

Organisational involvement in a noise-induced hearing loss survey

The Technical Advice Group (TAG), is a service organisation working with unions in the struggle for a healthier and safer workplace.

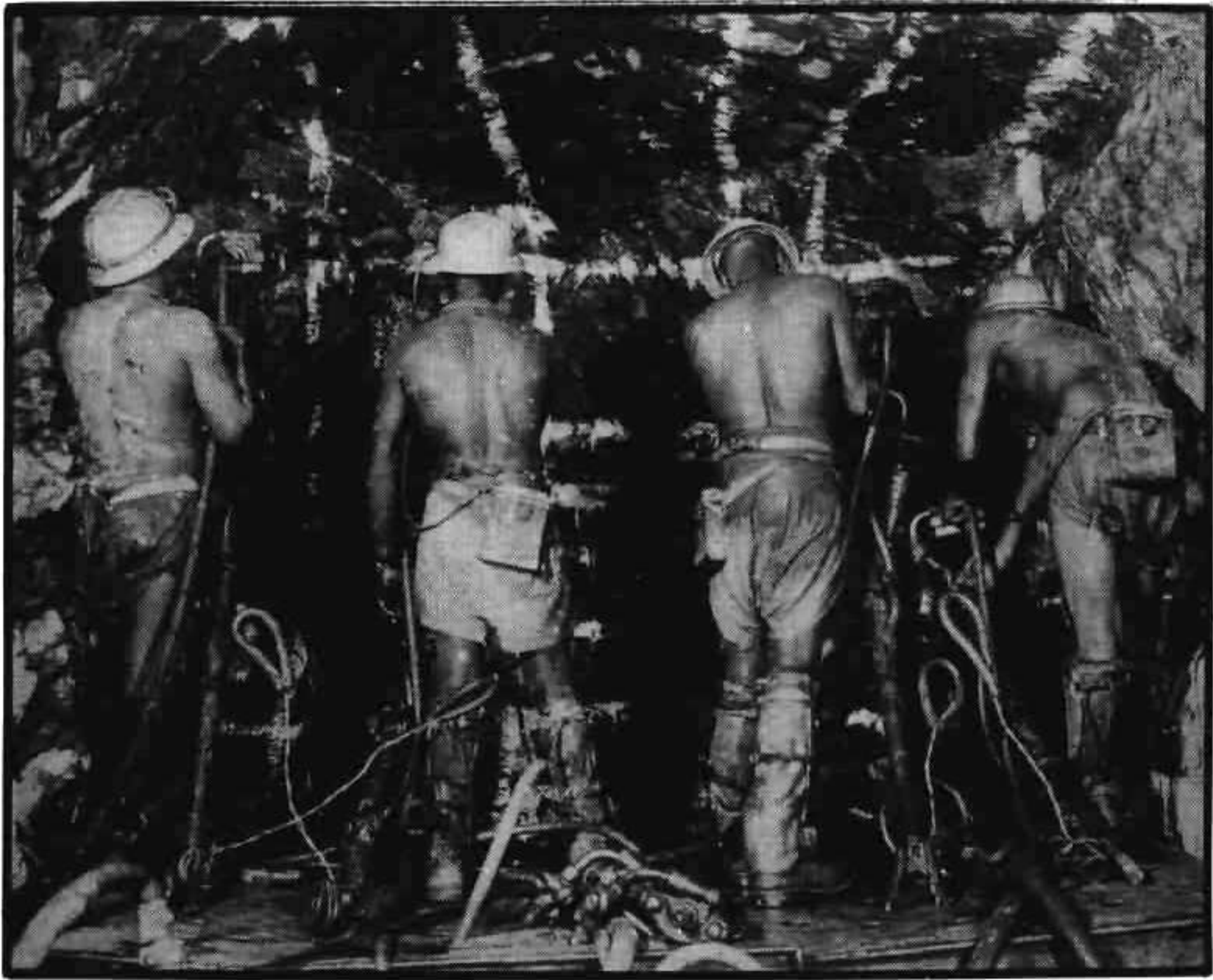
The ideas presented in this article were formulated during a survey carried out by TAG for the National Union of Mineworkers (NUM) on noise-induced hearing loss among mine workers.

