



Swedish Agency for Work
Environment Expertise



Measuring organizational-level factors that promote healthy working conditions and their long-term development

MEASURING ORGANIZATIONAL-LEVEL FACTORS THAT PROMOTE HEALTHY
WORKING CONDITIONS AND THEIR LONG-TERM DEVELOPMENT

Reporting on a government assignment to review information about measuring
organizational-level factors that promote healthy working conditions and their
long-term development (A2018/01350/ARM) ISBN 978-91-987762-0-1

Government agencies in collaboration

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Preface

The government tasked the Swedish Work Environment Authority and the Swedish Agency for Work Environment Expertise, in collaboration with the Public Health Agency of Sweden and the Swedish Social Insurance Agency, with reviewing organizational-level factors that promote healthy working conditions and their long-term development. These factors are to contribute to a sustainable and healthy work environment that promotes mental health. This report presents the authorities' analysis and evaluation of the topic.

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Summary

On June 20, 2018,¹ the government decided to task the Swedish Work Environment Authority and the Swedish Agency for Work Environment Expertise with examining existing research to review and present organizational-level factors that promote healthy working practices and their long-term development. Such factors contribute to a sustainable and healthy work environment that promotes mental health. The project was to be carried out in collaboration with the Public Health Agency of Sweden and the Swedish Social Insurance Agency.

Factors that promote healthy work conditions can be defined as the various circumstances that influence the work environment so as to promote health and allow employees to maintain their health so that, over time, they have the opportunity to work and to fulfil their personal goals, and the goals of their work. Here, the organizational level is defined as the various conditions generated through strategy, management, and leadership at an overall level, usually through the highest operational management.

Existing research within the area was reviewed. This showed that consistent findings were lacking. Yet, several studies have identified factors that may promote healthy work practices, but these factors have seldom been confirmed in other studies. However, it was possible to identify, across the different studies, several potential factors at the organizational level. These factors included, for instance, a manager having a reasonable number of employees, as well as clear development opportunities, opportunities for employees to convey their ideas and critique, clear goals, and good knowledge of the health and sickness absence of the employees. After reviewing potential factors, further analysis based on the definitions developed showed that the factors promoting healthy

working practices could be divided into different overall themes that can be seen as key factors at an organizational level. Specifically, these overall themes included good prerequisites for:

- leadership,
- learning and development,
- participation and communication,
- working with goals, goal-setting, and values, and
- strategic management of the work environment as well as work with health and sickness absence in the organization.

The next step was to identify useful and valid measures. These measures were to meet the following three criteria:

- 1) promote healthy work practices,
- 2) be measured at the organizational level, and
- 3) be possible to measure over time.

After reviewing national studies, national registers, scales, indices, and questionnaires, as well as consulting with researchers, it was concluded that no measure currently meets all three of these criteria.

Since no measure meets the three key criteria, it is impossible to present any “organizational-level factors that promote healthy working practices and their long-term development”. This means that more well-designed studies, as well as research and development projects, are needed in order to develop appropriate measures.

There may be differences in the organizational-level factors that promote healthy working practices and their long-term development between different sectors, industries, businesses, and occupations. This has to be considered in future efforts to develop measures of factors that promote healthy working practices and their long-term development at the organizational level.

From current knowledge, it is difficult to draw any conclusions regarding differences between women and men in the organizational-level factors that promote healthy work practices. However, it is reasonable to assume that factors at the organizational level, that affect all employees, would promote health among both women and men.

According to the understanding of government agencies, the organizational-level factors that promote healthy working practices that have been identified in this report may provide an important starting point for continued work to develop factors describing healthy work practices, at the organizational level, that can be measured and followed over time.

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1. The assignment

On June 20, 2018,² the government decided to task the Swedish Work Environment Authority and the Swedish Agency for Work Environment Expertise with reviewing and presenting organizational-level factors that

promote healthy work practices that can be measured and followed over time. These factors should contribute to a sustainable and healthy work environment that promotes mental health.

2. Process

With the 2019 annual report, the government agencies submitted a sub-report³ to the government, and the present document is the final report to the government submitted in conjunction with from the 2020 annual report.

The procedure involved performing a scoping review of the research literature,⁴ to identify the organizational-level factors that promote healthy work practices and can be measured and monitored over time.

The work was conducted jointly by the Swedish Work Environment Authority and the Swedish Agency for Work Environment Expertise. This involved setting up one project group with employees from the respective agencies possessing knowledge of, for example,

issues relating to the organizational and social work environment, systems and methods for conducting reviews, and knowledge of national statistics.

The project was carried out in collaboration with the Public Health Agency of Sweden and the Swedish Social Insurance Agency. Moreover, it involved researchers in the discussion of factors promoting healthy work practices and various considerations regarding definitions and the selection of studies.

A specific aim was to underscore and comment on differences between women and men, as well as between sectors and occupational groups, when appropriate and possible.

3. Terminology

To follow the reasoning regarding the current understanding of factors that promote healthy work practices, a preliminary brief review of established knowledge from research on working life is needed.

Research on working life has primarily come to focus on risk factors.⁵ This means that occupational health studies typically investigate harmful working conditions, that is, various problems and risks in occupational

settings. Moreover, there has been a focus on researching how such problems and risks are associated with various health-related consequences. Such health-related consequences have typically included different types of physical and mental health complaints, diseases, and ill health. As a result, there is well-established knowledge of risk factors, or negative factors, in the work environment. Moreover, there is good understanding of how risk factors are related to health complaints, various diseases, and ill health.⁶

There is some understanding of the factors in working life that seem to reduce the risks of mental health problems and poor mental health. There is reason to believe that these factors are likely to promote mental health and well-being as well.⁷ However, systematic knowledge and in-depth understanding of the factors that promote mental health and well-being are limited.

Thus, knowledge is scarce of the specific factors, and their characteristics, that promote good mental health in working life. When it comes to organizational-level factors that promote good mental health, knowledge is even more limited.⁸

Ideally, there would be an established body of knowledge that describes the factors that promote health, knowledge of factors relevant to the organizational level, and knowledge of how these factors relate to health and well-being.⁹ Mostly, however, such knowledge is lacking. In view of this knowledge gap, it is feasible to first attempt to identify factors that are associated with mental health and well-being and then to clarify whether these factors can be acted on at an organizational level.

A salutogenic perspective

What factors are included among those that promote healthy work practices? First, factors may refer to anything from separate components to more complex circumstances and situations. This means that the term can

be said to include individual factors as well as multifactorial circumstances. The work environment, with its physical characteristics as well as its organizational and social conditions, is central to countering ill health and accidents. In working life, increasing employee age is a risk factor for ill health. This makes sustainability a key perspective. From this perspective, the health status of an individual worker when entering working life should not be worsened by work. Instead, workers should have the opportunity to maintain their health over time. According to one established definition, health involves having opportunities to fulfil life goals, despite any health problems. This makes health a multifactorial and holistic concept. From a holistic perspective that focuses on sustainability and the work environment, targeting opportunities to maintain health, handle daily demands at work over time, and fulfil life goals, the factors that promote healthy work practices can be described as

circumstances that influence the work environment so that it promotes health and allows workers to maintain their health while being able to work and fulfil their personal and work-related goals over time.

This definition of health from the World Health Organization¹⁰ has been integrated with scientific reasoning regarding occupational health and healthy work practices in working life in Sweden.¹¹

A key issue in the area involves the conceptualization of health. Health and well-being are often used to describe the absence of sickness, disease, or ill health. Yet, health is more complex than that. Health goes beyond the mere absence of sickness.¹² With this as a starting point, established definitions describe health as tantamount to having good health, regardless of any sickness, being able to handle daily life, and being able to realize work and personal goals. In this context, “having a good health” or “health” involves factors that contribute to health or that allow

individuals to maintain their health – that is, a salutogenic perspective. From a salutogenic perspective, working conditions are key.

It is important to recall that work as such is typically considered a factor that promotes health and well-being. From an illness perspective, workers have, on average, better health than the population at large.¹³ Even considering well-being and future prospects, it is an advantage to have a job and to work. This means that having a job is often coupled with better prerequisites for health and well-being.

Considering the importance of the conditions and circumstances in working life for maintaining health, as well as factoring in that workers should be able to handle demands at work over time, one can theoretically derive definitions of the factors that promote healthy work practices. Specifically, these factors can be said to include circumstances that influence the work environment such that it promotes health; this allows workers to maintain their health so that they can fulfil their own goals, and those of their work, over time.

From risks to health

Another key question in the area concerns whether it is possible to identify factors promoting health simply by starting with well-known risk factors and inverting them.

For instance, established lines of research in the working life area have identified work demands, control/influence, and support as important factors.¹⁴ This research has found weak support to be a risk factor. Conversely, this means that adequate support would be a

factor that promotes healthy work practices – which is indeed very likely. When it comes to work demands, associations have been found between very high demands and mental ill health. Then, the question is whether the reverse is true, that is, whether low demands are associated with good mental health. In practice, this is not the case. Instead, low demands typically characterize low-skill, monotonous jobs with little opportunity to influence or control the work. Here, the lack of control and influence has been found to be associated with mental ill health.¹⁵ This means that factors that promote healthy work practices can be unique. Moreover, such factors may not simply be the opposites of corresponding risks. Thus, factors that promote healthy work practices may need to be studied independently.¹⁶

Why are organizational-level factors that promote healthy working conditions important?

Work environment management should be carried out at all organizations and workplaces to create good workplaces with good work environment conditions. Many organizations and workplaces have a good work environment. Yet, it is important to continue to strive for additional improvements in order to promote long-term sustainability and health. This means, for example, that more workers should be able to work for their entire working lives without health problems caused by work. Also, productivity and quality are likely to improve when organizations strive to facilitate healthy and sustainable working lives for their workers.¹⁷

4. Organizational level

The linkages between the organizational level and an array of outcomes, such as productivity, effectiveness, and quality, have been studied since Taylorism was introduced. However, only in recent decades have organizational aspects been studied to a greater extent in relation to various health outcomes.

What does the organizational level include?

It is important to try to explain what the terms “organization” and “organizational level” mean. These terms are not unambiguous, and a common general definition is that an organization is a structured, objective-oriented association of people. It has also been suggested that an organization is not only the sum of the individuals or the groups of people who are part of it, but also something beyond that. Individuals in an organization are often interchangeable, and they may come and go. Despite the replacement of individuals, the organization exists as long as its goals or purpose remain. Organizations and the organizational level can therefore be studied in their own right.¹⁸ Based on such a description, an organization can be a company or, with regard to the public sector, an operational area (elder care is an example of an operational area). This raises the question of what is meant by *organizational level* in this context.

If the starting point is that an organizational unit can be a company or, for example, municipal elder care, the two operations can be considered modifiable organizational units. If they are considered organizational units, then the two can be compared with regard to external characteristics, such as ownership form, industry, region, size, profitability, or gender

distribution among the employees. Another way to compare organizational units involves focusing on structures or properties within the organization that may vary based on intentional strategies and decisions. Thus, the organizational level refers to conditions in the operation beyond the individual level, such as leadership and management, distribution of work, communication, and participation.

Why the organizational level?

One important reason to take an interest in the organizational level is that it provides prerequisites for developing sustainable change. Unlike interventions at the individual level, health-promoting interventions at the organizational level can be carried out through decisions at the management level. These interventions can be strategic. Structurally, such interventions permeate the entire organization and reach many individuals at once. Intervention and implementation research has focused on how it is possible to achieve more extensive organizational changes and maintain them over time.¹⁹ Studies indicate that interventions have to be handled at the organizational level to be effective and sustainable over time.

