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Occupational Health Southern Africa

Official journal of the SA Society of Occupational Health Nurses (SASOHN)
and the SA Society of Occupational Medicine (SASOM)

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Features:

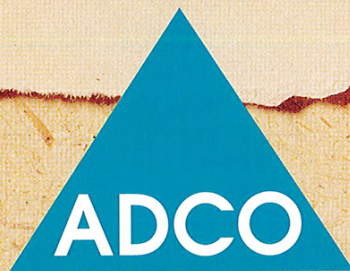
- ◆ Women workers, what's the issue?
- ◆ The hazardous chemical substances regulations: Occupational health comes of age in South Africa
- ◆ An infrastructure for occupational health services
- ◆ Is your AIDS education effective? Common obstacles and solutions
- ◆ Domestic workers at risk



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Contents

◆ Editorial2

◆ News and Events

Dr Andy Slovak visits RSA 5
Moratorium on new permits cancelled ... 6
Medichem 1995, International
Commission on Occupational Health 7

◆ Original and Review Articles

Women workers, what's the issue? 9
The hazardous chemical substances regulations: Occupational health comes of age in South Africa 12

◆ Opinions and Short Reports

Occupational Health Policy - what women want 16
Domestic workers at risk 18
An infrastructure for occupational health services 20
Is your AIDS education effective? 22
NOSA 5 Star System now includes Occupational Health 23

◆ Letters to the Editor

RDP and Compensation 24
Problems with confidentiality of HIV and AIDS 26

◆ Personality Profile

Faiza Salie 28

◆ Industry News

Chapped skin - cause, significance, prevention 30
Waste-Tech buys recycling company ... 32
The ideal solution for compensation claim problems 32
A healthy nation is a wealthy nation 32



Some people make things happen, and others let them. Politicians make promises, and voters expect them. In the southern Africa region, industry finds itself begin confronted by international standards to produce an economy which must sustain itself by competitive edge and world ratings, and the global parameters must inevitably include productivity, quality and reliability to survive. This will be tough and difficult for us all.

Our problem is that we have a relatively developed country, with demands and expectations that are sustainable only if we make it happen together! At the outset, this daunting task, and in particular our own responsibility in occupational health, remains an ideal rather than a reality. This must not stop us from making it a reality, nor should it inhibit the objectives we have put into place. Our compromised communities, and the challenges facing all health issues, must include healthy environments, communal involvement and structured socio-economic dynamics to support the healthy ideal we have set.

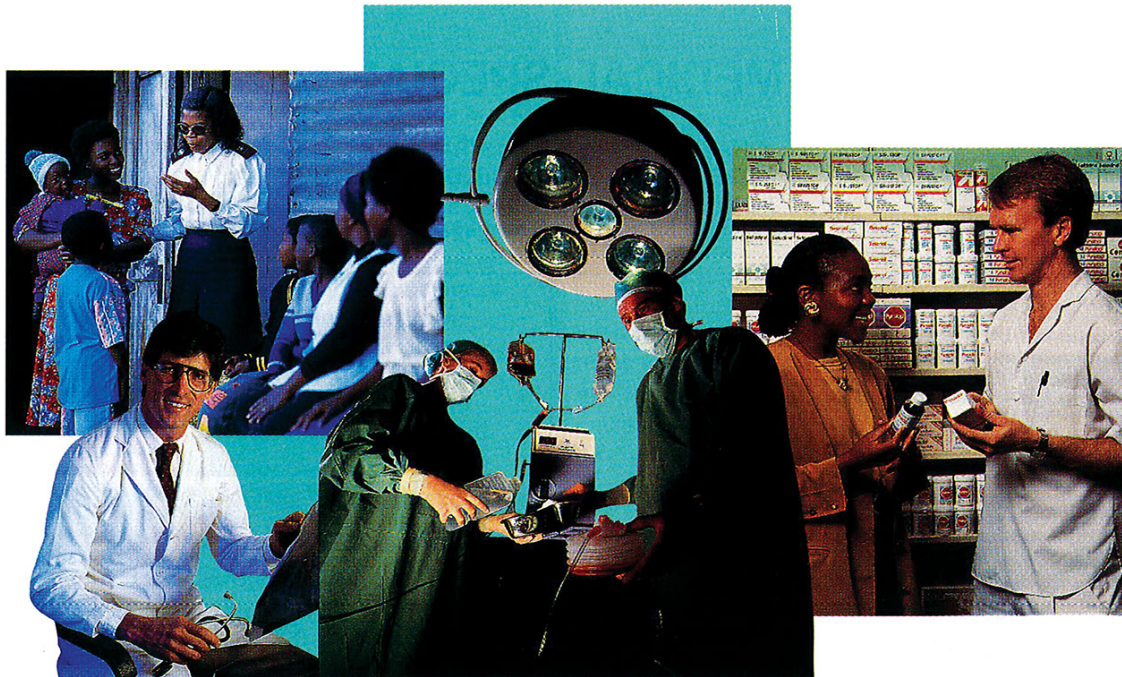
It also remains problematic that the stimulus to the growth of our nation and that of the economy lies in productivity, which in itself can only happen if we (our working population) are healthy! We've identified in a previous editorial the dilemma in defining health and thus the parameters needed to define a strategic initiative to implement this. But can we remove the obstacles which allow health to develop naturally, (eg creating healthy social environments, communal involvement projects, including housing, sanitation, education and clinics etc.)? It is here (in the southern Africa context) that occupational health should remain focused in its short term strategy for the future.

It is not surprising therefore that our theme in this edition of Women's Health remains a vital issue in our developing economy, and Fonn et al illustrates this with conviction and determination. Making such representation and correcting the statutes is solid argument, but it will take a strong will and emphasis to make it happen in reality. Women in employment are supported by all occupational health workers, and it is up to us to sustain their initiatives and determination to develop these changes, and to improve the communication channels to facilitate contact with each other.

An exciting part of our journal's commitment has been to recognise issues which are popular with readers, and also to continue to disseminate information about occupational health. This has borne fruit with the interest shown, and the increasing debate among authors and readers which is encouraging. The news and events columns have also been valuable and informative. Our dilemma continues regarding the shortage of space as well as the ability to fund the costs involved in publishing. Both the respective societies are committed to finding ways to do this. The journal's board has developed into a working group which is both extremely committed and focused on projecting our stated objectives into 1996, not only a better footing, but also to identify the challenges facing us all - to make things happen!

We wish you all a blessed and festive season in the new year.

Chris van Selm
Editor



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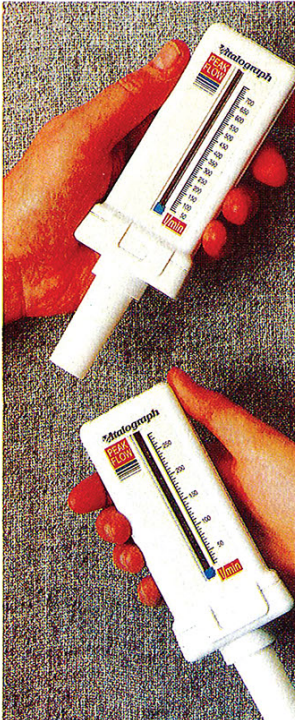
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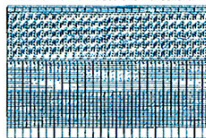
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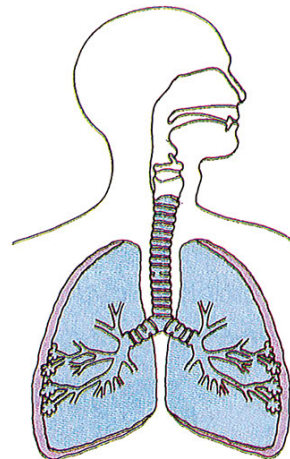
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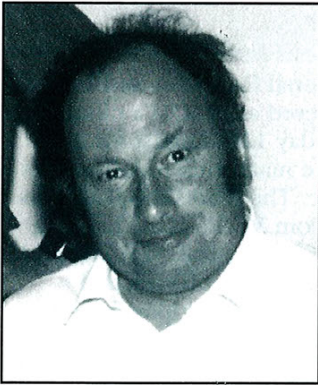
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Dr Andy Slovak visits RSA



At the beginning of October, Dr Andy Slovak visited South Africa. Over a ten day period he gave many talks and ran several seminars on occupational health issues.

Dr Slovak is the incoming President of the Society of Occupational Medicine (SOM) - our sister organisation in the UK. He is the Chief Medical Officer of British Nuclear Fuels and has, in addition, academic

appointments in occupational medicine at the University of Manchester.

He divided his time in South Africa between Durban, the Reef and Cape Town. He had the chance to visit Koeberg Power Station as well as spending time in the operations of Illovo Sugar, Sappi Saiccor, and the Department of Community and Occupational Health of the Medical School in Kwa-Zulu Natal and the AECI complex at Modderfontein. On the academic side, he visited the NCOH and also spent time with community health departments at Wits, Durban, UCT and Tygerberg. Dr Slovak gave talks and participated in seminars and workshops on various aspects of occupational health, drawing on his wide experience, but in particular gave fascinating insights into the nuclear industry and the Sellafield childhood leukemia saga. Dr Slovak also lectured on the current situation regarding biomarkers and spent a good deal of time discussing occupational health structures in the UK and Europe. He was able to shed light on the relationship between the SOM and the Faculty of Occupational Medicine (FOM) and also explored occupational health options in terms of our own way forward in this country.

One of the main purposes for Dr Slovak's visit was, to approve several posts for their suitability in terms of training and experience, for sitting the Faculty AFOM

News and Events

examination. This he did in Durban and Cape Town and was assisted by Dr Stuart Shearer and Dr Anne Raynal who are respectively the Regional Speciality Adviser and Deputy Adviser of the FOM in this country.

Some of the attendances for such an international expert were disappointingly small, but those fortunate enough to have attended his meetings were well rewarded for their effort. Dr Slovak's quiet and unassuming manner, his wry sense of humour together with his abundant good sense and wide range of knowledge made for very worthwhile and memorable sessions.

We are indebted to him and to British Nuclear Fuels for sponsoring his visit.

Prizes for articles on biological monitoring

The SASOM Scientific Committee for Biological Monitoring (SSCBM) is pleased to announce R1000 (2 x R500) prizes for the best 2 articles published in the journal.

The SSCBM criteria are as follows:

1. An original article on Biological Monitoring from South Africa
2. Data not older than 3 years
3. Authors must indicate their publication as an entry for the competition at submission.
4. The SSCBM may withdraw the prize if insufficient quality publications are available.
5. The final decision rests with the SSCBM and editorial board of Occupational Health Southern Africa.
6. The two cash prizes will be made available at the SASOM AGM 1996.
7. Only articles published during the period January to October 1996 will be entered for the competition.

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News and Events

SASOM workshop on marketing



Members from the National Executive and Regional Chapters gathered at SASOM's offices in Hennopsmeer on Saturday 12th August for a workshop to identify the marketing requirements of SASOM for the future. The workshop itself was facilitated by Gavin Dempster from MASA. Many exciting developments were outlined and discussed. Several break-away groups identified major areas of problems and opportunity, and the feedback of the developments was presented to the National Executive Meeting of SASOM. Members will be notified of any future developments.



(L to R) Gavin Dempster, Murray Coombs, Tony Davidson, Mike Baker



Mary Ross with Kenneth Swakamisa

SASOM Hourly Rates - 1996



The new SASOM hourly rates for medical officers working in industry for 1996 are now available.

For further information, contact Dehlia Müller at SASOM's National Office at (012) 664-1460.

CPR Training



Rental of an Annie is available from Professional Society of Occupational Health Nurses (PSOHN) - Gauteng Central. Contact Alet Lombard (011) 914-1700.

For membership enquiries of the Gauteng Central society, contact Linda Stokes (011) 827-5413.

Moratorium on new permits cancelled

The moratorium on new permit applications has been lifted from the beginning of October and the societies have been informed that the backlog will be cleared as soon as possible. The reason for this reversal of policy is not entirely clear, but it may be that the introduction of a National Essential Drug List is going to take longer than originally anticipated.

