following (simplified) schedule was applied:

- (a) That compensation is twelve times monthly earnings, for earnings up to £29 - 3s - 3d. This category applied to Africans, and coloureds and Indians, as white underground miners did not earn less than £30 per month.

- (b) That compensation, is six times monthly earnings, for earnings of £29 - 3s - 4d to £37 - 9s - 11d. This category applied to this underground miners.
- (c) That compensation is three times monthly earnings, for earnings exceeding £37 - 10s - 0d. This category applied to white officials.

In primary-stage silicosis and tuberculosis the same categories were applied with an additional 50 per cent for each category. In secondary-stage silicosis whites received annual life pensions awarded on a monthly basis. African did not receive pensions, but a lump sum based on category (a) but increased by 100 per cent.

Today the same discrepancies in compensation awards are still very marked. For first-degree awards whites receive a lump sum of R12 000 in contrast to the lumpsum of R1 000 accorded Africans; and in second-degree awards each racial group receives R18 000 and R1 200 respectively. Finally whites receive R5 000 for tuberculosis in contrast to Africans who receive R600.

None of the sources consulted provide the principles on which compensation awards are based, nor the rationale for the differences in awards accorded the separate racial groups. Although there has been a strong correlation between awards granted coloureds and Indians, and whites - the former have since not been allowed to receive amounts exceeding 50 per cent of those awarded to whites, since 1914 - there does not seem to be a similar correlation between blacks and whites, based either on cash earnings or compensation awards. In addition, the varying categories of degrees of disablement for silicosis have made it impossible to compare compensation awards of the past directly with those of the present for silicosis.

However from 1916 to 1978 tuberculosis has always been compensated as a separate disease and it is therefore the only constant which can be used to measure and analyse disparities in compensation awards. In 1919 compensation

based on the 1919 table cited above Africans and whites with tuberculosis was a minimum of £47-6s.8d and £270 respectively. The following table illustrates the ratios of white; black earnings and white: black compensation awards in 1921 and 1973.

Table I

Average Annual Wages and Salaries on Gold Mines in Rands

<u>Year</u>	<u>White</u>	<u>Non-White</u> (99% are Black)	<u>Ratio White:Black</u>
1973	5 724	341	16,8 : 1
1974	6 762	545	12,4 : 1
1975	7 607	906	8,4 : 1
1976	8 449	1 072	7,9 : 1
1977	9 319	1 197	7,8 : 1

The following Table II indicates the rise of wages for Africa novices:

Table II

Starting Monthly Cash Wages (African novices) in Rands

<u>Effective Date</u>	<u>Underground</u>	<u>Surface</u>
June 1971	10,92	8,84
1972	13,00	9,88
1973	-	-
1974	-	-
June 1975	57,20	36,40
June 1976	65,00	40,30
Aug 1977	68,90	42,90
July 1978	76,70	50,70

<u>Year</u>	<u>Blacks</u> (low/ave monthly cashwage)	<u>Whites</u> (low/ave monthly cashwage)	<u>White:Black</u> (underground cash earning)	<u>White:Black</u> (compensation awards)
1921	£2-16s-0d	£30-0s-0d	10,7:1	5,9:1
1973	R32-00	R330-00	10,3:1	8,3:1

Thus while the ratio of White : Black cash earnings was lower in 1973 than in 1921, the ratio of White : Black compensation payments increased.

Since 1973 there has been a marked decrease in the ratio of White : Black average cash earnings on the mines. For all mineworkers on gold mines (underground and surface) the ratio of White : Black cash earnings fell from 16,8 : 1 in 1973, to 7,8 : 1 in 1977. This is shown in the following Table II.

Between 1971 and 1976 white mining wages were approximately doubled while those for Africans quadrupled. The wage increase in average African earnings per month before August 1977, that is for the year 1976 to 1977, was R102,40, whilst for the year 1978 they increased to R115. But compensation payments for Africans have not been readjusted in proportion to the substantial increase in African cash wages.

However, since 1977 Africans have worked for shorter average periods. This has induced management to encourage Africans to return more frequently and to engage in mining on a full-time basis. If this should occur then readjustment in all compensation awards will be virtually necessary. Recently it has been suggested that mining does not increase the risk of tuberculosis.

It is claimed by some authorities that tuberculosis is not a mining disease at all, and that the industry is being forced 'to pay for its past sins' (which have) 'long since ceased to be the case.' This is attributed partly to the strict protective procedures adopted by the mines in examination and vaccination of patients. Other authorities however, maintain that there may be good reason for retaining tuberculosis as a compensable disease on the mines. This argument hinges on the fact that stress - an important factor amongst migrant labourers - may be a cause of tuberculosis. If stress is proven to be one of the causes of tuberculosis, the mines may play an important role in creating conditions for its production. Because the co-existence of tuberculosis with silicosis is a dangerous lung condition, and is still prevalent amongst Africans (as shown in Table V below) and until it is conclusively proved that there is no incidence of this highly infectious disease on the mines, it would seem that the continuation of compensation for tuberculosis is necessary. In addition, the Medical Bureau for Occupational Diseases stated in its 1973-1974 report that tuberculosis, despite intensive efforts by the Mine Medical Officers to control it, 'continues to be a predominant reason for certification, for which a solution does not yet appear to be in sight'.

The principle on which less compensation is awarded black silicotics may be because of the belief that their intermittent service renders them less liable to contract the disease than full-time White miners. However, this theory has not been proved or disproved. Experiments undertaken with animals have also shown that short but concentrated periods of high dust exposure may cause the disease to develop far sooner in such cases than in others, who have had average amounts of dust exposure, the total of which is the same

as the former, but over a very lengthy period of time. As Africans today are subjected to these short periods of very high dust concentration, they may, in fact, contract the disease in a far shorter time than whites.

It is very difficult to find figures for the incidence of silicosis on the gold mines. This is because the tables concerning the gold mining industry in the Reports of the Medical Bureau for Occupational Diseases only show new certifications, without indicating whether they are for silicosis alone. Therefore one does not know whether new certifications are for cardio-pulmonary disability or for any of the compensable diseases, including silicosis.

The tables providing incidence figures for silicosis are equally unsatisfactory. This is because the figures include all cases of silicosis, a number of which have been contracted in occupations other than mining. For instance in 1973 seventy cases alone were contracted in occupations. The mortality tables for silicosis in the Reports of the Medical Bureau for Occupational Diseases throw no light on this question either. This is because compensation is often awarded in many post mortem cases, when a man has not been certified in life. If one or several silicotic nodules are found, visible only with a microscope, and impossible, while the man was alive, to detect by radiography, he is certified as a silicotic and his dependents are awarded compensation in the first degree. What is important is that these microscopic nodules cause no discomfort or disability during life, and are as harmless as a healed scar on the skin. In addition, if on autopsy these harmless minute silicotic scars are found together with a microscopic lesion of tuberculosis (one which is latent and could have remained quiescent for year) the deceased will be certified and his dependants awarded compensation in the second degree.

The Reports of the Medical Bureau for Occupational Diseases reflect the following incidence of silicosis in all occupations in the first degree, in new cases for white and coloureds.

TABLE IV

<u>Year</u>	<u>Whites and Coloureds in first degree</u>
1973-1974	72
1974-1975	163
1975-1976	153
1976-1977	164

In the case of Africans, the degrees of silicosis are not noted, but an additional table shows silicosis together with tuberculosis.

TABLE V

<u>Year</u>	<u>Silicosis</u>	<u>Silicosis and Tuberculosis</u>
1973-1974	no table provided	
1974-1975	557	976
1975-1976	589	1 186
1976-1977	801	1 299

Also of interest is the average number of years served by whites and coloureds in the gold-mining industry before being certified, (in any way in the first degree.