Traditionally, research on occupational health has primarily taken an epidemiological approach, as in the effort to understand why lung cancer occurred more often among people who worked with asbestos. For example, exposure to asbestos has been associated with health-related consequences such as cancer. This has typically been done through compiling large-scale data sets in which information from individuals is aggregated to the group or population level. In some cases, this kind of aggregated data have been linked to organizational factors

in some cases. In most cases, information about these organizational factors collected at the individual level. However, this method of collecting information from individuals and considering them representative of the organizational level has been criticized. The criticism relates to the fact that an organization can be seen as more than just the sum of its constituent individuals and the information that they can report. In other words, this means the organization as such must be studied.²⁰ This, in turn, requires information to be collected at the organizational level. There is currently no established knowledge that covers mental health and well-being and that focuses on the organization in and of itself.²¹ This is likely a result of the various methodological difficulties and challenges, as well as of the resources needed for such studies. For example, this can involve conducting observations in organizations and linking this type of information to other organizational details. Most existing knowledge is based on extensive interview studies carried out in an effort to describe organizational conditions that promote health.²²

Other health-related studies, primarily from the 1970s–1990s, are based on sociological perspectives. Within the framework of this research area, some overall organizational factors have been emphasized at the societal level, such as socioeconomic status and education level. In this research, “organization” is often synonymous with “work organization” or

“the work organization”. Overall, this means the studies are based on how the work itself is organized, which may involve how tasks are distributed or whether employees can influence the work, and in that case often from a power perspective. This includes studies of the decision-making process at a structural organizational level, such as vertical hierarchies compared with flat organizations.²³

Other studies are based on economic perspectives. Here, the management of the company is the basis of the organizational units being studied. In this case, the starting point is that the administration or management directly or indirectly affects the individuals in the organization, and it is possible to exert influence and effect change through intentional strategies and decisions. It is more often a matter of ongoing processes, rather than single targeted initiatives, for example, leadership, decision-making processes, participation, and communication.²⁴

A working definition of organizational level

This report on the government assignment uses the following definition of organizational level:

The prerequisites generated through strategies, management, and leadership at a central level, usually through the highest operational management.

5. Longitudinal measurement and monitoring: limitations and possibilities

Measuring organizational-level factors that promote healthy working conditions and monitoring them over time are complex tasks and thus involve several different decisions. In order to measure something, it is necessary to have one or several measures and they have to be reliable and valid. This means the measures have to be relevant, measure what we want them to measure, and also have high reliability. Also, the measures need to be comparable over time and economically sound – that is, they cannot be so complicated that the monitoring takes an unreasonable amount of resources in terms of time or cost.

To identify organizational-level factors that promote healthy working conditions and can be measured and monitored over time, the measures have to meet several criteria simultaneously: they have to measure factors relating to healthy working conditions, at the organizational level, and over time. Brief descriptions of the basic assumptions of the three criteria are presented below.

- **Organizational-level factors that promote healthy working conditions**
A measure has to be related to health and well-being. Health and well-being are complex concepts, for example, because health is affected by different factors. Health can also be measured in many different ways. Sickness absence is one common measure; however, it is affected by current insurance terms and insurance systems. Also, low sickness absence is a measure of the absence of sickness-related illness, rather than of health. At the same time, there is a strong relationship between a good work environment and low sickness absence.²⁵

- **Organizational level**
A measure has to be related to strategies, management and leadership, communication, participation, and the distribution of demands and resources at an overall level.
- **Longitudinal measurement**
A measure has to be sensitive enough to assess any changes occurring within a specific timeframe. How quickly one can expect to detect potential changes determines how often measurements can be made. The point in time when a measurement is carried out is another important factor. For example, it is important to know whether a measure is affected by economic cycles or variations that may exist in a given industry.

Another important question when it comes to the usefulness of a measure involves how it can be measured in strictly practical terms, that is, suitable methods for collecting relevant information. For instance, this can involve already available surveys that can be voluntarily used by different organizations. It may also involve various surveys in which data are collected through telephone interviews, mailed questionnaires, online questionnaires, or a combination of these methods. Another kind of information consists of public statistics based on various register data.

Various measures are related to health and well-being. These include job satisfaction, employee satisfaction, productivity, and profitability. There is a relationship between these measures and healthy workplaces. However, it is important to be cautious when considering this kind of measure since the

relationships may be difficult to interpret and lead to erroneous conclusions. Consider, for example, a performance measure such as profit, which can be increased through unhealthy competition, where standards for workplace health and safety are not met. This can also risk the health of employees. In such a case, a performance measure can become a risk factor instead of an organizational-level factor that promotes healthy working conditions.

Existing measures and methods

This section includes examples of statistics and ways of measurement that do not meet the criteria described above. These examples include existing systems for data collection at the national level that may merit development so as *also to include the collection* of data on organizational-level factors that promote healthy working conditions. Examples include larger database surveys that may cover different aspects of working conditions, the work environment, and health as well as register statistics. Register statistics are an asset that, when combined with other types of data sources and studies, can be useful in future research and development projects to identify organizational-level factors that promote healthy working conditions. These studies and statistics are available from the the Swedish Work Environment Authority, Public Health Agency of Sweden, the Swedish Social Insurance Agency, the Swedish Agency for Work Environment Expertise, and the National Board of Health and Welfare as well as the Swedish Association of Local Authorities and Regions.

For illustrative purposes, a more extensive technical report describing the prerequisites and limitations of these data sources can be found in Appendix A. Different conditions affect the reliability and validity of what is being measured. For instance, for a survey targeting a specific sample, it is important to understand how the sample is constructed

as this is key for for being able to evaluate to what extent, if at all, a specific survey and a data set is fit for a specific purpose. After the examples of larger national data sources, surveys and questionnaire studies, other examples are presented. These include individual scales and indices of relevance to the promotion of health and well-being.

Examples of several larger national data sources, surveys, and register statistics

*The Work Environment Survey*²⁶ is a sample survey including questions about the physical work environment, stress, demands, influence, conflicts, and physical or mental health problems that the work may have caused, and about work environment management. The survey targets employed individuals, and data are collected at the individual level.

*Work-Related Disorders*²⁷ is a sample survey including questions regarding the types of disorders that work may have caused, the reasons behind these disorders, absences due to these disorders and whether the employer knows about the disorders that have been caused by work.

This survey targets employed individuals, and data are collected at the individual level.

*The Baseline Survey*²⁸ is a sample survey including questions pertaining to the organization of work and the work environment in the Swedish working life. The questions cover staffing, task responsibility, group/teamwork, training and skills development, performance talks and pay, prioritizations and quality work, work environment management, risks and incidents in the work environment, resources and goals in work environment management, as well as organizational change. The survey targets employers, and data are collected at the organizational level.

*Organization in Swedish Working Life*²⁹ is a sample survey that builds on the content of the *Baseline Survey*. Questions pertaining to statistically non-significant relationships have been excluded, and new questions have

been added. The questions cover staffing, task responsibility, group/teamwork, training and skills development, performance talks and pay, prioritization and quality work, work environment management, risks and incidents in the work environment, resources and goals in work environment management, organizational change, flexibility regarding time and space, language skills, design of premises, leadership systems, and IT systems. The survey targets employers, and data are collected at the organizational level.

*The Swedish National Public Health Survey – Health on Equal Terms*³⁰ is a sample survey including questions about health, health behaviors, economic conditions, work and employment, safety and security, and social relationships. The survey targets people residing in Sweden, and data are collected at the individual level.

*SKR, Sustainable Employee Engagement (HME)*³¹ is a survey that is used in municipalities and regions. The survey includes questions regarding organizational functioning relating to leadership, management, opportunities for development, goals and values, and participation and communication. It targets employees, and data are collected at the individual level. The results are compiled in the open database, Kolada.³²

The *Swedish Social Insurance Agency's official statistics*³³ include data regarding sickness benefits, occupational injury compensation, parental benefits as well as activity, assistance and sickness compensations. Data regarding sickness benefits and activity benefits, include information regarding the causes of sick leave. Data are collected at the individual level.

The *National Board of Health and Welfare's official statistics*³⁴ include data on health and medical care (i.e., health and diseases, health and medical care, and causes of death) and on social services. Data are collected at the individual level.

*Official statistics on reported occupational injuries*³⁵ include data regarding reported workplace accidents with sickness absence,

reported workplace accidents without sickness absence, reported accidents while commuting to or from work, and reported work-related sickness. Data are collected at the individual level. Register statistics provide access to data that, when combined with other types of data sources, can contribute to future efforts to develop organizational-level factors that promote healthy working conditions.

Examples of established scales and indices relevant to the area

The scales, indices, and questionnaire measures that are presented in *this* section cover examples relevant to organizational-level factors that promote healthy working conditions. Typically, the information is collected through self-reports at the individual level. These examples stem from the established national and international research literature. The purpose is to provide examples that can be considered in future efforts to develop organizational-level factors that promote healthy working conditions.

Demand and Control Scale (Job Content Questionnaire, JCQ). This self-report measure includes job demands and control according to the internationally established demand–control model.³⁶ Since 30 years, there is a Swedish version that is used in many survey studies. The factors included in the model have been related to numerous health-related outcomes, such as cardiovascular disease³⁷ and mental disorder.³⁸

Support or Social Climate.³⁹ This index measures perceived social support through a number of statements that respondents are to consider in relation to their work environment. It is used in various contexts; linkages have been found to mental health problems.⁴⁰

*EffortRewardImbalance (ERI)*⁴¹ is an index measuring how work-related efforts are rewarded and acknowledged. Imbalance has been linked to mental health problems.⁴²

The Copenhagen Psychosocial Questionnaire (COPSOQ) measures different aspects

of the organizational and social work environment. The most important areas included in the measure are demands at work, the organization of work and job content, collaboration and leadership, work–life balance, the social environment at work, harassment, as well as health and well-being.⁴³

Lack of measures that meet all requirements

The listed data sources, surveys and measures are just some examples, and there are many others, some of these are well-established and evaluated, some are used in just a few single studies. To our knowledge, there is no current measure that meets all of the criteria mentioned above, that is, they measure factors that promote healthy working conditions, target the organizational level, and can be measured over time. There are measures with potential, but they have to be carefully tested and evaluated so that they truly fulfil the criteria mentioned above and the purpose of the assignment. This development process would require solid knowledge within the areas of occupational health, statistical methods, and the handling and storing of data, and very likely also extensive resources, both financial and in terms of time.

6. Factors that promote healthy working conditions

Traditionally, research on work and health has come to focus on harmful working conditions, that is, problems and hindrances that can be associated with various health-related outcomes.⁴⁴ There are some current studies which have attempted to identify factors that promote health, and then investigated whether these factors can be influenced by organizational processes, such as strategies for leadership and distribution of work.

In several reviews, the Swedish Agency for Work Environment Expertise has compiled research in order to describe and characterize workplace health and well-being.⁴⁵ Note, however, that this is different from organizational-level factors that promote healthy working conditions. These reviews have shown that thriving businesses and companies are characterized by a lower stress-related burden and more flexibility regarding, for instance, working hours. Often, the factors described in the reviews related to the individual level, for example, leadership behaviours or how workers handle stress.

Based on the chosen definitions of organizational-level factors that promote healthy working conditions and of the organizational level, many such potential factors have been identified in the research literature. These factors are presented in no particular order below. There is more evidence for some, some have only been included only in a few studies. Overall, there are very few studies, including for instance, studies using repeated measures, where it is possible to establish cause and effect.

Some factors seem to coincide; these factors are often similar, but are presented separately because they were identified in separate studies. The categories reflect the societal level (i.e., regional and demographic factors), the

sectoral level (i.e., public and private sectors), as well as factors that are of theoretical interest.

Regional and demographic factors

Regional factors, such as industry, workplace size, labour market characteristics, local cultures, and demographic factors, such as the average age of employees, seem to be related to health, or at least to sickness absence. However, there are only a few relevant studies, and they only show that these factors (theoretically, when other explanations have been excluded) seem to reflect a low sickness absence, in other words, not necessarily with good health.⁴⁶

Public and private organizations

There are some differences between the public and private sectors, respectively, when it comes to the organizational-level factors that promote healthy working conditions. Research has shown that work in public administration is uniform in many ways, and governed by laws and regulations. This means that the differences between various kinds of organizations in the public sector are smaller when compared to those between the public and private sectors, where similar organizations may have many different forms.

The prerequisites and resources for work with organizational-level factors that promote healthy working conditions differ between the private and public sectors. Such differences also relate to tradition and propensity for

organizational change. For example, when it comes to the organization of leadership, the private sector has spent many years on developing and testing various models because of organizational change or, or because of a need to adapt to different conditions and global trends, usually to maximize production and profitability.