As yet, the new regulations under the Medicines and Related Substances Control Act (Act 101 of 1965) have not been gazetted, but it is understood they are imminent and members will be kept updated.

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Medichem 1995, International Commission on Occupational Health, 23rd Annual Congress on Occupational and Environmental Health in the Chemical Industry **"The Chemical Industry as a Global Citizen - Balancing Risks and Benefits"**

September 19 - 22 1995.

Massachusetts Institute of Technology, Boston, Cambridge, Massachusetts USA

by Dr WM Coombs, Co-opted Board Member, Medichem Representative for South Africa

The possibilities of future co-operation, research and transfers of technology is outstanding.

The South African delegation to the conference which was warmly welcomed into the international fold was:

B Alexander, Thor chemicals

WM Coombs, Sentrachem Ltd

A Kotze, AECI Modderfontein and

H van der Merwe, Polifin.

As we are the hosts of the Medichem Conference in 1998 (Cape Town), this meeting helped in ensuring a solid base for understanding the complexities of hosting such an international scientific event. Thanks should be given to Prof A Coetzee, Drs F Smith and K Pfeiffer and many other scientists who succeeded in procuring this

event for South Africa.

Forty one presentations, 19 posters and 11 workshops were attended by 160 delegates from 27 different countries to help make this a most memorable scientific event. Topics ranging from "Poisons of the mind" by Pulitzer price winner Prof J Franklin to highly technical discussions on "Mechanisms of targets selections by DNA - damaging chemicals" by Dr Dedon, were of a very high caliber.

There was ample time for pleasure and the conference included a reception and dinner at the Boston museum of science and a wonderful banquet at the New England aquarium.

Medichem 1998 in Cape Town offers South African Occupational Health professionals the opportunity to show the world our efforts as a multidisciplinary team to progress from a third to a first world status in occupational health. The theme "New Horizons and Old Concerns" will be quite appropriate.

This is the first call for assistance from all persons connected to occupational health in the chemical industry to become involved in Medichem 1998.

Finally, a sincere thank you to the Medichem Conference 1995 organisers, delegates and sponsors of the South Africans for being able to be part of this scientific event.

It is with sadness that I announce Dr K Pfeiffer's withdrawal from the Medichem Board. I wish to thank Dr Pfeiffer for his contribution to occupational health in general, but specifically for his work with SASOM and Medichem.



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Lower South Coast: Mr Lyall Colocott - telefax (0391) 824136

Empangeni/Richards Bay: Miss Stacy Jones (0351) 26190 or fax (0351) 25048

Women workers, what's the issue?

S Fonn

From this overview of selected recent literature on women, work and health, three arguments are made. Firstly, that women are not given enough attention. Secondly, that women are given too much attention. Thirdly, that women occupy a specific place in society giving them primary responsibility for certain roles which both enable and inhibit them. This has certain implications for occupational health practice and research.

Women workers, what is the difference?

Women are different to men, they have, on average only two thirds the muscle strength of average man, with the female lumbar spine being able to withstand 15% to 20% less compressive force.¹ Men are on average taller and have longer legs than women, and work place design is based on anthropometric measurements of men in the airforce. In the USA most work surfaces are 29-31 inches high - appropriate for a man of 5 foot 10 inches. Whereas, the average height of women is 5 foot 1 inch and they need a lower work surface. There are toxicokinetic differences between men and women and the absorption, distribution and excretion of toxins is dependant on these characteristics. Men exchange about 50% more air in a given period than women, pregnant women exchange 70% more air in a given period than non pregnant women. Men sweat more and have thicker epidermal layers on their upper extremities. Dermal blood flow is the same for men and women but greater for pregnant women. Men have higher gastric acidity, and women have increased residence time in the gastro intestinal tract. Men have a higher basal metabolic rate than women and metabolites can be either more or less toxic.²

What are the consequences of this?

Women have been kept out of certain job categories because they do not have the strength for the job, although modern design of workplaces means that strength does not have to be a limiting factor. In addition, there are jobs which require significant physical strength and women are specifically recruited for these jobs, such as nursing. There is documentation of heavy physical and mental workloads in occupations traditionally assigned to women.³ This inconsistency raises the question about the real reason for excluding women from some jobs but not others. Women work at stations designed for people larger than themselves and with equipment that is ergonomically inappropriate. The implications of the toxicokinetic differences is not clear. Women have systematically been excluded from many drug trials so that the pharmacokinetics are not known for them. Data, TLVs, and TWAs have been developed for the average man so it

is not known if they are more safe or less safe for women.

These sex differences have seldom been identified, isolated and studied. It can therefore be argued that women in occupational settings have not received sufficient attention. One factor that has inhibited this kind of research is the threat of discrimination, the fear that when sex differences are studied women will be found lacking when compared to the normative standard that is male. Women have been denied access to jobs that are the domain of men, thus this fear is well founded. However unless the amount of variation that does exist is understood, it is not possible to redesign workplaces so as to make them safe for the majority of workers, both men and women.

Too much attention - the case of occupational reproductive health risks

Many factors contribute to adverse reproductive outcomes and occupational exposures are important. Research on this topic and protection for women wanting to have healthy children is essential. This topic has been well researched and a very useful discussion is presented in a state of the art review.⁴ However women are not alone in having children; men too are involved. In this section it is argued that the attention paid solely to women is inappropriate and that the interpretation of data is not consistent and discriminates against women.

The first problem with the way this topic is researched is the assumption that reproductive risk affects only women. Reproductive risks for men have also been described.⁵ Rosenberg et al⁶ in a review of 92 studies found statistically significant effects on sperm count or morphology in workers exposed to dibromochloropropane, carbaryl and TDA/DNT. Thus there are risks for men who also are entitled to want and have children of their own. Yet, interpretation of data and action taken to limit reproductive risk, is frequently to exclude women from the exposure. This deprives women of employment and does not protect the people who do work there⁷. In addition, this is not a consistent pattern. For example, increased reproductive risks have been identified for nurses and agricultural workers, but no-one is trying to exclude women from these jobs.

There are examples of situations where non discriminatory approaches to reproductive health hazards have been implemented. Research⁸ was undertaken on practical guidelines for the protection of employees exposed to reproductive hazards in workplaces, where reduction of exposure to safe levels is not possible. The attempt is to address and balance three issues: workers rights to work in a safe environment; women's rights to employment; and the rights of the unborn child. The starting point was the view that women's employment status is a primary concern, that reproductive hazards involve both parents and that childbearing is a voluntary capacity involving both partners. Exposures were then classified and people chose to work in them based on their fertility intentions rather than on their biological

S Fonn, *Women's Health Project, Centre for Health Policy, Department of Community Health, University of the Witwatersrand*

capacity. In addition the company concerned pays some of the medical costs of workers who do have children with defects which encourages a clean work place. In this description the authors argue that exclusionary policies to safeguard the weaker sex, either pregnant women or women who may become pregnant, is illogical because chemicals can affect the reproductive system of men and women and because fetal damage can occur when either parent has been exposed. Further, that exclusionary policies do more to regulate women out of male-identified jobs than to protect reproduction. They conclude by saying that exclusionary policies over-protect women and exclude them from the benefits of work and underprotect men from reproductive hazards.

This example demonstrates that there are options that are not punitive to women and underlines the point that exclusive attention to women concerning reproductive risks is too much attention, does not necessarily improve women's health and can actively inhibit their work opportunities.

Where is it that women are working?

Women are clustered in particular jobs, usually with the lowest pay, the least status and very little protection⁹. They work in their own homes where they are not paid at all and not even recognised as doing work. They are found in domestic work, unregulated, in agricultural work only recently regulated, in nursing and teaching and in various sectors of industry doing monotonous boring jobs in shops canteens, laundries and factories.

Women in paid employment are concentrated in the low paying unskilled and high turnover jobs. Why are they employed in these low status and low paid jobs? One argument is that women have received no pay for domestic or reproductive work. This work is not recognised as a national asset, it is not included in calculations of GNP and yet it is a vital and necessary function of any society. This, it is argued, has therefore decreased the status of women in society. Women's status¹⁰ as wage earners is limited by occupational segregation and by men's difficulty in dealing with autonomous independent women. Family roles which suit men may be threatened by participation in the labour force. Women gain physical and mental health when they are employed, Yet women are told repeatedly that their first obligation and greatest satisfaction should come from family roles. They rarely however hear how risky marriage is for women and how protective employment can be¹¹. Women in the labour market have in general better health than those confined to home. This may be a reflection of the healthy worker effect or it may reflect how unhealthy it is to be employed, unpaid, full time in an individual household. Firstly in waged work, there is the financial reward giving women the chance to buy basic necessities like housing and food. Secondly, it decreases women's degree of economic and social dependence on their partners. Thirdly, work is a source of companionship and relieves the sense of isolation that women working in the home often describe.

Thus while work per se improves many aspects of women's lives, just like men they have a right to work in an environment that does not threaten their health.

What specific hazards are women exposed to?

They are over-represented in the textile industry and are at risk of exposure to dust, needle injuries, injury due

to ergonomic design flaws, chemicals and noise. Women are also the employees of choice in electronics production and where they are exposed to literally hundreds of agents including organic solvents and corrosive acids. Exposure to organic solvents are associated with health risks, and specifically reproductive health risks¹². A 1977 US report placed the scientific instruments industry and the electrical equipment manufacturers first and third most hazardous in a listing of industries exposing workers to carcinogens. The rate of occupational illness in the microelectronic industry is three times that in general manufacturing.

The work which women do is characterised by those features which previous studies of men have identified as being stressful and increasing men's risk of disease¹³: poorly paid; low status; high demands; and little opportunity for control in day to day activities.

Other female specific jobs are those which require women to be nice to people, such as answering the phone or receptionists. The majority of employed women in South Africa, work in fields where they are required to care for people. A new body of literature is developing looking at the particular pressures of emotional labour.

The impact on women's health

This links with the last argument, that of the position of women in society and how this impacts on their health. Women are required to perform a double shift, to work at work and work at home. Although women have been joining the formal sector in greater numbers there have been no significant decrease in their domestic responsibilities and no significant change in the division of domestic labour. Surveys of western countries indicate that women still do 90% of household work. On average women spend 3 hours per day on household work while men spend an average of 17 minutes.¹⁴ It is this interaction of the role women have to play at work and at home and it's effect on women's health that is more recently been explored in the literature. For women there is a positive relationship between mental and physical health and employment which however decreases when working conditions are poor or when women are in difficult family situations¹⁵. Some research has found that the health advantage to married mothers of being employed was negative unless the farther participated in child care. This article concludes that there is evidence that paid employment for women has health benefits for women and that if a society recognised and valued healthy women it should make attempts to ensure that women can and do work. In order for this to remain a healthy activity for women support structures in society need to be developed. A society which encourages and values male participation in household work, parenting and structural support such as childcare facilities and flexible leave arrangements needs to develop. There are instances where this is taking place. Discussion on policy guidelines to address this issue is occurring¹⁶. Research is also occurring to investigate the interaction between the various roles that women play^{17,18} and the potential of increased occupational risk due factors at home¹⁹. The challenge is to understand these risks and to develop nondiscriminatory methods of addressing them.

Conclusion

It is argued that women are different and that they are undervalued. This understanding demands that researchers, employers, occupational health practitioners

and unions need to understand and act on this issue. It needs to be understood how women differ so that the difference can be accommodated allowing them equal access to employment and encouraging safe employment for all workers. All parties need to recognise women's contribution to society and the household in their paid and unpaid capacities. This needs to include practical interventions such as sharing the workload and providing services such as creches to compensate women for this and to allow them to lead as fulfilling a life as possible. Workplace design, workplace services and workplace research needs to reflect a greater understanding of the contribution and participation of women. This can be summarised by saying that a gender perspective is required to fully understand, research and provide services for women's occupational health.

