Work-related health monitoring from a public health perspective: A policy cycle model

1. Outline of the model

In the following, the concept of "work-related health monitoring from a public health perspective" as it shall be defined in the WORKHEALTH project is outlined. It is best described as a policy cycle model which means that health monitoring is thought to evaluate the health impact of policies and includes output and outcome indicators.

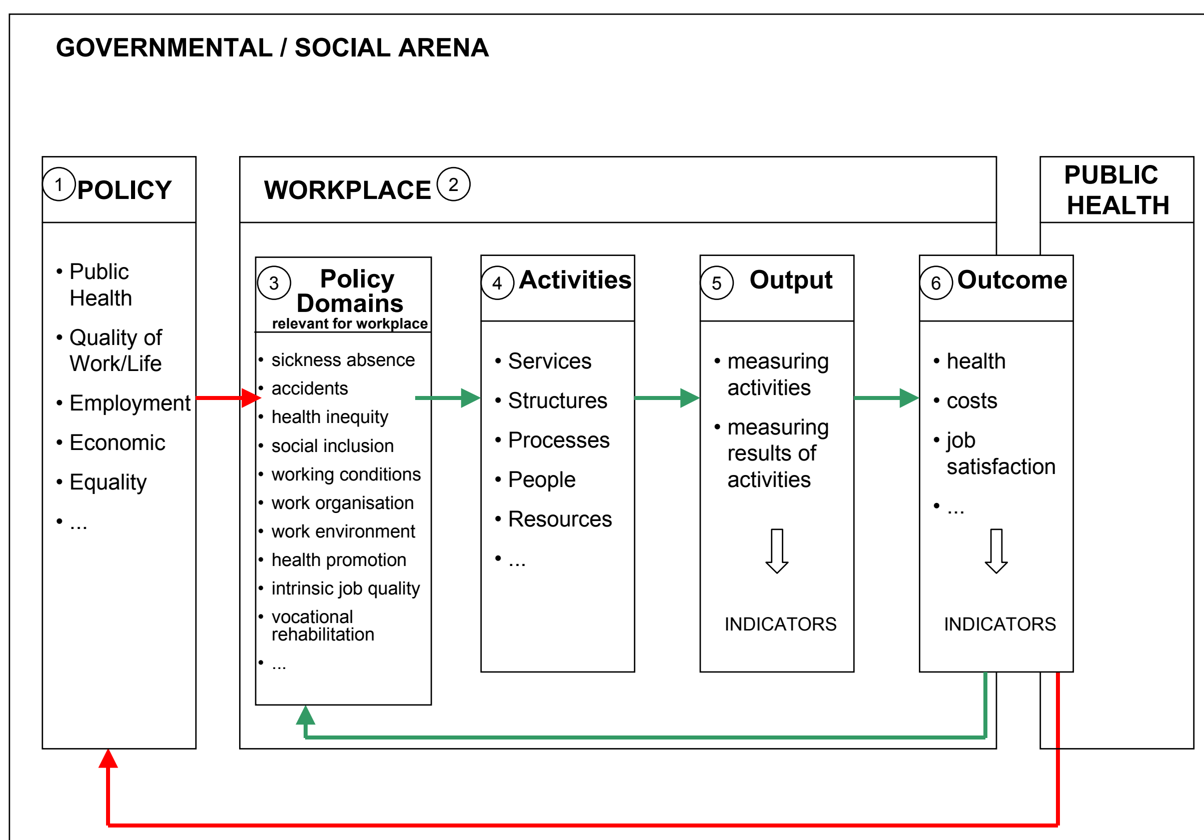

Figure 1: The policy cycle model of work-related health monitoring from a public health perspective

This model shows the field of work and health in association with the wider political environment: The governmental/social arena sets out policies (①) covering a wide range of fields, among them public health, quality of work&life, employment, economy etc. – This list is, of course, not exhaustive. The structure for the implementation of policies outside the workplace also includes labour inspectorate and social insurance institutions.

Relevant for WORKHEALTH, however, are only those policies, which have subsequently a substantial impact on the setting of the "workplace" (②) and the outcome "health". Within the workplace setting, several stages of translating the superordinate policies into action can be

distinguished, culminating in their effect on public health. This kind of action line can similarly be envisaged for other settings such as school, communities etc. (see figure 2).