The organizational-level factors that promote healthy working conditions have a common denominator in that they are based on a well-developed rationale, including strategies and structures for realizing them. In the private sector, such ideas typically permeate the entire organization, while in the public sector, they usually only characterize a specific area and thus cannot be said to permeate the entire municipality or region.⁴⁷

From a gender perspective, it seems reasonable to present public and private organizations separately. This relates to the public sector being particularly dominated by women, but also to the fact that working conditions differ between the sectors. This means that the conclusions and any suggestions presented in this report have to consider the gender perspective, depending on the sector being discussed. There are also differences in management, legal provisions, distribution of resources, and economic prerequisites.

Factors identified in the public sector

Public-sector organizations in which work environment conditions promote health and allow employees to maintain their health, and in which employees can strive to fulfil personal goals as well as work-related goals over time, are in the research literature characterized by the following factors:⁴⁸

- Available managers
- Managers are present when setting priorities
- Supportive and problem-solving managers

- Reasonable number of employees per manager
- Individual training needs are met
- Possibilities to change tasks are available and encouraged
- Possibilities for employees to present ideas and critique
- Dialogue is encouraged
- Tasks are prioritized when workload is heavy
- Systematic work environment management is clearly structured in the organization
- Knowledge of employee health and sickness absence
- Restructuring is justified
- Changes are openly discussed
- Well-staffed support functions such as HR and occupational healthcare
- Learning between employees
- Collective/shared responsibility during peaks

Factors identified in the private sector

Private-sector organizations in which work environment conditions promote health and allow employees to maintain their health, and in which employees can strive to fulfil personal goals as well as work-related goals over time, are in the research literature characterized by the following factors:⁴⁹

- Consistent leadership
- Strategies for development of staff skills
- Clear development opportunities
- Communication reaches everyone
- Dialogue and forums for exchanging ideas
- Participation and engagement
- Known goals and visions
- Clear goals
- Clear distribution of responsibilities
- Clear roles
- Quality is considered in addition to budget
- Individual adaptation of the distribution of work

- Systems for learning at both the individual and organizational levels
- Strategies for promoting employee health

The following includes several factors that promote healthy working conditions that may, in theory, be related to the organizational level, but that have not been studied specifically as factors that promote healthy working conditions at the organizational level. They were chosen because they are well-known and much researched, and affect employee health.

Support

Karasek and Theorell's⁵⁰ model pairing high demands with with low control in so-called high-strain job situations is well-studied and can be related to numerous health-related outcomes and performance.

It has been shown that the negative effects of stress can be reduced through support from management and colleagues. Later studies mention support as an important resource in the further developed demands–resources

model.⁵¹ Support is sometimes divided into the following categories:

- Emotional support
- Appraisal support, feedback
- Informative support
- Instrumental support

Organizational justice

Organizational work for justice regarding the distribution of tasks and rewards, and transparent decision-making processes, seem to be associated with healthy organizations.⁵² In this context, the relationship between employees and managers plays an important role and is characterized by honesty and consideration, and for managers to work towards common goals, and not in their own interests. One key point regarding justice as a concept is that managers and leaders represent an organization, and justice refers to how employees perceive the organization, which, consequently, can be influenced through different strategies and structures.

7. Analysis and results: organizational-level factors that promote healthy work practices

Based on the developed definition, several organizational-level factors that promote healthy working conditions were identified in the research literature. Moreover, the analysis included whether these factors can be influenced through management and leadership at a central level (i.e., the organizational level), to make sure that they were not primarily targeting the individual level. This resulted in a relatively long list of such factors.

A continued analysis led to the categorization of groups of organizational-level factors that promote healthy working conditions, or overall themes that unite such factors that can be influenced via the organizational level. Thus, these themes can be considered overall organizational-level factors that promote healthy working conditions. These have been classified as prerequisites for: leadership, learning and development, participation and communication, work with goals and values, as well as work environment management, health status, and sickness absence.

Prerequisites for leadership

Leadership is clearly a key factor for developing healthy and productive organizations.⁵³ The common denominator includes well-developed ideas about what leadership should entail at all levels. This is ensured through clear guidelines, for example, when recruiting leaders, and through active development through leadership programs.

One recurring factor related to leadership involves underscoring that social competence

as important in addition to business-specific skills. Other important aspects include leaders being present and available to the employees. In public administration, in particular, there seems to be a need for leaders to be available to participate in and make decisions regarding the prioritization of needs. Moreover, conditions have to be in place to enable the leadership that is wanted within the organization.⁵⁴

Organizational-level factors that promote healthy working conditions – leadership:

- Available managers
- Managers present when setting priorities
- Reasonable number of employees per manager
- Consistent leadership

Prerequisites for learning and development

Organizations providing their staff with opportunities for learning and development seem to be healthier. This means, for example, that there are explicit opportunities for further development. Not only are there such opportunities, but they are also encouraged in performance talks, for example. The training is often business-oriented, but there are also examples of other offerings considered to be more oriented towards personal growth. Management often expresses an understanding of the importance of opportunities for learning and development and that these opportunities constitute a basis for loyalty, for example. This may also

involve changing tasks or positions within the organization when possible.⁵⁵

Learning between employees and learning at the organizational level are also considered important. Different systems are in place to promote and increase learning, such as time to follow-up and reflect on completed projects as well as knowledge transfer to other projects.⁵⁶

Organizational-level factors that promote healthy working conditions – opportunities for learning and development:

- Individual requests for education and training are realized
- Possibilities to change tasks are available and encouraged
- Strategies for promoting skills among staff
- Clear development opportunities
- Learning between employees
- Systems for learning at both the individual and organizational levels

Prerequisites for participation and communication

Participation covers all ways of exerting influence. Largely, this includes having formalized forums for participation. Often, this involves formal meetings, such as workplace meetings or meetings with a specific purpose. It may also involve ways of exerting informal influence, such as an “open door” philosophy.

Participation is mentioned as important, and the decision-making processes and work handled by senior management, for example, are often characterized by openness and transparency. What can or cannot be influenced is clear, and critique is encouraged.

One prerequisite for participation is that there are known and functioning pathways for communication, both for information, questions, and critique. It is clear where to turn to find an answer. Forms of communication, including both written or digital information are well-established, well-functioning and regularly updated.

There are also well-known informal sources of information, which are used actively to reach everyone in the organization.⁵⁷

Organizational-level factors that promote healthy working conditions – participation and communication:

- Opportunities for employees to present ideas and critiques
- Dialogue is encouraged
- Communication reaches everyone
- Dialogue and forums for exchanging ideas
- Participation and engagement are encouraged
- Changes are openly discussed

Prerequisites for work with goals and values

Within the organization, there is clarity regarding the goals that are to be reached. There is consensus and compliance regarding goals, which are in line with existing professional expectations.

The goals are concrete and measurable. They are communicated to new employees, and employees are regularly reminded of them at meetings or through other sources, such as information boards.⁵⁸

Goals and values are aligned with one another. Sometimes there is a well-expressed and specific value that is being prioritized and followed by all. The values often include clear roles, fair decision-making processes, and fair treatment of employees. Values and shared goals are important when recruiting and in development projects.

Organizational-level factors that promote healthy working conditions – goals and values:

- Restructuring is well justified
- Known goals and visions
- Clear goals
- Clear distribution of responsibilities
- Clear roles
- Organizational justice

Prerequisites for work environment management, health status, and sickness absence

Healthy organizations have good control over the causes of ill health in the local work environment, and knowledge relating to sickness absence numbers.⁵⁹ To be proactive and keep the figures at a predictable level, these issues are regularly and carefully followed; there are clear goals for acceptable levels.

There is a clear understanding of work being an important part of health. Work environment management is considered a prerequisite. If and when someone becomes sick, there are procedures in place describing how to proceed with sick-leave. Adapting the job is also a possibility if needed and when rehabilitation is needed.

Active work with health-related issues is encouraged and supported. This may for instance include exercise during working hours.

Organizational-level factors that promote healthy working conditions – work environment management, health status and sickness absence:

- Clear structuring of the systematic work environment management in the organization
- Knowledge of employee health and sickness absence
- Access to well-staffed support functions such as HR and expertise in the form of occupational healthcare
- Strategies for promoting employee health

8. Conclusion

The assignment was to review and present organizational-level factors that promote healthy working conditions, that can be measured and followed over time. These factors are to contribute to a sustainable and healthy work environment that promotes mental health. The approach has been to thoroughly examine the research in order to identify organizational-level factors that promote healthy working conditions. Since there are no established definitions of factors that promote healthy working conditions or of the organizational level, it was necessary as an initial step to consider the terms and decide on working definitions.

In this report, factors that promote health are defined as multifactorial. This means that they involve conditions that affect the work environment in such a way as to promote health, allow employees to maintain their health, and to work and fulfil personal goals as well as work-related goals over time.

In this project, the working definition of organizational level includes the conditions that arise through strategies, management, and leadership at a central level, usually through the highest organizational management.

After having developed the definitions, the research literature in the field was reviewed, and several potential factors were identified. These factors were reviewed and divided into different categories: the societal level (i.e., regional and demographic factors), the public and private sectors, and factors of theoretical interest. The review showed that there were too few studies to be allow the identification of organizational-level factors that promote healthy working conditions that can be attributed with any degree of certainty to regional or demographic circumstances, such as geographic location in Sweden or distribution by age.

It is difficult to comment on the differences in organizational-level factors that promote healthy working conditions between the public and private sectors, even though some studies do indicate potential differences and that the identified factors seem to differ. The problem is that the organizations studied are in either the public or the private sector. Studies comparing the public and private sectors with respect to organizational-level factors that promote healthy working conditions are essentially non-existent.

It is also difficult, based on the current knowledge, to draw any conclusions regarding differences between women and men in the organizational-level factors that promote healthy working conditions identified here. This relates to the fact that there is a lack of knowledge regarding women and men that also includes the organizational level. However, it is reasonable to assume that any measures at the organizational level that involve such factors and that affect all employees would promote health among both women and men.

After deciding on the definitions and completing an overall scoping review, a further analysis based on the definitions showed that the identified organizational-level factors that promote healthy working conditions can be divided into overall themes. Based on these themes, we determined classifications that can be seen as the final factors:

- Prerequisites for leadership
- Prerequisites for learning and development
- Prerequisites for participation and communication
- Prerequisites for work with goals and values
- Prerequisites for strategic management of the work environment, as well as work with health and sickness absence

After defining the terms and identifying a number of organizational-level factors that promote healthy working conditions, in line with the assignment, the next step was to find useful measures. Specifically, these measures have to measure factors that promote health, target the organizational level, and be comparable over time. In addition to these basic criteria, the measures also need to be economically feasible: monitoring them cannot take up inordinate resources in terms of time or cost.

After reading a number of national survey studies, evaluating different national data sources, considering independent measures and indices, and consulting researchers in the field, we concluded that no existing measure meet the necessary criteria.

Since the review pointed up no measure that meet all the essential requirements for the present purpose, we cannot choose any single organizational-level factor that promote

healthy working conditions. Consequently, in this document, we cannot present any organizational-level factors that promote healthy working conditions and can be measured and followed over time. Further research is needed to develop adequate measures. However, the project group believes that the identified factors listed above represent an important step in continuing efforts to develop ways of measuring organizational-level factors that promote healthy working conditions.

It is important to underscore that the influence of the organizational-level factors that promote healthy working conditions may differ between sectors, industries, and professions. There may also be differences among organizations within the same sector or industry. This should be considered in continuing efforts to develop adequate organizational-level factors that can be followed over time.

9. Further development: costs and other consequences

To present “organizational-level factors that promote healthy working conditions and can be measured and followed over time”, future studies and development initiatives are needed in order to develop adequate measures of these factors, and to formulate relevant questions, tests, quality assurance procedures, etc. Estimating the cost of such a project is difficult, but, for example, a three-year development project would cost approximately SEK 3,500,000, and data collection costs would be added to this. Data can be collected in various ways, and the appropriate method may depend on how the information will be used. The cost can be significantly affected by the way the data are collected, depending, for example, on whether the process involves online surveys or interviews. Collected data may also need to be matched to different types of registers or official statistics for a final analysis. The cost of data collection can vary significantly, but one estimate is approximately SEK 2,000,000.

