

Effectiveness of return-to-work interventions for disabled people: a systematic review of government initiatives focused on changing the behaviour of employers

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Background: OECD countries over the past two decades have implemented a range of labour market integration initiatives to improve the employment chances of disabled and chronically ill individuals. This article presents a systematic review and evidence synthesis on effectiveness of government interventions to influence employers' employment practices concerning disabled and chronically ill individuals in five OECD countries. A separate paper reports on interventions to influence the behaviour of employees. **Methods:** Electronic and grey literature searches to identify all empirical studies reporting employment effects and/or process evaluations of government policies aimed at changing the behaviour of employers conducted between 1990 and 2008 from Canada, Denmark, Norway, Sweden and the UK. **Results:** Few studies provided robust evaluations of the programmes or their differential effects and selection of participants into programmes may distort the findings of even controlled studies. A population-level effect of legislation to combat discrimination by employers could not be detected. Workplace adjustments had positive impacts on employment, but low uptake. Financial incentives such as wage subsidies can work if they are sufficiently generous. Involving employers in return-to-work planning can reduce subsequent sick leave and be appreciated by employees, but this policy has not been taken up with the level of intensity that is likely to make a difference. Some interventions favour the more advantaged disabled people and those closer to the labour market. **Conclusions:** Future evaluations need to pay more attention to differential impact of interventions, degree of take-up, non-stigmatizing implementation and wider policy context in each country.

Introduction

The issue of working-age disabled people being out of employment is a serious public health concern and one that may make health inequalities worse.¹ Across Europe, there has been a general upward trend in the numbers of sick and disabled people receiving some form of incapacity benefit because they are not fit enough to work. In the UK, numbers have risen markedly so that there are now more than 2.6 million people on incapacity-related benefits, accounting for a quarter of total social security benefit expenditure, and corresponding to 1.5% of GDP. Similar magnitudes and upward trends are causing concern in an increasing number of OECD countries.^{2,3} Ageing populations will exacerbate these trends as older, sicker people leave the labour market. At the same time, several European countries are raising the retirement age, increasing the numbers of older, disabled people requiring work when they would previously have been retired.

These trends cause an obvious financial headache for governments, but the public health issue goes beyond that to concerns about the social and economic exclusion of people with disabilities. In many countries, being out of work means being poorer and also being more isolated from close social relationships, damaging both standard of living and quality of life. There is also evidence that there are marked inequalities in the employment prospects of people with disabilities, worsening with declining social position.^{4,5} The consequence of this social gradient in employment among disabled people may be a widening of health inequalities, as more disadvantaged groups who already have higher prevalence of ill health have their health damaged further by the effects of unemployment.

We conducted a systematic review of evidence on effectiveness of focused interventions to address the question: what helps people with chronic illness or disability who are not working return to work in five OECD countries with advanced social welfare systems and universal health care? We developed a typology of interventions, based on their underlying theory of change (table 1). Within this typology, governments can be seen to have adopted two principal policy approaches. The first is orientated towards improving the employment environment, including changing the behaviour of employers towards employing people with long-term illnesses or disabilities. The second focuses on disabled people themselves, aiming to change their behaviour and/or attempting to make them more employable. In this article, we present the findings on the first approach, namely interventions to change employers' behaviour towards disabled people. A companion paper presents the results on the second, individualistic approach, namely changing the behaviour/employment skills of disabled people (Clayton S *et al.*, submitted for publication).

Methods

Our search and selection strategy sought to identify all studies from five OECD countries (Canada, Denmark, Norway, Sweden and the UK), evaluating major government interventions (national or provincial) aimed at helping chronically ill or disabled people who are not working return to work. Inclusion and exclusion criteria are outlined in supplementary table A.