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References

1. Morse L and Hinds L. Women and Ergonomics. Occupational Medicine: State of the Art Reviews 8, 1993:721-731.
2. Headapohl D. Sex gender biology and work. Occupational Medicine: State of the Art Reviews 8, 1993:685-708.
3. Messing K. Introduction: research directed to improving women's occupational health. Women Health 18, 1992:1-9.
4. Occupational Medicine: State of the Art Reviews 9 1994, Whole journal.
5. Schrader S. and Kanitz M. Occupational hazards to male Reproduction. Occupational Medicine: State of the Arts Reviews 9, 1994:405-414.
6. Rosenburg M., Feldblum P., Marshall E. Occupational influences on reproduction: A review of recent literature. Journal of Occupational Medicine 29, 1987:584-591.
7. Filkins K and Kerr M. Occupational reproductive health risks. Occupational Medicine: State of the Art Reviews 8, 1993:733-54.
8. Perrolle J. Reproductive hazards: A model protection policy for the chemical industry. Occupational Medicine: State of the Art Reviews 8, 1993:755-775.
9. Fonn S. Working women's health. In Wright M Stein Z and Scandlyn J (Eds) The Health of Women and Children and the Future of Progressive Primary Health Care in Southern Africa. Columbia University New York 1988:20-31.
10. Willms J and Pfeiffer C. Social and Psychological aspects of illness - past and present. Occupational Medicine: State of the art reviews 8, 1993:797-806.
11. Doyal L. Waged work and well being 1994 IN PRESS
12. Sallmen M. Lindbohm M., Kyyronen P., Nykyri E., Anttila A., Taskinen H., Hemminki K. Reduced fertility among women exposed to organic solvents. American Journal of Industrial Medicine. 27, 1995:699-713.
13. Hall E, Johnson J, Tsou T Women, occupation and risk of cardiovascular morbidity and mortality. Occupational Medicine: State of the Art Reviews 8, 1993:709-720.
14. Szalai A (ed) The use of time: daily activities of urban and suburban populations in twelve countries. Mouton The Hague. 1972.
15. Dennerstein L. Mental health, work and gender. International Journal of Health Services 25, 1995:503-509.
16. McGovern P., Gjerdingen D. and Froberg D. The parental leave debate: implications for policy relevant research. Women Health. 18, 1992:97-118.
17. Meleis A. and Stevens P. Women in clerical jobs: spousal role satisfaction, stress and coping. Women Health 1992:23-40.
18. Ayers L., Cusack M. and Crosby F. Combining work and home. Occupational Medicine 8, 1993:821-831.
19. Wohl A., Morgenstern H. and Kraus J. Occupational injury in female aerospace workers. Epidemiology 6, 1995:103.

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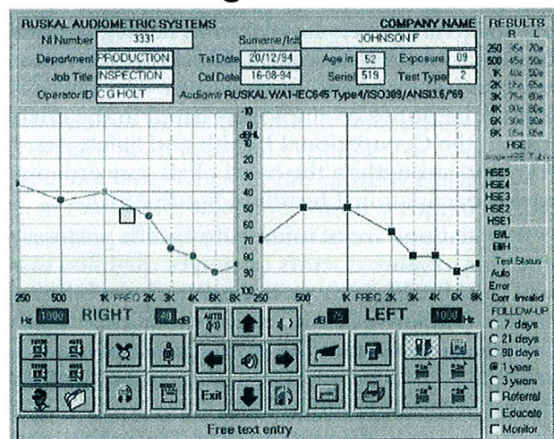
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The hazardous chemical substances regulations: Occupational health comes of age in South Africa

Dr Rodney Ehrlich

The Hazardous Chemical Substances Regulations, recently promulgated, are of critical interest to occupational health practitioners. They increase the number of substances regulated from 2 to over 700, establish the principles of right to know and hierarchy of controls, direct proper use of personal protective equipment and labelling, and mandate exposure assessment. Control strategies, air monitoring and medical surveillance are contingent upon this exposure assessment. There are a number of points of contention or confusion that will arise in application of the Regulations, however, and competent health and safety management, employee participation, technical expertise, and trial and error will all be required to ensure their success.

The passage on 25 August, 1995, of the Regulations for Hazardous Chemical Substances¹ is a landmark in South African health and safety legislation. The Regulations, which expand the list of controlled substances from the current two (asbestos and lead) to over 700, give specific content to the duties of employers listed in the enabling legislation, the Occupational Health and Safety Act, 1993 (OHSA), and strengthen the hand of all concerned with improving occupational health in South Africa.

The Regulations are of interest to health professionals because they require doctors or nurses qualified in occupational health to carry out medical surveillance provisions. Similarly, air monitoring and auditing of control measures require the involvement of the Department of Labour approved occupational hygienists (approved inspection authorities).

Hazardous chemical substances

A hazardous chemical substance is anything listed in the Tables accompanying the Regulations plus any other substance (excluding biological or radioactive agents), that can be shown to be harmful to health. The list covers a wide range of substances appearing as inputs into, or products or by-products of industrial processes. In addition to industrial chemical compounds, the list includes metals such as nickel, arsenic and mercury, minerals such as silica and coal, and notably, organic dusts such as wood, cotton and grain.

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Exposure assessment

Central to the Regulations, which are based on the British Control of Substances Hazardous to Health (COSHH) regulations, is the requirement that every employer using any hazardous substance carry out an assessment of "potential exposure". This is distinct from air monitoring, *the need for which is contingent on the outcome of this assessment*. The responsibility for assessment task lies with the employer, although the involvement of employees is explicitly required through the system of health and safety representatives.

There is potential for confusion and anxiety about this assessment, however, as the Regulations are somewhat unclear as to the exposure threshold for action, which might even be taken to mean "any" exposure. It appears that what is required is a *risk assessment*, ie a *judgment* as to whether the health of any employee could be harmed as a result of the exposure.

The basic elements of this assessment are identification of the substance, its toxicity and route of entry, its circumstances of use, existing hygiene measures, and the potential for absorption by employees. There is little guidance on the level of expertise or thoroughness required in carrying out this appraisal which can vary from the cursory to the complete. A starting point is to consult the British COSHH guide² for an approach to this process.

An assessment which concludes that employees could incur harm as a result of exposure to the hazardous substance triggers control measures, air monitoring and medical surveillance, all discussed below.

Right to know

The Regulations entrench a number of modern health and safety principles in South African practice. The right of employees (and indeed of any person potentially affected) to be fully informed about the hazards of an operation is explicit. This *right to know* principle requires the employer to be fully conversant with any hazards of substances worked with, to have this information accessible in written form on the premises, and actively to train employees in their appreciation.

Hierarchy of controls

The regulations establish the hierarchy of controls for prevention of harm from hazardous substances. Section 10 of the Regulations spells out a detailed list of all the steps that precede the provision of personal protective equipment (PPE) (Table I). The first approach is to substitute a less toxic substance for the material of concern, or if this is not possible, to minimise exposure through engineering measures such as enclosing the process. Extraction (if the substance becomes airborne)

and housekeeping are next in line. The provision of PPE is at the bottom of the hierarchy.

The Regulations focus considerable detail on the proper use of PPE in the requirements for purchase, storage, re-use, cleaning, disposal and changing of PPE, and for training employees in its use. For example, inappropriate, dirty or clogged respirators are now against the law, as are respirators worn as necklaces or hats in a respirator zone. A conscious management process will be needed to ensure the success of PPE programmes under these new conditions. The popularity of PPE as the solution to any hazard in the past was partly due to the sense that all responsibility had been discharged once respirators or gloves had been handed to employees. The new Regulations might go some way to establishing other elements of the hierarchy of control as more cost-effective in the long run than reliance on PPE.

Table I. Hierarchy of controls specified in Hazardous Chemical Substance Regulations

<p>ADMINISTRATIVE CONTROLS</p> <ol style="list-style-type: none">1. Substitute2. Limit amount used3. Limit number of employees exposed4. Limit periods of exposure <p>ENGINEERING CONTROLS</p> <ol style="list-style-type: none">1. Enclose, automate or separate process2. Install local extraction ventilation3. Use wet methods <p>WORK PROCEDURES</p> <ol style="list-style-type: none">1. Safe handling and disposal2. Maintain equipment3. Clean working areas4. Take early corrective action <p>IF CONTROL NOT REASONABLY PRACTICABLE BY ABOVE METHODS:</p> <p>PERSONAL PROTECTIVE EQUIPMENT AND CLOTHING</p> <ol style="list-style-type: none">1. Appropriate to hazard2. Employees trained and supervised in use3. Careful maintenance, storage, cleaning, disposal4. Washing facilities, dual lockers and change rooms
--

Duty to train

The hierarchy of control is implicit in the duty of employers to train employees in the means of minimizing the risk from hazardous substances. The Regulations make clear that the employer must explain to employees what he or she, the employer, is doing to control the hazard, as well as the duties of employees to comply with control measures.

Reproductive hazards are specifically mentioned among the training objectives, and these must be taken to refer to men as much as to women. This clause is an attempt to reverse previous neglect of this topic, while specifically avoiding any sex specific legal protection. Occupational health practitioners will need to familiarise themselves with the fast expanding field of reproductive hazards research in order to advise management and workers appropriately.⁵

Recommended versus Control limits

The definition of two types of exposure limits in the Regulation will create confusion, and working out in practice remains to take place. It appears that the Recommended Limit (Table 2 of the Regulations) refers to health based limits, based on maximum exposure standards (MES) published by the British Health and Safety Executive.⁶ In contrast, Control Limits (Table 1 of the Regulations) are those for which health based standards have been compromised by considerations of cost to the industry, either of control or substitution, and are based on the British maximum exposure limits (MEL).⁶ Some substances such as isocyanates (TDI, MDI) and quartz (crystalline silica) have inadvertently been included in both Tables.

The corollary is that work at less than a Recommended Limit without a respirator would result in negligible risk for most workers. The onus on employers is thus to bring down air concentrations to the Recommended Limit. In contrast, work at less than the Control Limit may still confer significant risk on exposed workers. Employers thus have a duty to bring down the air concentration of the Control Limit group of substances as far below the Limit as is reasonably practicable. In both cases the employer has to make sufficient effort to control the level by means other than personal protective equipment. The judgement, will also depend partly on the effectiveness of health and safety committees.

Air monitoring

If the exposure assessment determines that harmful exposure of employees to a respirable hazardous substance could occur, the employer is required to arrange for measurement of its concentration in air. Such measurements can be done by an approved inspection authority or by anyone subject to verification by an approved inspection authority.

While a number of the commonly encountered substances have been measured routinely in South Africa to date, it is not clear whether the capacity exists to measure, at reasonable cost and within accepted quality standards, many of the other substances listed. A similar question arises with respect to the substances requiring measurement in bodily fluids, for which biological exposure indices (BEIs) are set in Table 3 of the Regulations.

A major upgrading of occupational hygiene and toxicology capacity, both in the field and in the laboratory, will be required to give effect to these Regulations. There is a case here for the creation of a national hygiene and toxicology laboratory for purposes of quality control, research, training and measurement of substances which are not commercially viable for private laboratories because of small or infrequent runs.

Medical surveillance and biological monitoring

If the exposure assessment concludes the potential for harmful exposure in the case any substance listed in Table 3 of the Regulations (substances with Biological Exposure Indices - BEIs), medical surveillance is compulsory. Surveillance is also required where demonstrable ill health is reasonably likely to occur as a result of exposure, or otherwise at the discretion of an occupational health practitioner.

By convention, medical surveillance covers the whole spectrum of activities to assess exposed workers, and includes biological monitoring of absorption and biological effect monitoring of physiological changes due to exposure, as well as history taking for symptoms and tests of functional loss or end-organ injury.

Employers are now required to employ occupational health practitioners to carry out any medical surveillance for hazardous substances, except (by default) for asbestos. There has been some confusion about the term occupational health practitioner. The OHSA uses it in highly specific sense to include (1) an occupational medicine practitioner, a doctor with a qualification in occupational health recognised by the South African Medical and Dental Council, (in most cases a Diploma in Occupational or Industrial Health), and (2) a nurse with an occupational health qualification listed with the South African Nursing Council.

This credential restriction has been exposed because of the responsibility conferred on the occupational health practitioner to decide on and execute the programme of medical surveillance. While recognising that there is a number of highly competent and effective self-taught practitioners in occupational health, specific postgraduate or postdiploma training is a reasonable requirement to ensure effective (including cost-effective) medical surveillance programmes.