Given the lack of information about organizational-level factors that promote healthy working conditions, research in the area would also be valuable. Such research

initiatives would complement and enhance a development project on the topic. For example, research may investigate possibilities to combine different types of data, or identifying the measures that are adequate for the various organizations in the Swedish labour market. Also, research may clarify whether and, if so, how organizational-level factors that promote healthy working conditions should vary depending on the type of organization. This would, for instance, include the study of whether it is adequate or necessary to consider different types of such factors in the public and private sectors, and in small, medium-sized, and large organizations. To draw clear conclusions about which organizational-level factors that promote healthy working conditions that are most important, this research should combine information at the individual, group, and organizational levels and also include measurement and follow-up over several years. Together, such scientific research and development projects would provide important knowledge about the characteristics of the organizational-level factors that promote healthy working conditions.

10. References

¹ Regeringen. (2018). Regeringsbeslut. Uppdrag om friskfaktorer som kan mätas och följas över tid. Arbetsmarknadsdepartementet. A2018/01350/ARM. Tillgänglig via: <https://www.regeringen.se/49ee66/contentassets/e73ab80f5dd148b6a-37e6308cdf81633/uppdrag-om-friskfaktorer-som-kan-matas-och-foljas-over-tid.pdf>

² Regeringen. (2018). Regeringsbeslut. Uppdrag om friskfaktorer som kan mätas och följas över tid. Arbetsmarknadsdepartementet. A2018/01350/ARM. Tillgänglig via: <https://www.regeringen.se/49ee66/contentassets/e73ab80f5dd148b6a-37e6308cdf81633/uppdrag-om-friskfaktorer-som-kan-matas-och-foljas-over-tid.pdf>

³ Arbetsmiljöverket och Myndigheten för arbetsmiljö-kunskap (2020). Delredovisning uppdrag friskfaktorer som kan mätas och följas över tid. dnr: 2018/035394-2. Tillgänglig via <https://www.av.se/globalassets/filer/publikationer/rapporter/delredovisning-regering-supdrag-om-friskfaktorer-som-kan-matas-och-foljas-over-tid.pdf>

⁴ Regeringen. (2018). Regeringsbeslut. Uppdrag att sammanställa kunskap om faktorer som skapar friska och välmående arbetsplatser. Arbetsmarknadsdepartementet. A2018/01349/ARM Tillgänglig via <https://www.regeringen.se/49ee66/contentassets/fea7eb-dbbf9d45679fbb1b565db56dbf/uppdrag-att-sammanstalla-kunskap-om-faktorer-som-skapar-friska-och-valmaende-arbetsplatser.pdf>

Myndigheten för arbetsmiljö-kunskap. (2020). Faktorer som skapar friska och välmående arbetsplatser. Rapport Kunskapssammanställning 2020:2. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/faktorer-som-skapar-friska-och-valmaende-arbetsplatser-rapport-ks-2020-2.pdf>

⁵ Myndigheten för arbetsmiljö-kunskap. (2020). Psykosocial arbetsmiljö: hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:5. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/psykosocial-arbetsmiljo-halsa-och-valbefinnande-kunskapssammanstallning-2020-5.pdf>

Se även

Stansfeld, S. & Candy, B. (2006). Psychosocial work environment and mental health: A meta-analytic review. *Scandinavian Journal of Work, Environment, and Health*, 32(6), 443–62.

Arbetsmiljöverket. (2016). Kvinnors och mäns arbetsvillkor: betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade konsekvenser. Kunskapssammanställning 2016:2. Tillgänglig via: <https://www.av.se/globalassets/filer/publikationer/kunskapssammanstallningar/kvinnors-och-mans-arbetsvillkor-kunskapssammanstallning-rap-2016-2.pdf>

⁶ SBU. (2012). Arbetets betydelse för uppkomst av besvär och sjukdomar. Nacken och övre rörelseapparat. En systematisk litteraturöversikt. SBU-rapport nr 210. Tillgänglig via: https://www.sbu.se/contentassets/cc0b2ba68955487d900001fd95c75bd4/arbetets_betydelse_nacke.pdf

SBU. (2013). Arbetsmiljöns betydelse för sömnstörningar. SBU-rapport nr 216. Tillgänglig via: https://www.sbu.se/contentassets/aaa2cf8e553e4f66a00bf402ed7cf0cc/arbetsmiljo_somn_2013.pdf

SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturöversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf

SBU. (2014). Arbetsmiljöns betydelse för ryggproblem. En systematisk litteraturöversikt. SBU-rapport nr 227. Tillgänglig via: https://www.sbu.se/contentassets/203cb1a9451f4df8babda4e2c75833f8/arbetsmiljo_rygg_2014.pdf

SBU. (2015). Arbetsmiljöns betydelse för hjärt-kärlsjukdom. En systematisk litteraturöversikt. SBU-rapport nr 240. Tillgänglig via: https://www.sbu.se/contentassets/221f64a016e441bab0419f32e081171f/arbetsmiljo_hjarta_karl_240.pdf

⁷ Schütte, S., Chastang, J-F., Malard, L., Parent-Thirion, A., Vermeylen, G., & Niedhammer, I. (2014). Psychosocial working conditions and psychosocial well-being among employees in 34 European countries. *International Archives of Occupational and Environmental Health*, 87(8), 897–907.

Se även

Arbetsmiljöverket. (2016). Kvinnors och mäns arbetsvillkor: betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade konsekvenser. Kunskapssammanställning 2016:2.

Tillgänglig via: <https://www.av.se/globalassets/filer/publikationer/kunskapssammanstallningar/kvinnors-och-mans-arbetsvillkor-kunskapssammanstallning-rap-2016-2.pdf>

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

⁸ Se till exempel

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Myndigheten för arbetsmiljökunskap. (2020). Psykosocial arbetsmiljö: hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:5. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/psykosocial-arbetsmiljo-halsa-och-valbefinnande-kunskapssammanstallning-2020-5.pdf>

⁹ Jämför till exempel med resonemang i

Karanika-Murray, M. & Weyman, A. K. (2013). Optimizing workplace interventions for health and well-being: a commentary on the limitations of the public health perspective within the workplace health arena. *International Journal of Workplace Health Management*, 6 (2), 104-17.

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

¹⁰ World Health Organization. (1948). WHO constitution. In *Basic documents*. Geneva: Author. Tillgänglig via: <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1>

¹¹ ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Myndigheten för arbetsmiljökunskap. (2020). Faktorer som skapar friska och välmående arbetsplatser. Rapport Kunskapssammanställning 2020:2. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/faktorer-som-skapar-friska-och-valmaende-arbetsplatser-rapport-ks-2020-2.pdf>

¹² World Health Organization. (1948). WHO constitution. In *Basic documents*. Geneva: Author. Tillgänglig via: <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1>

¹³ Bartley, M (1994). Unemployment and ill health: understanding the relationship. *Journal of Epidemiology and Community Health*, 48, 333-37.

van der Noordt, M., IJzelenberg, H., Droomers, M., & Proper K. (2014). Health effects of employment: a systematic review of prospective studies. *Occupational and Environmental Medicine*, 71(10), 730-6.

¹⁴ Karasek, R. A. (1979). Job demands, decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.

Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity, and the reconstruction of working life*. New York: Basic Books.

¹⁵ SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturoversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf

Se även

Stansfeld, S. & Candy, B. (2006). Psychosocial work environment and mental health: A meta-analytic review. *Scandinavian Journal of Work, Environment, and Health*, 32(6), 443–62.

¹⁶ Warr, P. (1994). A conceptual framework for the study of work and mental health. *Work and Stress*, 8, 84-97.

¹⁷ Lohela Karlsson, M., Hagberg, J., & Bergström G. (2015). Production loss among employees perceiving work environment problems. *International Archives of Occupational and Environmental Health*, 88 (6), 769-77.

Se även

Ipsen, C., Karanika-Murray, M., & Nardelli, G. (2020). Addressing mental health and organisational performance in tandem: A challenge and an opportunity for bringing together what belongs together. *Work and Stress*, 34(1), 1-4.

¹⁸ Jern, S., & Näslund, J. (Red.). (2019). *Organisations psykologi: teori, kritik, praktik (2 uppl.)*. Studentlitteratur.

Se även

Hitt, M. A., Miller, C. C., & Colella, A. (2015). *Organizational behavior*. Wiley.

¹⁹ Se till exempel

Hasson, H., & Schwarz, U. (2017). *Användbar evidens: om följsamhet och anpassningar*. Natur & Kultur.

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

20 Se till exempel

Jern, S., & Näslund, J. (Red.). (2019). *Organisations psykologi: teori, kritik, praktik* (2 uppl.). Studentlitteratur.

²¹ Jämför till exempel med resonemang i Myndigheten för arbetsmiljökunskap. (2020). Or-ganisering av arbete och dess betydelse för hälsa och välbefinnande. Rapport Kunskapssamman-ställning 2020:7. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/organisering-av-arbete-och-dess-betydelse-for-halsa-och-va.pdf>

²² Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T, Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

Se även

Ahlberg, G., Bergman, P., Ekenvall, L., Parmasund, M., Stoetzer, U., Waldenström, M., Svartengren, M., & HoF study group. (2008). Tydliga strategier och delaktiga medarbetare i friska företag. Delstudie 2. Karolinska Institutet.

Stoetzer, U., Bergman, P., Åborg, C., Johansson, G., Ahlberg, G., Parmasunda, M., & Svartengren, M.

(2014). Organizational factors related to low levels of sickness absence in a representative set of Swedish companies. *Work*, 47,193–205.

²³ Se till exempel

Jern, S., & Näslund, J. (Red.). (2019). *Organisations psykologi: teori, kritik, praktik* (2 uppl.). Studentlitteratur.

Jämför till exempel med resonemang i Myndigheten för arbetsmiljökunskap. (2020). Or-ganisering av arbete och dess betydelse för hälsa och välbefinnande. Rapport Kunskapssamman-ställning 2020:7. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/organisering-av-arbete-och-dess-betydelse-for-halsa-och-va.pdf>

²⁴ Jämför till exempel med resonemang i Myndigheten för arbetsmiljökunskap. (2020). Or-ganisering av arbete och dess betydelse för hälsa och välbefinnande. Rapport Kunskapssamman-ställning 2020:7. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/organisering-av-arbete-och-dess-betydelse-for-halsa-och-va.pdf>

²⁵ Se till exempel

Stoetzer, U., Bergman, P., Åborg, C., Johansson, G., Ahlberg, G., Parmasunda, M., & Svartengren, M. (2014). Organizational factors related to low levels of sickness absence in a representative set of Swedish companies. *Work*, 47,193–205.

²⁶ Arbetsmiljöverket. (2018). Kvalitetsdeklaration arbetsmiljöundersökningen 2017. Tillgänglig via <https://www.av.se/globalassets/filer/statistik/arbetsmiljon-2017/kvalitetsdeklaration-arbetsmiljon-2017-rapport-2018-2.pdf>

²⁷ Statistiska centralbyrån. (2016). Statistikens framtagning, arbetsorsakade besvär 2016. Tillgänglig via https://www.scb.se/contentassets/6c54975b-70534fa6a19b1c266a207430/am0502_do_2016.pdf

²⁸ Statistiska centralbyrån. (2016). Teknisk rapport. En beskrivning av genomförande och metoder. Nulägesundersökningen 2015. Bilagor Nulägesundersökningen 2015.

²⁹ Arbetet med denna undersökning pågår för närvarande på Myndigheten för arbetsmiljökunskap.