We excluded the whole field of interventions aimed at reducing high rates of 'short-term' sickness absence in different workforces as this phenomenon is considered a separate problem, with different aetiology

Table 1 Perceived problems and underlying programme logic of interventions

Focus	Intervention type and programme logic	Examples of interventions
Employer behaviour	Anti-discrimination legislation Legislate to outlaw employer discriminate against disabled/chronically ill in recruitment and retention of staff	Human Rights Act/Employment Equity Act 1996 (Canada), Act on Prohibition of Discrimination in the labour market 2004 (Denmark), Working Environment Act 1977/2005 (Norway), Prohibition of Discrimination in Working Life of People with Disability Act 1999 (Sweden), Disability Discrimination Act 1995 (UK)
	Workplace adjustments Legal or financial measures to remove or reduce barriers to accessibility of work and employment for disabled/chronically ill people	Provisions in Working Environment Act 1977 (Norway), Working Life Fund/duties in Work Environment Act 1977 (Sweden), AtW scheme (UK)
	Financial incentives to employers Job creation or financial incentives to employers to employ disabled or chronically ill people and thus increase employment opportunities.	Opportunities Fund (Can), Icebreaker, Flexjob (Den), ASL (Norway), Job Introduction Scheme, Work Trial (UK)
	Requirements for employers to engage in return-to-work planning To speed up and improve process of return to work for sick-listed people who may lose contact with work environment if absent for long periods	Enhanced return-to-work planning and improvement in coordination between employers, health-care professionals and social security office (Sweden).
Potential employee behaviour	Individualized case management and job search assistance Individualized vocational advice/job search assistance on a case management basis	Canada Pension Plan Disability Vocational Rehabilitation Program (Canada), New Deal for Disabled People, Pathways to Work (UK)
	Financial incentives/disincentives for welfare claimants Financial incentives/reduced benefit generosity increases incentives to gain employment	Tax credits (Canada, UK), Job Grant, Return to Work Credit, Job Preparation Premium; Permitted Work Rules (UK); Resting Disability Pension (Sweden)
	Education, training and work trial Improve claimants' skills, education and training to increase 'employability'	Labour Market Agreement for Persons with Disabilities (Canada), Employers' duty to provide (Denmark), Residential Training (UK)
	Health condition/impairment management Medical rehabilitation and/or advice on health condition management to reduce employment limitations	Medical/vocational rehabilitation (Canada, Denmark, Norway, Sweden), Dagmar (Sweden), Condition Management Programme (UK)

and a different set of potential management solutions than those addressing the situation of chronically ill or disabled people who are not working. We included interventions designed to help people who had a limiting long-standing illness or disability return to work, irrespective of whether they were unemployed and on some form of incapacity-related welfare benefit or whether they were on long-term sick leave but still with an employment contract. The decision to include disabled people on 'long-term sick leave' in addition to those classed as 'unemployed', was based on knowledge of the different social insurance systems in the included countries. In the UK and Canada, people who are off work with chronic illness or disability are usually out of work and claiming welfare benefits. In contrast, in the Nordic countries these persons are on long-term sick leave and usually have an employment contract. We chose the inclusion criteria to reflect these differences in the national contexts, so that we would not miss the types of interventions that have been tried to help long-term sick people return to work.

We restricted our review to studies from these five countries for comparability and pragmatic reasons. All five countries had substantial numbers of chronically ill and disabled people out of the labour market; they all had advanced social welfare systems and universal health care so the policy contexts were sufficiently similar for cross-country policy learning, and they had all implemented varying policies aimed at tackling this common problem.

We searched 16 relevant electronic databases as well as 111 government and organizational websites across the five countries, with additional search terms developed in Swedish, Danish and Norwegian languages for specific interventions. Studies published in English, Swedish, Norwegian and Danish were included. This search was supplemented by hand-searching the bibliographies of all located studies and requesting information on unpublished studies from researchers in the field. The reviewers excluded clearly irrelevant titles and abstracts and

retrieved full-text copies of the remainder. All retrieved papers were evaluated for relevance by two reviewers in accordance with the inclusion and exclusion criteria drawn up by the authors. This process identified 6576 potentially relevant studies, out of these 86 studies were identified that met the inclusion criteria (see supplementary tables B, C and D for details of the search strategies). Each of these studies underwent a critical appraisal to assess the general design and reporting of each study using criteria adapted from existing established checklists for both quantitative and qualitative studies.

The studies identified were categorized according to a typology of interventions in table 1. This article sets out the main findings from the 30 studies that evaluated interventions that focused on changing the behaviour of employers and/or the work environment to help people with chronic illness and disabilities enter the labour market. (Detailed information on all the included studies is available in accompanying supplementary tables E–H.)

