CHAPTER 3

The relevance of work-related learning for vulnerable groups: Dutch case study of a Health Impact Assessment with equity focus

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Abstract

Introduction: Learning is essential for sustainable employability. However, various factors make work-related learning more difficult for certain groups of workers, who are consequently at a disadvantage in the labour market. In the long term, that in turn can have adverse health implications and can make those groups vulnerable. With a view to encouraging workers to continue learning, the Netherlands has a policy on work-related learning, which forms part of the ‘Vitality Package’.

Aim: A Health Impact Assessment with equity focus (HIAef) was undertaken to determine whether the policy on work-related learning affected certain groups of workers and their health in different ways, and whether the differences were avoidable.

Methods: The HIAef method involved the standard phases: screening, scoping, appraisal and recommendations. Equity was the core principle in this method. Data were collected by means of both literature searches (e.g. Scopus, Medline) and interviews with experts and stakeholders (e.g. expertise regarding work, training and/or health).

Results: The HIAef identified the following groups as potentially vulnerable in the field of work-related learning: the chronically sick, older people, less educated people, flexi-workers/the self-employed and lay carers (e.g. thresholds to learning). Published literature indicates that work-related learning may have a positive influence on health through (work-related) factors such as pay, employability, longer employment rate and training-participation. According to experts and stakeholders, work-related learning policy could be adapted to take more account of vulnerable groups through alignment with their particular needs, such as early support, informal learning and e-learning.

Conclusion: With a view to reducing avoidable inequalities in work-related learning, it is recommended that early, low-threshold, accessible opportunities are made available to identified vulnerable groups. Making such opportunities available may have a positive effect on (continued) participation in the labour market and thus on the health of the relevant groups.

Keywords: Health Impact Assessment, Health equity, Vulnerable groups, Equity focus
1. **Introduction**

1.1 **Use of HIA methodology**

Health Impact Assessment (HIA) is an adaptable method for systematically gauging the potential health implications of a policy proposal, programme or project \[1, 2\]. It is suitable for studying a ministry’s generic policy objectives or specific plans for a particular neighbourhood \[3\]. In the Netherlands HIA was first developed and applied on national level. However, currently it is predominantly taking place in local projects (e.g. spatial planning or urban development) and rarely on a national level \[4, 5\]. Moreover, little use is made of a HIA with specific emphasis on health equity. These findings correspond with the practice in other European countries \[6, 7\].

Health equity implies the absence of avoidable health inequalities \[8\]. It is known that health inequalities are closely related to unemployment, low income, low educational level and unfavourable working conditions \[9\]. In order to substantially reduce these inequalities a joint effort of the health and non-health sectors is required (e.g. social affairs and education) \[10\]. Therefore, it is important to incorporate the issue of health equity in the policies of different sectors and to establish an intersectoral collaboration or Health in All Policies \[11\]. In that context a Health Impact Assessment with equity focus (HIAef) can provide valuable support \[3\].

A HIAef involves the complementary and structured application of the HIA methodology to determine the potential differential and distributional impacts of a policy or practice on the health of the population and on certain groups within that population, as well as whether the differential impacts are inequitable \[1, 8\]. Similar instruments are Equity-Focus Health Impact Assessment or the Health Equity Assessment Tool \[12, 13\]. Also, a HIA is supposed to assess the distribution of impacts between population groups \[14\]. However, some argued that HIA does not adequately identify differential impacts on vulnerable groups, and so health equity-focused tools were developed \[12, 15\]. In the European Equity Action project, nineteen countries including the Netherlands each applied the HIAef methodology to a particular case on national or regional level \[6\].