³⁰ Statistiska centralbyrån. (2020). Nationella folkhälsoenkäten 2020. Nationellt urval. Teknisk rapport. En beskrivning av genomförande och metoder. Folkhälsomyndigheten. Tillgänglig via <https://www.folkhalsomyndigheten.se/contentassets/9b1b216c596a-487ca6c6aa6dc413efb4/teknisk-rapport-2020.pdf>

³¹ Sveriges Kommuner och Regioner. (2020). Hållbart medarbetarengagemang i kommuner och regioner. Version 3.2. Tillgänglig via: <https://skr.se/download/18.730d41291712670b02216d10/1585560557537/HME,+modell+och+anv%C3%A4ndaranvisningar+Version+3.2.pdf>

³² <https://www.kolada.se>

³³ Se till exempel <https://www.forsakringskassan.se/statistik>

³⁴ Se till exempel <https://www.socialstyrelsen.se/statistik-och-data/>

³⁵ Arbetsmiljöverket (2019). Kvalitetsdeklaration, Arbetssskador 2018. Tillgänglig via <https://www.av.se/globalassets/filer/statistik/arbetssskador-2018/kvalitetsdeklaration-arbetssskador-2018.pdf>

³⁶ Karasek, R. A. (1979). Job demands, decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.

Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity, and the reconstruction of working life*. New York: Basic Books.

³⁷ SBU. (2015). Arbetsmiljöns betydelse för hjärt-kärlsjukdom. En systematisk litteraturöversikt. SBU-rapport nr 240. Tillgänglig via: https://www.sbu.se/contentassets/221f64a016e441bab0419f32e081171f/arbetsmiljo_hjarta_karl_240.pdf

³⁸ SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturöversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf

³⁹ Jämför till exempel med resonemang i Johnson, J. V., Hall, E. M., & Theorell, T. (1989). Combined effects of job strain and social isolation on cardiovascular disease morbidity and mortality in a random sample of the Swedish male working population. *Scandinavian Journal of Work, Environment and Health*, 15, 271-79.

Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity, and the reconstruction of working life*. New York: Basic Books.

⁴⁰ SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturöversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf

⁴¹ Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27-41.

⁴² SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturöversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf

⁴³ Se <https://copsoq.se/>

Berthelsen, H., Westerlund, H. Bergström, G., & Burr, H. (2020). Validation of the Copenhagen Psychosocial Questionnaire Version III and establishment of benchmarks for psychosocial risk management in Sweden. *International Journal of Environmental Research and Public Health*, 17, 3179.

Burr, H., Berthelsen, H., Moncada, S., Nübling, M., Dupret, E., Demiral, E., Oudyk, J., Kristensen, T. S., Llorens, C., Navarro, A., Lincke, H-J., Bocéréan, C., Sahan, C., Smith, P., & Pohrt, A. (2019). The Third Version of the Copenhagen Psychosocial Questionnaire. *Safety and Health at Work*, 10, 482–503. <https://www.sciencedirect.com/science/article/pii/S2093791118302725>

⁴⁴ Myndigheten för arbetsmiljökunskap. (2020). Psykosocial arbetsmiljö: hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:5. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/psykosocial-arbetsmiljo-halsa-och-valbefinnande-kunskapssammanstallning-2020-5.pdf>

⁴⁵ Myndigheten för arbetsmiljökunskap. (2020). Faktorer som skapar friska och välmående arbetsplatser. Rapport Kunskapssammanställning 2020:2. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/faktorer-som-skapar-friska-och-valmående-arbetsplatser-rapport-ks-2020-2.pdf>

⁴⁶ Jämför till exempel med resonemang i Myndigheten för arbetsmiljökunskap. (2020). Organisering av arbete och dess betydelse för hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:7. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/organisering-av-arbete-och-dess-betydelse-for-halsa-och-va.pdf>

Vahtera, J., Virtanen, P., Kivimäki, M., Pentti, J. (1999). Workplace as an origin of health inequalities. *Journal of Epidemiology and Community Health*, 53, 399-407.

Virtanen, P., Siukola, A., Luukkaala, T., Savinainen, M., Arola, H., Nygard, C-H., Kivimäki, M., Helenius, H., & Vahtera, J. (2008). Sick leaves in four factories-do characteristics of employees and work conditions explain differences in sickness absence between workplaces? *Scandinavian Journal of Work, Environment & Health*, 34(4), 260-6.

⁴⁷ Se till exempel Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T, Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.slso.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

⁴⁸ Corin, L., & Björk, L. (2017). Chefers organisatoriska förutsättningar i kommunerna. SNS Förlag. Tillgänglig via: <https://mellanarkiv-offentlig.vgregion.se/alfresco/s/archive/stream/public/v1/source/available/SOFIA/HOS1697-550018648-18860/SURROGATE/Corin%20Bj%C3%B6rk%2c%202017%2c%20chefers-organisatoriska-forutsattningar-i-kommunerna.pdf>

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Se även

Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T, Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

⁴⁹ ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Stoetzer, U., Bergman, P., Åborg, C., Johansson, G., Ahlberg, G., Parmasunda, M., & Svartengren, M. (2014). Organizational factors related to low levels of sickness absence in a representative set of Swedish companies. *Work*, 47,193–205.

⁵⁰ Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity, and the reconstruction of working life*. New York: Basic Books.

Se även

Arbetsmiljöverket. (2016). Kvinnors och mäns arbetsvillkor: betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade konsekvenser. Kunskapssammanställning 2016:2 Tillgänglig via: <https://www.av.se/globalassets/filer/publikationer/kunskapssammanstallningar/kvinnors-och-mans-arbetsvillkor-kunskapssammanstallning-rap-2016-2.pdf>

⁵¹ Demerouti, E., Bakker, A., Nachreiner, F., & Schaufeli, W. (2001). The Job demands-resources model of burnout. *Journal of Applied Psychology*, 86 (3), 499–512

Se även

Arbetsmiljöverket. (2016). Kvinnors och mäns arbetsvillkor: betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade konsekvenser. Kunskapssammanställning 2016:2. Tillgänglig via: <https://www.av.se/globalassets/filer/publikationer/kunskapssammanstallningar/kvinnors-och-mans-arbetsvillkor-kunskapssammanstallning-rap-2016-2.pdf>

⁵² Stoetzer, U., Åborg, C., Johansson, G., & Svartengren, M. (2014). Organization, relational justice, and absenteeism. *Work* 47, 521–529.

⁵³ Kuoppala, J., Lamminpää, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being and health effects—A systematic review and meta-analysis. *Journal of Occupational and Environmental Medicine*, 50 (8), 904–15.

⁵⁴ Corin, L., & Björk, L. (2017). Chefers organisatoriska förutsättningar i kommunerna. SNS Förlag. Tillgänglig via: <https://mellanarkiv-offentlig.vgregion.se/alfresco/s/archive/stream/public/v1/source/available/SOFIA/HOS1697-550018648-18860/SURROGATE/Corin%20Bj%C3%B6rk%2c%202017%2c%20chefers-organisatoriska-forutsattningar-i-kommunerna.pdf>

Se även

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

⁵⁵ ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Bergman, P. (2011). Developing working conditions. PhD thesis. Karolinska Institutet. Tillgänglig via: <https://openarchive.ki.se/xmlui/handle/10616/40510>

⁵⁶ ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Bergman, P. (2011). Developing working conditions. PhD thesis. Karolinska Institutet. Tillgänglig via: <https://openarchive.ki.se/xmlui/handle/10616/40510>

⁵⁷ Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T, Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

Se även

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism-arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Jern, S., & Näslund, J. (Red.). (2019). *Organisations psykologi: teori, kritik, praktik (2 uppl.)*. Studentlitteratur.

⁵⁸ Se till exempel

Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T, Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.slso.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

⁵⁹ Se till exempel

ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>

Appendix A

Meeasuring organizational-level factors that promote healthy working conditions and their long-term development

The purpose of this appendix is to provide a detailed description of the existing data sources and related systems for collecting data at the national level, presented in *Chapter 5: Longitudinal measurement and monitoring – limitations and possibilities*. The systems primarily include sample surveys and register statistics that cover different aspects of working conditions, the work environment and health.

For each system, the description includes its purpose, content, type of data collection, categories reported, and, in the case of sample studies, how the sample is designed, in order to demonstrate how different circumstances and conditions affect the reliability and validity of what is being measured and the limitations of the systems.

A description of how the sample is constructed is very important for being able to evaluate whether a survey suits a specific purpose. For example, the sample strata are especially important to consider, because they have a central significance for possibilities to present high quality statistics for different groups.

Limitations

When the aim is to measure and monitor something over time, it is also relevant to mention that most studies are cross-sectional, where a cross-sectional measurement of a population at one point in time is compared

to another cross-sectional measurement at another point in time. A longitudinal study that compares the same population at different points in time increases the reliability of the longitudinal development.

If there is an aim to make retrospective comparisons, many studies have decreasing reliability due to changes within the studies. Moreover, it is important to consider changes in certain classifications of reported statistics. However, none of these aspects are covered here.

Table 1 includes examples of the studies and the official statistics addressed in the report, stating the type of study, the agency that is responsible, the level of the data collection and how the data were collected.

Swedish Work Environment Authority: Labour Force Survey

The Labour Force Survey (LFS) does not address the work environment as such. This means it lacks relevance with respect to the focus of the assignment on factors that promote health. This survey is described because several other studies, of potential relevance for the assignment, are based on the LFS sample.

Description/purpose

LFS describes the labour market development for the population in Sweden aged 15–74 years. The LFS aims to describe relevant labour market conditions and to present information on the development of the labour market.^{ix}

Table 1. List of presented systems and sources for collecting data, with study type, responsible agency, data collection level and data collection type.

Name of statistical product	Responsible agency	Data collection level	Type of data and collection method
Labour Force Survey	Swedish Work Environment Authority	Individual level	Official statistics – Sample survey through interviews
Work Environment Survey	Swedish Work Environment Authority	Individual level	Official statistics – Sample survey through interviews, postal surveys and online surveys
Reported Occupational Injuries	Swedish Work Environment Authority	Individual level	Official statistics – Filed reports of occupational injuries
Work-Related Disorders	Swedish Work Environment Authority	Individual level	Sample survey through interviews
Baseline Survey SAM	Swedish Work Environment Authority	Organizational level	Sample survey through telephone interviews and online surveys
Organization in Swedish Working Life 2019	Swedish Agency for Work Environment Expertise	Organizational level	Sample survey through online surveys
Swedish National Public Health Survey	Public Health Agency of Sweden	Individual level	Sample study through postal surveys and online surveys
Sustainable Employee Engagement	Swedish Association of Local Authorities and Regions	Individual level	Survey tool
Swedish Social Insurance Agency's Official Statistics	Swedish Social Insurance Agency	Individual level	Official statistics – Excerpt of register data
National Board of Health and Welfare's Official Statistics	National Board of Health and Welfare	Individual level	Official statistics – Excerpt of register data

Sample

The regular sample for the latest LFS included approximately 37,000 individuals. Statistics Sweden's Total Population Register (RTB) is used to identify the sample. RTB includes demographic variables (such as gender, age and area of residence) that are taken into account when drawing the sample and used as background variables.

The sample is systematically stratified with a rotating panel sample. This is a relatively complicated sampling procedure (for a more detailed description, see SCB, LFS, 2019). The sample strata are created through different combinations of regions (24) and genders (2)

for a total of 48 strata, in which regions are composed of county of residence as well as the metropolitan municipalities of Stockholm, Gothenburg and Malmö. Each stratum is sorted by country of birth (in Sweden/abroad) and personal identity number. Then the sample is drawn based on four different starting points, to avoid introducing any systematic bias within the frame.

Compensation for non-response is carried out with straight expansion per ordinary LFS stratum, also including the additional sample. However, LFS includes no information regarding non-response rates for the employed and unemployed subgroups.

In view of the non-response studies of LFS, there is an estimated non-response rate of approximately 10 per cent of the employed people in the LFS part of the 1991 study. The non-response rate among employed people is presumably somewhat lower than the total dropout. There is no possibility to estimate how high the non-response rate was among the employed between 1993–2017 with any reasonable certainty. The study is in part a cross-sectional study.

In sum, Statistics Sweden's evaluation is that the shortcomings of the LFS, in terms of both under- and over-coverage, do not significantly distort the statistics. A register analysis published in 2017 indicates that the coverage problems introduce bias on a magnitude that cannot be expected to be negligible. However, this does not seem to be the case for all groups: for some groups, the coverage problems seem to have a relatively minor impact on the reliability when it comes to the effect on both total and ratio estimates, while the reverse holds for other groups. Although having deviating results, the overall conclusion is that the problem tends to be smaller with ratio estimates.