Results

Governments have implemented four main types of intervention to reduce barriers to employment faced by disabled people through influencing the behaviour of employers (table 1). First, there is legislation to outlaw discrimination and require employers to make reasonable adjustments. Secondly, they have supported employers to make these adjustments to the work environment. Thirdly, they have provided employers with financial incentives to employ people with disabilities, and fourthly they have encouraged employers to engage actively in return-to-work planning for people with disabilities and chronic ill health. These approaches have been influenced by the social model of disability, which views disability and subsequent exclusion as resulting from systematic barriers, and negative attitudes in society, rather than as the inevitable consequence of functional limitation.⁷ Evidence on the four

different types of intervention to change employer behaviour are reviewed in turn.

Anti-discrimination legislation

The five countries in this review differ in the extent to which they have used legislation to outlaw discrimination and require employers to make adjustments for people with disabilities. The applicable legislation for each country is summarized in table 2.

We included eight studies that investigated the impact of the UK's Disability Discrimination Act (DDA)^{6–13} (see supplementary table E). No studies were identified from the other four countries. Four of these studies used national population survey data before and after the implementation of the DDA in 1996. None found an improvement in employment rates at the population level for people reporting limiting long-standing illness. There was some evidence that the employment situation had worsened following the introduction of the act for some groups with disabilities, in particular women,⁸ those with lower skills⁷ and those with mental health conditions.⁸ It was not possible with these observational studies to attribute the observed worsening to the operation of the DDA.

Four mixed methods studies examined the awareness of employers of the DDA and their attitude to its implementation.^{9,11–13} About three-quarters of employers were aware that there was legislation covering disability discrimination, although less than one-quarter were aware of the Act itself. Awareness levels were higher amongst larger employers, public sector and voluntary organizations and those already employing disabled people. The studies also reported low levels of awareness of the Act's main provision—making reasonable adjustments for disabled employees—and considerable uncertainty as to what is

meant by the term. One survey of 2022 UK employers,¹¹ reported that only one-third of the 273 employers who had made adjustments indicated that such adjustments had been made in response to the Act. There were apparent contradictions in attitudes towards employing people with disabilities. The majority of employers stated that employees in their workplaces had equal opportunities, but at the same time around half stated that it would be difficult to recruit or retain an employee with disabilities due to workplace practices.

Workplace adjustments

All five countries have implemented policies to support employers to carry out workplace adjustments. Workplace adjustments include changes to work organization such as reduced working hours, flexible working times or modified work, as well as adaptations to buildings, the provision of specialist equipment or support workers, such as a sign language interpreter for meetings (table 2).

We included 10 studies that investigated the experience of people with disabilities of workplace adjustments and their impact on employment (supplementary table F). Two Canadian studies evaluated the employment effects of workplace adjustments of people receiving permanent disability benefits from the Workers Compensation Board.^{14,15} These adjustments included reduced hours, flexible work schedules, special training, modified workplaces, light duties and other types of adjustments. Since these studies only included employment spells prior to 1990, these adjustments were not legally binding at that time.¹⁵ Campolieti¹⁵ found that whether a worker was offered an adjustment or not had no overall significant effect on the duration of employment following injury. However, those offered flexible work schedules or modified workplaces were found to have a significantly increased