We are committed to a method of research which involves organisational participation on the part of the union. This commitment arose from the following principles and objectives:

- Workers should have control over health and safety in the workplace. Therefore, the research conducted on the health of workers should be within workers' control and workers should be integrally involved in the process of the research.**
- Through participation in the research, skills are transferred to workers and officials within the organisational structures of the union. This enables them to take up health and safety issues confidently, independently of service organisations, or the so-called "experts".**
- Through participation, workers perceive that the research is conducted for their benefit and by their representatives.**
- Participation in research improves organisation.**
- There is an increase in workers' awareness of health and safety as a union issue.**
- Worker strength is mobilised for the improvement of health and safety in the workplace.**
- The union's "ownership" of the project removes fear of victimisation and prejudice.**

Background to the survey

The NUM requested an investigation into hearing loss in the mining industry as part of their overall health and safety programme. The survey was required in order to negotiate reduced noise levels in the mine, and to use it as an organising "tool". It



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The purpose of the research was to find out the extent and degree of damage resulting from noise. This was carried out by doing audiometric tests on a sample of workers. The survey also aimed to relate the audiometric tests to the subjective reality of the workers' experience of their hearing loss. A subjective questionnaire was used for this purpose.

Three hundred and six mineworkers from three mines had their hearing tested for the survey. The survey only took place on Sundays, for a duration of eleven Sundays in all. Accordingly, every Sunday, the following personnel were required

to run the survey:

- Six shaft stewards or workers who administered the questionnaires;
- Three audiologists or audiometric technicians who tested workers' hearing;
- A doctor and an audiologist who checked the workers' ears and
- Three shaft stewards and three TAG administration people who helped with the running of the survey.

