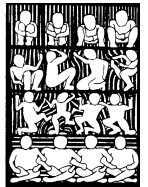




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BODY MAPPING AND HAZARD MAPPING

Background

Injury and disease resulting from work are caused by many factors including the design of the work processes, the use of material and substances and the work organization. Unions continue to be concerned about the number of work-related incidents, injuries and illnesses that occur in workplaces.

Many of the hazards that workers are exposed to are obvious and the health and safety effect on workers can be immediate. There are also many hidden hazards which members are exposed to. These can be difficult to identify and can have an adverse effect on the worker's health.

One way in which health and safety activists can involve workers in the identification of health and safety hazards or problems is by using techniques called body mapping and hazard mapping. This approach allows workers of a work group to identify health and safety issues and concerns they have about their workplace and any adverse effects.

The mapping process allows workers gather information about their workplace. The results are then documented and this allows workers to decide what is important to them. The work group can then discuss what has been identified and decide solutions to improve the situation. These may have to be implemented in stages.

Body mapping - How it works

Introduction

Health and safety activists can easily see, during an inspection, when something is wrong in the workplace - but it is far more difficult to find out how work might be harming the bodies of fellow workers: We usually do not talk very much about our health and some people dismiss aches and pains as 'part of growing older', not realising (or not wanting to admit) that it might be work that is causing the problems.

Body mapping is a way of overcoming this and identifying common patterns of health problems amongst workers in a particular workplace who are doing the same job. Whilst it is not certain that any such common ailments are work-related, it shows areas for further investigation.

Body mapping has been used as a teaching and organizing tool for many years. Its use in the area of health and safety is growing. The effectiveness of mapping lies in the fact that:

- It involves workers and it shows them that they are not alone
- it gets people thinking about their workplace in a new way
- it uses visual images help workers identify problems
- it uses images, colour-coding, stickers, and symbols eliminates the need for strong reading or writing skills and can help bridge language barriers

During a body mapping exercise some people may find that the information they discuss may be somewhat personal in nature. It important to say at the beginning that it is up to each person how much they want to discuss with the group. Participation is completely voluntary.

It is important to remember that when this kind of personal information is being gathered, the issue of confidentiality should be considered. The maps that are produced may be used to show what health & safety problems the members are experiencing. So names or any other identifiers should not be used on the maps to protect the workers who are participating.

Working together

There is nothing difficult in body mapping. You start with the front and back body outlines. Body mapping does not require sophisticated materials. Any large piece of paper with a very rough sketch of a body will do. Any pens or markers will do. Members are then asked to put a sticker, or a coloured mark onto the body map to show any symptoms that they may have.

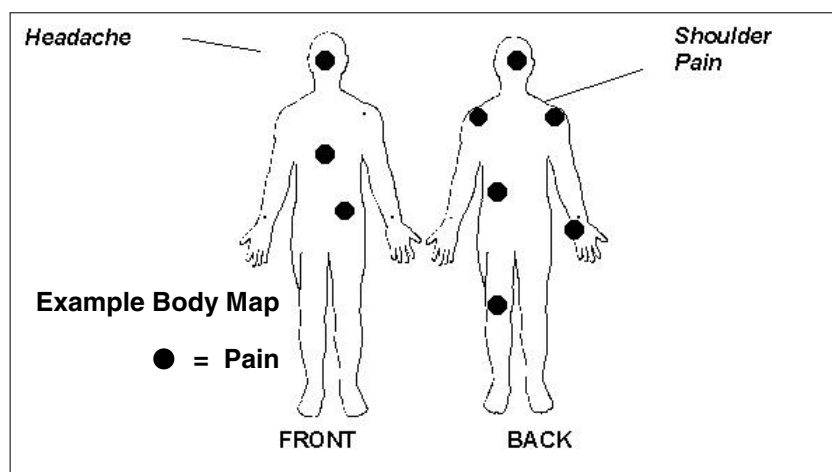
What really matters is that it gets done and that it is a collective effort – not how fancy it looks. It is a good idea to use different colours to identify different symptoms, eg

- red - aches and pains
- blue - cuts and bruises
- green - illnesses
- black - anything else

You can apply dots for any health problems or injuries

you are experiencing now or have experienced since you have been working. These should include aches and pains, chronic illnesses, injuries or symptoms that you believe are caused or affected by your work. You can put social problems such as stress, sleeping difficulties, anxiety or fatigue in a circle over the head. If you cannot show your problems with dots, for example if you have generalized pain or a skin rash over a large part of your body, a circle can be drawn with a marker.

By comparing the different symptoms of members working in the same area, or doing the same tasks, you can identify common themes.



Possible causes of symptoms

Once you've found the symptoms, you then need to look at possible causes - remember that these may not be work-related: But the more members reporting the same symptoms, the more likely it becomes that the work or working environment is a factor.

The table below offers some possible explanations for common complaints.