Table 2 Description of interventions from the five countries by type

Anti-discrimination legislation	
Canada	Human Rights Act—prohibits employment discrimination (not disability specific) Employment Equity Act (1986, 1996)—covers workplace adjustments
Denmark	Act on Prohibition of Discrimination on the Labour Market (1996, 2004)—covers discrimination in recruitment/employment and workplace adjustments. General legislation, does not single out disability discrimination specifically
Norway	Work Environment Act (2005)—covers workplace adjustments
Sweden	Prohibition of Discrimination in Working Life of People with Disability Act (1999)—covers discrimination in recruitment/employment and workplace adjustments
UK	Disability Discrimination Act (1995, 2005)—covers discrimination in recruitment/ employment and workplace adjustments
Workplace adjustments	
Canada	Most costs covered by employers—some time-limited support through the Labour Market Agreement for People with Disabilities (LMAPD) and the Opportunities Fund. Provincial Workers' Compensations Boards provide support for reasonable adjustments for workers injured within workplace
Denmark	Municipal funding available for personal assistant (≤20 h/week), special equipment, aids or adjustments to the workplace.
Norway	Working Environment Act and Active Sick Leave Act include special provisions for disabled employees in terms of workplace adaptations
Sweden	Ordinances provide public financial support to employers to facilitate provision of working aids and workplace adjustments
UK	AtW programme—provides advice and financial support for travel to work, workplace aids and workplace adjustments (up to 100%)
Wage subsidies for employing disabled people	
Canada	Various provincial level time-limited schemes supported through Opportunities Fund and the LMAPD to provide wage subsidies to hire people with disabilities
Denmark	Flexjobs—national programme enables employers of people with disabilities to claim up to two-thirds of the disabled employee's wages as a subsidy (also allows reductions in working hours and demands and workplace adjustments)
Norway	ASL programme allows workers with a reduced work capacity to return to work with a 100% wage subsidy
Sweden	Public Employment Service scheme provides wage subsidy to employer hiring disabled workers for up to 1 year
UK	Job Introduction Scheme: 13-week flat-rate (modest) subsidy to employers hiring benefit recipients with a disability/chronic illness. Work Trial programme: 15-day unsalaried work trial for disability benefit recipient (who continued receiving incapacity benefits)
Engagement of employers in return-to-work planning	
Canada	Under Workers' Compensation (for work-injured employees only) employers obliged to initiate and lead the development of an individual return-to-work plan
Denmark	Few obligations on employers
Norway	ASL programme requires employers to initiate rehabilitation assessment after 4 weeks of sick leave in cooperation with the health and medical care system
Sweden	Employers' obligation to initiate return-to-work plans after 4 weeks sick leave, removed in 2006, but remain responsible for workplace rehabilitation measures
UK	Few obligations on employers

duration of post-injury employment (mean increase 26 and 56%, respectively, $P < 0.05$). Butler *et al.*¹⁴ found that individuals given light duties, modified equipment and reduced hours were significantly more likely to return to work and not have multiple absences from work. Workers whose employers reduced their hours were 61% less likely to experience multiple absences from work ending in an unsuccessful return. Those benefiting from modified equipment and light work were, respectively, 55 and 8% less likely to experience multiple absences from work ending in an unsuccessful return.

One Swedish study¹⁶ analysed whether return to work after long-term sickness absence was affected by 'adjustment latitude' defined as opportunities to adjust one's work to one's state of health. There was a strong positive relationship between adjustment latitude and return to both part-time and full-time work. The likelihood of return to work increased with increasing opportunities to adjust work. The highest level of adjustment latitude was associated with an odds ratio of returning to full-time employment of 2.9 (95% CI 1.9–4.3) as compared with the lowest level of adjustment latitude.

All three of these quantitative studies had similar issues that threatened the validity of the results. It is not clear whether workplace adjustments were more likely to be offered to particular groups of people, for example those in more highly valued jobs who may be more likely to return to work for other reasons, or alternatively whether adjustments were offered to those with more severe disabilities.

Five UK studies, including two surveys, a qualitative study of recipients and two multi-method studies, investigated the opinions of people supported through 'Access to Work' (AtW) grants.^{17–21} Recipients consistently reported appreciation of the scheme, with, for example 49% of visually impaired recipients of AtW support reported that they would not have remained in employment without the grant.¹⁹ Take-up of the services, however, was focused in particular groups. Hillage *et al.*¹⁸ found that 'AtW' applicants tended to be younger, less likely to be married and more likely to have a sensory or mobility impairment compared with the disabled population as a whole. Public sector employers and those in clerical and secretarial occupations were also overrepresented. Thornton and Corden²⁰ and Thornton *et al.*²¹ reported that 41% of recipients worked in professional jobs, while only 5% of recipients had mental health problems, despite mental health problems being the most prevalent disabling complaint for those in the UK population claiming incapacity benefits.