TABLE VI

AVERAGE NO. OF YEARS

1973-1974	25
1974-1975	24,9
1975-1976	22,8
1976-1977	25,0

One must therefore, on the basis of this table, in particular, conclude, as does the Medical Bureau of

Occupational Diseases, that 'Pneumoconiosis is neither so common nor so serious a disease now as it was 40 years ago'; or, as has been more optimistically stated, the incidence of the disease is now 'minimal' amongst the workers of the gold mining industry. While the problem of silicosis in gold mining has to a very large extent been solved - the Chamber of Mines spends R70 000 000 per annum alone on ventilation - COLD is now of growing concern to the authorities and doctors. When COLD was originally introduced as a separate compensable disease, it was thought that its incidence was caused by long-term dust exposure and was therefore common to miners of long service. It was, therefore, also believed to be relatively uncommon amongst Africans. It is a disease difficult to diagnose by clinical examination or X-rays, and has to be performed by lung function tests, the equipment for which is of an excellent standard both on the mines and at the Bureau.

Since the introduction of COLD as a compensable disease, preliminary epidemiological tests have been performed by the National Research Institute for Occupational Diseases. Doubt now exists as to whether it is caused by dust exposure; and it is believed that it may be the result of underground atmospheric pollution. Also there is growing concern about its prevalence amongst young African males. His prevalence was discovered as a result of post mortem examinations of young Africans who had died from accidental causes. While alive they had expressed no discomfort from the disease nor had they exhibited clinical symptoms of COLD on medical examination. Control of this disease will now have to become an important research area for dust control engineers, pathologists, epidemiologists and experts in the field of environmental pollution.

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INDUSTRIAL COUNCIL MEDICAL AID AND
MEDICAL BENEFITS SCHEMES IN SOUTH AFRICA

D. Cooper

INTRODUCTION

In this paper I will examine the medical aid and benefit schemes established under the Industrial Councils in various industries.

The differences between medical aid and medical benefit schemes will be looked at in some detail. Some case studies of benefit schemes in particular industries will be discussed in order to illuminate these.

An attempt will be made, through reviewing the Industrial Council medical schemes in existence, to gauge the viability and benefit to workers of these schemes.

Social security measures covering workers' health in South Africa can be divided into the following areas:

Health Conditions at Work:

These are governed by the Factories, Machinery and Building Work Act and the Shops and Offices Act. These regulations lay down minimum requirements with regard to floor space and ventilation, lighting, toilet facilities, protective clothing and appliances and so forth. They also form the basic legislation laying down sick leave and sick pay provisions. This is in addition to the Unemployment Insurance Act. Exemptions may be obtained from these sick leave provisions if other provisions are made in a sick fund, an Industrial Council agreement or a Wage Determination. These provisions are supposed to be an improvement on those in the Factories Act. Some health provisions which apply specifically to African workers are laid down in the Bantu Labour Regulations Act.

Industrial Diseases and Accidents:

This area is governed by the Workmen's Compensation Act. It involves accidents or diseases contracted in the workplace. The Government-appointed Commission of Inquiry into occupation health (The Erasmus Commission) whose report was published in 1976, called for sweeping changes in legislation affecting Industrial health. They found that a very serious situation existed in South African industry with regard to officially recognised industrial diseases.

Medical Schemes:

This is the third area of workers' health, which will form the main subject matter of this paper. These three areas are not mutually exclusive, but overlap, each affecting the other. Chronic illness as a result of exposure to occupational disease, for example, can have important bearing on the need for future medical attention covered by medical insurance schemes.

The present system of medical schemes (together with other forms of social security such as provident, funeral and pension funds) can be seen to originate partly from the early mutual aid societies and partly from the private commercial insurance schemes. The mutual aid societies developed in Europe with the appearance of an unorganised mass of unskilled labourers in the towns. The formation of mutual aid clubs were often the basis for later emergence of industrial trade unions.

MEDICAL AID AND BENEFIT SCHEMES

There are two types of medical schemes in operation in South Africa which assist workers in paying for medical services, after the payment of a regular contribution. These are medical benefit and medical aid schemes. Although the most common distinction made between the two is based on the fact that medical aid schemes allow the

member a free choice of doctors whereas medical benefit schemes appoint doctors on a panel basis, there are more significant differences.

The medical aid scheme is generally aimed at the more skilled, higher income workers. The contributions deducted are higher and the benefits extended generally more comprehensive, from a curative perspective. Medical benefit schemes are aimed at lower paid workers, who are usually semi-skilled or unskilled. The contributions deducted are much lower than medical aid contributions. Not all medical benefit societies render full services, many of them operating on the principle of gradualism. Initially only doctor's services and medicine are provided free, but as finances are built-up benefits are extended and further benefits are included.

The medical benefit societies tend to have a more preventative bias than medical aid societies, which tend to provide straight insurance aid. This manifests itself in the establishment of clinics, free immunisation and mass x-ray programmes. This lack of preventative measures by medical aid schemes exists despite the fact that many of these schemes include amongst their aims that of promoting good health amongst their members.

The first medical aid scheme was started in 1899 by De Beers for its employees. By 1910 there were 7 schemes and 48 schemes by 1939. After World War II there was a marked increase in the number of medical aid schemes established. In 1960 there were 171 schemes and 2292 in 1975 (1).

In 1967 the Medical Schemes Act was passed. The Act came 5 years after the report of the Commission of Enquiry into the high cost of medical services and medicine, (The Snyman Commission of 1962). Many of the recommendations of this commission were incorporated into the Medical Schemes Act. The Act provides for the establishment of a Central Council for medical schemes, and a medical schemes fund which will be administered by the Secretary for Health. It lays down minimum benefit requirements with which medical

schemes must comply. One of these is that the dependants of a member must be entitled to the same benefits as the member. Exemptions from complying with certain of the minimum benefits can be applied for on a yearly basis. These are granted at the discretion of the Central Council.

Different types of medical schemes exist: a) Commercial schemes run by Insurance Companies, b) employer-initiated private schemes, c) Trade Union initiated and administered schemes and d) Medical schemes established in terms of Industrial Council Agreement. These schemes have been established by trade unions together with employer organisations in the different industries where Industrial Councils exist. It is this last type of medical scheme on which we will be concentrating on.

INDUSTRIAL COUNCIL MEDICAL SCHEMES

Industrial Councils have been formed in certain industries under the Industrial Conciliation Act (Act No. 28 of 1956). The Industrial Councils, which are formed by representatives of the registered trade unions and employers' associations in an industry, publish agreements relating to the wages and working conditions in that particular industry.

Parties to Industrial Council agreements can only include trade unions that have been registered. As Africans do not belong to registered trades unions, they cannot be represented on the Industrial Council. These agreements can be extended to African workers in the industry if this is recommended by the Bantu Labour Board.

In all Industrial Council Medical Schemes, management committees are formed. There is equal representation and participation of registered trade unions and employers' associations on these. African worker representatives cannot participate in the decision-making process of the committees. It would be possible to bring in these representatives at a sub-committee level. However, it is doubtful whether this is frequently done. The medical

doubtful whether this is frequently done. The medical schemes established under Industrial Council jurisdiction are exempt from complying with the Medical Schemes Act. They fall under the Industrial Conciliation Act. The only obligation they have to the Medical Schemes fund is to furnish information annually in respect of their finances and expenditure.

The medical schemes are required to be an improvement on the basic health provisions laid down in the Factories Act and Shops and Offices Act. There is often ambiguity as regards this, however. For example, in a recent memorandum recommending the establishment of a sick benefit scheme in the Iron and Steel Industry, the workers complained that the new agreement gave a longer period of sick leave than the main agreement for the industry, but did not include a comparison with the Unemployment Insurance Fund which also extends sick pay. It is thus not always clear that the health provisions have, in fact, improved. Sixty nine percent of white, coloured and Indian workers who fall under Industrial Council jurisdiction are covered by medical schemes. Only 8% of Africans to whom these agreements are extended are covered (2) (See Table 1).