Medical surveillance has elements of both screening and surveillance and contains many pitfalls⁷. The Guidelines annexed to the Regulations spells out the steps required for an effective programme. In this process, education of workers to report symptoms or ill health that might be related to exposure, and a good history both of symptoms and of breakdowns in hygiene controls marking peak exposures, should be given as much importance as formal testing.

A list of thirty substances is contained in Table 3 of the Regulations, specifying biological exposure indices (BEIs) to be used in biological monitoring. These are levels in blood, urine or exhaled air believed to correspond to exposure at the permitted limit. There is at present little experience in South Africa with biological monitoring, other than in respect of lead and perhaps red cell cholinesterase, and a learning period for laboratories and practitioners must be expected. Practitioners should evaluate biological monitoring programmes from day one and publicise their experience with individual laboratories, tests and workplaces to allow the acquisition of a critical mass of knowledge. Besides the programme demands of biological monitoring⁸, it appears that there are serious problems in interpreting some BEIs.⁹

There is no provision for such monitoring to be carried out by any person other than occupational health practitioners. In view of the potential sensitivity of screening of exhaled air, urine and blood, it is important that everyone understand the purpose of medical surveillance, and that strict ethical practice be maintained. The programme should not, for example, become entangled with drug or alcohol screening, or mistaken for HIV screening.

The overlap and division of responsibilities between doctor and nurse may also lead to some practical and possibly even legal difficulties. It appears that any examination may be carried out or requested by either category of practitioner. However, only a doctor may increase the frequency of examinations, withdraw a worker from exposure or certify such worker fit to return to exposure.

Records and confidentiality

Employers are required to keep records of medical surveillance for at least 30 years, or hand them to the Department of Labour if they go out of business. Other than the employee, only the doctor or nurse may have sight of the content of such records unless the employee has given written consent to the contrary.

It should be regarded a breach of ethical practice to be party to any arrangement whereby medical records are kept in open cabinets accessible to anyone other than the occupational health practitioner. This should hold irrespective of whether, or for how long each week, the practitioner attends at the factory premises.

Similarly, it should be regarded as unethical for analytic services to communicate biological or medical test results to anyone other than a medical practitioner, nurse or the worker personally.

Some form of communication to management of the results of medical surveillance is required to fulfil the aims of surveillance. The detail needed is open to debate. For many purposes group or section values could be averaged. For medical removal purposes, the practitioner will need to inform management of a worker who has exceeded the removal level. Communication of specific levels may contain information of value for control purposes in some circumstances, however. If there is a reasonable degree of trust among workers in the protective value of medical surveillance, more information might be made available to management than when such trust is lacking. Some statutory protection is provided by Section 26(2) of OHSA (as amended), which prevents victimisation of any worker as a result of information obtained in a medical surveillance programme.

Labelling

The right to know provision is coupled with the duty to label all containers containing hazardous substances, including drums and tins into which substances have been decanted. Besides the advantage of alerting workers to toxic substances in the workplace, the often difficult task of finding out precisely what workers are handling is now eased by reference to the law. Outside practitioners should always confer with patients on the best way to acquire this information, and explaining to workers that they have a right to such detail should make it easier for them to ask the employer for it.

Assessment cycle

A cycle of assessing the workplace environment and of monitoring employees is required every two years, with the exception of substances with Control Limits, for which air monitoring is required annually (Table II). Changes in the use of hazardous substances or breakdowns in controls should trigger a re-assessment. Similarly, medical surveillance can be scheduled more frequently by the occupational medicine practitioner for categories of employee or for individuals.

Table II. Timetable of actions required by Hazardous Chemical Substances Regulations

	BASELINE	THEREAFTER	
1. Exposure risk assessment		Immediate ¹	2-yearly
2. Air monitoring ^{2,3}			
Control Limit substances		Immediate	Annual
Recommended Limit substances		Immediate	2-yearly
3. Review of control measures by approved inspection authority		Immediate	2-yearly
4. Medical surveillance ²		Immediate	2-yearly ⁴

¹ And at change in use, or breakdown of controls.
² Contingent on findings of exposure assessment.
³ Carried out or verified by an Approved Inspection Authority.
⁴ Or otherwise at the discretion of the occupational medicine practitioner.

Conclusion

As with any far-reaching regulation, the Hazardous Chemical Substances Regulations will be welcomed, ignored or reviled depending on the interests of the beholder. There will no doubt be a learning period, and amendments to the law in the light of experience and the discovery of flaws. Nevertheless, the Regulations hold the promise of increasing the sophistication of management, workers, practitioners and consumers in dealing with hazardous chemical substances, an unstoppable international trend, and of reducing the burden of discomfort and ill health incurred by their *laissez faire* use. OH

References

1. RSA. Department of Labour. Regulations for Hazardous Chemical Substances. Govt Gazette No. 5549: 25 August, 1995.
2. UK. Health and Safety Executive. A step by step guide to COSHH assessment. Health and Safety Series booklet, HS(G)97. HMSO, 1993.
3. Lerman SE, Kipen HM. Material safety data sheets: Caveat Emptor. Arch Intern Med 1990; 150:981-2.
4. Kolp P, Sattler B, Blayney M, Sherwood T. Comprehensibility of material safety data sheets. Am J Ind Med 1993; 23:135-41.
5. Mattison DR, Cullen MR. Disorders of reproduction and development. In: Cullen MR, Rosenstock L, eds, Textbook of Clinical Occupational and Environmental medicine. Philadelphia: WB Saunders Co., 1994; 446-468.
6. UK. Health and Safety Executive. Control of Substances Hazardous to Health Regulations. Occupational exposure limits. EH 40/94. HMSO, 1994.
7. Ehrlich RI. Occupational medical surveillance: primum non nocere. Proceedings of the Conference on Occupational Health in Southern Africa. Johannesburg: National Centre for Occupational Health, 1995.
8. Piek P. Biological monitoring. (Parts 1-3). South African Society of Occupational Medicine Newsletter 1994; Nos. 40-42.
9. Que Hee S.S. Biological Monitoring, an Introduction. New York: Van Nostrand Reinhold, 1993.

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1. Thompson L. A History of South Africa. Newhaven and London: Yale University Press, 1990.

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Occupational Health Policy - what women want

S. Fonn

The occupational health policy document is the product of a year long process of meetings with women all over the country, culminating in a 4 day Women's Health Policy Conference where the document was ratified. The conference and process of consultation and report back to women nationally was initiated by the Women's Health Project. The aim of the process and the document was to produce a policy proposal which incorporated the voice of working women around the country and to lobby for women's rights and women's health. Thirteen policy documents were produced at the conference. Below a summary of the Occupational Health Policy document is presented.

Background

Occupational health refers to health in the workplace. This includes mental, physical, and environmental health. In the past occupational health has been neglected in South Africa. Where there has been legislation, it has not been widely adhered to by industry, nor adequately enforced by the factory inspectorate. Similarly, unions have tended not to focus on health and safety, with other priorities such as wage and political demands taking precedence. And because women have not been employed in the 'heavy' industries such as the mines, they have often not been covered by any legislation. The following areas must receive priority:

Existing laws and changes needed

Good occupational health for women should include both physical and mental well-being. This should include a healthy and safe working environment; maternity benefits; hours of work; overtime and wages. Some of these are covered by other legislation not mentioned below.

- The Occupational Health and Safety Act (OHSA): This law aims to provide for the health and safety of persons at work. To serve women's interests, the Act should be changed to promote the representation of women on all health and safety structures to represent the gender composition of a particular workforce; protect all workers, regardless of where they are employed; and protect workers from the harmful effects of chemicals.

- The Compensation for Occupational Injuries and Diseases Act (COIDA):

This law provides compensation for workers who were injured on the job. Compensation is worked out on the basis of earnings and because women tend to earn low

wages, they are negatively affected. The law also does not include domestic workers who are employed in private households. To protect women better, the Act should overcome unequal compensation by concentrating on the injury rather than on how much someone earns; domestic workers should be covered by the Act; and disabled workers should have access to re-training.

- Occupational diseases in the Mines and Works Act (ODIMWA): This affects women who performed cobbing in asbestos mines. The Act should compensate women who have lung diseases from working on asbestos mines; women who have asbestos related diseases from community exposure and are not employees, should also be compensated; women should not be prevented from working on other mines and mines should be made into safe working environments.

- Women and overtime: Most workers work overtime to supplement low incomes. This means that women have less time to spend with their families which can result in increased stress. Women workers should be paid a living wage; women should not be forced to work overtime and domestic workers should work fixed hours and should be paid for overtime.

- Women farm workers: Farm workers should be included under the Wage Act; the Agricultural Labour Act No 147 of 1993 should be changed to avoid the present problems of interpretation; farm workers should be covered by the Industrial Court and not the Agricultural Labour Court; proper living accommodation should be provided for farm workers with hygienic cooking conditions and farm workers who are provided with food by their employers should be given a balanced diet. They are frequently exposed to agrichemicals without the necessary controls and developing countries suffer 50% of global poisoning and 70% of deaths in spite of using only 20% of the world's agrichemicals.

Workplace health services

In attempting to set up workplace health services, employers should investigate what services are required in the work environment. There should be a thorough knowledge of the environmental factors which may affect workers' health; areas that may give rise to problems should be assessed; personal protective equipment should be assessed; and, the control systems that are meant to reduce exposure should be evaluated. Policy options in this area should try to promote the following:

- Primary health care, preventative and promotive health care services;

- Services that treat adequately and promote rehabilitation;

- Childcare services should be provided in the workplace.

- Work duration: Employers should prevent risks posed by long and double work shifts.

General policy guidelines

Policy guidelines need to be industry specific, but there are broad principles that apply to most women, whether in the formal or informal work sector.

- Extend the principles of primary health care to the workplace.
- Clinics at work should be accessible. Confidentiality and privacy must be ensured.
- Prevent further privatisation of health services so that the public system is not further weakened.
- Preventative health care systems should be put in place in all workplaces. Injuries which result in disability must be adequately compensated and rehabilitation after injury guaranteed.
- General information about occupational health must be made available more readily through schools, literacy classes and the media. Training of health workers should include a section on occupational health.
- Health and safety committees should develop a quota system to ensure women are represented.
- Maternity and paternity benefits should be available to workers.
- Provision should be made for time off for workers to breast-feed for the first six to eight months after the birth of a baby.
- The workplace should be altered to suit the needs of women workers, ie the ergonomic aspects.

- The effects of shift work should be carefully assessed and only used where it is essential
- All workers must have access to unemployment, compensation and pension benefits, including domestic and farm workers.
- Women in the informal sector should be supported through recognition of their contribution to the economy.

Research Priorities

Research priorities should include the following areas: reproductive health problems of women; short- and long-term effects of dangerous chemicals; preventative health measures; the impact of unionisation on women's health; literacy training and improvement in working conditions; occupational health problems amongst domestic workers; occupational health risks of new technology; occupational stress, depression and other psychological problems of working women, and musculoskeletal problems of women.

OH

The occupational health policy document is one of the 13 policy documents from the "Health in our Hands Proceedings and Policies" of the 1994 Women's Health Conference.

The complete policy is available from The Women's Health Project, PO Box 1038, Johannesburg 2000.

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Domestic Workers at Risk

Heather Burton

As the field of occupational health and safety expands, so does the awareness that most jobs entail certain risks, stresses and exposures to occupational hazards. Indeed it seems necessary then to evaluate the occupational health and safety risks faced by women in the field of domestic worker.

We like to imagine our homes to be healthy, safe havens from the possible stress, pollution and hazards found in the workplace. Full time domestic workers are however exposed to a variety of occupational hazards in the home.

Occupational illnesses are difficult to diagnose as the symptoms are seldom acute but develop gradually making the initial onset of illness disputable and often unknown to medical attendants or to the worker themselves.

One of the most common health hazards faced by domestic workers is chemical exposure to household cleaners. Workers are involved in jobs that keep the house clean and free from the spread of diseases. This varies from washing floors and walls to waxing floors, stripping paint, removing waste and polishing metal. All of these tasks involve the use of chemical cleaning products. When used correctly, most household cleaning products do not pose undue risk, however under certain conditions, and without correct education and training, may present potential health problems.