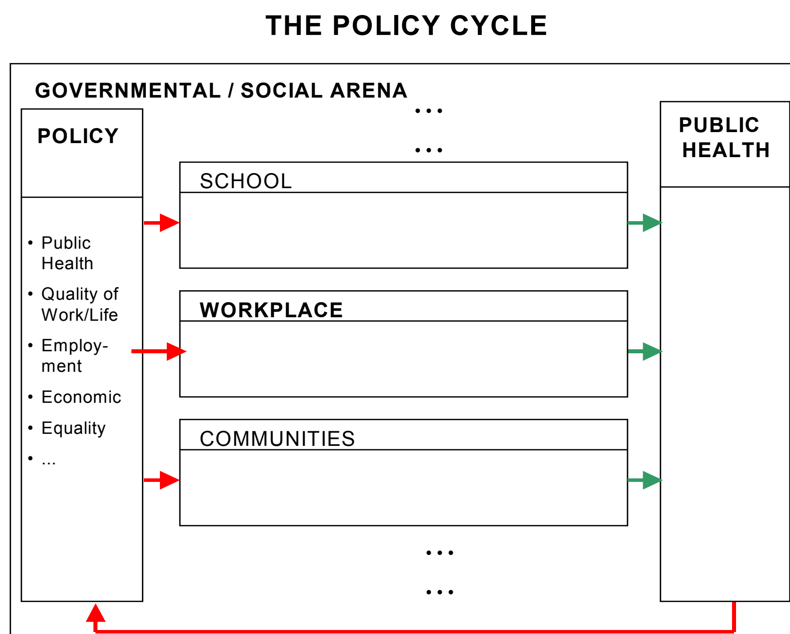

Figure 2. The policy cycle and its application to different settings.

As indicated earlier, some (aspects) of the general policy domains (③) apply to the work setting, e.g. sickness absence. A list of policies identified as relevant for the workplace are listed below. These policies cause a whole range of activities (④) at workplaces. Depending on the policy domain, these activities may be related to changing structures and processes at the worksite or providing new services and resources, training people etc. Output indicators (⑤) evaluate these activities (i.e. processes). For example, they give the number of people trained, of low noise machines acquired and the like. Additionally to the mere description of activities that have been carried out, the output indicators also assess the direct consequences of the activities (e.g. the trained employees' extend of knowledge or the resulting level of noise at the workplace) which finally have an impact on health (which is seen as a part of public health) as the ultimate outcome (⑥) of the policies.
Two feedback loops are inherent in this model establish the policy cycle: The knowledge about effects on the health outcome feeds back on workplace policies as well as on the superordinate policies.

The following two examples may illustrate the model further. Furthermore, they are intended to indicate possible critical aspects of the model.
"Preventing accidents" as a policy domain results in activities at the workplaces such as educating employees about possibilities to reduce risks or providing improved personal protective equipment. Output indicators, which by definition assess the processes (here: the activities), then record the number of people who participated in information sessions or the

amount of protective equipment acquired for a company. The outcome to measure is the reduction in the number of accidents which occur in the enterprises.

The policy domain “working conditions” might deal with the aspect of noise reduction. The activities include replacing machines by low noise models and measures for sound insulation. As output indicators, to assess the activities, one can register the percentage of low noise machines used at workplaces. However, it is equally important to measure the consequence of the activities, i.e. changes in the noise level. This is not in the narrow sense an output indicator, yet it seems indeed necessary to assess these aspects, too. The measurable outcome is, for example, a reduction of noise-induced hearing loss.

2. Policies

Of all policies in the “social arena”, certain aspects have an important impact on the workplace setting. Policies to be addressed by WORKHEALTH are:

- sickness absence management
- prevention of accidents
- combating health inequity
- promoting social inclusion
- improving working conditions
- improving work organisation
- improving the work environment
- fostering health promotion
- increasing effectiveness of vocational rehabilitation
- enhancing intrinsic job quality (job satisfaction)

To illustrate what is meant by the suggested policies, the following paragraphs will describe in a more detailed way our current understanding of the respective terms. Along with each topic, an indication will be given about what is available so far and what is needed to be developed by WORKHEALTH.

♦ **Sickness absence management**

Sickness absence causes considerable costs to the social insurance systems and enterprises. Management of sickness absence therefore is a policy field with increasing importance. Outcome indicators like sickness absence rates are routinely available in some member states. Sickness absence has also been proposed as a morbidity indicator in general.

♦ **Prevention of accidents at work**

Accidents at work are relevant from a public health perspective – they are also listed in the ECHI framework for Community health indicators. Apparently, this field is already extensively been worked on by researchers from the field of OSH. Therefore, appropriate indicators like the number of accidents or occupational diseases which can be used for work-related health monitoring from a public health perspective are already existent.