TABLE 1

MEMBERSHIP BY RACE OF MEDICAL AID AND MEDICAL BENEFIT SCHEMES
ADMINISTERED BY INDUSTRIAL COUNCILS

	Whites	Col.	Asians	Africans	Total
No. of workers covered by all I.C.'s (1971)	218 686	192 915	61 486	537 475	1 010 562
No. of workers with medical aid coverage in terms of I.C. agreements (16 I.C.'s)	145 865	40 593	7 017	549	194 924
No. of workers with Medical Benefit coverage in terms of Industrial Council agreements (29 I.C.'s)	10 629	76 316	31 127	40 468	158 540
No. of workers with either Medical benefit or medical aid coverage as % of all workers covered by I.C.'s	72%	61%	62%	8%	35%
No. of workers who could have been covered if those Industrial Councils who have medical aid had extended scheme to all workers in those industries	178 450	94 158	15 059	420 659	708 326

No. of workers who could have been covered if those I.C.'s who have medical benefit had extended scheme to all workers in those industries.	10 792	77 701	31 305	47 885	167 683
No. of workers covered by I.C.'s who have no medical scheme	62 192	76 006	23 342	496 458	651 998
% of workers covered by I.C.'s which operate medical aid	81%	43%	46%	Negligible	
% of workers covered by I.C.'s which operate a medical benefit.	99%	98%	99%	84%	

SOURCE: W.H. Thomas (ed.), Labour Prospectives in South Africa, p. 191

Medical Aid Schemes

Table 1 shows that a racial bias exists, in terms of which medical aid schemes tend predominantly to cover whites. This stems from the skilled-worker bias of the medical aid schemes and the fact that whites monopolise skilled positions. The contributions for medical aid schemes are also too high for lower-paid workers. It is, however, the parties to the Industrial Council agreements who decide on contributions rates and so forth. The parties are the registered trade unions and the employer organizations. For the most part, medical aid schemes exist in industries in which the trade union is still organised on a craft union basis. These include: Building, Printing, Electrical undertakings, Engineering, Iron, Steel, Metallurgical Industries, Hairdressing and Furniture. Eighty one per cent of white workers are covered, whereas Africans have virtually no medical aid coverage (See Table 1). The high exclusion rate of Africans and relatively high exclusion rate of coloureds and Indian workers could be due to the fact that these workers are not employed in skilled positions.

Medical Benefit Schemes

Medical benefit schemes cover the majority of workers in industries where Industrial Council medical assistance schemes have been established (See Table 1).

Of the 40 468 Africans who have medical benefit coverage, 30 274 are in the clothing and knitting trade (3).

Generally, medical benefit schemes are to be found in industries where industrial unions (rather than craft unions) operate.

All medical benefit schemes operate on the basis of a panel of contracting doctors whom members consult. Medical benefit societies on the whole cater for lower paid workers (hence the low contribution rates) and have less extensive benefits than medical aid societies. There are

circumstances in which the member can consult a non-panel doctor. These circumstances include occasions when a worker takes ill away from the centre in which he usually receives treatment from the panel doctors.

Industrial Council medical benefit schemes operate in the following industries: Baking and Confectionery (P.E. and Uitenhage); Bespoke tailoring (Witwatersrand); Bedding Manufacturing (Tvl); Canvas Goods (Witwatersrand and Pretoria); Chemicals (Witwatersrand and Pretoria); Clothing (Cape, George, N. Cape and O.F.S., Tvl, E. Province, Natal); Cotton Textile, Retail Meat (Witwatersrand); Millinery (Cape); Tobacco (Tvl); Worsted Textile (Cape); Laundry, Diamond Cutting and Leather industries. The average contribution rate of these medical benefit schemes is 28½c per week. (The average is calculated on the basis of Industries listed above in which medical benefit schemes were studied). This average amount is considerably lower than for medical aid funds. The Diamond Cutting Medical Benefit Fund (average contribution of R1,65) and that of the retail trade (R2,32 on average) have been excluded from these calculations as these are schemes which cater for skilled categories of workers and constitute exceptions to the general rule that skilled workers are covered by medical aid schemes.

In all except one of the industries listed above (Bespoke tailoring) in which medical benefit schemes exist, the contributions vary in proportion to earnings, thus a true average could not be worked out as the number of workers in each category is not known.

In all except two (Bespoke tailoring and Bedding manufacturing) the employers paid in an equal amount on behalf of the workers. The difference in contributions in the two exceptions amounted to a few cents.

In four of the twelve industries examined, the average contribution rate was less than 20c.

These contributions appear to be low, but it must be remembered that workers usually contribute to other funds as well (pension, provident and so forth). This is apart from trade union subscriptions and Unemployment Insurance deductions.

Of the twelve industries in which medical benefit schemes were examined, only one extends benefits to dependants. The contributions are low and the funds claim they do not have the finances to include dependants. All the funds have free medical treatment by a panel of doctors. All have pharmaceutical benefits. In three of the funds, a minor part of the cost of medicine is borne by the member. In one there is an annual limit on pharmaceutical benefits. Four of the funds allow a limited number of visits to specialists or make provisions for this, at the discretion of the management committee. Three of the funds make provision for partial payment of hospital fees. Eight funds have optical benefits and nine have dental benefits. Both of these are partly in the form of subsidies.

The main benefits from medical benefits schemes are free medical attention from general practitioners and pharmaceutical benefits prescribed by the panel of doctors. African workers are excluded from the medical benefit schemes in the Bespoke tailoring and Bedding Industry. This is because the Minister of Labour did not extend the provisions of these agreements to African workers. Although there is a tendency towards more preventatively based medicine in medical benefit funds, to provide general health education for workers, only the Clothing and Millinery Industries and the Baking and Confectionery Industry provide practical benefits in this direction. The Baking and Confectionery industry provides for vaccinations and preventative injections. The Clothing and Millinery industries have established gynaecological, optical and dental clinics. They conduct mass immunization campaigns and have in the past carried out worker health surveys.

This bias towards curative medicine is very apparent in medicine in South Africa, in general. For example, Government and local authorities expenditure on hospitals as a percentage of total expenditure on health has risen from about 80% (1949-50) to about 83% (1950-60) to about 84% (1970-71) and to about 85% (1974-75). On the other hand Provincial expenditure on Public Health as a percentage of total expenditure on health has decreased from 3,6% (1949-50) to 0,7% (1959-60) to 0,07% (1970-71) to an almost negligible percentage in 1974-1975 (2).

All the medical benefit schemes require between thirteen and sixteen weeks of weekly contributions to the fund, before members are eligible for benefits.

Sick Pay Benefits

Of the twelve industries reviewed here, in which medical benefit schemes exist, all have sick pay benefits as part of their schemes.

Sick pay funds have been established where other medical and pharmaceutical benefits are not provided. In June 1972 there were forty-nine sick pay schemes administered by Industrial Councils, covering 348 756 workers (4).

If sick pay provisions are included in medical benefit schemes or in other Industrial Council sick pay funds, exemption must be obtained from the Factories Act and Unemployment Insurance Act sick leave provisions. Exemption from the Factories Act sick leave provisions can be obtained if a sick pay fund exists to which both employers and workers contribute an equal amount and which is said to be more favourable than the two weeks sick leave on full pay accorded by the Factories Act. No contributions are required by the worker under the Factories Act. Sick pay benefits vary considerably. Most payments range between 30% and 100% of the minimum wage and average about 45% (5). The internationally accepted standard based on the I.L.O.'s medical care and sickness benefits Convention is 60% of the total earnings.