Two qualitative studies from Sweden investigated the experience that long-term sick listed and disabled individuals had had of workplace adjustments.^{22,23} Recipients of this support believed it had an important influence on their ability to return to work. For respondents, supporting improved workplace access went beyond just helping them overcome functional constraints; they also experienced it as empowering, boosting their confidence. The attitudes of other workers could dampen this positive effect. Adjustments could result in a negative atmosphere if these were not fully understood by work colleagues or if the adjusted work tasks given to the returning worker were of low importance. The qualitative studies indicated that managers can help overcome this issue by communicating to other workers about the planned return of an employee with disabilities, and negotiating a meaningful role for them.^{22,23}

Wage subsidies

Financial incentives to employers such as wage subsidies are intended to help employers to overcome the potential, real or perceived costs of employing a disabled worker. Examples from the five countries are summarized in table 2.

We included six papers that investigated the impact of wage subsidies and the experience of recipients (supplementary table G). Datta Gupta and Larsen²⁴ conducted an evaluation of the effects of the Danish 'flexjob' programme on the employment of 18- to 59-year old disabled people with and without reduced working capacity compared with a control group of non-disabled people. In principal, disabled people without reduced work capacity were not eligible for 'flexjobs' and, therefore, should not be affected by the introduction of the scheme. The study

found that there was no significant improvement in employment for the disabled people with reduced work capacity, relative to the control group, after the introduction of the 'flexjobs' scheme in 1998. Considering specific age groups, however, they found that the probability of employment was raised by between 10.5 and 12.5 percentage points for 35- to 44-year olds. The probability of being employed for disabled people without reduced work capacity improved by between 5 and 8% compared with the non-disabled and this effect was strongest in the older age groups.

A qualitative study of the Danish 'Flexjobs' programme also found that subsidized jobs tended to be unskilled and low paid.²⁵ The responses indicated that the way that these jobs were perceived by other employees and society in general may limit the effectiveness of subsidized employment in terms of social inclusion. While most of the individuals in 'flexjobs' were happy to be in work, *per se*, many expressed dissatisfaction with their role and work identity under the scheme. Many felt that employers provided 'flexjobs' in order to demonstrate their social responsibility for the vulnerable, which turned it into a social obligation rather than an economic transaction, disempowering and further excluding workers with disabilities.

Two papers reported on one study that investigated the impact of increasing the uptake of the 'Active Sick Leave' (ASL) programme in Norway.^{26,27} ASL was universally available in Norway, however, <1% of all eligible cases actually took up the programme. This study used a cluster-randomized controlled trial of two strategies aimed at improving the use of ASL. Sixty-five municipalities were randomly allocated to one of three intervention groups (proactive intervention, passive intervention and control). Patients sick-listed for >16 days with low back pain were included ($n = 6179$). The intervention resulted in an increase in uptake of ASL to 18% in the proactive group compared with 12% in the control group. After one year of follow-up, there were no significant differences in employment outcomes across the three groups. A non-randomized comparison of people who had been on sick leave for at least 12 weeks, however, comparing those that took up ASL ($n = 663$) to those that did not ($n = 1995$), found a higher rate of return to work before 50 weeks among ASL clients (85.2%) compared with non-ASL clients (71.9%) ($P > 0.0001$).

Two qualitative studies investigated the experience of those involved in the 'Job Introduction Scheme' and 'Work Trial' programme in the UK. Atkinson and Kodz²⁸ employer interviews revealed that they viewed the wage subsidy as too small to act as an incentive and half said they would have offered employment to the participants without the intervention. The employment obtained as a result of the intervention tended to be very low paid and low skilled. Similarly, Corden and Sainsbury²⁹ found that while all participants obtained employment after the 15-day intervention period had ended, longer term retention was perceived to be a problem by the participants.

Engagement of employers in return-to-work planning

Poor coordination between employers, health-care professionals and social welfare workers may hinder the return to work of people with disabilities. The approaches of different countries are summarized in table 2. Reforms in Sweden in the early 1990s, for example, emphasized early intervention and placed the responsibility for initiating the process with employers. If an employed person is sick-listed for more than 4 weeks a rehabilitation assessment should be carried out within the following 8 weeks and reported to the Social Insurance Office. A decision about the appropriateness of vocational rehabilitation should be taken on the basis of this assessment. Where rehabilitation is deemed appropriate, a rehabilitation plan is drawn up by the Social Insurance Officer, which can include rehabilitation measures within the workplace.