Content

LFS is an individual-based sample survey that is conducted every month. The results show the share and number of employed and unemployed people per month, quarter and year. Interviewees are classified as either employed, unemployed or not part of the labour force.

Data collection

Data are collected via telephone interviews.

Categories

Categories reported vary depending on the type of classification (employed, unemployed and so forth). In total, the reported categories are gender, age, region, marital status, children at home, education and country of birth (Sweden/abroad).

Swedish Work Environment Authority: Work Environment Survey (WES)

The Work Environment Survey (WES) is carried out every other year through telephone interviews in conjunction with the Labour Force Survey (LFS). The survey includes about 130 questions covering the physical work environment, stress, demands, influence, conflicts and physical or mental health problems that the work may have caused, as well as management of the work environment. The sample is a subsample of the LFS (for further details, see the section Labour Force Survey).

Description/purpose

The WES has been conducted by Statistics Sweden every other year since 1989. Since 1994, this has been on behalf of the Swedish Work Environment Authority.

There are currently results from 16 rounds that have been carried out in similar ways which allows for comparing the findings. The purpose of the study is to describe the work environment for the employed population, aged 16–74 years, who are registered residents of Sweden.

Sample

The sample for the WES in 2019 is a subsample of employed people aged 16–74 years who participated in the LFS. Respondents who were employed at the time of the interview were asked if they wanted to answer about 20 additional questions on the work environment. After completing the telephone interview, they were asked if they would be willing to answer additional questions via postal survey or online survey (126 questions). Around 9100 people were employed and were asked to respond to the work environment questions. Around 7100 completed the additional questions about the work environment and 3700 also responded to the subsequent survey.

From 2015 onwards, employed people aged 65–74 years are included in the LFS sample.

In earlier surveys, the sample included ages 16–64 years. In every survey from 1989 to 2017, around 4000 to 12,000 people participated.

Non-response occurs at several stages. There are non-responses to the additional questions in the phone interview and in the survey. Parts of the non-response rates in the LFS are unknown (for a more detailed description, see the section on the LFS). The non-response rate from the LFS to the additional questions in the WES was approximately 20 per cent, while the non-response rate from the LFS to the survey was approximately 60 per cent.

Content

The WES includes, among other things, questions about the physical work environment, stress, demands, influence, conflicts and physical or mental health problems that the work may have caused, as well as management of the work environment.

Data collection

Data collection is carried out via telephone interviews, postal surveys or online surveys. The telephone interview is carried out directly in conjunction with the LFS interview.

Categories

The questions in the WES are reported separately for gender, age, sector, occupational classification and industry classification, type of employment, education level, and income group. At least 50 respondents are needed for this type of reporting^{lxii}.

Swedish Work Environment Authority: official statistics – reported occupational accidents

Since 2001, there are statistics on occupational injuries, which are classified as follows: (a) severe occupational accident, (b)

zero accident, (c) commuting accident and (d) work-related sickness. The statistics are based on occupational injuries reported in the Information System for Occupational Accidents and Work-related Diseases (ISA)^{lxiii}.

The statistics can be used for different types of comparisons of accidents at work. However, there are significant unreported cases. Moreover, these vary between industries and professions, and over time. Thus, it is not obvious that differences between various industries and occupations or comparisons over time are due only to real differences in the work environment. Unlike the other categories, work-related sickness cannot be related to a specific accident, but is something that develops over a longer period of time.

Description/purpose

Since 2001, the Swedish Work Environment Authority has produced the official statistics on occupational accidents. The statistics are based on reported occupational accidents in ISA.

The reported occupational accidents pertaining to employees and the self-employed are used to describe the occupational accidents that have occurred and to follow the development over time. This also includes fatal occupational accidents.

Reports of work-related sickness pertaining to employees and the self-employed are used to describe reported work-related sickness and to follow its development over time.

Reported occupational incidents and work-related sickness are also included in the European statistics and are reported to the International Labour Organization (ILO).

A change was implemented in the 1990s and this made it impossible to link injury reports to insurance compensation.

Sample

This is a total study, in the sense that all received reports are registered in ISA. Thus, there is no non-responses. However, partial non-response occurs when information is missing in a report or a report is impossible to read or interpreted mechanically.

For various reasons, not all occupational accidents that occur are reported. The target population of the statistics does not correspond to the population of interest, that is, the actual number of occupational accidents that has occurred. The rate of reporting can vary, for example, between different ages, industries and professions. For some groups, the rate of reporting can be low.

Some occupational accidents are registered wrongly. One example where this seems to occur involves commuting accidents. Whenever possible, the Swedish Work Environment Authority corrects these.

Comparisons have been made between the occupational injury statistics and the Work-Related Disorders study regarding the number of reported occupational injuries in one year, and the number of people who have reported issues resulting from work in the past year. This reporting rate is estimated as an approximation of the coverage in ISA.

Overall, the studies have shown that the reporting rate has been low, under 30 per cent. For work-related disorders caused by an occupational accident that led to sickness absence, the reporting rate was approximately 55 per cent; for work-related disorders without sickness absence, the rate was approximately 40 per cent.

Content

The registration system is adapted to EU classifications:

- Severe occupational accidents linked to sickness absence statistics
- Zero accidents, which did not lead to sickness absence
- Commuting accidents to and from work, outside of working hours
- Work-related sickness, describes long-term illness

Data collection

The basic material for the statistics comes from information submitted in occupational accident reports. The reports include information about the injured person and

their occupation, the type of employment and employer, the scope of the injury, the course of events relating to the accident, and suspected causes.

Categories

Injury reports are categorized according to the following: reported workplace accidents with sickness absence, reported workplace accident without sickness absence, reported accidents while commuting to or from work and reported work-related sickness.

Occupational injury reports include information about the employer/workplace, year of the report, year of the injury, gender, age, industry, occupation according to ISCO 08, type of employment, sector, workplace location (county and/or municipality), deviations, suspected cause, probable absence, exposure factor, ergonomic load causes, chemical or biological causes, physical causes, social and organizational causes, as well as other/unclear.

Swedish Work Environment Authority: Work-Related Disorders

The Work-Related Disorders survey is carried out every other year and aims to describe health problems caused by work on the Swedish labour market. The survey is conducted in conjunction with the Labour Force Survey (LFS) and includes 27 questions. The questions provide information reasons behind the disorder, what kind of disorder the work caused, absence due to the disorder and the degree to which the employer is aware of disorders caused by work. The survey also monitors whether the disorder has been reported to the Swedish Social Insurance Agency, whether the disorder led to sickness absence, and whether any measures were taken^{lxiv}.

Description/purpose

From 1991 to 2006, the survey was carried out annually. Since 2008, the survey has been conducted every other year.

The Work-Related Disorders survey aims to describe health problems caused by work. The statistics indicate the part of the body that is affected and the aspect of work that may have caused it.

Sample

The survey targets employed people of working age. The frame population includes people aged 16–74 years who participated in the LFS interview and who were classified in that interview as employed. Approximately 15,000 people were asked about work-related disorders. Just over 12,000 people participated in the survey. The non-response rate was just over 17 per cent. In addition, there are non-responses from the LFS sample.

Content

The questionnaire includes approximately 27 questions and has had the same structure and essentially the same content from 1995 until 2018, when it was completely redesigned. Because of the redesign, comparisons with past surveys are not possible.

The survey covers work-related disorders in the past 12 months. It presents information about, among other things, why the disorder occurred, what kind of disorder the work caused, absence due to the disorder and the degree to which the employer is aware of disorders caused by work. In addition to describing the occurrence and causes of such health problems, the survey monitors whether the disorder was reported to the Swedish Social Insurance Agency, whether the disorders led to sickness absence and whether any measures were taken. The disorders may have occurred during the year or during previous years.

Data collection

The questions are presented as additional questions to the LFS. The information from

the LFS is used as background information. The information is based on individuals' personal experiences.

Categories

Categories reported include gender, age, income group, education level, sector, form of employment, occupation and industry for the employed population. For selected variables, statistics are also presented for different industries and occupations.

Swedish Work Environment Authority: Baseline Survey SAM

The survey has been carried out on several occasions between 2009 and 2015. It is a sample survey including questions about the organization of work and the work environment in Swedish working life. The survey is for the business community and the public sector in different industries, and for organizations of different sizes.

Description/purpose

The survey includes questions about the organization of work and the management of work environment in Swedish working life. It is for both the business sector and the public sector in different industries and for organizations of different sizes. The Baseline Survey has existed in several versions, with some content revision over the years.

The survey described here is the latest one, from 2015.

Sample

The sample is a stratified random sample in five size classes. It includes companies and government organizations as well as workplaces in municipalities and regions with five or more employees. The sample population amounted to approximately 3000. The sample frame was stratified by industry and size class and formed 105 strata. The survey is voluntary.

The sample frame in the survey was designed with data from the Business Register. The sample was also coordinated with the Community Innovation Survey (CIS), which aims to map innovation activities in companies, companies' IT use (IT companies) and IT use in small companies (IT micro). The number of companies/organizations in the sample frame was approximately 100,000.

Content

The questionnaire included 63 questions, several of which had follow-up questions, which generated a total of 75 questions. The survey questions are based primarily on the Meadow Guidelines (Meadow Consortium, 2010) and are divided into the following areas: staffing, task responsibility, group/teamwork, training and skills development, performance talks and pay, prioritization and work with quality, management of the work environment, risks and incidents in the work environment, resources and goals in work environment management and organizational change.

Data collection

Data collection was through telephone interviews as well as subsequent online surveys. The survey questions were intended to be completed by the highest executive manager. However, in larger companies this responsibility may have been delegated.

Categories

The categories reported in this survey may be limited via register variables such as industry and size class.

Swedish Agency for Work Environment Expertise: Organization in Swedish Working Life 2019

The Organization in Swedish Working Life survey is a sample survey that builds on the content of the Baseline Survey. Questions

from the Baseline Survey that did not turn out to add any useful information in statistical analysis were removed and new questions were added instead. This survey was carried out for the first time in the autumn 2020 and it includes questions about the work environment and the management of the work environment in the Swedish working life. The reviewed survey is intended for both the private and public sectors, and targets various industries and organizations of different sizeslxvi.

Description/purpose

This survey was carried out for the first time in the autumn 2020 and includes questions about the work environment and the management of the work environment in the Swedish working life. The survey is intended for both the private and the public sectors, targets various industries and organization sizes, and aims to cover all of working life in 2019.

The overall purpose is to follow and analyze developments in the work environment and the management of the work environment in Sweden, in particular the social and organizational work environment, as well as the systematic management of the work environment in various industries (business sectors).

The survey targets the company and workplace levels. In some cases, this may correspond to the organizational level. The questions are intended to be completed by the highest executive manager. In bigger companies, however, this responsibility may have been delegated.

Sample

The sample is a stratified random sample in five size classes. The sample includes companies, public organizations, and in some cases, public workplaces and workplaces in municipalities and regions with five or more employees. The frame population amounts to 10,000. The survey is voluntary.

Content

There is a basic set of questions that corresponds to that of the Baseline Survey 2015. Some of the questions have been adjusted to different degrees, while others are new. In total, there are about 70 questions.

Data collection

Data are collected via an online survey.

Categories

The reporting categories include the sample stratum sector of the study, industry and size, combined to some extent. The basic data from Statistics Sweden will be matched, which may allow for additional reporting categories.

Public Health Agency of Sweden: Swedish National Public Health Survey Health on Equal Terms (HLV)

Sweden's national public health survey, Health on Equal Terms (HRV), is conducted every other year via postal survey or online survey and includes approximately 60 questions. The purpose of the study is to monitor population health and to follow changes over time. The questions cover health, health behaviours, financial conditions, work and employment, safety and security, as well as social relationships^{lxvii}.

When it comes to the organizational-level factors that promote healthy working conditions that are to be studied, the target population constitutes employed people aged 18–65 years and thus has a slightly different target population relative to the HLV survey, in which the target population and sample group are individuals aged 16–84 years who are registered residents of Sweden.

Description/purpose

HLV is a national survey on health, health behaviours and living conditions. The purpose of the survey is to describe population health

and to follow changes over time, as part of the follow-up of the public health policy.