TABLE 2
NUMBER OF WORKERS COVERED BY I.C. SICK PAY FUNDS

	Whites	Coloureds	Indians	Africans
Covered by sick pay funds.	140 243	115 905	40 051	52 557
% of workers covered by I.C. who have a sick pay Fund.	74%	70%	81%	11%
% of workers covered by all I.C.'s (i.e. those that do and those that do not operate sick funds).	64%	60%	65%	10%

SOURCE: Thomas, W.H. (ed.) Labour Perspectives in South Africa, p. 195.

It is difficult to gauge exactly to what extent workers benefit from sick pay fund provisions. It seems to emerge from the sick pay benefits examined that a longer period (than that allowed under the Factories Act) is granted for the period of illness but the remuneration is much lower. To see to what extent workers benefit from lower pay but longer sick leave, one would need to know the number of days sick leave needed on average, for the average worker for sickness. One might find that most illnesses do not take more than 12 days to recover from (except the more serious ones). In the twelve industries reviewed the maximum average time of absence allowed was 41,7 days, whereas under the Factories Act 14 days is the maximum sick leave allowed. Most sick pay funds do not pay for between one and two day's absence. Only after three day's absence does the member usually become eligible. (The full amount for the previous two days is then granted if the absence is three days or more.) A certificate is required from the panel doctor before sick pay is administered. Under the Factories Act the first two days of absence are included in the sick pay and a doctor's certificate is required only after the second day of absence. Some of the trade unionists interviewed felt that a sick pay fund benefited the employer, who would otherwise have to pay the full amount of sick pay under the Factories Act. It was felt that the amount received, if under 100% of the full pay, served to force workers back to work, as they found in many cases that they could not possibly live on only 50% of their normal pay. It was feared that this led to a return to work, before the worker was fully well, which might cause damage to the worker's health, a possible relapse and more absence in the future.

CASE STUDIES

Four case studies of Medical benefits schemes in the Cape are examined. These are the Clothing; Laundry, Dyeing and Cleaning; Cotton Textile; and Food Industries. The Clothing, Textile and Food Industries are amongst the major ones in the Cape, particularly the Cape Peninsula. Three of the schemes are administered by the Industrial Council and one (in the Food Industry) is trade union administered.

TABLE 3

MEDICAL BENEFIT SCHEMES IN FOUR WESTERN CAPE INDUSTRIES

	Clothing	Laundry Dyeing and Cleaning	Cotton Textile	Food
Membership	All workers in the clothing industry earning below R86,55 per week and R375 month. African workers included.	All workers in the industry earning under R500 per year. This includes African workers.	All workers in the industry regardless of race. All grades of workers up to (and excluding) foreman.	All workers in the industry including African workers.
Contribution	<p>Up to R20 per week = 20c per week.</p> <p>Over R20 week = 25c a week. Equal amount contributed by employer.</p>	<p>Under R19,50 per week = 10c per week.</p> <p>Over R19,50 per week = 15c per week. Equal amount contributed by employer.</p>	<p>Weekly wages and contributions</p> <p>R14,01-16,00 = 14c</p> <p>R16,01-18,00 = 16c</p> <p>R18,01-20,00 = 18c</p> <p>R20,01-22,00 = 20c</p>	<p>Under R20 per week = 13c per week</p> <p>Between R20 and R24 per week = 15c per week</p> <p>Between R24-R30=16c per week</p> <p>Between R30-R36=18c per week. Over R36 = 20c per week. The employer contributed 9c for each worker per week.</p>
Benefits	<p>Consultations with the fund's panel; about 65 surgeries in the Cape Peninsula and W. Cape. Doctors have been contracted in Langa and Guguletu in Cape</p>	<p>Consultations. From the panel doctors. Medicine up to R20 per year. (5 years ago this was R5,00 per year.)</p> <p>No clinics have been established and no surveys carried out.</p>	<p>R22,01-24,00 = 22c</p> <p>R24,01-26,00 = 24c</p> <p>R26,01-28,00 = 26c</p> <p>R30,01-32,00 = 30c</p> <p>R32,01-34,00 = 32c</p> <p>R34,01-36,00 = 34c</p> <p>R36,01-38,00 = 36c</p> <p>R38,01 and over = 38c</p>	<p>Consultations with fund's panel doctors. Doctors in Paarl, Tulbagh, Wellington, Ashton, W. Coast and so forth. Doctors are paid R1,50 per worker.</p>

TABLE 3 (CONTINUED)

	Clothing	Laundry Dyeing and Cleaning	Cotton Textile	Food
Benefits	<p>Town for African workers. There is a maximum of 6 visits per illness. This can be raised at the discretion of the management committee.</p> <p><u>Clinics.</u> <u>Gynaecological</u> <u>Ante-Natal</u> <u>Optical.</u> Free eye-test, lense and spectacles.</p> <p>Members pays for frames. <u>Dental.</u> Free fillings, 30c for extractions. For dentures members pay the dental mechanic's fee. Member of 5 years standing get a subsidy of 20% for this fee.</p> <p>Member of 10 years standing - 40% subsidy. <u>Medicines</u> obtained from panel doctors - free.</p>	<p><u>Spectacles</u> up to R10 per year</p> <p><u>Dentures or extractions</u> up to R10 per year.</p>	<p>Equal amount contributed by employer.</p> <p><u>Consultations:</u> A panel of doctors from whom workers can choose. <u>Medicine.</u> No maximum on amount but some limits on the types of drug which may be prescribed. <u>Dental and Optical:</u> Some benefits, depending on duration of membership of scheme.</p>	<p><u>Medicine.</u> up to R10 per year. <u>Dental.</u> R3,00 per year (about 3 extractions.) No optical benefits. From January, 1978 the fund is starting to pay out-patient fees. <u>Influenza</u> immunization programmes are carried out <u>Vitamin tablets</u> - distributed. <u>Clinics</u> - At Paarl and other centres at lunch time. <u>T.B. X-rays:</u> In 1978 there was a mass programme to cover about 9 000 workers.</p>
	<p>About 50% of normal wage. Maximum of 40 working days sick leave per year.</p>	<p>If the worker earns under R19,50 per week-receives R7,50 sick pay per week. Maximum of 6 weeks sick leave per year.</p>	<p>Ranging from R1,95 per day for worker earning between R14,01-R16,00 week to R5,07 per day for workers earning R38,01 or over.</p>	<p>15 days maximum sick leave per year at 70% of normal pay (In mid-1977 was 60%). Additional pay given at discretion of committee. It is felt by some members of the committee that the first 2 days illness should be paid for. (It is not at present.</p>
Sick pay				

All the funds examined cover all workers in the industry.

None of the funds pay for hospitalization of members and no specialist treatment is offered, except in the clinics established in the clothing industry.

None of the funds cover the dependants of the members. A certificate is required to confirm illness from the first day of absence, even though the worker is not paid from the first day if he is ill less than three days because the sick leave provisions of the funds require an absence of three days before sick payments are made.

In the Clothing Industry thirteen weeks of contributions are required before the member is eligible for benefits as is the case in the Laundry, Cleaning and Dyeing Industry. In the Food Industry four contributions are needed before a member is eligible for medical benefits and eight contributions for sick pay benefits.

The Clothing Industry medical scheme has extensive preventative medical measures as does the Food Industry schemes although they are not as extensive as those in the Clothing Industry.

1. The Clothing Industry (Cape)

Many clinics and preventative measures have been initiated in the clothing industry.