We included seven studies, all from Sweden, which investigated the role of employers in return-to-work planning (supplementary table H). Karrholm *et al.*³⁰ evaluated the effects of a project in Sweden to improve the engagement of employers with health services and the social insurance system in coordinating rehabilitation, which included one-day training course and the setting up of a rehabilitation group of employer, employee

and relevant services to develop a return-to-work plan. Using matched pairs, the employment and length of sick leave of the intervention group was compared with clients undertaking rehabilitation in the normal fashion. They found that the intervention group had substantially less sick leave than the comparison group, and that this effect was stronger in a subgroup of clients who had had more previous sick leave ($P < 0.05$). The study was, however, based on a small sample of 64 pairs.³⁰

Four qualitative studies from Sweden^{23,31–33} using either focus group or in-depth interview methods, found that sick-listed employees viewed support from the employer as a vital element of the rehabilitation process, in particular through effective return-to-work planning and maintaining contact with the workplace and colleagues. Although Sweden has the strongest legislation requiring employers to engage in return-to-work planning, two further studies^{34,35} found that few employers were fulfilling these duties. Selander *et al.*³⁵ suggest that the lack of action of employers may be due to a lack of awareness of their responsibilities as well as a lack of sanctions.

Discussion

Limitations of the evaluation evidence

While our searches identified a wide range of initiatives focused on improving the employment environment and changing employers' behaviour towards employing disabled people, there is a clear shortage of studies evaluating the effects of these policies, particularly controlled studies. The qualitative studies that we identified provided useful insights into the difficulties with implementation of initiatives and perceptions of participants and providers. Also rare were studies investigating or reporting on whether the interventions had differential impacts on different socio-economic groups in the population. The interpretation of the results of many of the effectiveness studies was made difficult by the selection into programmes of participants who may be more able or motivated to move into employment.

Policy implications

It is difficult to detect an effect of legislation to combat discrimination by employers

The emphasis of rights-based legislation has been on prohibiting discrimination, i.e. only taking action when discrimination has been legally demonstrated. This is a slow and laborious approach, in which only a small minority of disabled people are helped by the courts. There is no evidence from the UK studies that the DDA had any wider effects on employment rates among disabled people of a magnitude that could be picked up at the population survey level. Legislation of this nature may be a necessary, but not sufficient, strategy.

Workplace adjustments have positive impact on employment but low uptake

The evidence reviewed here suggests that where adjustments are made by employers, particularly where employers can be flexible with work schedules, and give employees greater control over work demands, they may produce some promising results in terms of improved employment chances for disabled people. However, to have an impact on overall levels of employment of people with disabilities, workplace adjustments need to take place on a much larger scale and be accessible to less skilled groups in the population. Although there was evidence that the UK's 'AtW Scheme', for example, was highly valued by the recipients, only a small minority of people with disabilities received support, and those tended to be in non-manual and professional jobs. It is the people in low-skilled jobs, however, that are most likely to suffer from a disability and be out of work because of it.

Financial incentives such as wage subsidies can work if they are sufficiently generous, but can have unintended side effects

To a certain extent, the level of wage subsidies presents a dilemma. If they are too low, they do not act as a strong enough incentive. If they are too high, they can create a segregated form of employment for people with disabilities, which is outside the competitive labour market. Some of the evidence reported here from the 'flexjobs' programme in Denmark indicates that this may be disempowering and result in further social exclusion. In general, much of the qualitative evidence reviewed here highlights how providing support, whether in terms of subsidies or changes to working conditions, for people with disabilities, can have both positive and negative effects. In introducing new policies, attention needs to be paid to the effects of support on the self-esteem and status of the recipients of this support, as well as on employment outcomes.