As of 2016, the study is conducted every other year by the Public Health Agency of Sweden. Participation is voluntary. Each county council or region has its own introductory letter attached to the survey, and the questions in the survey have been developed in collaboration with the county councils and regions.

Sample

The national simple random sample is from Statistics Sweden's Total Population Register (RTB) for ages 16–84 years. For 2018 onward, the national sample consists of 40,000 people. Regions may add additional samples for each county or region. For the 2020 survey, the total sample includes approximately 120,000 people.

The results are weighted in order to be representative of the entire population. Non-response for the 2018 survey is 57.9 per cent. Earlier non-response analyses from 2006 and 2009 show that non-responses do not seem to diverge in their response pattern as compared to respondents. Calibration weights have been used to compensate for the non-response. The auxiliary variables used to create the calibration weights are adapted to the HLV.

Content

The questions cover mental and physical health, physical activity, diet, smoking, use of snuff, gambling, alcohol consumption, environmental health, healthcare contacts, dental health, economic conditions, work, education and employment, work environment, and safety and harassment as well as social relationships. The questionnaire includes about 60 questions and is supplemented with population register information from Statistics Sweden.

Data collection

Data collection is through a postal survey sent to respondents' homes, or through an online survey. The survey responses are supplemented

with information from Statistics Sweden, that family status, number of children, country of birth and parents' country of birth, citizenship (in groups), immigration year, immigration background, area of residence, education, profession, work sector, income, allowances, sickness compensation, activity benefits and pension. Any information on sick leave comes from the Swedish Social Insurance Agency and any care, medication use and future causes of death from the National Board of Health and Welfare's register.

Categories

Categories reported in the survey can be delineated using register variables or background questions in the survey.

Swedish Association of Local Authorities and Regions (SALAR): Sustainable Employee Engagement (HME)

The Sustainable Employee Engagement (HME) questionnaire measures how well an organization functions in the areas of leadership, management, development opportunities, goals and values, as well as participation and communication. The information is collected at the individual level. The purpose is to continuously evaluate and monitor employer policies in municipalities and regions. The results are included in the open database Koladalxviii.

The survey is voluntary, and the sample is not a simple random sample. This adds some uncertainty regarding the representativeness of the sample. The survey is conducted during different points in time for each municipality and region, which may compromise comparisons. No quality assurances or reviews are conducted of the submitted material, which means there is no information about systematic errors. As a rule, the survey is completed in conjunction with the municipalities' and regions' own questionnaires. These local surveys differ, which may impact reliability.

Description/purpose

The Swedish Association of Local Authorities and Regions (SALAR) and the Council for the Promotion of Municipal Analysis (RKA) developed the HME survey to continuously evaluate and monitor employer policies in municipalities and regions. The HME model has three purposes:

- Opportunity for analyses of the organization and employer policy based on employee engagement
- Opportunity for transparent comparisons of employer policy between different municipalities and regions based on employee engagement
- Opportunity for analyzing linkages between the employer policy, based on employee engagement, and organizational performance at the local and central levels.

Sample

The survey is intended exclusively for municipalities and regions, but is conducted on a voluntary basis. The survey is not based on a simple random sample.

Content

To develop a document for managing the parts of the employer policy that involve strengthening employee engagement, the HME survey is focused on the areas of motivation, leadership and management. The survey includes nine questions and measures the perceptions of how well the organization functions in the areas of leadership, management, development opportunities, goals and values, and participation and communication. Information is collected at the individual level.

Data collection

Municipalities and regions are offered free use of the HME questionnaire as a single questionnaire, or to complement their own employee questionnaires. Each municipality or region is responsible for the implementation.

Categories

The collected data are reported in Kolada, the municipal and regional database, which is a key figure database for municipalities and regions. Kolada is an open database that is free of charge, with data for municipalities and regions. In 2019, 89 out of 292 municipalities used the survey.

Swedish Social Insurance Agency's Official Statistics

The Swedish Social Insurance Agency has register statistics regarding assistance in the event of sickness and disability, as well as assistance for families with children^{ix}. The register statistics provide access to data which, in combination with other types of surveys or questionnaire studies, can be useful for describing organizational-level factors that promote healthy working conditions.

Description/purpose

The Swedish Social Insurance Agency is responsible for the official statistics in the areas of assistance in the event of sickness and disability, as well as assistance for families with children.

The purpose is to have easily accessible and publicly financed statistics that adequately describe the current situation and development in society, and to facilitate research in these areas.

Sample

The data consist of register statistics.

Content

There are official statistics at the aggregate level and at the individual level. Also, the statistics are linked to details from Statistics Sweden.

Data collection

The data includes register statistics and are found in STORE. The Swedish Social Insurance Agency collects data that can be

used for statistics from the administrative registers. The administrative registers include sickness benefits and rehabilitation benefits as well as different types of assistance.

Categories

Data are available at the individual and the societal levels. Register data can be found at the aggregate level for occupation, industry, sector and size, as well as other register data such as gender, age and so forth. For sickness benefits and sickness compensation/activity benefits, data include causes of sick leave in accordance with ICD-10 codes. Register data are part of the LISA database, which covers individuals who can be followed over time and in which it is possible to make linkages to workplace and company, for example.

National Board of Health and Welfare's Official Statistics

The National Board of Health and Welfare is a statistical government authority and responsible for official statistics in the areas of health and medical care (health and diseases, health and medical care and causes of death) as well as social services^{lxx}. The register statistics allow access to data which, in combination with other surveys, can be helpful for understanding organizational-level factors that promote healthy working conditions.

Description/purpose

As a statistical government authority, the National Board of Health and Welfare is responsible for official statistics in the areas of health and medical care (health and diseases, health and medical care and causes of death) as well as social services. The purpose is to have easily accessible and publicly financed statistics that provide an adequate description of the societal situation and development, and to facilitate research in the area.

Sample

The data include register statistics.

Content

The statistics database is divided into different areas that include health and diseases, health and medical care, causes of death, individual and family care, care for the elderly and disabled, and assistance and services for people with disabilities.

Data collection

The information in the database comes from the National Board of Health and Welfare's health data registers, social services register, business and staff register, as well as other official sources of statistics. Most of the statistics are from the health data registers and social services register, as well as the cause of death register. However, specific statistics are collected in some areas.

Categories

Data are at the individual and the societal levels. The variables vary depending on specific statistics, but as a rule, can be found at the aggregate level for categories including region, gender, age and so forth.

^{ix} Statistics Sweden (SCB), Labour Force Survey (LFS), 2017.

Information pertaining to the Labour Force Survey comes from this source.

^{xi} Swedish Work Environment Authority, Quality Declaration Work Environment Survey 2019. Information pertaining to the Work Environment Survey comes from this source.

^{xii} Work Environment 2017, Work Environment Statistics Report 2018:2.

^{xiii} Swedish Work Environment Authority, Quality Declaration, Occupational Accidents and Work-related Diseases 2018. Published 2019. Information pertaining to occupational injuries comes from this source.

^{xiv} Swedish Work Environment Authority, Quality Declaration, Work-Related Disorders. Information pertaining to Work-Related Disorders comes from this source.

^{xv} Statistics Sweden, Technical report – A description of implementation and methods. Baseline Survey 2015. Information pertaining to the Baseline Survey comes from this source.

^{xvi} Statistics Sweden. A description of implementation and methods, Organisation in Swedish working life 2019. Information pertaining to Organisation in Swedish working life comes from this source.

^{xvii} Statistics Sweden. (2020). National Public Health Survey 2020. National sample. Technical report. A description of implementation and methods. Public Health Agency. Information pertaining to the National Public Health Survey comes from this source.

^{xviii} Swedish Association of Local Authorities and Regions. (2020). Sustainable employee engagement in municipalities and regions. Version 3.2. The following source is used recurrently in this section.

^{xix} Swedish Social Insurance Agency. Available via: <https://www.forsakringskassan.se/statistik> Information from the Swedish Social Insurance Agency comes from this source.

^{xx} National Board of Health and Welfare. Information is from the National Board of Health and Welfare.

Sources

Arbetsmiljöverket, Arbetsmiljön 2017, Arbetsmiljöstatistik Rapport 2018:2. Tillgänglig via: <https://www.av.se/globalassets/filer/statistik/arbetsmiljon-2017/arbetsmiljostatistik-tabellbilaga-arbetsmiljon-2017-rapport-2018-2.pdf>

Arbetsmiljöverket, Arbets-skador 2018, Arbetsmiljöstatistik rapport 2019:01. Publicerad 2019. <https://www.av.se/globalassets/filer/statistik/arbets-skador-2018/arbetsmiljostatistik-arbets-skador-2018-rapport-2019-1.pdf>

Arbetsmiljöverket, Kvalitetsdeklaration arbetsmiljöundersökningen 2017. Tillgänglig via: <https://www.av.se/globalassets/filer/statistik/arbetsmiljon-2017/kvalitetsdeklaration-arbetsmiljon-2017-rapport-2018-2.pdf>

Arbetsmiljöverket, Kvalitetsdeklaration, Arbetsorsakade besvär. Publicerad 2018. Tillgänglig via: <https://www.av.se/globalassets/filer/statistik/arbetsorsakade-besvar-2018/arbetsorsakade-besvar-2018-kvalitetsdeklaration.pdf>

Arbetsmiljöverket, Kvalitetsdeklaration, Arbets-skador 2018. Publicerad 2019. Tillgänglig via: <https://www.av.se/globalassets/filer/statistik/arbets-skador-2018/kvalitetsdeklaration-arbets-skador-2018.pdf>

Försäkringskassan. Tillgänglig via: <https://www.forsakringskassan.se/statistik>

Socialstyrelsen. Tillgänglig via: <https://www.socialstyrelsen.se/statistik-och-data/>

Statistiska centralbyrån. En beskrivning av genomförande och metoder, Organisering i svenskt arbetsliv 2019.

Statistiska centralbyrån, Statistikens framtagning, arbetsorsakade besvär 2016. Publicerad 2016. Tillgänglig via: https://www.scb.se/contentassets/6c54975b-70534fa6a19b1c266a207430/am0502_do_2016.pdf

Statistiska centralbyrån, Teknisk rapport – En beskrivning av genomförande och metoder. Nulägesundersökningen 2015. Publicerad 2016.

Statistiska centralbyrån, Bilagor Nulägesundersökningen 2015. Publicerad 2016.

Statistiska centralbyrån. (2020). Nationella folkhälsoenkäten 2020. Nationellt urval. Teknisk rapport. En beskrivning av genomförande och metoder. Folkhälsomyndigheten. Tillgänglig via: <https://www.folkhalsomyndigheten.se/contentassets/9b1b216c596a-487ca6c6aa6dc413efb4/teknisk-rapport-2020.pdf>

Statistiska centralbyrån, Arbetskraftsundersökningen, 2017. Tillgänglig via: https://www.scb.se/contentassets/c12fd0d28d604529b2b4ffc2eb742fbe/am0401_do_2017_fo_170420.pdf

Sveriges Kommuner och Regioner. (2020). Hållbart medarbetarengagemang i kommuner och regioner. Version 3.2. Tillgänglig via: <https://skr.se/download/18.730d41291712670b02216d10/1585560557537/HME,+modell+och+anv%C3%A4ndaranvisningar+Version+3.2.pdf>

Sveriges Kommuner och Regioner. Kolada databas. Tillgänglig via: <https://skr.se/download/18.730d41291712670b02216d10/1585560557537/HME,+modell+och+anv%C3%A4ndaranvisningar+Version+3.2.pdf>