A Gynaecological Clinic was established in 1958. It was initially open $\frac{1}{2}$ day a week then later four days a week. The services offered are: examinations, family planning advice, administering of oral contraceptives (10c a month); a uterine cancer detection service, utilization of equipment for cauterization in the case of uterine cancer, and injuries from childbirth are treated. In 1961 1 497 women was treated for uterine cancer. An ante-natal clinic was established in 1962. In early 1963 an optical clinic was established. Specialist services are offered at clinics on appointment basis. A survey was carried out in

1963 on visual deficiency which showed that this was not being corrected because of the expense of glasses. In March 1973 a dental clinic was established.

Attempts have been made through the years to establish psychiatric clinics. These have not succeeded.

In 1964 a medical clinic and physiotherapy service was established. The medical clinic was supplied with a portable cardiograph machine. This was taken to the various areas to test the workers. The physiotherapy service was offered during lunch hours and after working hours.

In 1963 an influenza immunization survey was carried out. This formed the basis for later immunization programmes. The last influenza immunization campaign was carried out in 1976. Employers pay for this service at reduced rates obtained by the Industrial Council.

There were complaints of 'malingering' by employers when sick pay provisions were introduced. These were apparently unfounded.

Absenteeism Per Member of Fund.

1959	-	average	of	2.2	days	per	member	per	month.
1960	-	average	of	2.3.	"	"	"	"	"
1961	-	average	of	2.2	"	"	"	"	"
1962	-	average	of	2.4.	"	"	"	"	"
1963	-	average	of	2.8	"	"	"	"	"

In July/August 1963, there was a very severe outbreak of influenza, which explains the increase in 1963. In August 1962-63 it was found that 81% of those workers absent because of illness, showed a positive diagnosis (temperature or other such symptoms). Seventy two per cent of the work-force was responsible for 80% of the sickness in the industry. Eighty two per cent of persons consulting doctors in 1966 were female. More than 72% of the work force at that time was female.

It seems, therefore that sickness was fairly well spread amongst the labour force. The fund thought that this showed that the claims of 'malingering' were unfounded.

Medical benefits are not transferable, if the worker leaves the Clothing Industry. This creates a problem because there is a high turnover of workers in the Clothing Industry. Thus one would find that many workers sometimes pay in money without getting adequate benefits from the fund.

In case of the dissolution of the fund, after debts have been paid, of the money goes to the employer; to the trade union and to the consolidated revenue fund.

2. Laundry, Cleaning and Dyeing Industry

This fund was established about 37 years ago. Workers in this industry are mostly female (about 80% or more). The wages are low. Depot workers earn between R18-R20 a week. The workers are being hard hit during the recession, as a result of a decrease in laundry work as this constitutes a luxury item, which many people eliminate during a recession. Contributions are therefore low and thus benefits cannot be very extensive. Workers however, favour the payment of higher contributions despite the low wages and high unemployment, but employers have been against this as they pay an equal contribution. The Laundry, Cleaning and Dyeing Workers Union is struggling for an increase in contribution rates which will lead to an increase in benefits.

3. Cotton Textile Sick Benefit Fund.

The cotton textile industry has a predominantly female labour force. About 70% of the workers are female and this percentage is increasing over time.

The Cotton Textile Sick Benefit Fund was established about fifteen years ago as a sick pay and medical benefit fund.

The fund started off providing surgeries at some of the factories. This involved very basic medical benefits and although there were provisions for dental and optical benefits even at this stage, they were not really operative. When the fund was started, the sick pay was only 50% of the worker's salary. (See table 3, for present rate).

The fund applies mainly to the country areas such as Wellington, Worcester, Paarl, Tiervlei and Bellville. It excludes Cape Town because when the Industrial Council in this industry was started about 20 years ago, the most organised areas were the country areas. Hence this became the registered area of jurisdiction of the Industrial Council. When the Cape Town area is better organised, permission to extend the area of jurisdiction will be applied for.

A panel of doctors is the "system" used by the fund as it is felt that if there is too wide a range of doctors there can be little control over possible abuse of benefits. At the large factories, covered by the agreement there are doctors' surgeries on the factory premises. Initially there was an agreement with the doctors serving the fund, that they would be paid on a per capita basis. However, it was found that this often led to neglect on the part of the doctors, who were thereby assured of a certain income. The scheme has therefore now changed to payment on a consultation basis.

Problems have been encountered by the fund. One problem has been some abuse of the fund by doctors and dentists. This has generally occurred in the countryside, where there is often only one doctor or dentist available. This has led to the doctor or dentist concerned often charging exorbitant prices. These fees have had to be met either by the fund or the workers themselves, as there is no other option open to them.

Other problems have occurred with the sick pay fund. In recent years workers received sick pay from the first day of absence on presenting a doctor's certificate. This brought about a tremendous drain on the fund. This has therefore been changed, with workers only receiving sick pay from the second day of absence onwards.

It seems fairly certain that a sick pay fund benefits the employers. They would have had to pay out the full amount in sick pay to workers when they were ill, under the Factories Act, whereas the fund works on the basis of equal contribution by employers and workers. It seems that employers also have more control over workers taking sick leave through the fund, as there is closer contact between the employers and doctors who treat the workers. The relative benefits to the workers of this scheme as opposed to the provisions under the Factories Act and Unemployment Insurance Act, are more difficult to assess.

There is a large turn-over of the work-force in the textile industry which creates problems in terms of the benefits the workers get from the fund. In these circumstances it might happen that many workers pay in their contributions, but leave the industry before they have received adequate benefits for the amount they have paid in.

There are no preventative measures taken by the fund, however X-rays are done occasionally at particular factories, on request. The fund has no clinics. Besides the fact that the money collected through contributions does not allow for this, it is felt that the area in which the factories are situated were far too widely dispersed for the clinics to be easily accessible to all workers involved in the scheme.

No attempts have been made to bring African representatives in at sub-committee level in the decision-making of the fund. Contact with all workers does occur at the factory level, however.

Improvement in benefits over the years have been centred mainly on improving the benefits of those workers who have the longest membership.

4. Food Industry Medical Benefit Fund Administered by the Food and Canning Workers Union.

There is no Industrial Council in the Food industry. Instead, a Conciliation Board of employer and trade union representatives is in operation.

This scheme falls under the Medical Schemes Act. It has to apply for yearly exemption from certain provisions. So far this has been granted.

The sick fund consists of about 13 workers representatives. This is called the central committee. Quarterly meetings are held with employer and worker representatives. Other meetings are held only with workers representatives present. Every factory is meant to have a medical committee whose representatives are elected at meetings at the various factories. Representatives on the medical committee usually work part-time for the fund. At Ashton and Paarl there is one full-time worker.

This fund was established in 1950. At that stage only four canning firms participated. In the first year the income was just on R2 000 with an average membership of 1 540.

When the fund started the contributions were 2½c a week. By 1955 this had risen to 5c a week. The average membership had more than doubled by 1956/7 and stood at just over 4 000. In 1957 panels of doctors were set up and free medical attention was provided. (Up until then the only sick benefit had been pay).

1958 clinics were set up. The staff consisted mainly of first-aid attendants and nurses. Panel doctors attended lunch-hour clinics at factories as well as seeing members at their surgeries.

Mass X-ray programmes for the detection of tuberculosis were started in 1958. In 1959 free dental treatment up to a limit of R2,00 a year was introduced. In 1960 the limit on free medicines was raised from R4,00 to R6,00 and that on dental treatment was doubled. Clinics were then operating in all member factories except Wolseley and Worcester.

Between 1960 and 1973 medical and dental benefits have increased more than fourfold and now run at more than R20 000 a year.

In 1969 the Fund was registered in terms of the Friendly Societies Act. It held dual registration with the Departments of Health and Finance. (The latter has not been waived).