- Bleach, a solution of sodium hypochlorite and water, is well-known in households. If used incorrectly it may cause skin to dry, crack or blister. Breathing vapours can irritate the respiratory tract and congest the lungs. Severe eye irritation is also possible. Another danger associated with bleach is that it reacts with ammonia or cleaning products containing it which result in nitrogen chloride, a deadly gas.
- Ammonia based products are frequently used in cleaners because of their effectiveness in cutting through dirt and grease. These are most often found in window cleaning products. Inhaled ammonia vapours may irritate the lungs and cause coughing or shortness of breath. Symptoms may appear after exposure to high levels of ammonia. Overexposure may lead to long-term irritation of the eyes, nose, mouth and throat. Inhaled vapours may cause headaches, loss of sense of smell, and vomiting. Liquid concentrated ammonia splashed on the skin will cause burns; if splashed in the eyes, partial or complete blindness can occur if attention is not given immediately.
- Cleaners contain solvents which are chemicals that dissolve other chemicals. Some solvents that are particularly good at dissolving dirt, grease and old wax are found in metal polish, floorstrippers, baseboard, floor finish and carpet cleaners. Breathing in solvent vapours and absorbing solvents through the skin are the most common ways solvents enter the body. Once inhaled,

they enter the bloodstream through the lungs. If solvents are spilled on the skin, they dissolve the protective layer of fat in the skin causing severe dryness, and dermatitis. Exposure to solvents can lead to dizziness, headaches and nausea.

- Working with scouring powders and pastes without gloves brings about extreme dryness and cracks in the skin.
- Bowl cleaners and polishers contain acid to clean porcelain. Hydrochloric acid is the main ingredient in most cleaners. These may be dangerous if acid mists/vapours come into contact with eyes, skin or lungs.
- Germicidal detergents contain chemicals to disinfect or kill germs. These detergents contain corrosive chemicals that may irritate or burn the skin, eyes or respiratory tract.
- Dermatitis using any of these cleaning agents may occur. Dermatitis begins as inflammation in the area of contact and may progress into blisters and possible infection.

Other health and safety concerns in the home:

- Exposure to biological hazards are encountered during care for babies and sick children. Exposure to potentially infectious human body fluids are also encountered during the treatment of minor accidents such as falls and cuts.
- Many feel chronic back pain is due to old age and osteoporosis of the bones. However, job tasks often involve moving furniture, carrying children, standing all day, and lifting heavy loads whilst using incorrect lifting techniques. Most back injuries and pain are the result of prolonged periods of lifting over many years during which the tissues of the spine are put under stress, are weakened and deteriorate.

Recommendations

- If domestic workers develop an irritation to a certain chemical, look at the ingredients and see if a substitute cleaner can be purchased. If ingredients are not specified, contact the manufacturer for further information or request a material safety data sheet.
- Read the labels of cleaning products.
- Provide and encourage the use of gloves whenever possible
- Use cleaners in adequately ventilated areas and use a fan if cleaning in an unventilated area
- Never mix cleaning substances together
- Explain what to do if cleaners splash into eyes or onto the skin
- Explain the fire/explosion hazard of chemicals, especially aerosol cans used near heat, sparks or open flames.
- Encourage workers to clean hands frequently when working with children, changing nappies or treating minor injuries.
- Help workers move heavy objects for cleaning, don't expect them to lift/carry unnecessary loads. Break heavy work load down for different days. Enquire about previous back pain or injuries so as not to aggravate pre-existing conditions.

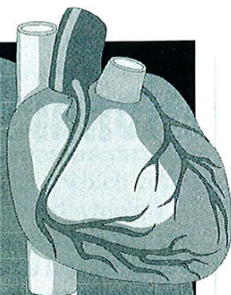
Domestic workers work under a variety of occupational stresses and often do not know about the potential hazards that confront them daily. It is the employer's duty and obligation to inform and to 'take reasonable care for the safety of its employees.'¹ It is furthermore the worker's right to be informed. This is the first step in improving working conditions in the household and promoting the health and safety of domestic workers.

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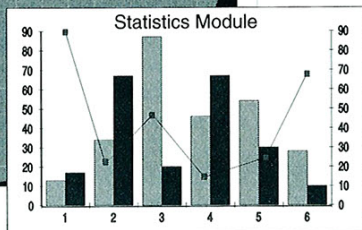
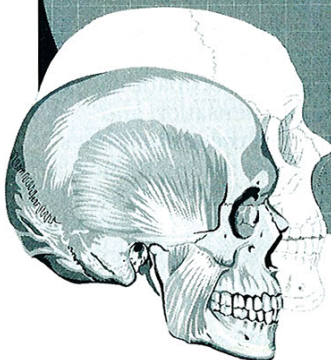
References

1. Benjamin, P. and Thompson, C. South African Labour Law, Contract of Employment: E1 - 31.

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An infrastructure for occupational health services

David Rees, Rosalea Lowe

In this paper we propose some concrete measures to begin developing an infrastructure of occupational health services. These measures could be taken largely using existing resources and they would promote linkages between public and private practice and between state departments active in occupational health and safety. The paper is not meant to be comprehensive nor detailed but presents a sketch to promote debate on what should be done in the short and medium term to build occupational health services. Most of the content is not new, aspects have been discussed in public meetings and the ideas are in circulation to some extent.

The paper also summarises the findings of a survey to examine the role of occupational health nurses in aspects of occupational hygiene practice.

The occupational health services aspects and the survey are presented together because articulation of workplace services with referral services is necessary for the development of coherent occupational health and safety structures.

A system of occupational health and safety services

To develop effective occupational health and safety (OH&S) services in South Africa we need a system that delivers primary level OH&S services to workplaces and individual workers, and a referral pathway of increasing levels of expertise and specialisation in each of the major domains of a comprehensive occupational health and safety service. This does not imply a separate vertical structure for OH&S services from the base: multi-skilled practitioners could provide many of the services at the primary level and, if the practitioner is a health worker, primary medical care as well. This system has to integrate public and private practitioners as it is likely that bigger business concerns will purchase services from the private sector but that the state will have to service smaller and informal concerns and provide the more specialised referral level services. To integrate the different levels of practice we need a rational system of public and private sector primary level practitioners located in a coherent interlinked system with clear referral routes which reach expert specialists. This system must be supported by information and advisory services which are staffed by experienced and competent practitioners who can be consulted on issues ranging from sophisticated technical information for hazard control and biological monitoring to basic occupational health information required by workers. Information conduits should link international agencies (eg the International Labour Organisation) to a national reference centre (eg National Centre for

Occupational Health) which interacts with provincial level structures and a network of practitioners (including NGOs) and worker and management organisations.

Referral services

Viewed broadly, the major domains of activity for which referral pathways are required are enforcement of regulation, occupational hygiene, occupational safety, occupational medicine and compensation and rehabilitation. Of course none of these disciplines operates in isolation and linkages among them is a prerequisite for effective practice. For example, cases submitted for compensation should be treated as sentinel events, followed by workplace inspections through information exchange between the compensation office and the occupational health and safety inspectorate. In addition, all structures should integrate their primary tasks with the provision of advisory and information services.

1. Enforcement

In some respects, enforcement is the domain for which it is simplest to conceptualise a base with secondary and tertiary levels of practice. Environmental health officers (of the Departments of Health) could locate and map all workplaces operating in their area of responsibility, conduct walkthrough inspections (particularly of smaller concerns or of specific industries such as mercury users) and inform the local occupational health and safety inspector (Department of Labour) of possible contravention of occupational health and safety regulation. Within the occupational health and safety inspectorate specialisation could occur at the provincial level so that, for example, a province has an inspector with particular expertise in the chemical industry. On a national level, expertise could be available either in the national office or through consultants contracted for specific issues. It should be noted that in this situation the environmental health officers are not enforcing regulation, they are providing a service to the occupational health and safety inspectorate and it does not prevent them from providing advisory and information services, nor from performing basic occupational hygiene tasks such as hazard measurement.

2. Occupational hygiene

Occupational health is said to be a preventive discipline but this is not the case unless it is based on the control of workplace hazards. Fundamental to hazard control is proper risk assessment and the implementation and audit of control strategies, in other words occupational hygiene. Despite being the key occupational health discipline, qualified occupational hygienists are scarce and this is why the discipline should be prioritised for development.

The training of fully fledged occupational hygienists is crucial to the sound development of the discipline and it is receiving some (albeit inadequate) attention now. Provincial level hygienists are needed to serve small and informal concerns and to provide advisory services. But,

David Rees, Rosalea Lowe, National Centre for Occupational Health, Johannesburg

even if these practitioners were available, it would not resolve the matter: services will be expensive and scarce for the foreseeable future. A primary level occupational hygiene practitioner is needed, who has hazard specific expertise sufficient to identify common hazards and perform the initial quantification through measurement. Noise is a good example of the kind of hazard which could be managed in this way; it is a common hazard which is easy to measure with relatively cheap equipment after little training. The potential for occupational health nurses to be the primary level practitioner in public practice and for environmental health offices in public practice is discussed below.

3. Occupational safety

The occupational safety structure, by its nature, is workplace based but improved accident prevention is reliant on expert strategies and the proper investigation of the causes of accidents: functions which require specialisation and consultants. Some of the required expertise could be found in the occupational health and safety inspectorate and in the National Occupational Safety Association (NOSA) but this is dependent on reorientation as a referral level service and on development.

4. Occupational medicine

Occupational medicine services should be based on primary care services (at workplaces and local clinics etc) sensitized to occupational medicine and in touch with referral routes to occupational medicine referral clinics. Public health services should provide initially at least one such referral clinic per province so that independent specialists are available for diagnosis of occupational disease in current, retired or unemployed workers.

5. Rehabilitation and compensation

Rehabilitation, particularly vocational rehabilitation, following workplace injury or disease is complex and largely undeveloped in South Africa. A simple service structure based on existing resources is difficult to envisage but this is not the case for compensation. Every workplace forms the base but the key to a successful compensation structure lies in user-friendly regional advice offices to which workers and practitioners can refer; and diagnostic services so that complex cases can be adequately investigated and documented before submission. Occupational medicine referral clinics would be able to do this.

Primary level hygienists

For a number of reasons occupational health nurses appear to be attractive candidates as primary occupational hygienists: they are relatively numerous and generally workplace based but most importantly can relate exposure to health outcomes through their interaction with workers during routine monitoring and in the delivery of primary medical care. An unanswered question is whether OHNs would accept this additional function. This was the motivation for a National Centre for Occupational Health project which aimed to determine their attitudes on this matter¹. The findings suggest that OHNs are underutilised and willing to be involved in aspects of hazard evaluation. The major objective of the project was to assess the current occupational hygiene practices of occupational health nurses (OHNs) and to assess their attitudes to the

identification and initial qualification of workplace hazards. It was a descriptive study using a mailed questionnaire. The study population was all OHNs registered with the South African Society of Occupational Health Nurses. Responses were obtained from 221 OHNs (53.7% of the population), working in 48 types of workplace. Responders and non-responders did not differ on key characteristics.

The main findings were that only 14 (6%) of the respondents performed occupational hygiene tasks as part of their routine work and only 31 (14%) volunteered hazard identification and quantification as tasks which would significantly improve practice. Nevertheless, when asked directly, 120 agreed that occupational hygiene fell into the ambit of OH nursing. Over 70% were positive about receiving theoretical and practical occupational hygiene training. Constraints to greater hazard identification included limited time and resources and concern about intruding into the domains of other practitioners (something shared by organisations of occupational hygienists).

We concluded that OHNs are well placed to identify and partially quantify hazards in the workplace and that sufficient interest is evident for courses to be planned and offered now in pilot form. Resistance to implementation needs to be clarified and addressed and the experience of OHNs who already perform these tasks needs to be used.

This role for occupational health nurses in public practice is complicated by the potential for environmental health officers to act as primary level hygienists: the latter are already employed and have some training, advantages which make them the more attractive candidates.