1.2 **Dutch case study**

In consultation with the ministries of Health, Welfare and Sport (VWS) and Social Affairs and Employment (SZW), a HIAef focusing on the Vitality Package was performed as part of a Dutch case study. The Vitality Package aims to support sustainable employability at the labour market. Sustainable employability implies that, throughout their working lives, workers have the circumstances and realisable opportunities necessary to (continue to) perform their current and future roles without adversely affecting their health or welfare \[16\]. Development of appropriate knowledge and skills is vital, because job requirements
are constantly changing. Lifelong learning (continuous maintenance of knowledge and skills) is therefore a prerequisite for employability [17, 18]. For certain groups of workers – as distinguished by, for example, age, socioeconomic status, home-work circumstances, health status, social skills or motivation – work-related learning may be more difficult [19]. That may mean that they are at a disadvantage in the labour market, which may in turn have adverse health implications. The ultimate outcome may be that (health) inequalities are created, or that existing inequalities are reinforced or amplified (e.g. through unemployment or loss of income) [20]. A working environment and government policies that enable and encourage all workers to learn is therefore important [16, 21]. In the Netherlands, the Ministry of Social Affairs and Employment has formulated the Vitality Package for the implementation of sustainable employability policy [17]. The measures in the package are expected to help boost work participation amongst older workers and to increase sustainable employability within the workforce [17]. The measures are linked to three policy lines: prolonged working, labour mobility and work-related learning [17]. The policy line on work-related learning is specifically intended to encourage learning and development within the workforce. This paper describes the results of the HIAef undertaken with a view to determining whether work-related learning policy has a differential impact on certain groups of workers and whether avoidable health differences are discernible. The following research questions are addressed: (1) Which groups of workers are vulnerable in the context of work-related learning? (2) What impact does work-related learning have on vulnerable groups and their health (determinants)? (3) How can work-related learning policies take account of vulnerable groups of workers?

2. Methods

2.1 HIA with equity focus

Fig. 1 shows that the HIAef methodology is a systematic approach involving five successive phases, each comprising various activities: (1) screening (selecting the policy subject and measures for the HIAef), (2) scoping (defining determinants/factors that will be used to identify the impact of the policy and identifying vulnerable groups), (3) appraisal or assessment (assessing the positive or negative impact of the policy on the health of vulnerable groups), (4) making recommendations (identifying the aspects of the policy that may be adapted in order to prevent avoidable inequalities in vulnerable groups) (5) monitoring and evaluation [6].
The study reported here involved only the first four phases of a HIAef of the Ministry of Social Affairs and Employment’s Vitality Package, which was undertaken to provide input to the implementation of the policy. A support group consisting of five experts in the field of HIA, health inequalities and sustainable employability advised on the four phases, both on content (e.g. vulnerable groups, framework consisting of relevant factors, ‘adaptation options’) and process (e.g. targeted inclusion of stakeholders/experts). During the HIAef there was regular contact with the policy-makers of the Ministries of Health and Social Affairs in order to stay connected to the policy process. Appendix A lists all participants. The HIAef was carried out in the period 2011 to 2013.

Fig. 1. Phases of Health Impact Assessment with equity focus in Dutch case study
2.2 Data-collection in the HIAef

Implementation of the HIAef phases involved the use of various data collection methods: document analysis, literature searches and interviews with scientific experts and stakeholders (see Fig. 1).

- Document searches on relevant websites (e.g. national government, knowledge centres and advisory bodies) with a view to gathering information on the theme of sustainable employability, the Vitality Package and vulnerable groups. Searches were carried out on the websites of organisations that play a role in the relevant policy field.

- Literature searches in relevant electronic databases (Scopus and Medline), including economics databases (OECD). Systematic searches were made regarding learning in the context of work (search terms: job training, general or specific training, lifelong learning and formal or informal training) and aspects of sustainable employability (search terms: work-participation, workability) and health in the context of work (search terms: well-being, vitality). The work-related learning search yielded 305 titles. The inclusion criteria used for analysis of the titles were: publication relates to work-related learning, publications concerned with formal and informal training, English-language publication regarding an original study, research carried out in an OECD country, quantitative research and outcome indicator is an indicator of health or an aspect of sustainable employability (workability, employability and vitality). The exclusion criteria used were: no reintegration-related training, no evaluation of training content and no reviews. On the basis of the literature search, the impact of work-related learning on (determinants of) health in the context of work was defined both for the population as a whole and for vulnerable groups. The data were analysed by reference to population, type of training, health (determinant) outcome indicators and the relationship between learning and health. Health is, of course, also a condition for participation in work-related learning and sustainable employability, but that was not taken into account in this literature study.