Involving employers in return-to-work planning can reduce subsequent sick leave and be appreciated by employees, but this policy has not been taken up with the level of intensity that is likely to make a difference

Although the qualitative research reviewed here indicates that people involved in rehabilitation and the disabled people themselves see this as important, there was very little evaluative evidence demonstrating an impact. This is partly because, even in countries such as Sweden where there is legislation requiring the engagement of employers, too few were fulfilling their responsibilities. Clearly, more attention needs to be paid to awareness-raising and encouraging take-up of promising approaches.

Some interventions favour the more advantaged disabled people and those closer to the labour market

Evidence from the UK 'AtW' programme indicated that the pattern of take-up favoured more disabled people with sensory or mobility impairments and those in professional occupations, whilst people with mental health conditions benefitted least. Similarly, the Danish 'flexjobs' scheme appeared to be assisting those disabled people without reduced work capacity, who perhaps needed the initiative least. This indicates a need to be vigilant about who is in need and who should benefit from planned interventions.

Conclusion

The types of intervention aimed at changing the behaviour of employers that show most promise include financial incentives to hire disabled workers if suitably generous; support for making the work environment more accessible/flexible; and schemes to involve/require employers to participate in return-to-work planning. All of these initiatives, however, tend to suffer from low awareness and low take-up, and are thus not capable of making a population-level impact. Future evaluations need to pay more attention to the differential impact of interventions, the degree of take-up and non-stigmatizing implementation and the wider policy context in each country.

Supplementary data

Supplementary data are available at *EURPUB* online.

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Key points

- The exclusion of working-age, chronically ill and disabled people from the labour market is a serious public health concern across many OECD countries. Levels of exclusion vary across these countries, suggesting that the different policies or interventions in operation may be more or less effective at assisting people with chronic illnesses and disabilities into the labour market.
- There were few robust evaluations and it was rare for studies to analyse differential effects. Biased selection into programmes was common.
- Positive employment impacts were found from workplace adjustments; sufficiently generous financial incentives such as wage subsidies; and increasing the involvement of employers in return-to-work planning. These policies, however, were not taken up with sufficient intensity to make a significant impact on employment rates at the population level.
- Policymakers and researchers need to pay more attention to the differential impact of interventions, the degree of take-up and non-stigmatizing implementation, and the wider policy context in each country.