Appendix B

References

- Ahlberg, G., Bergman, P., Ekenvall, L., Parmasund, M., Stoetzer, U., Waldenström, M., Svartengren, M., & HoF study group. (2008). Tydliga strategier och delaktiga medarbetare i friska företag. Delstudie 2. Karolinska Institutet.
- Arbetsmiljöverket. (2016). Kvinnors och mäns arbetsvillkor: betydelsen av organisatoriska faktorer och psykosocial arbetsmiljö för arbets- och hälsorelaterade konsekvenser. Kunskapssammanställning 2016:2. Tillgänglig via: <https://www.av.se/globalassets/filer/publikationer/kunskapssammanstallningar/kvinnors-och-mans-arbetsvillkor-kunskapssammanstallning-rap-2016-2.pdf>
- Arbetsmiljöverket. (2018). Kvalitetsdeklaration arbetsmiljöundersökningen 2017. Tillgänglig via <https://www.av.se/globalassets/filer/statistik/arbetsmiljon-2017/kvalitetsdeklaration-arbetsmiljon-2017-rapport-2018-2.pdf>
- Arbetsmiljöverket (2019). Kvalitetsdeklaration, Arbetssskador 2018. Tillgänglig via <https://www.av.se/globalassets/filer/statistik/arbetssskador-2018/kvalitetsdeklaration-arbetssskador-2018.pdf>
- Arbetsmiljöverket och Myndigheten för arbetsmiljö (2020). Delredovisning uppdrag friskfaktorer som kan mätas och följas över tid. dnr: 2018/035394-2. Tillgänglig via <https://www.av.se/globalassets/filer/publikationer/rapporter/delredovisning-regeringsuppdrag-om-friskfaktorer-som-kan-matas-och-foljas-over-tid.pdf>
- Bartley, M (1994). Unemployment and ill health: understanding the relationship. *Journal of Epidemiology and Community Health*, 48, 333-37.
- Bergman, P. (2011). Developing working conditions. PhD thesis. Karolinska Institutet. Tillgänglig via: <https://openarchive.ki.se/xmlui/handle/10616/40510>
- Berthelsen, H., Westerlund, H. Bergström, G., & Burr, H. (2020). Validation of the Copenhagen Psychosocial Questionnaire Version III and establishment of benchmarks for psychosocial risk management in Sweden. *International Journal of Environmental Research and Public Health*, 17, 3179.
- Burr, H., Berthelsen, H., Moncada, S., Nübling, M., Dupret, E., Demiral, E., Oudyk, J., Kristensen, T. S., Llorens, C., Navarro, A., Lincke, H-J., Bocéréan, C., Sahan, C., Smith, P., & Pohrt, A. (2019). The Third Version of the Copenhagen Psychosocial Questionnaire. *Safety and Health at Work*, 10, 482–503. <https://www.sciencedirect.com/science/article/pii/S2093791118302725>
- Corin, L., & Björk, L. (2017). Chefers organisatoriska förutsättningar i kommunerna. SNS Förlag. Tillgänglig via: <https://mellanarkiv-offentlig.vgregion.se/alfresco/s/archive/stream/public/v1/source/available/SOFIA/HOS1697-550018648-18860/SURROGATE/Corin%20Bj%20c3%b6rk%20c%202017%20c%20chefers-organisatoriska-forutsattningar-i-kommunerna.pdf>
- Demerouti, E., Bakker, A., Nachreiner, F., & Schaufeli, W. (2001). The Job demands-resources model of burnout. *Journal of Applied Psychology*, 86 (3), 499–512
- Hasson, H., & Schwarz, U. (2017). *Användbar evidens: om följsamhet och anpassningar*. Natur & Kultur.
- Hitt, M. A., Miller, C. C., & Colella, A. (2015). *Organizational behavior*. Wiley.
- Ipsen, C., Karanika-Murray, M., & Nardelli, G. (2020) Addressing mental health and organizational performance in tandem: A challenge and an opportunity for bringing together what belongs together, *Work and Stress*, 34(1), 1-4.
- ISM. (2018). Hälsa på arbetsplatsen. En sammanställning av kunskap och metoder. ISM-rapport nr 21. Tillgänglig via: <https://www.vgregion.se/ov/ism/arbetsliv/halsoframjande-arbetsplats/ism-rapport-21/>
- Jern, S., & Näslund, J. (Red.). (2019). *Organisationspsykologi: teori, kritik, praktik* (2 uppl.). Studentlitteratur.
- Johnson, J. V., Hall, E. M., & Theorell, T. (1989). Combined effects of job strain and social isolation on cardiovascular disease morbidity and mortality in a random sample of the Swedish male working population. *Scandinavian Journal of Work, Environment and Health*, 15, 271-79.

- Karanika-Murray, M. & Weyman, A. K. (2013). Optimising workplace interventions for health and well-being: a commentary on the limitations of the public health perspective within the workplace health arena. *International Journal of Workplace Health Management*, 6 (2), 104-17.
- Karasek, R. A. (1979). Job demands, decision latitude and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.
- Karasek, R. A., & Theorell, T. (1990). *Healthy work. Stress, productivity, and the reconstruction of working life*. New York: Basic Books.
- Kuoppala, J., Lamminpää, A., Liira, J., & Vainio, H. (2008). Leadership, job well-being and health effects—A systematic review and meta-analysis. *Journal of Occupational and Environmental Medicine*, 50 (8), 904–15.
- Lohela Karlsson, M., Hagberg, J., & Bergström G. (2015). Production loss among employees perceiving work environment problems. *International Archives of Occupational and Environmental Health*, 88 (6), 769-77.
- Myndigheten för arbetsmiljökunskap. (2020). Faktorer som skapar friska och välmående arbetsplatser. Rapport Kunskapssammanställning 2020:2. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/faktorer-som-skapar-friska-och-valmaende-arbetsplatser-rapport-ks-2020-2.pdf>
- Myndigheten för arbetsmiljökunskap. (2020). Psykosocial arbetsmiljö: hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:5. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/psykosocial-arbetsmiljo-halsa-och-valbefinnande-kunskapssammanstallning-2020-5.pdf>
- Myndigheten för arbetsmiljökunskap. (2020). Organisering av arbete och dess betydelse för hälsa och välbefinnande. Rapport Kunskapssammanställning 2020:7. Tillgänglig via: <https://mynak.se/wp-content/uploads/2020/03/organisering-av-arbete-och-dess-betydelse-for-halsa-och-va.pdf>
- Regeringen. (2018). Regeringsbeslut. Uppdrag om friskfaktorer som kan mätas och följas över tid. Arbetsmarknadsdepartementet. A2018/01350/ARM. Tillgänglig via: <https://www.regeringen.se/49ee66/contentassets/e73ab80f5dd148b6a37e6308cdf81633/uppdrag-om-friskfaktorer-som-kan-matas-och-foljas-over-tid.pdf>
- Regeringen. (2018). Regeringsbeslut. Uppdrag att sammanställa kunskap om faktorer som skapar friska och välmående arbetsplatser. Arbetsmarknadsdepartementet. A2018/01349/ARM Tillgänglig via <https://www.regeringen.se/49ee66/contentassets/fea7eb-dbbf9d45679fbb1b565db56dbf/uppdrag-att-sammanstalla-kunskap-om-faktorer-som-skapar-friska-och-valmaende-arbetsplatser.pdf>
- SBU. (2012). Arbetets betydelse för uppkomst av besvär och sjukdomar. Nacken och övre rörelseapparaten. En systematisk litteraturöversikt. SBU-rapport nr 210. Tillgänglig via: https://www.sbu.se/contentassets/cc0b2ba68955487d900001fd95c75bd4/arbetes_betydelse_nacke.pdf
- SBU. (2013). Arbetsmiljöns betydelse för sömnstörningar. SBU-rapport nr 216. Tillgänglig via: https://www.sbu.se/contentassets/aaa2cf8e553e4f66a00bf402ed7cf0cc/arbetsmiljo_somn_2013.pdf
- SBU. (2014). Arbetsmiljöns betydelse för symtom på depression och utmattningssyndrom. En systematisk litteraturöversikt. SBU-rapport nr 223. Tillgänglig via: https://www.sbu.se/contentassets/800ad7aecf9146c795d3a89c7a957048/arbetsmiljo_depression_2014.pdf
- SBU. (2014). Arbetsmiljöns betydelse för ryggproblem. En systematisk litteraturöversikt. SBU-rapport nr 227. Tillgänglig via: https://www.sbu.se/contentassets/203cb1a9451f4df8babda4e2c75833f8/arbetsmiljo_rygg_2014.pdf
- SBU. (2015). Arbetsmiljöns betydelse för hjärt-kärlsjukdom. En systematisk litteraturöversikt. SBU-rapport nr 240. Tillgänglig via: https://www.sbu.se/contentassets/221f64a016e441bab0419f32e081171f/arbetsmiljo_hjarta_karl_240.pdf
- Schütte, S., Chastang, J-F., Malard, L., Parent-Thirion, A., Vermeylen, G., & Niedhammer, I. (2014). *Psychosocial working conditions and psychosocial wellbeing among employees in 34 European countries*. *International Archives of Occupational and Environmental Health*, 87(8), 897–907.
- Siegrist, J. (1996). Adverse health effects of high-effort/low-reward conditions. *Journal of Occupational Health Psychology*, 1, 27-41.
- Stansfeld, S. & Candy, B. (2006). Psychosocial work environment and mental health: A meta-analytic review. *Scandinavian Journal of Work, Environment, and Health*, 32(6), 443–62.

Statistiska Centralbyrån. (2016). Teknisk rapport. En beskrivning av genomförande och metoder. Nulägesundersökningen 2015. Bilagor Nulägesundersökningen 2015.

Statistiska Centralbyrån. (2016). Statistikkens framtagning, arbetsorsakade besvär 2016. Tillgänglig via https://www.scb.se/contentassets/6c54975b-70534fa6a19b1c266a207430/am0502_do_2016.pdf

Statistiska Centralbyrån. (2020). Nationella folkhälsoenkäten 2020. Nationellt urval. Teknisk rapport. En beskrivning av genomförande och metoder. Folkhälsomyndigheten. Tillgänglig via <https://www.folkhalsomyndigheten.se/contentassets/9b1b216c596a487ca6c6aa6dc413efb4/teknisk-rapport-2020.pdf>

Stoetzer, U., Bergman, P., Åborg, C., Johansson, G., Ahlberg, G., Parmasunda, M., & Svartengren, M. (2014). Organizational factors related to low levels of sickness absence in a representative set of Swedish companies. *Work*, 47, 193–205.

Stoetzer, U., Åborg, C., Johansson, G., & Svartengren, M. (2014). Organization, relational justice, and absenteeism. *Work* 47, 521–529.

Svartengren, M., Stoetzer, U., Parmasund, M., Eriksson, T., Stöllman, Å., & Vingård, E. (2013). Hälsa och framtid i kommuner och landsting. Rapport 2013:1 Centrum för Arbets- och miljömedicin. Tillgänglig via: http://dok.sll.se/CAMM/Rapportserien/2013/CAMM2013_1.pdf

Sveriges Kommuner och Regioner. (2020). Hållbart medarbetarengagemang i kommuner och regioner. Version 3.2. Tillgänglig via: <https://skr.se/download/18.730d41291712670b02216d10/1585560557537/HME,+modell+och+anv%C3%A4ndaranvisningar+Version+3.2.pdf>

van der Noordt, M., IJzelenberg, H., Droomers, M., & Proper K. (2014). Health effects of employment: a systematic review of prospective studies. *Occupational and Environmental Medicine*, 71(10), 730-6.

Vahtera, J., Virtanen, P., Kivimäki, M., Pentti, J. (1999). Workplace as an origin of health inequalities. *Journal of Epidemiology and Community Health*, 53, 399-407.

Virtanen, P., Siukola, A., Luukkaala, T., Savinainen, M., Arola, H., Nygård, C-H., Kivimäki, M., Helenius, H., & Vahtera, J. (2008). Sick leaves in four factories-do characteristics of employees and work conditions explain differences in sickness absence between workplaces? *Scandinavian Journal of Work, Environment & Health*, 34(4), 260-6.

Warr, P. (1994). A conceptual framework for the study of work and mental health. *Work and Stress*, 8, 84-97.

World Health Organization. (1948). WHO constitution. In *Basic documents*. Geneva: Author. Tillgänglig via: <https://apps.who.int/gb/bd/PDF/bd47/EN/constitution-en.pdf?ua=1>

Länkar till nätbaserade resurser med detaljbeskrivning

COPSOQ: <https://copsoq.se/>

Försäkringskassans statistik: <https://www.forsa-kringskassan.se/statistik>

Kolada: <https://www.kolada.se>

Socialstyrelsen: <https://www.socialstyrelsen.se/statistik-och-data/>



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