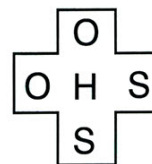
Conclusion

If these relatively simple measures were implemented, and if coordination and support occurred through emerging national and provincial structures, we would have a framework upon which to construct effective occupational health and safety services. Occupational hygiene services should be prioritised for development, occupational hygienists are required at provincial level and primary level practitioners with hazard specific skills should be considered.

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References

1. Lowe R, Rees D. Occupational health nurses and occupational hygiene: An attitude study. In preparation: Available from R. Lowe, National Centre for Occupational Health, Johannesburg.



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Is your AIDS education effective? Common obstacles and solutions

Susan Hyde and Sharon White

During the early days of workplace AIDS programmes, AIDS education was generally conducted by on-site medical staff who used lectures, videos, pamphlets and posters.

However, the educational and cultural gap between medical staff and employees is an obstacle to intimate discussion about STDs and condoms.

New trends - peer educators

The emphasis has now shifted from awareness to more in-depth education, from using "experts" to using "peer educators" (PEs). A PE is an ordinary employee who is trained as an AIDS educator and then educates his peers about AIDS - both at work and in his community. Sangomas, women and teachers from the local community are also trained.

The major advantage of using PEs as opposed to "expert" educators is that they are trusted, liked and have credibility amongst their peers. PEs are seen as being "someone like me". They speak the same language as their peers and share common lifestyles, sexual practices and cultural beliefs. They are also very accessible to their peers.

PEs also undergo an intensive seven-day workshop during working hours. A major difference between the "old style" and "new style" education is that the PEs are not required to conduct AIDS lectures, but rather discussion groups.

PEs conduct AIDS education both informally (chats during lunchtime) and formally (at leave induction, as an extra module slotted into literacy and other training courses).

Problems and solutions

Having worked in a large number of organisations, we have seen PEs leave workshops with great enthusiasm, often to find that their peers are eager for information. However, just months after being trained, numerous PEs report that they have done little or no AIDS education.

Apart from the obvious losses in terms of the time, effort and money involved in training the PEs, there are serious losses to the AIDS prevention programme as a whole.

- PEs lose confidence in management
- The very purpose of the investment is not achieved - neither employees nor the community will learn about AIDS.

We will now examine some of the reasons for this breakdown of the AIDS programme, first on a micro-level, and then on a macro-level.

Difficulties encountered by PEs and solutions

Need for "polishing"

Newly acquired skills and knowledge will be diluted if not used immediately. Like all new trainees, they required "polishing" of their new skills, and must develop competence and confidence. However, this is seldom done.

Susan Hyde and Sharon White, *Aids Education and Training* cc

- Follow-up "coaching" is essential. If this is not done, PEs may lack confidence and may repeat the same mistakes without being corrected.

Strike while the iron is hot!

The early enthusiasm of PEs must be captured or it will be dissipated and it will be very difficult to regain the momentum.

- Meet soon after training and hold regular meetings with PEs, ensuring meetings are informative and enjoyable.

Lack of structure and direction

PEs often have no idea how to set about what seems like a mammoth task; There may be 18 PEs and 20 000 employees, not to mention the community. A PE is after all, fairly junior in the workplace hierarchy and does not have the authority or know-how to arrange education sessions to be conducted during induction or health and safety meetings. Overwhelmed, he waits for direction that never comes.

This lack of structure and direction seems to have a number of sources:

1. There is no high level "champion" of the AIDS programme:
2. The AIDS programme organiser himself lacks organisation skills or the seniority to implement the programme.
3. The organiser is already overloaded with other demands.
4. Management at all levels is often unaware of the importance of the AIDS programme. They have not been involved, do not understand it and are therefore not actively supportive of the PE's work.

- Management at all levels need an in-depth understanding of the PE programme and their own rules.
- A formal structure for reporting and managing the PEs must be established. PEs should then participate in planning the implementation, and goal setting.

Whispering against a thunderstorm

As we mentioned, often a handful of PEs is trained, and this small group is expected to educate literally thousands of peers.

- Adequate numbers of PEs must be trained. Supportive educational media will boost the PEs AIDS messages (eg posters, articles in the internal publication).

Lack of recognition

PEs work on a voluntary basis and are not paid or given other rewards (such as time off work). They need a great deal of encouragement and support if they are to continue educating their peers, particularly after hours.

This lack of both practical support and morale boosting, the lack of fresh input leads to boredom and frustration.

- PEs can receive badges, certificates and publicity in the local or internal media.

NOSA 5 Star System now includes Occupational Health!

Nell Browne

The Occupational Health Section of the Nosa 5 Star System was officially launched on 10 May 1995. This is part of a development programme that Nosa has embarked on to improve the quality of safety management by integrating the fields of occupational health, in its broadest context, as well as environmental management into a quality management system that addresses all factors which impact on the working environment, employee well-being and the economic viability of industries.

The environmental section will be launched later in 1995. Pilot auditing will begin in June 95 at selected sites. The objective is to create a comprehensive "SHEIR" system from 1996, to evaluate safety, health, environment and integrated risks. Each one of these factors has a bearing on the other sections and in order to maximise the potential of a company, these factors need to be appropriately managed.

What are the objectives of including an occupational health section in auditing a safety program?

1. It is designed to give managers, employee organisations and safety professionals a standard to evaluate the health status of their organisation and the quality of the Occupational Health Service (OHS) being provided by health care professionals.
2. To identify critical areas where employees may be at risk of developing occupational disease, so that available financial and personnel resources may be utilised to improve the working environment and to minimise the occurrence of occupational diseases and injuries.
3. To provide an evaluation tool for Occupational Health Practitioners (OHP) to evaluate the extent and quality of service they are providing. The OHP may also use this audit system for motivating the employer to provide essential resources needed to upgrade the OHS to comply with legal requirements as well as improving the general health profile of all employees.
4. To set a desirable standard for OHS. The Nosa Occupational Health Section meets the criteria set in the 1987 ILO (International Labour Organisation) recommendations for occupational health. An additional benefit is the economic growth precipitated by controlling losses due to ill health, injuries and accidents, and general improvement of the "quality of life" of people.

Nell Browne, Occupational Health Consultant, Nosa Health Services, Pretoria

No quality control

Generally, the AIDS programme organiser conducts no quality control. There is a danger of incorrect information being repeated and a tendency of PEs to resort to "common sense" and cultural myths when unsure of information.

- Initial and ongoing coaching ensures that information is imparted correctly and effectively.

No record keeping

PEs are seldom asked to keep statistics. This means that there is no record of either the quality nor quantity of AIDS education in that environment. With no feedback of their success, neither the PEs nor management is encouraged to continue.

- PEs can easily keep very simple records. This data, once collated, provides a good picture of what they have achieved on an on-going basis.

High drop-off rate

Some PEs will drop out of the programme at different stages and for various reasons. Nonetheless, the drop-off rate we have witnessed seems sadly high.

Macro-level considerations

We have looked at micro-level programme planning. But apart from those micro-level solutions, the following principles are vital to the success of the programme:

1. Think "systems": Consider how PEs are connected to other partners in the AIDS programme:

- How will they refer troubled people for help at the clinic, EAP or AIDS services?
- How will supervisors and union officials be actively involved in assisting the PE?
- Who will arrange for each PE to have a stock of condoms and easy access to educational material?
- How will each PE report his statistics to management?
- How will PEs ensure they reach women in the community, gaining entry through formal and informal womens' groups. Female PEs are necessary for this task, as women will not be comfortable discussing sexuality and menstruation with a man.

2. Support at all levels

I The first level of support is the "mentors". These are more senior PEs who play two vital roles:

- i. Administration of the PEs work, and
- ii. Supporting the PEs.

Mentors are specifically trained for this task and should preferably be from the same cultural group as their PEs.

- The enlightened support of supervisors and management has been mentioned earlier. This can be achieved through one-day supervisor seminars and regular feedback.
- A well-functioning AIDS action group to drive and monitor the programme: involve PEs, mentors, medical staff, managers, community groups and employees in all planning, implementation and evaluation.

Conclusion

PEs can be an effective and powerful tool in the AIDS programme. With the right support they can reach large numbers of people and conduct very personalised education. It is worth investing in PEs by managing them the way all other parts of a business are managed: through planned, enlightened support and regular monitoring.

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5. To raise the level of awareness regarding health issues and highlight both the individual's and employer's responsibility in promoting and sustaining well-being.

The content of the Occupational Health Section

This section consists of three broad categories which comprise a total of 21 elements. Although there is some duplication of elements in the current Nosa 5 Star System they have been included to ensure evaluation from a health perspective as well as a safety perspective. The content of the three categories listed will be discussed further. The number system used in this section corresponds with the element numbers used in the Nosa workbook.

6. Management and organisation

6.1 Occupational Health Policy

The content should embody the company's commitment to providing a working environment which is least detrimental to employee well-being. It is essential that this policy bears the signature of both CEO (Chief Executive Officer) as well as leaders of the employee representative organisation.

6.2 Organisation and Staffing

This section deals with the appointment, functions and responsibilities of the Occupational Health Co-ordinator, Occupational Hygienist, Medical Officer and OHP. Emphasis is placed on appropriate qualifications and registration with legal and professional bodies.

Included are elements dealing with management commitment, continuing education for health-care professionals, appropriate legislation and procedures for self-auditing.

Employee well-being, rehabilitation, as well as the essential amenities and facilities for promoting a high standard of health and hygiene are addressed.

6.3 Occupational hygiene

This entire section is devoted to the identification and assessment of health risks, communication of this information and the control of the working environment to eliminate or minimise these risks where possible.

The section on occupational hygiene programmes and standards provide guidelines for setting standards and implementing control measures to ensure that these standards are met and maintained.

It is important to bear in mind that each type of industry has its own particular health hazards and the programme should be designed to meet industry specific needs. Whenever there is a change in operating procedures, raw materials or the addition of equipment, these standards need to be revised and adjusted accordingly to ensure that no health hazard surreptitiously enters the workplace.

6.4 Occupational medicine

This section concentrates on the practice of occupational medicine with emphasis on the facilities required, medical surveillance and biological monitoring programmes.

Attention is also given to compliance with appropriate legislation regarding reporting of occupational diseases, injuries as well as the use of medicines in industry.

The section on medical examinations include pre-employment, job placement, periodic and termination of service examinations. The man-job specification is integrated to encourage the use of appropriate physical and mental selection criteria in job placement.

Emergency preparedness is covered with sections on emergency planning, responsibilities, communication, equipment, referral resources as well as first-aid training and rescue teams.

6.5 Records

Record keeping is critical to evaluating the health profile of the workforce. Although it is essential to maintain good individual records, emphasis is placed on the analysis of group records.

Information obtained from the analysis of group records can identify health problem areas according to incidence and prevalence of work related conditions. It will also indicate if occupational hygiene control measures and standards are being effective in sustaining a healthy work environment.

Injury and disease records are indicators of the efficacy of the health and safety measures in use. It is essential to liaise with the Compensation Commissioner on these cases to ensure that medical bills and compensation payments are made as required.

The last section of records deals with the cost analysis of health-related items. It is always easy to look at the direct costs of providing health-care, but this should be balanced against the control of hidden costs such as overtime, excessive sick leave, absenteeism and production losses due to accidents including associated hidden costs.

Implementation of the Nosa Occupational Health Section

In order to facilitate the implementation of this section and improve the quality of service to clients, Nosa has established a Health Services department. Occupational Health Consultants are available to assist clients in evaluating their OHS and to provide information where upgrading or new services are required.

Although some companies may have reservations regarding the implementation of OHS, health care should be seen as a long term investment in production rather than a service. Compare the amount budgeted for equipment maintenance in relation to the health care budget. Employee health care is one area of productivity that should be nurtured if a company wishes to enhance its economic activity.

During the phasing-in period, the audit of OHS is voluntary, and the Nosa star rating of companies will not be affected. As of March 1996, this section will form part of the star grading audit and will therefore influence the outcome of gradings.

Nosa welcomes constructive criticism to ensure that improvements which will be of benefit to industry may be incorporated directly into the "SHEIR" system planned for release in 1996.

Nosa Health Services is committed to provide a quality service regarding consultation, audits and grading in order to promote quality occupational health care to all industries in South Africa.