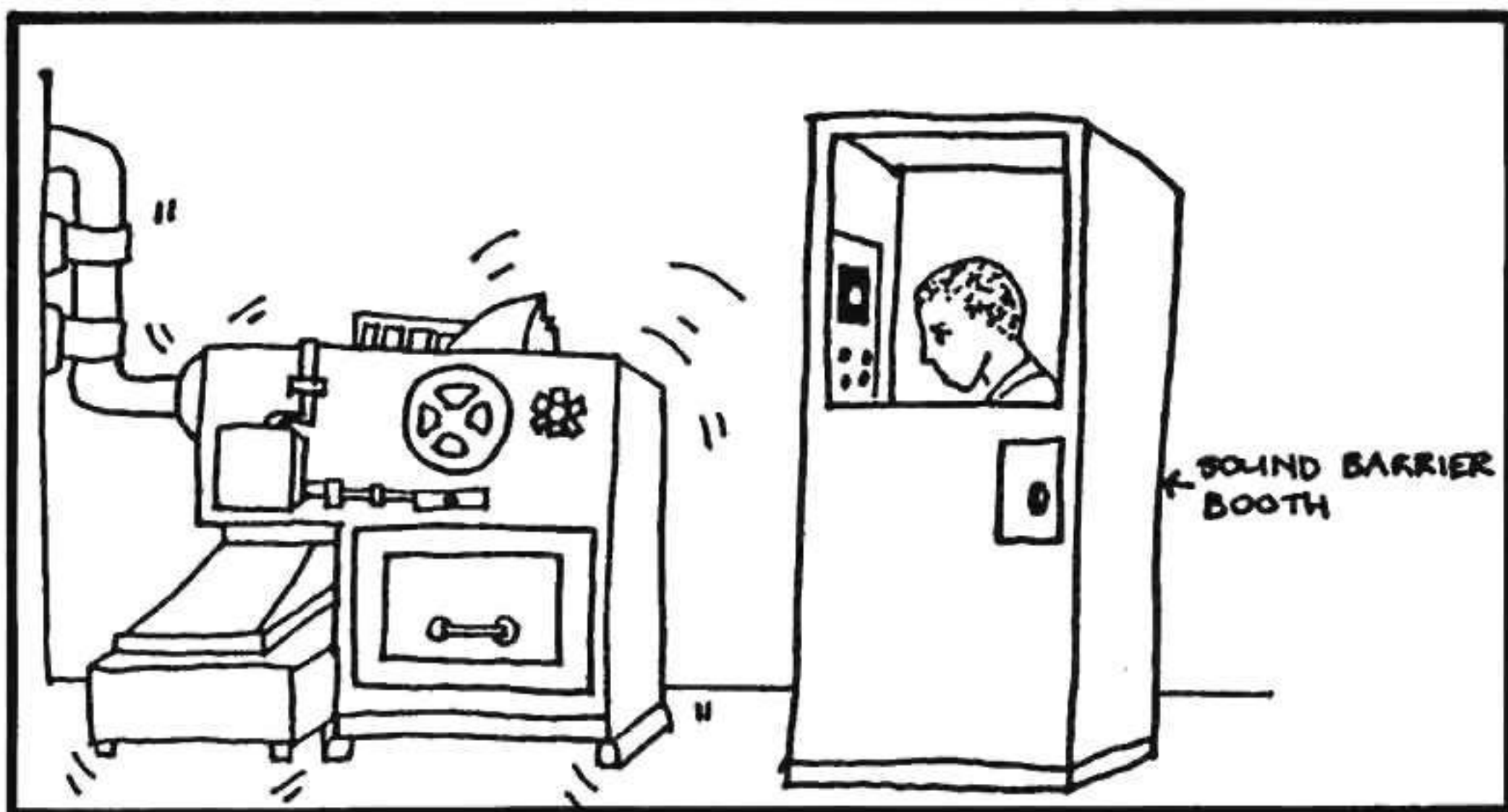
Union Participation in the research

The union participated in the research on a number of levels. The NUM health and safety officer was involved in the planning of the survey. He made sure that all the plans were realistic for the union and took into account possible limitations.

The shaft stewards were responsible for getting the project off the ground. They negotiated for names of workers and for the use of mine property. In order to do this, the shaft stewards had to have a thorough knowledge of the survey. This was done through a series of discussions and a training session on noise-induced hearing loss.

The shaft stewards were responsible for calling the workers, who were randomly chosen, to attend on the day of the survey.

During the survey, the shaft stewards administered a questionnaire investigating workers' work history and subjective evaluation of their hearing loss. They were also trained in how to use a noise dosimeter. In addition, a booklet on noise and noise control was produced.



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Organisational vs "Scientific" requirements

In the initial planning of the project, the NUM and TAG sometimes appeared to have conflicting interests. In all cases, these conflicts were resolved to the satisfaction of both parties. Here are some of the issues that had to be resolved:

- This project was not able to test all workers. Hence, it was decided to choose a random sample of workers. Initially, the NUM intended involving shaft stewards in a questionnaire survey to get all the names and particulars of the drillers on the mine where testing was to take place. This was to involve about 1 000 names from each mine. From this survey, a random sample would then be drawn. However, getting over 1 000 names and making sure that all the drillers and their assistants were included, presented itself as an organisational nightmare. Hence for efficiency, time, credibility and practical reasons, the shaft stewards negotiated with management for the records of drillers and drillers' assistants. The NUM could realistically expect to receive the names from management on certain mines only. This further limited the number of mines that could be included in the study.
- The NUM wanted the research to be conducted on as many mines as possible. This has obvious advantages for the organisational requirements of the NUM. TAG was also concerned about the representivity of the sample. However, due to the difficulty of access, as well as the need to negotiate the use of mine property, the survey could only be conducted on certain mines. Finally, four mines were chosen, taking into account geographic location.

Lessons the TAG "NUM Noise Group" learnt

The project demonstrated that good organisation at union and factory/mine level was essential for participatory research to be successful.