- Interviews with five experts and ten stakeholders. Major themes that were addressed included: groups of workers that are potentially vulnerable in the context of work-related learning, determine the impact of work-related learning on such groups and identify ways of taking more account of such groups in work-related learning policy. Telephone or face-to-face semi-structured interviews lasting between sixty and ninety minutes. The interviews were all recorded using a digital voice recorder and analysed qualitatively on the basis of included themes. The experts in question were four professors (vitality management, determinants of public health, occupational medicine and labour economics) and a work and
health programme manager at a foundation active in the field. The stakeholders included people employed by organisations that represent the chronically sick and older people with matters relating to work and sustainable employability.

During the execution of HIAef there was sufficient time to apply the mix of methods and to analyse the results. These results were separately peer reviewed by researchers, in close collaboration with the support group.

3. Results

3.1 Suitable policy with regard to equity
In the HIAef screening phase, the Vitality Package – in particular the policy on work-related learning that forms part of that package – was selected as a suitable policy proposal for assessment [17]. It was expected that this policy could turn out differently for vulnerable groups. The work-related learning policy includes various measures designed to promote willingness to train and training participation in the workforce: lowering the threshold at which training expenses become tax-deductible from 500 to 250 euros; promoting a culture of learning in the small and medium-sized enterprise (SME) sector; introducing From Work To Work (VWNW) budgets so that workers have the resources to undertake (re)training if they lose their jobs [17]. Due to the relatively low level of concreteness of the policy and measures it was not possible to focus on these specific measures. Therefore the assumed relationship between training (e.g. formal or informal learning), work and health has been assessed.

3.2 Relevant factors and vulnerable groups

Relevant factors for the HIAef
In the scoping phase of the HIAef, consideration was given to the impact of work-related learning on (determinants of) the health of the working population as a whole, without seeking to identify any group-specific impacts. The impact was assessed on the basis of the thirty-six included titles from the academic literature study plus a number of ‘grey literature’ articles (obtained through experts and others). It was thus established that training, work and health are interrelated in a complex manner. Various influential determinants/factors within that interrelationship were identified. The identified factors are listed in Fig. 2; the basis for their identification in the academic literature as influential is separately set out in Appendix B.
Fig. 2. Framework with relevant outcomes of training, work and health

From the academic literature (references, Appendix B), it appears that a relationship exists between the provision of training (opportunities) (training measures or career facilities) and training participation and attitude to training amongst workers. Moreover, it appears that participation in training may have a positive influence on employability, job security, levels of pay, productivity, longer employment rate and job satisfaction. For example, training increases the likelihood that a person is able to change jobs (employability) or reduces the likelihood of a person being in low-paid work (pay). Appendix B shows that most of the studies considered address the relationship between work-related learning and the levels of pay (ten studies), job satisfaction (six studies), participation in training (five studies) and attitude to training (four studies). The identification of influential factors from the academic literature was confirmed by analysis of the grey literature. In the Netherlands, for example, a positive relationship has been observed between participation in lifelong learning (maintenance of knowledge and skills) and employability [22, 23]. Training also appears to have a positive influence on levels of pay [24]. Furthermore, OECD research indicates that training is associated with a higher likelihood of employment [22]. The academic literature shed little light on the direct influence of training on the health of workers. However, the grey literature included studies suggestive of a possible link between lifelong learning and (perceived) vitality [25]. Learning may also influence health (or well-being) indirectly, for example by increasing job security and thus reducing stress and insecurity (loss of work...
is associated with negative health effects) and by increasing work participation and thus social contact and structured lifestyles [26, 27]. Leaving employment early can lead to health problems [28]. Generally speaking, therefore, work-related learning appears to have a positive influence on health, primarily through intermediate (work-related) factors.

**Vulnerable groups of workers**

The HIAef identified various groups that are vulnerable in the context of work-related learning, i.e. that are less likely to participate in training than other groups. As indicated in Table 1, the chronically sick, older people, less educated people, the self-employed/flexi-workers and lay carers undertake less work-related learning [29-32].

The chronically sick, for example, make less use of retraining or training opportunities [29]. Older people devote less time to informal learning [33]. Less educated people are less likely to participate in post-initial training than more educated people, and that difference has increased in recent decades [24, 33]. The same is true of workers with flexible jobs [32].

