recommendations for the improvement or the exclusion of those aspects that are found to have a negative health impact. More complex policies/programs may require several sessions.
For particular scientific aspects of a political program, the team has the possibility of involving additional and qualified experts.
Lessons learned
- Administrative officers often don't know the exact steps of the decision making process inside their administrations, which were cleared by the project.
- It is hard to convince politicians to make evidence based decisions but it is possible using sound reasoning.

Conclusions
Through HIA, Politicians and Administrators are now concerned about the various determinants of health – not only strictly related to the health services. They also start to appreciate the possibility of carrying out evidence based decision making.
The population starts to see the benefit of information that can be used for lobbying purposes.

Parallel Session 27 – Sickness Absence

Patient factors associated with duration of certified sickness absence and transition to long-term incapacity in the UK

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Background
Approximately 7% of the UK working age population currently claim long-term sickness/disability benefits and the estimated cost of long-term incapacity exceeds £20 billion a year. The epidemiology of sickness certification in the UK is poorly understood.
Aim
To investigate the influence of patient factors, including age, gender, diagnosis and socioeconomic deprivation, on the transition from short- to long-term sickness certification in the UK.
Methods
Copies of all GP sickness certification in the nine practices of the Mersey Primary Care R&D Consortium were collected, using carbonised sicknote pads provided by the Department for Work and Pensions. Data concerning type and date of certificate, patient study number, certifying GP code, patient postcode (used to calculate Townsend deprivation score), date of birth, gender of patient, duration of sick note and reason for certified incapacity was entered and anonymised at practice level. Main outcome measures used were 'total duration of sickness episode' and 'greater than 28 week incapacity'.
Results
13,127 MED3 and MED5 medical certificates were issued to 6,904 patients. Mild mental disorders such as anxiety, depression and stress was the most common diagnostic group and accounted for the highest percentage of working days lost (40%). Males' sickness episodes were significantly longer than females' (mean duration 10.9 v 9.0 weeks; $p<0.001$). The most deprived quartile had a significantly higher mean duration of certified sickness than the least deprived quartile (mean 13.1 v 7.8 weeks; $p<0.001$). Logistic regression modelling showed that mild mental disorder was the most important predictor of chronic incapacity (only neoplasms, congenital disability and severe mental illness had greater effects). The most deprived quartile group of patients was 2.2 times more likely than the least deprived group to be sicklisted for more than 28 weeks.
Conclusions
Socioeconomic deprivation and a diagnosis of mild mental disorder are highly predictive of chronic work incapacity in the UK.

Fatigue as a predictor of sickness absence: results from the Maastricht cohort study on fatigue at work

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Background
Little is known on the consequences of fatigue at work.
Aim
To investigate whether there is a relationship between fatigue and sickness absence. Two additional hypotheses were based on the theoretical distinction between involuntary, health-related absence and voluntary, attitudinal absence. The first is in the literature most often operationalised in terms of long-term sickness absence, the latter in terms of short-term sickness absence. In line with this, the first additional hypothesis was that higher fatigue would go together with a higher risk of long-term, primarily health-related absence. The second additional hypothesis was that higher fatigue would go together with a higher risk of short-term, primarily motivational absence.
Methods
Fatigue, as well as potential sociodemographic and work-related confounders were assessed in the baseline questionnaire of the Maastricht cohort study on fatigue at work (May 1998). Sickness absence was objectively assessed on the basis of organizational absence records and measured over the six months immediately following the baseline questionnaire. In the first, general hypothesis we investigated the effect of fatigue on time-to-onset of first sickness absence spell during follow-up. For this purpose, a survival analysis was performed. The effect of fatigue on long-term sickness absence was tested by a logistic regression analysis. The effect of fatigue on short-term sickness absence was investigated by performing a survival analysis with time-to-onset of first short absence spell as an outcome.
Results
Higher fatigue decreased the time-to-onset of the first sickness absence spell. Additional analyses showed that fatigue was related to long-term and short-term sickness absence. These relationships held when controlled for work-related and sociodemographic confounders.
Conclusions
Fatigue was associated with short-term but particularly with long-term sickness absence. Fatigue as measured with the Checklist Individual Strength can be used as a screening instrument to assess the likelihood of sickness absence in the short term.

Sickness absence in female – and male – dominated occupations and workplaces

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Background
Previous research indicates that rates of sickness absence are high in strongly male-dominated and female-dominated occupations, and lower with more equal shares of men and women. It is not clear, however, whether this reflects a true effect of the gender composition of the workforce per se, or confounding with other differences between occupations. Both strongly male-dominated (like factory work, construction) and strongly female-dominated (cleaning, nursing) occupations may, for instance, be expected to be characterised by relatively heavy ergonomic work demands.
Aim
To increase our understanding of the extent to which working in male- and female-dominated environments may affect sickness absence. In order to do this I try to disentangle the effects of the gender composition of the *occupation* from that of the individual employee's actual *workplace*. I argue that an effect of the gender composition per se should primarily be reflected in a relationship between sickness absence and the gender composition (proportion women) in the workplace.
Method
Two large data sets are used. Both are national probability samples of Norwegian employees. One is based on the Norwegian 1990 Microcensus (10% of the population) with merged data on sickness absence from the central National Insurance Register (appr. 240,000 observations). The other dataset (from 1995) is based on register data only (National Insurance Register merged with data on income, education, workplace, etc.; appr. 180,000 observations). The main statistical method is logistic regression. To take into account clustering within occupations and workplaces, multilevel (random effects) models are used.
Results
The gender composition of the occupation and of the workplace are found to have separate effects on sickness absence. For women there is a quite strong tendency for sickness absence to be highest in female-dominated workplaces, and in male-dominated occupations. For men, the effects of both variables are weak and less consistent.