♦ **Reduction of health inequity**

One major concern of the EU Commission's public health programme is the reduction of health inequalities. This general policy goal meanwhile is transferred to work-related activities on national and company level. Reliable data about differences in the employees' health status and health access between countries as well as within a country are a suitable tool. Health inequalities shall also be assessed by breaking down and analysing all relevant health statistics by gender and social status.

♦ **Promoting social inclusion**

The social policy agenda sets out the objective to "prevent and eradicate poverty and exclusion and promote the integration and participation of all into economic and social life". As stated there, this requires an integrated and comprehensive approach, which draws upon all relevant policies and includes a gender perspective. Obviously, also activities at the workplace, e.g. with respect to handicapped people, less skilled employees and employees in precarious working situations (teleworker etc.), should contribute to that goal.

♦ **Improving working conditions**

Improving working conditions is a traditional goal of Occupational Health and Safety and Public Health and might be understood as a more general policy domain than accident prevention. A wide range of working conditions are already being monitored from the perspective of occupational health and safety (see, e.g., the State of OSH-report). The emphasis is here mostly on physicochemical conditions. At present, less data seem to be available regarding psychosocial factors and the need for work on this was expressed by the project partners. In line with this, it had been stated in the context of the OSH State report (see 2.2.1) that much less information is available for exposure categories like stress etc. compared to more historic health and safety topics.

However, as the scope of occupational health and safety as recently been broadened (see above), social aspects might be increasingly be covered by OSH monitoring in the near future. The European Survey on working conditions (2000), covers the following psychosocial factors: violence, harassment (intimidation and sexual harassment), discrimination (by gender, ethnic, age, nationality, disability and sexual orientation) and gender segregation.

It is the task of WORKHEALTH to examine where indicators are still needed and to develop new indicators accordingly.

♦ **Improving work organisation**

This refers to, e.g., the organisational culture including leadership, working together with colleagues, work organisation, working atmosphere, but also aspects of working time arrangements like shift-work, part-time employment etc. As some aspects of work organisation are well known to have negative influences on health and economic success, improving work organisation is a policy domain for health monitoring.

The European Survey (2000) already gives substantial information about some of these aspects, e.g., about repetitive work, job control, pace of work, and job content. It will be reflected which other subjects might be relevant within this context from a public health perspective and which therefore have to be supplemented or amended by WORKHEALTH.

♦ **Improving the work environment**

From a public health policy perspective, the relevant working environment should be viewed in a much broader sense than only the working conditions which are mostly directly related to carrying out the respective task, as this, too, can have positive or negative influences on the health of employees.

Aspects of the work environment which might be taken into account are, for example:

- food provided at the canteen and in vending machines
- recreational facilities
- regulations for breaks
- commuting
- ...

This list is not yet complete and shall only give an indication about which subjects might be addressed under this heading. With regard to the indicator sets compiled in the previous chapter, these aspects are – to a large extend – not yet covered.

♦ **Fostering health promotion**

This policy covers instruments for fostering the implementation of health promotion. Examples are

- establishment of networks like the “European Network for Worksite Health Promotion”,
- information campaigns, and
- bonus systems for the implementation of worksite health promotion programmes.

The emphasis is here on regulations or guidelines for implementing health promotion programmes. In contrast, the actual carrying out of such programmes is seen as an output for other policies, such as “Improving working conditions”.

The project EUHPID ("European Union health promotion indicators development project") aims at establishing a European Health Promotion Monitoring System, including a set of common health promotion indicators. It remains to be seen to what extend indicators from EUHPID might be adopted by WORKHEALTH.
By establishing indicators to assess health promotion programmes the opportunity to evaluate the policy impact as well as the (cost) effectiveness of these programmes is provided.

- **Enhancing intrinsic job quality**

Intrinsic job quality is an important aspect of quality of work, as defined by the European Commission. The key policy objective is to ensure that jobs are intrinsically satisfying, compatible with persons' skills and objectives, and provide appropriate levels of income. Job satisfaction is regarded as one possible indicator (others are proportion of workers advancing to higher paid employment over time and low wage earners, working poor and the distribution of income).
Job satisfaction is already being approached by the European Survey (the question was changed, however, from "Are you satisfied with your job?" in 1995 to "Are you satisfied with the working conditions in your job?" in 2000).

- **Increasing effectiveness of vocational rehabilitation**

To increase the effectiveness of vocational rehabilitation it seems necessary to strengthen the links between enterprises, social insurance and occupational health and safety as well as enhancing the transparency and offering better consultancy to reduce barriers.
Indicators for vocational rehabilitation might refer, for example, to the existence of work places with lesser demands for workers who are not yet fully recovered, as more suitable workplaces lead to a better reintegration. Also the percentage of early retirement gives an indication about the success of rehabilitation.

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