In 1972 the first mass immunization against influenza took place. Over 3 500 workers were immunized at a cost to the fund of R2 659. This was repeated in 1974. This has not been done since, as there are doubts as to its effectiveness.

Present Situation: (Table 3 shows Membership, Contributions & Benefits). At present one firm, South African Preserving at Tulbagh, has given permanent workers the option of belonging to the Cape Medical Plan. In this case the employer pays 2/3 (about R15 per month) of the contribution to the Cape Medical Plan. This factory still belongs to the Food and Canning Workers' Union fund, however, so that seasonal workers will be covered.

Members retain benefits for two months after they stop working. This is because of the seasonal nature of the food industry in which most workers are laid-off for part of the year.

The areas which this fund covers are very dispersed. This creates difficulties with regard to health education which is thought to be important by the members of the fund. The doctor's contacted within the various towns, is usually used for this purpose; however this is not always as satisfactory as the fund would like it to be.

Four contributions are needed before a member is eligible for medical benefits and eight contributions for sick pay benefits.

TABLE 4
MEDICAL BENEFIT FUND FOR THE FOOD INDUSTRY.
YEAR ENDING DECEMBER 1976

<u>Benefits to members</u>	<u>1976</u>	<u>1975</u>	<u>Difference</u>
Total	R53 349,81	R40 767	+ 12 582 81
Administrative expenses	R17 053,69	R20 107	- 3 054
Total expenditure	R70 403,50		
Contributions received:	R60 020,52	R56 083	
Income from investments:	R16 327,49	R13 575	

CONCLUSION

The following points emerge from the previous discussion. Firstly the skilled worker and racial bias of medical insurance schemes should be noted. (69% of whites who are predominantly skilled or semi-skilled as opposed to 8% of Africans, predominantly unskilled, are covered by Industrial Council medical schemes.) More concern is shown for the health of skilled workers who are less easily replaceable, than for that of unskilled workers.

The curative bias of medical schemes in general (to a lesser extent, medical benefit schemes) is another fact which emerges. This is a general feature of medicine in South Africa. The Clothing and Food Industry medical benefit schemes show attempts at initiating preventative health programmes. These remain some of the few isolated examples. The benefits extended by medical benefit schemes are much less comprehensive than those offered by medical aid schemes which cater for skilled, higher paid workers. (On the one hand, the low contribution rates of medical benefit schemes must be borne in mind here, but on the other, the greater concern shown for skilled workers' health must be noted.) Complaints have been levelled at the high cost of administration of medical schemes in general, compared with amounts paid out. As figures on expenditure were unavailable in most cases, the truth of this could not be assessed with regard to Industrial Council medical schemes.

As already mentioned, the benefit to workers of a sick pay fund which often accompanies medical benefit funds is dubious. It was felt by most of the trade unionists that this was attained on the initiative of the employer rather than the worker and tended to benefit the former. It gave the employer greater control over sick leave taken by the worker, as the worker needed to obtain a certificate from the panel doctor from the first day of illness. The doctor, working on the factory premises, often had close contact with the employer, and, it was felt, was sometimes more sympathetic to the requirements of the employer than the illness of the worker. This was particularly prone to occur in small towns, where the population is small and the employer and the doctor are often good acquaintances. It must also be noted that under the Factories Act the employer would have to pay out the sick pay in full, while the employer and worker each pay in an equal contribution into a sick pay fund. The point made earlier about the different sick pay benefits provided in terms of the Factories Act and the various sick pay funds needs to be

re-emphasized. Under the Factories Act two weeks sick leave on full pay is allowed whereas the sick pay funds provide less than full pay (an average only 45%) but for longer periods. It was felt that this tended to force workers back to work before they were completely well, as they found it impossible to cope on the reduced pay. They would therefore be unlikely to benefit from the increased period of sick leave in terms of sick pay funds, but would be disadvantaged, as compared with the terms of sick pay under the Factories Act.

The mobility of unskilled labour where they move from industry to industry as a result of the contract labour system and for other reasons, militates against it being in the interests of these workers to belong to medical schemes. Between thirteen and sixteen weeks contribution are required by most of the schemes before a member becomes eligible for benefits. In many schemes, long membership allows the members extra benefits. These workers would lose out in this case and might find themselves paying in quite a large amount without getting adequate benefit from it. The present high rate of unemployment and retrenchment increase the likelihood of this happening.

The number of medical schemes established by the Industrial councils are few, considering the number of industries under their jurisdiction (101 I.C.'s exist). The demands for a greater number of medical schemes in isolation, without concern for the general situation of workers, need not necessarily be a progressive move, however: "The great danger lies in purchasing a benefit scheme in lieu of substantial wage increases in a situation where the absolute level of real wages is very low. The 'trade-off' has to be considered with particular circumspection in South Africa where the vast majority of workers are in an especially disadvantageous position vis-a-vis employers' parties in negotiations of any sort (6).

Footnotes:

1. All figures from Matheson J: The Economics of Health in South Africa - A Survey. Unpublished Economics Honours Thesis, University of Cape Town, 1977, p.47.

2. Ibid., p. 22.
3. Statistics calculated from a weighted average of the number of workers covered by each Industrial Council.
4. Information from the Dept. of Labour.
5. Calculated from statistics available to the author.
6. Horner D.: 'Comment' in Thomas, W.H. (ed) Labour Perspectives in South Africa, David Philip, Cape Town, p.208.

INDUSTRIAL HEALTH CARE

A group of Johannesburg Doctors

Following the publication of the findings of the Erasmus Commission of Enquiry into Industrial Health in 1976 and the SALRDU/SAMST conference on the economics of health care in Southern African (Cape Town, September 1978) attention has been focussed on industrial health care in South Africa. Studying these proceedings it becomes clear that the state of industrial health in South Africa is very unsatisfactory and that very little has been done either on a practical or a theoretical level in this respect. Enforcement of such legislation as does exist is inadequate and we contend that it cannot improve unless there is direct worker participation in the control of industrial health. As long as the onus for industrial health falls on management and the state it will be governed by the motives of profit and productivity and not by real health interests as perceived by workers.

THE UNSATISFACTORY PRESENT SITUATION

1. At present, legislation covering industrial health is largely inadequate and implementation severely limited. There are at least 32 acts governing industrial health which fall under 12 different government departments. Because of a lack of co-ordination of the laws, there are workers who are unprotected by any legislation; maximum concentrations of noxious substances are not standardized etc. Also there is an inadequate staff to implement and police these laws - e.g. 32 factory inspectors for 30 000 factories in 1974.
2. There is a tendency in South Africa to narrow the concept of industrial health to that of

occupational disease and not to include industrial accidents. Such a separation was made by the Erasmus Commission. This is in opposition to international trends - as shown by the Occupational Safety Health Act of 1970 (USA) and the English Health and Safety at Work etc. Act of 1974 - which aim to provide for one comprehensive and integrated system of law dealing with health and safety of the public as affected by work activities. What has developed in South Africa is a false complacency about industrial health in certain spheres. For example, the Erasmus Commission felt that the position with regard to health on the mines was satisfactory while it was aware that in 1974 there were 500 deaths and 22 222 workers injured in accidents on the mines.

3. One consequence of the lack of representation of workers' interests in respect of industrial health is that good industrial health schemes are rare. One example is the service run by AE&CI at their Modderfontein factory. It comprises:-
 - a) A well equipped hospital able to handle acute and elective medical and surgical problems.
 - b) Clinics dealing with industrially-related health problems e.g. hypertension. Patients are identified mainly by 'on-the-job' screening done by nursing sisters throughout the complex.
 - c) Surveillance of toxic substances amongst 'at risk' workers.
 - d) Several first aid stations.
 - e) Emergency rooms in every plant; emergency training drills are mandatory throughout the complex.