CBBS, the new Dutch way to determine the level of work incapacity of disabled people

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Issue

To determine the level of work incapacity of disabled people as objective and complete as possible.

Description of the project

CBBS is the new Dutch instrument for determining the level of work incapacity of disabled people. In the Netherlands the disability pensions of disabled people are based on the outcomes of this instrument.

Based on the input of the physician, CBBS produces a list of jobs the disabled person can theoretically perform with his or hers functional limitations. The vocational expert uses this list to select jobs which the disabled person actually can perform and which are common on the labour market. The height of the disability pension is determined by the earnings of these jobs in comparison with the former earnings of the disabled person.

The iRv has conducted research to investigate the quality of the CBBS in comparison with the former used instrument, FIS.

This oral presentation will comprise the characteristics of CBBS, the way this instrument is used and some of the results of the evaluation study performed by the iRv.

Lessons learned

According to the people involved, CBBS is more useful and includes more aspects of human functioning.

Conclusions

CBBS is a new method to determine the level of work incapacity of disabled people. CBBS is more useful and it includes more aspects of human functioning than the former instrument FIS.

Determinants of presenteeism of sick workers

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Aim of the study

In the field of work and health, attention has focused on absenteeism rather than on presenteeism of relatively sick employees. However, from earlier studies it is known that the course of a case of illness may be described as part of a decision process, in which feeling sick may be distinguished from accepting the role of a patient and reporting sick. Often there exist only small margins between reporting sick and being present at work.

Up to now many studies focused on the determinants of absenteeism. We only know one study (Aronsson, et al., 2000) which aimed at the determinants of presenteeism. Our study is a replication and extension of this Swedish study.

Methods

In 2002 the TNO Work Situation Survey was presented for the second time to a representative sample of the Netherlands' working population. The response rate was 45 percent. More than 4000 employees and self-employed workers completed the questionnaire. The survey questions were tested in previous studies and included items related to demography, the work contract, the company, the work situation, and health and well-being.

The question on presenteeism was derived from Aronsson's et al. study (2000) and was: During the last 12 months, did it happen that you went working, while you thought you actually had to report sick? (no; yes, one time; yes, more than once).

Results

Regression analyses show that presenteeism (being present at work while sick) is significantly higher among female employees and employees with chronic illnesses. In addition, presenteeism is higher among employees with long working hours, working under work pressure, and with a high level of work autonomy. Thus, these personal and work situation characteristics trigger going to work, while being relatively sick. Presenteeism is low among employees high on pay satisfaction, leader support, and certainty about their work. Thus, the more satisfied, supported and certain employees feel, the less these employees attend work while being sick.

Conclusions

First, we conclude that employees with chronic illnesses are often present at work while feeling sick. Second, presenteeism is stimulated by 'pressures to attend' such as work pressure. Third, presenteeism is lower among employees feeling satisfied, supported and certain about their work.

Parallel Session 28 – Infectious Diseases

Space-Time Analysis in Public Health Surveillance: an Application to Meningitis Disease in North Italy

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Abstract issue/problem

Public health practice needs thorough informations on the course of health events. Effective surveillance systems should provide baseline information on time trends and geographic distribution of known infectious agents, as meningitis in our example. Hindmost purpose is to get a synthetic and efficient information according to disease data and from their space and/or time proximities. Most epidemiological data have a location and a temporal reference. Knowledge of informations offered by spatiotemporal analyses will increase the potential for public health action. Identification of space-time clusters of disease is therefore of utmost relevance to implement appropriate actions of health policy.

Abstract description of project

In our work, we explored two complementary options to evaluate 12 years of meningitis cases in our province. Our dataset was constituted by 341 cases of meningitis officially notified.

First method (Levin & Kline Modified CuSum) is derived from Shewhart charts, developed for monitoring industrial production, for use in temporal analysis of epidemiological data; it tracks changes in a variable of interest relative to a baseline value. The Modified CuSum monitors the pattern of disease over time in group-level data, introducing a relative risk parameter as function of sensitivity to changes of expected rate.

Second method (Rogerson's Spatial Surveillance) is a CuSum modification of Tango's statistic. It detects spatial clusters in individual-level data, thus monitoring changes in spatial pattern for observations processed sequentially in time. We identify 4 months in 12 years as real alarms.

Abstract lessons learned

For correct surveillance, most important steps are determining baseline rate and threshold for alarm (amount of change from baseline sufficient for concern). Thus, statistical surveillance methods must reasonably trade-off sensitivity to changes with the likelihood of producing a false alarm.

Conclusions

The identification of space-time clusters of disease by means of appropriate statistical tools is of utmost relevance to implement timely and appropriate actions and formulation of public health policies.

Global disease, global response: 'SARS' and public health practice in the 21st Century

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Aim

To outline current public health and health services management of Severe Acute Respiratory Syndrome (SARS) in an era of globalization.

Methods

Detailed review of the reported efforts to curb SARS.

Results

SARS is an acute atypical, highly contagious, and sometimes fatal pneumonia caused by a novel coronavirus. With an attack rate in health workers previously as high as 56% in Hanoi and a global mortality rate of 9.62% (95% CI of 9.00–10.27), SARS is a public health crisis. Since its official notification in mid-March 2003, SARS has, by late April 2003, affected some 30 countries. Within 7 weeks, SARS was identified, its virus genetically mapped (in 8 days), and its spread and fatality probably stabilizing (*figure 1*).

The response to SARS has been aided by:

– unprecedented worldwide cooperation;

– advanced biomedical and information and communication technologies;