References

- Whitehead M. Disability and employment: lessons from natural policy experiments. *Eur J Public Health* 2010;20:371–3.
- OECD. *Transforming disability into ability policies to promote work and income security for disabled people*. Paris: OECD, 2003.
- OECD. *Sickness, disability and work: breaking the barriers SWEDEN: will reforms really make it*. Paris: OECD, 2009.
- Burström B, Holland P, Diderichsen F, Whitehead M. Winners and losers in flexible labor markets: the fate of women with chronic illness in contrasting policy environments—Sweden and Britain. *Int J Health Serv* 2003;33:199–217.
- Burström B, Whitehead M, Lindholm C, Diderichsen F. Inequality in the social consequences of illness: how well do people with long-term illness fare in the British and Swedish labor markets? *Int J Health Serv* 2000;30:435–51.
- Bambra C, Pope D. What are the effects of anti-discriminatory legislation on socioeconomic inequalities in the employment consequences of ill health and disability? *J Epidemiol Community Health* 2007;61:421–6.
- Bell D, Heitmueller A. *The Disability Discrimination Act in the UK: helping or hindering employment amongst the disabled?* Berlin: Forschungsinstitut zur Zukunft der Arbeit (IZA) Institute for the Study of Labor, 2005.
- Jones MK, Latreille PL, Sloane PJ. Disability, gender, and the British labour market. *Oxford Econ Pap* 2006;58:407–49.
- Kelly G, Lam P, Thomas A, Turley C. *Disability in the workplace: small employers' awareness and responses to the Disability Discrimination Act (1995) and the October 2004 duties*. London: Department for Work and Pensions, 2005.
- Pope D, Bambra C. Has the Disability Discrimination Act closed the employment gap? *Disabil Rehabil* 2005;27:1261–6.
- Roberts S, Heaver C, Hill K, et al. *Disability in the workplace: employers' and service providers' responses to the Disability Discrimination Act in 2003 and preparation for 2004 changes*. London: Department for Work and Pensions, 2004.
- Simm C, Aston J, Williams C, et al. *Organisations' responses to the Disability Discrimination Act*. London: Department for Work and Pensions, 2007.
- Stuart N, Watson A, Williams J, et al. *How employers and service providers are responding to the Disability Discrimination Act 1995*. London: Department for Work and Pensions, 2002.
- Butler RJ, Baldwin M, Johnson W. Managing work disability: why first return to work is not a measure of success. *Ind Labor Relat Rev* 1995;48(3): 452–69.
- Campolieti M. How accommodations affect the duration of post-injury employment spells. *J Lab Res* 2005;26:485–99.
- Johansson G, Lundberg O, Lundberg I. Return to work and adjustment latitude among employees on long-term sickness absence. *J Occup Rehabil* 2006;16:185–95.
- Beinart S, Smith P, Sproston. *The access to work programme—a survey of recipients, employers, employment service managers and staff*. London: Social and Community Planning Research, 1996.
- Hillage J, Williams M, Pollard E. *Evaluation of access to work*. Brighton: Institute for Employment Studies, 1998.
- RNIB. *The views of blind and partially sighted users on access to work*. London: Royal National Institute for the Blind, 2004.
- Thornton P, Corden A. *Evaluating the impact of access to work, a case study approach*. London: Department for Work and Pensions, 2002.
- Thornton P, Hirst M, Arksey H, Tremlett N. *Users' views of access to work: final report of a study for the employment service*. York: Social Policy Research Unit, 2001.
- Isaksson Mettavanio B, Ahlgren C. Facilitating factors for work return in unemployed with disabilities: a qualitative study. *Scand J Occup Ther* 2004;11:17–25.
- Nordqvist C, Holmqvist C, Alexanderson K. Views of laypersons on the role employers play in return to work when sick-listed. *J Occup Rehabil* 2003;13:11–20.
- Datta Gupta N, Larsen M. *Evaluating employment effects of wage subsidies for the Disabled – the Danish Flexjobs Scheme*. Annual Conference European Association Labour Economists 18–20 September, Amsterdam, 2008.
- Hohnen P. Processes of marginalisation: an analysis of new forms of exclusion on the Danish labour market, Vol. 11. Copenhagen: The Danish National Institute of Social Research Working Paper, 2001.
- Scheel IB, Hagen KB, Herrin J, et al. Blind faith? The effects of promoting active sick leave for back pain patients: a cluster-randomized controlled trial. *Spine* 2002;27:2734–40.
- Scheel IB, Hagen KB, Herrin J, Oxman AD. A randomized controlled trial of two strategies to implement active sick leave for patients with low back pain. *Spine* 2002;27:561–6.
- Atkinson J, Kodz J. *Evaluation of the job introduction scheme*. Brighton: Institute for Employment Studies, 1998.
- Corden A, Sainsbury R. *Incapacity benefits and work incentives*. London: Department for Work and Pensions, 2001.
- Karrholm J, Ekholm K, Jakobsson B, et al. Effects on work resumption of a co-operation project in vocational rehabilitation. Systematic, multi-professional, client-centred and solution-oriented co-operation. *Disabil Rehabil* 2006;28:457–67.
- Gard G, Soderberg S. How can a work rehabilitation process be improved? - a qualitative study from the perspective of social insurance officers. *Disabil Rehabil* 2004;26:299–305.
- Holmgren K, Dahlin Ivanoff S. Supervisors' views on employer responsibility in the return to work process. A focus group study. *J Occup Rehabil* 2007;17:93–106.
- Ostlund G, Cedersund E, Alexanderson K, Hensing G. “It was really nice to have someone” - lay people with musculoskeletal disorders request supportive relationships in rehabilitation. *Scand J Public Health* 2001;29:285–91.
- Marnetoft SU, Selander J, Bergroth A, Ekholm J. The unemployed sick-listed and their vocational rehabilitation. *Int J Rehabil Res* 1997;20:245–53.
- Selander J, Marnetoft SU, Bergroth A, Ekholm J. The process of vocational rehabilitation for employed and unemployed people on sick-leave: employed people vs unemployed people in Stockholm compared with circumstances in rural Jamtland, Sweden. *Scand J Rehabil Med* 1998;30:55–60.