Regular environmental health and safety inspections are carried out by representatives of management.

Although this scheme is far superior to other industrial health programmes in South Africa, and very few such programmes exist, it can be criticized on the following ground:-

- i. The absence of worker-representation on safety inspections.
- ii. The absence of channels through which workers can register complaints about working conditions and hazards.
- iii. The lack of formal worker-education programmes on factory health dangers.
- iv. The lack of direct control by workers of the medical scheme. The scheme is under the control of and dependent on management.

WORKER PARTICIPATION IN INDUSTRIAL HEALTH

As a result of the Erasmus Commission new legislation dealing with industrial health will be enacted. This legislation can only be effective if it provides for workers-participation, a principle accepted by the Erasmus Commission in only a limited measure: "After all if mutual trust is to be achieved, there must be some level at which employer and employee may meet to consider the employee's work environment and health. How these committees are constituted may for the time being be left to the discretion of management. Whatever the organisation may be that is created, it should be capable of discharging the legal obligation which the commission proposes to impose upon employers, namely that of consulting their workers on industrial health matters".

Normally this role is fulfilled by trade unions. Where trade-unions are recognised for all workers, participation can be ensured in the following ways:-

- 1) Health officers or committees in factories are elected by the workers themselves.
- 2) These officers or committees have free access to

- factories, workers and records.
- 3) They work in co-operation with doctors and experts appointed by the trade-unions who also have access to factory workers.
 - 4) These committees have powers of inspection and enforcement recognised by law.
 - 5) A national organisation representing workers has the power to lay down standards and conditions in relation to industrial health.
 - 6) Worker-organised preventive industrial health education makes workers aware of the hazards to which they are exposed.
 - 7) Worker-controlled health schemes deal not only with specific occupational diseases and industrial accidents but also with industrially-related health problems such as TB, hypertension and mental health.

The recognition of trade unions for all workers is unlikely in South Africa in the near future. Thus consideration must be given to the nature of the bodies which can fulfill the recommendations of the Erasmus Commission that the management of any industrial undertaking should be obliged to consult workers or their representatives on industrial health issues and working conditions and to grant them a hearing when they have complaints.

One suggestion is that there be worker-elected committees, working with the advice of suitably medically qualified people, which could:

- a) Negotiate with management on industrial health issues and on the enforcement of industrial safety measures.
- b) Help in the education of workers about the problems of safety and occupational diseases.
- c) Form the basis of a general co-operation between workers on health matters.

The success of such committees would depend on:-

- i) The awareness of workers of the health problems they face in the factory.
- ii) The extent to which the committees are truly representative of the workers and their support amongst workers.

It is possible to envisage the establishment of these committees within the present legislative framework.

the Food and Canning Workers' in the Western Cape already have medical benefit schemes that have been in existence for many years (2). Other unions feel that they are still too weak organisationally to introduce an industrial health care system because it will detract from the essential task of the union which is to have strong shop-floor representation. Unions are therefore at different positions regarding the provision of health services to workers. Regardless of these differences I would like to propose the following industrial health care system for the consideration of worker organisations. Although particular aspects of the system may not be suitable or relevant to certain unions, the most important feature of the system is the principle upon which it is based. These are that workers should increasingly assume responsibility for their own health and safety and that unions should introduce and use health care systems to strengthen their organisation, not to weaken it.

The basis of the scheme should be the factory where workers elect their own factory health workers as members of a health and safety committee. This committee will operate as a sub-committee of the shop stewards committee and bring to the attention of shop stewards those issues regarding health and safety that require negotiation with management. If the union deems such a health and safety committee to be redundant, the shop stewards committee itself could assume full responsibility for health and safety issues in the factory. There is, however a danger that they could neglect these issues because of the shop stewards many other responsibilities.

The factory health workers would primarily be responsible for the health and safety needs of the workers within their own factories. Insofar as it is possible they must be acquainted with the legal requirements which the firm has to comply with in order to protect workers from industrial diseases and accidents. They could strive to ensure that management complies with these requirements. This would require the participation of the union and entail discussing health and safety issues with workers.

doctor. Other duties would also include the training and supervision of both the factory and clinic health workers, delegating to them as much responsibility as is possible.

The doctor would thus become a consultant, trainer supervisor and researcher. The training of health workers and nurses would be monitored or undertaken by him where necessary. An important function of the doctor would be to research the incidence and causes of industrial diseases and accidents. This information would be fed to the trade union to strengthen its hand in negotiating with management and statutory bodies. Regular meetings between the doctor, nurses, clinic and factory health workers will be necessary to make certain that the health service is geared to the needs of the workers.

These proposals are not meant as blue-prints for trade unions to implement, but as concrete ideas which they can consider (and accept or reject) when they are developing their own industrial health care system. There is, however, an important distinction to bear in mind with regards to the provision of health care to workers. This distinction rests on the role workers play in it. They can either passively receive medical services from the clinic at the exclusive hand of doctors, dentists and nurses. In such a case the union plays the role of purely a benefit society. Or the workers can actively participate in the provision of their own health and safety in co-operation with the medical personnel. In such a case the union would be increasing its bargaining power by organising workers on issues that are of immediate relevance to them and their families. Workers' health and organisation would thus be closely linked to each other.

FOOTNOTES

1. See South African Outlook, Vol. 108, No. 1288, Oct. 1978, for some papers delivered at the Conference that are relevant to this article. Also see Social

The reasons for, and adequacy of, the safety regulations and clothing might, for instance, be discussed. The factory health workers should be trained to identify the industrial diseases that workers are most likely to contract at their work-place. They should keep records of such cases and refer them to the trade union's health clinic which is described below. The factory health workers require training in first aid that is geared to the requirements particular to their factories in case of accidents or disasters. They should train workers to know what they have to do in case they fall ill or have an accident in order to make certain that workers receive their sick pay, Workmen's Compensation and any other benefits to which they are entitled. They must also check that the employers have the correct home address (urban and rural addresses in the case of contract and other workers with rural families) of an injured worker and his dependents who are entitled to Workmen's Compensation claims.

The health clinic of the trade union should be within easy reach of the workers. For that reason it need not be too rigidly tied to the union offices. The clinic should be staffed by health workers, nurses and a doctor. The health workers could be drawn from the industry the union serves and may be workers who would otherwise be unemployed. The clinic health workers would be trained in administering elementary health services such as dressing and sterilising wounds, taking temperatures and contact tracing. They could also handle administrative work by taking down personal records and details, helping in the dispensary, and so on.

The nurses would play an important diagnostic role. They could be trained, as is already happening in Soweto, in history-taking, examination, comprehensive patient care and counselling. This means they might deal with as many as 80% of cases presented, referring the remainder to the

Dynamics, Vol. 4 No. 2, for a valuable summary of the whole Conference.

2. See the Case Studies in the article by Diane Cooper in this Bulletin.

THE SOUTH AFRICAN LABOUR BULLETIN'S RECOMMENDATIONS
TO THE WIEHAHN COMMISSION
REGARDING WORKMEN'S COMPENSATION

1. The Workmen's Compensation Amendment Act, No. 28 of 1977, eliminated provisions which, in the principal Act, had differentiated between African workers on the one hand and white, coloured and Asian workers on the other. The provision of equal compensation for all workers was a most welcome change of direction.
2. One of the main problems is administrative and concerns the matter of unclaimed moneys due to workmen for their dependants. The Report of the Controller and Auditor-General for the financial year 1974-75 (R.P. 84/1975) shows an accumulated amount of R2 706 897 in this respect. Government Gazette No. 5585 of 10 June 1977 contains lists which run to 92 pages of names and addresses of people to whom money is due. Although some amounts are small, others run to four figures. Perhaps the only feasible method of trying to overcome this problem would be to knit Section 31 of the Factories Act more tightly together with the Workmen's Compensation Act and to provide for cross-referencing in the case of all serious accidents between the Divisional Inspector of Labour in the area and the local Workmen's Compensation Committees, whose functions should be expanded accordingly. In cases where workers have been hospitalised or treated as out-patients for a long period the hospital or clinic could be required to report to the local Workmen's Compensation Committee shortly before the patient was discharged to enable an official to inform the worker concerned of the money due to him.
3. Employers should also be required to record full

details of the name and present address of an injured employee in visitor registers and, further, to record the the home address of acontract worker whose normal place of residence differs from that which he occupies merely for the duration of his service contract.