BODY AREA	SYMPTOMS	POSSIBLE WORK CAUSES
Head	anxiety, depression, sleeplessness, irritability, pain	stress, some solvents, overwork, poor lighting, heat, noise, violence and abuse (bullying)
Eyes	redness, irritation, dryness, watering	dust, pollution, some chemicals, humidity, computer screens
Ears	constant ringing, hearing loss	noise
Nose and throat	sneezing, coughing, dryness, soreness, hoarseness, voice loss	some chemicals, humidity, dust, voice overuse
Neck and back	soreness, pain, stiffness	strain injury, stress, bending too far, work benches too low or too high, bad job design, heavy loads, working too fast
Chest and lungs	wheezing, shortness of breath	occupational asthma, dust, chemicals, some plant and animal products
Arms, wrists and hands	pains, stiffness, pins & needles, loss of sensation in fingertips	strain injury, stress, bending too far, work benches too low or too high, bad job design, working too fast, computer keyboard or mouse, vibration, cold
Blood and heart	palpitations, poor circulation, high blood pressure	stress, solvents, shift work
Legs and knees	stiffness, aches and pains	walking or standing for long periods, concrete or steel floors, bending too far, work benches too low or too high, bad job design, working too fast, back injuries
Feet and ankles	pins and needles, numbness, pain	rapid or repetitive foot movements, vibration, walking or standing for long periods, concrete or steel floors
Whole body	skin rashes, weakness, stress, pain, disorientation, fainting	lack of oxygen, chemicals, heat, cold, overwork, shiftwork, working too fast, heavy loads, violence and abuse (bullying)

These are only a selection of possible symptoms and causes - your colleagues are likely to identify many more.

The next step

The next part of this mapping exercise, involves individuals identifying the health problems that the dots represent and discussing the possible causes of their health problems. Small notes can also be made on the side of the outline. This information and findings are discussed with workers and it is important that you keep a record of problems identified.

Hazard mapping - How it works

Hazard mapping helps participants to visualise their workplace and the hazards that exist. It also provides them with documentation that they can present to a supervisor, employer, government inspector, health and safety consultant, or workers' compensation representative, doctor, workplace safety committee or union representative.

The mapping process needs the participation of all the members of a work group. The process can be carried out almost anywhere. All that is needed is a spare room or an area in your workplace. You don't have to have any sophisticated material - all that is needed is some coloured stickers or pens and any large piece of paper.

Draft a rough outline map of your work area

- draw the physical layout of your work areas
- draw the workers (these can be stick people)
- draw any hazards which exist
- label the hazards (eg: hot surface, unguarded machine etc.)

It does not have to be an completely accurate but does need to be quite large to be properly used by the members of the work group. The map could include the following -

Machines, equipment, forklifts, computers, workstations, desks, chairs aisle ways, passageways, windows, fire extinguishers, exits doors and any hazard that may exist.

It may be useful to list the hazards in these colours:

- **BLUE** Biological (germs, mould, animals, etc)
- **GREEN** Chemical (dust, smoke, solvents, etc.)
- **RED** Physical (noise, vibration, radiation, heat, etc.)
- **BLACK** Social (speed of work, stress, harassment, shiftwork, etc)
- **BROWN** Work design hazards (bad ergonomics, etc)

The maps could be placed in the lunchroom so that members are able to further add information to them. It is also a reminder that there are issues or problems that have been identified and that need to resolved.

The great advantage of risk mapping is that you don't the need to do complicated statistical analysis of figures and it gives a much more visual picture than you get from looking at tables of numbers. It a simple way of finding out the health problems a group of workers have and trying to see if they are related to their job. It allows workers to have ownership of a solution.

Community mapping- How it works

Body mapping and hazard mapping identify hazards, illness and injury caused by work. What a community map does is to take this one step further and look at how work-related illness and injury can affect our lives outside the workplace. For example, stress from work may be making you irritable and putting strain on your family relationships, or strain injuries in your wrist may prevent you from doing housework.

This exercise is useful because, again, it involves workers and makes a visual representation of issues. Most importantly, it helps us to start making the links between work-related illness and injury and the activities we carry on in our lives. This enables us to recognise the impact that work has on the quality of our lives and it can help to identify issues that previously may have not been attributed to work. Work is so important in our lives and when we finish work at the end of a shift, we can't just walk away from the illness, injury and pain as well.

Community mapping is most effective when all members of a work group participate. It involves many of the same issues as with body mapping. The information that arises from the exercise may be of a personal nature and participants must know that their participation is voluntary and that confidentiality will be maintained. Likewise with the body mapping exercise, no names or other identifiers should be used on the maps to protect the participants.

You'll need a large piece of paper with a sketch of a person (or a stick figure) in the middle. This represents the workers. Using a pen, participants are asked to come up to the map and draw the effects that work has on their outside lives.

Participants will get the most out of this exercise if they explain what the drawings or symbols mean. Pictures don't have to be detailed or sophisticated. Symbols and short notes can be used to make it clear what the pictures mean. The idea is that a clear link is made between issues outside the workplace and specific work-related causes.

Once all of the participants have contributed to the map, there should be discussion to flesh out whether there are any common issues around the problems revealed and whether it showed the effect that work is having on the rest of our lives, or even in identifying a problem as work-related.

What to do now

Through the series of mapping exercises, we identified a number of health problems, hazards and their effects on our lives.

It may be difficult to tackle all of the problems at once so we need to decide what we will be worked on first. When trying to decide which problems to tackle first, it is helpful to have some guidelines for making those decisions. Ask the following questions:

- Is this a serious concern for workers?
- Are these problems similar or different from other work groups?
- Has this concern resulted in serious health problems?
- Can this concern result in serious health problems?
- Are many people affected by, or at risk of being affected by this problem?
- Could this problem be corrected quickly and easily?

Further information

This information was provided in **December 2002** by [Australia Asia Worker Links - Regional Health & Safe](#) from resources developed by the [Victorian Trades Hall Council](#)

Some unions have Health & Safety Officers. Further assistance may be obtained by contacting your union.



[The Victorian Trades Hall Council Health and Safety website](#) has additional information and regular updates