For more information contact Nosa Health Services in Pretoria at (012) 21-7736.

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Letters to the Editor

RDP and Compensation

Ray Maboep's point (OccHSA Vol 1 No 5) that occupational health should be viewed as an integral part of the Reconstruction and Development Programme is well taken. He makes a number of crisp statements, including "We must tackle poverty not through handouts, but through programmes that build the country's wealth." Earlier he states that "the RDP is our response to the serious social and economic problems of South Africa which are characterised by mass poverty, gross inequalities, a stagnant economy and enormous backlogs."

One of the "enormous backlogs" is the result of a combination of the migrant labour system and the complete breakdown of compensation in rural areas from which migrant labour has been drawn for a hundred years. There is also reason to believe compensation procedures are not effectively carried out. Occupational health professionals are in a prime position to remedy part of this backlog. Compensation is an entitlement, not a handout.

In the Northern Province, several groups of activists have been identifying former mineworkers and arranging benefit examinations for them at Groothoek Hospital. In the past four years between 2 and 3 thousand persons have been examined and compensation totalling millions paid out. In one small group of villages, the local health committee estimates that R1,5 million has been paid to individuals whom they have taken to the clinic. They think, the most common use of this money is for building houses.

Between us, we see many hundreds of "patients" each year. If you ask every person with a corneal leucoma, an amputation, tuberculosis, and so on, what happened to cause the injury or disease, the reason is often work related. If you follow through with a question about compensation you will be surprised to find that no compensation was ever paid, or that due to some bureaucratic hitch, the pension ceased.

In the poorest parts of the poorest province, those families whose breadwinner has been handicapped by work related injury or disease are among the poorest. If we are "to plan a social development path for all our people" then meticulous attention to compensation for injured or diseased workers is absolutely vital. The fact that the incident or exposure concerned took place ten years ago in someone else's mine or factory is irrelevant.

Tony Davies, NCOH, Johannesburg

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 VIDEO - 1	DRUG AND ALCOHOL ABUSE <ul style="list-style-type: none"> Warns against the pitfalls of abuse The effects of peer pressure and experimentation Explains how abuse gradually destroys Explains that there is help available and where Including English, Zulu, Sotho and Xhosa 	 VIDEO - 2	TUBERCULOSIS <ul style="list-style-type: none"> Explains what essential signs to look for Emphasises urgency of reacting quickly Warns of the contagiousness of the disease Explains how to support and care for sufferers Including English, Zulu, Sotho and Xhosa
 VIDEO - 3	FAMILY SPACING <ul style="list-style-type: none"> Overcomes the "designed to reduce population" myth Emphasises healthier more prosperous families Including English, Zulu, Sotho and Xhosa 	 VIDEO - 4	BASIC HEALTH NEEDS <ul style="list-style-type: none"> Explains a balanced diet Basic sanitary measures Personal cleanliness Including English, Zulu, Sotho and Xhosa
 VIDEO - 5	PARASITES, LICE AND SCABIES <ul style="list-style-type: none"> Explains how to recognise them Shows how to combat them Including in English, Zulu, Sotho and Xhosa 	 VIDEO - 6	IMMUNISATION AND THE ROAD TO HEALTH CHART <ul style="list-style-type: none"> Expresses the importance of immunisation as a means of protecting young and old from diseases like TB and measles Introduces "The Road to Health Chart" as a method for mothers to use to keep control of the health of their child Including English, Zulu, Sotho and Xhosa
 VIDEO - 7	GASTRO-ENTERITIS AND ORAL REHYDRATION <ul style="list-style-type: none"> Explains how serious this illness in fact is - gastro kills more children than any other disease - mainly through dehydration Emphasises how important it is to ensure that the sufferer receives sufficient liquids to combat the possibility of dehydration occurring Including English, Zulu, Sotho and Xhosa 	 VIDEO - 8	BREAST FEEDING AND NUTRITION <ul style="list-style-type: none"> Breast is best - Best food for baby is breast milk because it contains all the food needed for the baby to grow Also protects babies from illness Including English, Zulu, Sotho and Xhosa
 VIDEO - 9	WHAT IS AIDS <ul style="list-style-type: none"> Explains the HIV virus in simple terms The three stages from infection to death Including English, Afrikaans, Zulu, Sotho and Xhosa 	 VIDEO - 10	HOW YOU CAN AND CANNOT GET AIDS <ul style="list-style-type: none"> Explains the 3 main ways it can be spread Dispels the myths concerning the way it is spread Including English, Afrikaans, Zulu, Sotho and Xhosa
 VIDEO - 11	AVOIDING AIDS <ul style="list-style-type: none"> Explains the options to AVOID GETTING AIDS How to deal with your partner Putting on a condom Including English, Afrikaans, Zulu, Sotho and Xhosa 	 VIDEO - 12	BACK-SAFE - BEND YOUR KNEES <ul style="list-style-type: none"> Explains in simple terms how 80% of Back Injuries can be avoided Explains the three main variables which influence any lifting situation - namely, man, load and environment Including English, Afrikaans, Zulu, Sotho and Xhosa



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Letters to the Editor

Problems with confidentiality of HIV and AIDS

The whole issue of confidentiality of HIV infected people and those with AIDS is going too far. In fact, the initiatives by pressure groups to protect the rights of the infected individual to the extreme are harming those individuals they are trying to protect.

I would like to share a case with you that I treated at our factory medical clinic. Mr X had worked at the company for some years, but had not visited the clinic for several months. A co-worker then brought him into the clinic, he was weak, thin, disoriented, coughing and could not keep his balance. He was referred to a local Provincial Hospital with a letter requesting an HIV test and investigation for TB. He was discharged on the fifth day without any discharge summary or an appointment to return to the hospital for follow-up. The diagnosis on the sick certificate was "Urinary Tract Infection" and it was noted the employee was to resume duties the next day.

The medical staff were called into the hostel where this employee stayed and it was obvious his condition was in fact worse. At the patient's request, he was referred to another Provincial Hospital in the area and again I sent a note requesting a chest X-ray and HIV testing. He was kept in the hospital for 14 days during which time I phoned the attending doctor who refused to give any medical information nor confirm that any tests had been performed. The employee was discharged and the ward sister phoned the factory clinic requesting transport as the patient was confused and could get lost. He was booked back to do normal duties the following day. Again, no information was sent with the employee who was not told what his problem was. The sick note contained the diagnosis of "lung fibrosis."

As a result, I was landed with an extremely ill patient and no diagnoses. I thus sent him privately for a chest X-ray (which showed advanced pulmonary Tuberculosis) and an HIV test. Whilst trying to get the employee admitted into a TB hospital, his family arrived and took him home to see a traditional healer. The patient died at home a few days later and subsequently the HIV test came back positive.

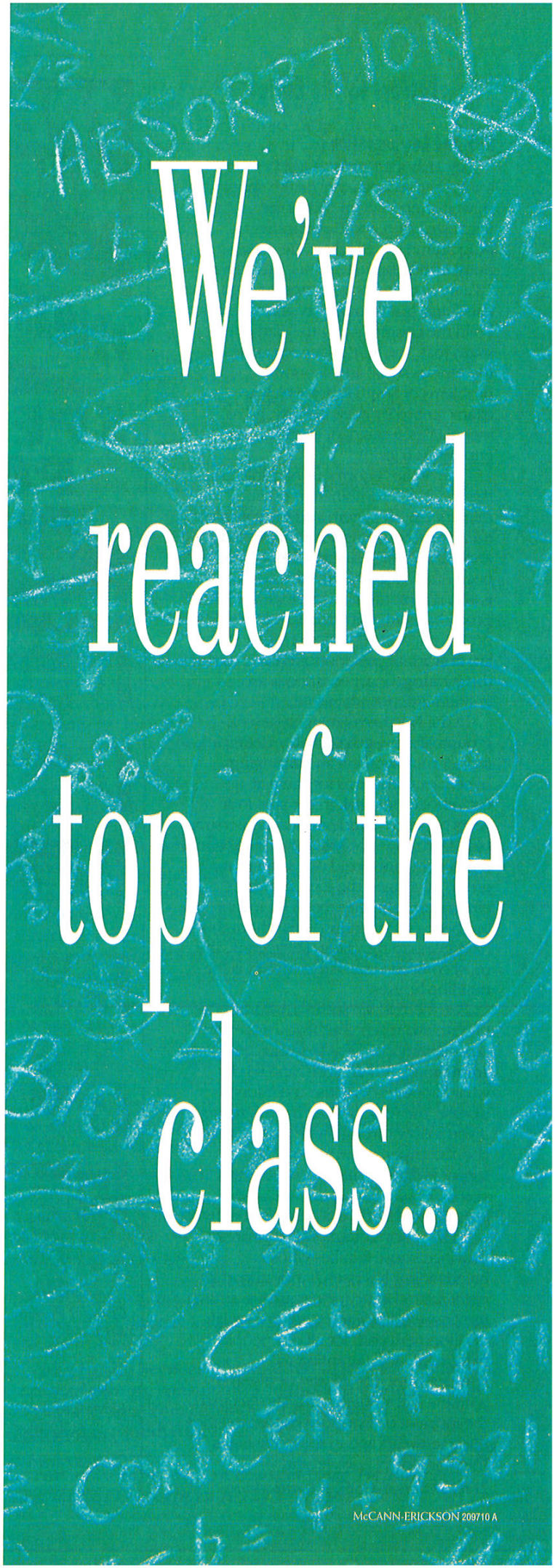
There are some comments I would like to make:

- Because the staff at the hospitals were not prepared to divulge any information to another professional health care worker, all the tests were duplicated.
- The patient was never counselled at either hospital (let alone pre-test counselling which I understand is very important). I could not counsel him because the diagnosis was never confirmed.
- It is a great tragedy that public facilities such as hospitals will not inform the occupational health nurse at a factory clinic that an employee is HIV positive. We are trained to counsel the employee, the family and can make a significant contribution to assist with sick pay, facilitate pension where necessary, transfer to a lighter type of work, etc.
- We are now all starting to see AIDS patients regularly, but the ones we have seen from hospital are just sent out without any information or counselling. Surely it should be mandatory from the Department of Health that these patients are sent to some community resource to continue to care for them (the clinics in industry are also a resource that could be used). What are the Government's plans in this regard and are they going to introduce home-based care?

Unfortunately, the story I relate here is all too common and confirmed by other occupational health nurses. This confidentiality aspect has been taken "too far". If a common sense approach was instituted, it would be more beneficial to the patients.

The Department of Health and the public health care facilities that fall under it must start to inform medical personnel at the workplace. The opportunity is being missed to use a resource which is already in place.

Sr Annette Nel, Vanderbijlpark

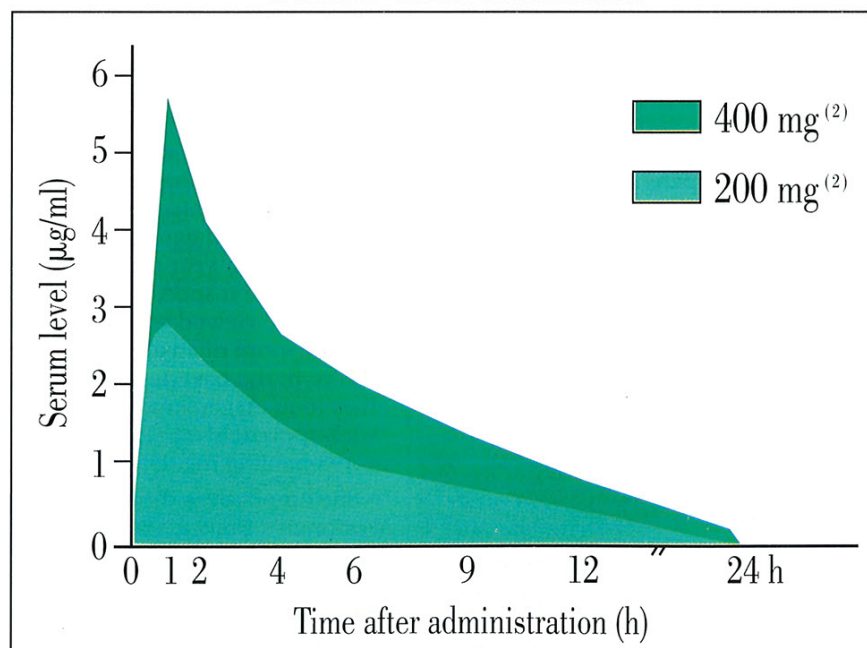


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Personality Profile

Faiza Salie



Faiza took up the appointment of Chief Director of Occupational Health and Safety of the Department of Labour on the 14th August 1995. Although her official title is that of Chief Director, her functional title referred to in the Occupational Health and Safety Act is Chief Inspector.