Had the shaft stewards received more training, they could have administered the audiometric tests. Unfortunately, the shaft stewards did not have the time to learn how to administer the audiometric tests. The NUM has now established Safety Shaft Stewards, who may more realistically learn how to do these tests.

We attempted a subjective questionnaire that was adapted from overseas questionnaires. We found that more research is required into the lifestyle of workers. A preliminary study should have been conducted to assess the real effects of noise-induced hearing loss prior to the questionnaire being drawn up. It was partly because of time constraints that this study was not carried out.

If such a study had been carried out, it may have revealed that there were other aspects of noise that are bigger problems to the workers, e.g. sore fingers (from vibration), loss of sleep, hypertension etc.

Because the union participated in the planning stages of the research, most of the objectives set were realistic. If, on the other hand, the TAG "NUM Noise Group" had set the requirements, we might have set objectives which could not realistically be fulfilled because of personpower and administrative limitations.

Problems encountered

The declaration of the State of Emergency drastically changed the conditions under which the union could operate. Issues related to the emergency such as repression and harassment thus overshadowed and disrupted the project. The project was fortunate however, in that the testing of mineworkers was almost complete by the time of the 1986 State of Emergency. But more workers would have been tested and an underground noise survey would have been conducted, had there been no state of emergency. Clearly, political aspects are important factors to take into account when conducting research with unions.

The extent of the survey was limited by the personpower available for the research. All the "technical" people working on the survey were working on a voluntary basis. If the workers had been included on a larger scale, it is possible that the survey could have reached far more workers and extended to more mines.

Not all the workers chosen came to have their hearing tested. This can weaken the research. Better organisation on the mines would have eliminated this problem.

The research was essentially concerned with the problems of workers as a group and not with individual problems. Ethical and organisational problems arise from this issue. For example:

- Where should workers with ear infections be referred to? Workers felt that the mine hospitals were not dealing with their problems adequately and yet there was nowhere else to refer the workers. This raises the question of setting up a referral system prior to the research being conducted.
- How should the follow-up be conducted in the case of workers with noise-induced hearing loss? The law states that workers who have hearing problems may not work underground. If these workers are referred for compensation, they may be dismissed. Workers are not compensated for loss of pay, especially if they remain employed. The NUM recently negotiated six months' security of income for workers whose health had been affected on the mines. However, this is not sufficient and the issue is yet to be resolved. Clearly, more gains can be made out of the survey if the NUM can refer workers with impaired hearing for compensation.

Because of the possibility of victimisation of individual workers, the shaft stewards on the mines decided that individual mine results should not be presented, but rather the collective results of all the mines. Shaft stewards felt that workers would be

more interested in the collective results than the individual results.

Problems with narrow scientific research ¹

Often workers identify health problems originating from the work place before traditional science has researched the problem.

There is little conventional scientific attention focused on the long term effects of work-related hazards. One of the challenges facing unions in South Africa and all over the world, is changing the context of occupational health research.

Currently, there is a heavy reliance on "scientific evidence" for proving occupational health hazards. For example, the asbestos debate took place at an expert-to-expert level. It is not possible for all hazards to be debated at the same level. One must bear in mind that workers are affected and dying in the interim.

Alternative Research Methods

Workers should be actively involved in setting up and conducting research. This will prevent workers merely being used as datasets in the scientific world.

In researching health problems, there should not be a one-sided flow of knowledge. The workers' experience of the production process, labour conditions and subjective health effects should be combined with scientific know-how to produce comprehensive research.

The most crucial questions for research can be summarised as follows:

- Where do problems occur in the working situation?
- In what ways do problems occur?
- Which medical complaints occur and is there a connection between these complaints and the working situation?
- What steps should be taken to improve the working situation?

Conclusion

The experience of the health and safety survey has shown that with direct worker involvement, research can become a social investigation of health, an educational act and a means of taking action.

Through actively carrying out participatory research these methods will be developed further.

In this way, more socially relevant research, followed by action for improved conditions, will become a reality.



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