REVIEWCLASS STRUGGLE - THE STATE AND MEDICINE.

by Vicente Navarro, Martin Robertson 1978, 17 Quick Street, London NI 8HL

Gill Westcott

This slim book contains an analysis of the elements of class struggle in the UK affecting the development of medical services. Navarro's central thesis is that events in the medical sector are determined not by an evolution of ideas and organisations within that sector, as most histories have assumed, but by outside political factors in society at large.

Navarro gives an account of events leading up to the establishment of the National Health Service (NHS). In 1911 the First National Health Act was passed, providing for compulsory health insurance through private insurance agents for all workers earning less than £2 per week. The Dawson Report of 1920 advocating a regionalised and integrated national health service is often seen as a pioneering document. Navarro relates it however to the groundswell of working class dissatisfaction in the wake of the first World War and the 1917 Soviet Revolution, and to a more radical Document published earlier by the State Medical Services Association (later the Socialist Medical Association, SMA). It was in this period that the Labour Party adopted its most radical programme ever, enshrining the famous 'Clause 4' on nationalisation in its constitution, and the Dawson report is seen as an attempt to forestall the unrest springing from this mood. Navarro also links the 1926/56 Royal Commission on National Health Insurance to the political situation surrounding the General Strike of 1926. The fact that neither report was acted upon he attributes to the waning of impetus of the Labour Movement due in the latter case to the breaking of the Strike by threats to call in the

army, and the channelling of discontent by Labour leaders into the less effective Parliamentary channels.

Navarro at this point shows that leading Parliamentary Labour Party figures espoused a political viewpoint which they expected to appeal to all sections of society, all 'men of good will' on grounds of social justice and morality.

The Wall Street Crash of 1929 and the ensuing depression led once more to increasing militancy among workers, and to disillusionment with the 'evolution into socialism' doctrine of the parliamentary leaders. The Labour Party programme of 1934 called for nationalisation of key industries and a completely integrated (preventive and curative) publicly provided national health service. The response of the British Medical Association (BMA, the organ of general practitioners) was a report in 1938 advocating the extension of National Health Insurance to all sections of the working classes through subsidising schemes with commercial agencies. It was during this period that the very similar Blue Shield Scheme was established in the US by the American Medical Association. One writer comments that the BMA was more concerned to ensure the patients' ability to pay them to insure them against the high cost of medical services.

The Second World War however had a deep radicalising effect on British society, partly from the need to plan a better tomorrow to sustain wartime solidarity, and partly through the experience of much greater effective government control of the economy on the major services. Specialists sent to provincial hospitals were appalled at conditions there.

Several blueprints for reform were prepared. The most famous, the Beveridge report of 1942, advocated

Keynesian full employment policies and national free provision of health services and education. Again, Navarro sees this report not as a radical departure but strongly tarred with the capitalist brush, (due partly to Conservative dominance in the Wartime coalition). He finds its proposals on medical services very similar to a previous report on the Medical Planning Commission (MPC) in which the BMA and the Royal Colleges (the Specialist bodies) were represented, the specialists being more numerous. This report accepted the central planning and regionalised co-ordination which had occurred during the war, though it did not favour total integration of voluntary hospitals into the national system. It recommended expansion of National Health Insurance to the entire population, except the top 10% (from whom the Consultant specialists draw most of their clientele).

The final NHS scheme, though said to be 'similar', nationalised all hospitals and did not accept the exclusion of the top 10% of population. A comprehensive free health service was introduced, financed out of general taxation and local rates. GP's still provided the bulk of primary health care and were paid by the state according to the size of their patient lists, receiving considerably improved incomes. Consultants, however, were rewarded extravagantly for joining the NHS: in Bevan, (the Labour Minister's words), he 'choked their mouths with gold' with a secret tax-funded system of rewards and the weighing of salaries in favour of consultants working only part time for the NHS. Private beds in hospitals were still available; though an insignificant proportion of total patients, they allowed consultants to augment their income. Moreover the consultants were permitted key positions of control on the Regional Hospital Boards. Crossman wrote "what chance is there of a shift of money to the community health services or long stay hospitals?... (the

consultants) are the most ruthlessly egotistical administrators I have ever met in my life. They know nothing of what goes on outside the hospitals. These vast new palaces are justified for the convenience of the consultants" (1971).

This would have been avoided if, as the SMA had proposed, the health services had been controlled by the democratically elected local authorities.

Thus, Navarro argues, the Labour Government responded with far less radical measures than the working classes then wanted. (He does not comment on the subsequent election of a Tory government for 13 years). He blames the Labour leaders' support of the capitalist system, visible in their electoral claims in the early 60's.

Since its inception, Navarro notes that in line with the rest of the economy, central management of the health services has been strengthened by subsequent reorganisation. Responsibility was shifted yet further to ad hoc bodies leaving still fewer (mainly public health) functions to the local authorities. Strengthening the regional boards reinforced the dominance of hospitals in the system and the increasing proportionate allocation to teaching hospitals reflected this. He notes the strong class structure in the medical professions, and its legitimation through the control of technology and medical knowledge.

To conclude, Navarro looks at three main areas of debate in health care in the UK today:

- i) The rapid growth of expenditure on health care, which he attributes to growth in the social demands of labour (complementary to their demands for higher direct wages).
- ii) The continuance of regional inequality. Although

he regards this as something of a diversion from the underlying issue of continued class inequality, Navarro discusses the procedures adopted by the Medical Practices Committee (made up of doctors) to control the placing of new doctors so that underdoctored areas were better served.

This practice ceased in 1961, leaving only financial incentives to operate in these areas. He argues that redistribution of doctors has failed partly due to the strengthening of academic medicine under the NHS, allowing it more effectively to control the numbers of doctors trained. He states that while financial incentives were used to induce reallocations, a more democratic production of health resources in the NHS was not considered.

- iii) The ineffectiveness of medical expenditure to reduce mortality and morbidity. As well as the bias towards curative hospital medicine, Navarro notes that three major health problems - alienation of workers, occupational diseases and cancer - all have origins outside the health sector in the working and living environment and are not susceptible to control by medicine; they are related to the class control of production and consumption.

Navarro's book is sketchy - the full contours of historical background of the themes he delineates are not filled in, which often makes for disjointed reading. The groundswell of militant working class opinion to which he frequently refers is left very shadowy, and there is no acknowledgement of the elements of inherent conservatism, short sightedness or false consciousness in the mass of the British public, only in the Labour leaders, who are slated for their acceptance of the capitalist system.

Although the Parliamentary Labour Party is undoubtedly more conservative and more system-management oriented than the rank and file, the view Navarro presents is unbalanced.

Much else of his argument is not well substantiated. His framework excludes some factors. More historical detail could have brought much greater richness to this analysis, reaching the depth of some of his earlier work. But perhaps a degree of oversimplification is inevitable in a book which uses the whole of social and political history of the Labour Movement to account for changes in the health sector. Yet this is the way things are - the movement of aspects of society are only explicable in terms of the whole; it is important and enlightening that Navarro has adopted this perspective in relation to health.