She grew up in the Western Cape and matriculated at the Harold Kressey High School in Cape Town. She initially worked for a chemical company for a short period in the laboratory before joining the Cape Town City Council where she again worked in the laboratory testing water, various effluents and so on. Whilst at the Council, she studied part-time at the Peninsula Technikon where she obtained her National Diploma and then her Higher National Diploma in Analytical Chemistry.

Thereafter she was awarded a scholarship under the U.S. Aid programme and studied at Boston University where she obtained her B.Sc. degree in Chemistry and Science Education in 1988 and as part of the conditions of the scholarship, she had to return to work in South Africa in an area of identified need.

However, she was keen to study further and felt the educational aspect was important. As so often happens coincidentally, she saw an advert in the Weekly Mail looking for a science graduate to study further with the proviso that the person would have to work with the Trade Union movement. It transpired that this initiative was to staff units in South Africa, that consult and assist the Trade Union movement on health and safety, with industrial hygiene expertise. Professor Jonny Myers, who was studying at that time at the Harvard School of Public Health was involved with the initiative.

As a result, Faiza was given a study grant for two years and completed her Masters degree in Occupational Health at the University of Cincinnati. This was not only a multi-disciplinary course comprising Occupational Medicine, Occupational Hygiene, Safety, Environmental Health, etc., but the students on the course also came from a multi-disciplinary background. As part of her contract, when she completed her degree, she went to work for the Industrial Health Unit in Durban for two years. Her function was to manage the Occupational Hygiene unit of the IHU as well as to raise funds for the unit for its various projects. She in fact ended up working for the unit for four years and gained significant experience in consulting and advising Unions and employees, as well as performing surveys in various factories. She was then appointed to the Chief Director post in Pretoria.

Faiza feels there are some areas initially that she needs to concentrate upon and initiate change. She believes the factory inspectorate needs to become more representative of both race and gender and attention will be focused on this in the four year training course for inspectors. She also feels the inspectorate needs to change its image as it tends to be viewed with some mistrust and it needs to become more of an ally to workers and Trade Unions who've in the past perceived the inspectorate as being allies to management. If this shift can be made and the "stick approach" can be discarded, one can move towards more enabling regulation and self-regulation.

She emphasizes the importance of working closely with Workmen's Compensation in order to have a single standardised database and to have comparable accident and disease statistics in mines and industry as well as in government departments and comparable to the international community.

She looks forward to the formation of the proposed National Occupational Health and Safety Council and ultimately maybe even a single autonomous Health and Safety type Executive.

There is no doubt Faiza brings a new energy and vision to the Department of Labour and certainly more will be heard of her in the future.

Drs. du Buisson & Partners

Vennote

PATOLOË/PATHOLOGISTS

Information Leaflet for Patients

THE IMPORTANCE OF PAPSMEARS

Why must a healthy woman have a papsmear every year?

All people occasionally think about the possibility of cancer and in the female it has a particular implication especially so because she is equipped with special organs for the most important function of reproduction.

You may have cancer of the womb without knowing it. It is a well-known fact that the earlier a cancerous lesion is detected, the better the chance of cure. A dramatic breakthrough was achieved with the development of papsmears which can not only detect an early cancerous lesion but can also indicate when a lesion of cancer is likely to develop!

The papsmear test is a harmless way to find out. Scraping of the mouth of the womb is done which is not painful at all and enables the pathologist to inform the doctor or the patient of the possibility of the presence of cancer. This does not mean that the woman may lose her womb. In fact, treatment of a pre-cancerous lesion will allow the woman to still have children while the development of cancer is halted.

Here are a few signs that may alert you:

- Your monthly bleeding may change
- You may have pain or bleeding after sex
- You may suffer a discharge that smells bad
- You may bleed when you are past child-bearing age.

Do not wait for these signs. Women who neglect regular papsmears are neglecting themselves. This type of lesion can be found in patients as young as 18 years.

All sexually active women should have gynaecological examinations at least once a year because cancer of the womb can develop quickly.

You can have a papsmear done at your family doctor, the community clinic or at the clinic on the premises where you work.

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Information on Health Hazards

Specialised inspection of working areas to identify potential factors that can influence the health of a worker. Educational brochures are available to inform workers about the importance of wearing protective clothing and equipment.

Specialised Advice

Pathologists can give guidance on solving occupational hazards. Personal evaluation by pathologists enables the interpretation of results.

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Chapped Skin Cause - Significance - Prevention

Dr Otto Schmid, Stockhausen

The skin of the human body is an organ which, like hardly any other, is easily accessible for observation and yet gives its owner and the researcher many problems. The progress in chemical and biochemical analysis has, however, made it possible to come nearer to a solution to some of these problems. Included in these are the causes of commonly found skin chapping under specific climactic conditions and in industrial plants. This is, in many cases, a precursor of occupational skin diseases and is one of the important characteristics of the so-called "attrition dermatitis"

Before describing the symptoms of chapped skin, some information is needed about unaffected skin.

Man's epidermis consists of many layers of living cells, on the top of which the horny layer rests. This consists again of many layers of scales which have developed from the living cells by means of a complicated chemical conversion process and which are continually being flaked off. This horny layer, only about 0.02mm thick is outstandingly qualified to defend itself against various chemical, physical and bacteriological attacks. In order to function properly, the horny scales must be able to secrete a sufficient amount of moisture and oily substances. Yet they are situated in an elastic, smooth and regular formation which stops virtually all penetration of damaging materials into the body. On magnification, one can see that the top skin layer in relief consists of 4-sided, rhomboidal segments whose surfaces are smooth and whose edges appear rounded off.

If the water-bound complexes are removed by means of frequent washing, aggressive cleaners, solvents or other damaging materials, the elastic formation of the horny scales breaks up, they curl upwards, become fibrous, start to develop fine cracks and splits which, if not treated, can become so large that the cracking goes deep into the living skin. This enables damaging substances to penetrate and leads to often serious and prolonged skin diseases. (K.H. Schultz).

An important environmental factor for skin is the climate, in particular the relative humidity. It is generally known that a lower temperature caused by the onset of winter leads to a roughening of the skin. In India, for example, the temperature drop at the beginning of the monsoon causes many people's skin to become so rough that cracking and bleeding occurs (Jarett). It has been proved experimentally (Middleton & Allan) that a decrease in temperature and the reduction of the relative humidity lead to increased breakdown of the horny substance of the skin. The influence of climate also increases the skin's susceptibility to injury caused by damaging industrial substances in the colder seasons of the year. Solvents do not only cause a reduction of water bound complexes in the horny layer, but also cause prolonged interference in the water vapour emission through the skin (Malten). Trichlorethylene is a solvent particularly worth mentioning, which is frequently used to degrease workpieces in industry. However, all other solvents, even pure water, "dry out" the skin.

To prevent chapped skin caused by harmful industrial materials, the application before work of suitable ie not readily soluble in the materials concerned, special protective ointments or creams is recommended (O.Schmid). Against water soluble working materials, as a rule, water-in-oil emulsions are appropriate, but there are also oil-in-water emulsions containing synthetic tannins which prevent the skin from drying. Oil-in-water emulsions, often containing

inorganic or organic pigments, prevent skin injury by damaging substances which are insoluble in water. Plastic and rubber gloves are recommended for short contact or when using very aggressive liquids. Care must be taken to see that they fit tightly and are clean inside, otherwise they can be more detrimental than harmful. Their disadvantage is that they prevent the evaporation of sweat by tightening the skin surface. As a result of this, the skin becomes excessively soft and this increases its sensitivity to damaging substances and to sensitising ingredients in the gloves (anti-oxidants in rubber, chromium salts in leather). For some time, an emulsion containing synthetic tannin has been approved for use when softening of the skin by the so-called glove moisture occurs.

In addition to the protection of the skin before work, care after work to prevent chapping of the skin is particularly important.

Suitable toilet creams, which are sold by various manufacturers, supply lipids and moisture to the skin and some external help to the natural regeneration of the water-bound complexes from the lower layers of the skin. Skin care prevents the skin from getting chapped, which is the basis of many occupational skin diseases and is just as important as the protection of the skin prior to working.

Removal of water-bound complexes by working materials and unsuitable cleaning methods causes chapping of the skin. Climatic factors also contribute to this. Chapped skin is the basis of many skin diseases of occupational origin. Skin protection and care prevent these avoidable skin alterations which lie on the border between health and sickness.

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Industry News

Waste-Tech buys recycling company

Waste-tech has acquired domestic and industrial waste recycling company, Waste Flo, from Basil Read Construction.

Ken Bromfield, managing director of Waste-tech says : "With South Africans producing in excess of 15 million tons of domestic waste and 12 million tons of industrial waste a year, the need for re-use, recycling and waste minimisation at source is increasing.

Waste-tech's acquisition of Waste Flo is in keeping with its efforts to reduce its dependence on disposal and to follow world trends in increasing the amount of materials recovered and recycled from the waste stream. Waste-tech aims to further assist its clients to reduce their waste and its resultant impact on the environment.

Waste Flo which employs 17 people, has been incorporated into Waste-tech's Waste Minimisation division. The division assists companies with waste minimisation programmes and recycling.

Bromfield said that with land at a premium, it makes sense to keep well-managed landfill sites operating for as long as possible. Recycling is one way of reducing volumes of waste to a landfill.

Waste-tech manages domestic and hazardous waste landfill sites nationwide; collects and disposes of medical and chemical waste; in conjunction with local fire departments, conducts clean-ups of hazardous waste spills through its mobile HAZMAT units; and sets up waste minimisation programmes for waste producing organisations.

The logo for SALTERS features the word "SALTERS" in a bold, red, sans-serif font. Above the letters, there is a red outline of a gabled roof structure, suggesting a warehouse or a place where supplies are stored under one roof.

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The ideal solution for compensation claim problems

A new software program - the CLAIMS MANAGER - is to be launched this month and will be a life saver to all staff doing workmen's compensation claims. This program presents major benefits to companies with any number of claims in process. It conforms completely to the Compensation for Occupational Injuries and Diseases Act, with all the standard forms represented in the software. Currently DOS based, the software will run on any 286 or higher computer, and was designed with ease of use in mind. After entering the claimant's details into the database, a claim can be filed through predetermined fields, and traced once posted. Statistics options abound, and user selection is unlimited. Help is at hand on the screen at each step of the way, and additional files are available to detail any further queries. Customisation is easy. Multiple departments can be set up, giving a database for each department. As all the information filed can be used in the statistics module, very useful detail is on hand for management options, reports etc. Assessments and actual claims are given as graphical information, making future budgeting less painful.

On start-up the program prompts the user to enter all the relevant company details that will later be needed to complete claim forms. The program is immediately ready for claims processing. Once in the database, information about employees can be recalled at any stage. To enter a claim you just follow on-screen prompts and answer a number of questions. The program lets you know when forms have to be sent and reminds the user when these forms should have been returned.

The program sports a Statistics Module that allows the collection of information about any data that has been entered. Conveniently, a number of pre-created statistics can be called on to provide the user with both graphical as well as written reports on topics such as which employee groups constitute the largest source of claims. This will allow the implementation of timeous prevention policies. The statistics module covers a vast scope of information retrieval capabilities that will provide critical information to all responsible personnel.

For further information contact Gavin Phoenix, Data Dynamics Tel: (031) 262-8131 Fax: (031) 262-8158

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
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At a time when there is a shortage of skilled people, every employer should be automatically involved in safeguarding workers from skin disease.

Unfortunately there is no universal skin protection cream which works against all harmful substances – that's where Stockhausen comes in.

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