If older people and less educated people drop out of the labour process (due to loss of work or ill health) they subsequently find it hard to secure new work [39]. For example, only one person in ten aged fifty-five and above finds alternative work after losing their job. Some lay carers reduce the amount that they work or stop work altogether in order to concentrate on their care responsibilities [40].
### Table 1. Descriptions of vulnerable working population groups

<table>
<thead>
<tr>
<th>Vulnerable group</th>
<th>Size of target group[34]</th>
<th>Vulnerability in work context</th>
<th>Work-related training</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chronically sick (CZ)</td>
<td>In 2011, employment participation (paid work at least twelve hours per week) amongst people with a chronic sickness or disability aged fifteen to sixty-four was 23 per cent. Employment participation was lower amongst people with three or more chronic conditions (18 per cent) and amongst people with serious disabilities (9 per cent).</td>
<td>Chronically sick workers experience impairment (44 per cent slightly and 8 per cent seriously), fatigue, stress, concentration problems, difficulties completing work, reading problems, absence for treatment; the chronically sick are more frequently absent from work (thirty-one days versus fourteen).[26]</td>
<td>Unlikely to undertake retraining or follow a training pathway.[29]</td>
</tr>
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<td>Older people</td>
<td>In 2012, 68 per cent of people aged fifty-five to sixty and 38 per cent of people aged sixty to sixty-five were in employment. Amongst people above the age of sixty-five, the employment participation is considerably less: only 8 per cent of people aged sixty-five to seventy and 3 per cent of people aged seventy to seventy-five work.</td>
<td>Working older people experience deteriorating health, but prior to retirement age that has little influence on their physical and cognitive performance. They retain their vitality and employability, they are not absent due to sickness more often, but they are more likely to experience prolonged absence. More than 40 per cent of the over-fifties who stop working early do so because of impaired health and unhealthy lifestyles, 16 per cent because of working conditions. [35]</td>
<td>Training participation amongst older workers is lower than amongst younger workers. However, there has recently been a modest increase amongst older workers (over-fifties), as people are tending to continue working longer.[30] Older people devote less time to informal learning than younger people do.[33]</td>
</tr>
<tr>
<td>Less educated people</td>
<td>In 2011, there were nearly 3.5 million less educated people, of whom a little more than half were in work.</td>
<td>Related to the characteristics of the work (e.g. very physically strenuous, less flexible), the characteristics of the group (poor health, frequent chronic sickness) and priorities (less investment in training).[36]</td>
<td>Amongst less educated people the percentage taking post-initial training is smaller than amongst well educated people (47 versus 65 per cent). The disparity has increased in recent decades.[33] Less educated people tend to be less able to invest in training and are liable to have difficulties with formal learning, making them more dependent on their employers.[31]</td>
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<td></td>
</tr>
<tr>
<td>The self-employed and flexi-workers</td>
<td>In 2011, there were 750,000 self-employed people. Numbers of self-employed have been rising sharply in recent years (15 per cent more in 2011 than 2010), particularly in industries such as construction, but also amongst older people. The number of flexi-workers has also been rising (from 13 per cent in 2001 to 18 per cent in 2011); amongst people aged fifty-five to sixty the corresponding figures are 35 per cent and 52 per cent.</td>
<td>Self-employed people are responsible for their own insurance, pensions and training. Those in low-paid jobs are particularly vulnerable (long hours, lack of investment in training). However, self-employment also offers opportunities (ability to manage one’s own time) and may also be desirable for people who are also chronically sick. Flexi-workers are at a disadvantage to people with permanent jobs and are therefore more vulnerable.</td>
<td>Workers on flexible contracts are less likely to take post-initial training than workers with permanent contracts (difference in NL 12 per cent). Flexi-workers are more likely to participate in self-funded training, but not to an extent that is sufficient to offset the lower participation rate.</td>
</tr>
<tr>
<td>Lay carers</td>
<td>In 2012, one in eight people combined employment with the provision of lay care. That equates to 750,000 workers. Most of the carers in question are aged forty-five or older. On average, a working lay carer devotes seventeen hours per week to lay care activities. Women (61 per cent) are overrepresented relative to men.</td>
<td>Almost half of working lay carers feel over-extended, but 45 per cent of them do not talk about it. In 2007, between fifty thousand and a hundred thousand working lay carers started working less or stopped working altogether.</td>
<td></td>
</tr>
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</table>
### 3.3 Impact of work-related training on vulnerable group of workers

In the assessment phase of the HIAef, the possible impact of work-related learning on (determinants of) health in vulnerable groups was analysed. The results for the previously identified vulnerable groups are summarised in Table 2. The tabulated information is based on nineteen of the thirty-six titles identified by the academic literature search (i.e. those which specifically address vulnerable groups), plus a number of grey literature studies and the interview findings.

According to the literature, work-related learning (e.g. job training) may have a positive influence on the longer employment rate (reduced labour market drop-out) amongst the *chronically sick*. Generally speaking, however, little is known about the impact of work-related learning on this group [41]. Stakeholders report that learning is important for the vitality of the chronically sick, but no academic research has been conducted to confirm that assertion.

The literature indicates that, in *older people*, work-related learning (e.g. firm-specific training, general training) has a positive influence on attitude to training, employability, job security, pay and early withdrawal from the labour market. Those findings are confirmed by the grey literature and interviews with experts. Various studies have shown that training leads to higher pay, improved job security and greater employability in older people [33, 42]. One expert commented that training also influenced productivity and motivation amongst older people. It is important that older people keep their skills up to date if they are to remain productive and retain their jobs [43].

In *less educated people*, work-related learning (e.g. non-formal training, lifelong learning) may have a positive influence on participation in training, employability (mobility), pay and job security. From the grey literature it appears that less educated people participate in training less, but when they do participate the effects are as great as in the wider population [44]. For example, training has a positive influence on pay and job security in this group [24]. One expert indicated that, in this group, training which offers the prospect of better pay has a positive effect if people are aware of the opportunities open to them. Training appears to increase the internal employability of less educated people, but not their employability on the external labour market [45].

From the academic literature, it appears that in *flexi-workers* work-related learning (e.g. general training, firm-provided training) has a positive influence on training participation, pay and commitment, as well as a negative effect on exhaustion [46, 47].

The influence of work-related learning amongst *lay carers* is not described in the literature (of this study). Our interviewees nevertheless indicated that training is an important tool for increasing employability and productivity in lay carers, provided that the carers’ capacity to take on training was born in mind. Several interviewees said that it was important to improve the work-life balance for members of this group in order to reduce the risk of them dropping out of work.
Table 2. Impact of work-related learning policy on vulnerable groups of workers

<table>
<thead>
<tr>
<th>Training outcomes</th>
<th>The chronically sick</th>
<th>Older people</th>
<th>Less educated people</th>
<th>The self-employed/flexi-workers</th>
<th>Lay carers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work outcomes</td>
<td>Attitude to training ↑</td>
<td>Participation in training ↑</td>
<td>Participation in training ↑</td>
<td>Pay ↑</td>
<td>Employability ↑</td>
</tr>
<tr>
<td>Longer employment rate ↑</td>
<td>Employability ↑</td>
<td>Pay ↑</td>
<td>Employability ↑</td>
<td>Commitment ↑</td>
<td>Productivity ↑</td>
</tr>
<tr>
<td>(withdrawal from workforce)</td>
<td>(internal mobility)</td>
<td>Job security ↑</td>
<td>Job security ↑</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Productivity ↑</td>
<td></td>
<td>Productivity ↑</td>
<td></td>
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<tr>
<td>(work-related competences)</td>
<td></td>
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<tr>
<td>Longer employment rate ↑</td>
<td></td>
<td></td>
<td>Longer employment rate ↑</td>
<td></td>
<td></td>
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<tr>
<td>(early withdrawal from the labour market)</td>
<td></td>
<td></td>
<td>(less unemployment)</td>
<td></td>
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</tr>
</tbody>
</table>

Health outcomes

| Vitality ↑ | Physical performance ↓ (exhaustion) | Mental performance ↑ (load capacity) |

See Appendix B for references from the academic literature.

Italics represents an academic literature source; non-italicised letters represents a grey literature or interview source.
3.4 Ways of adapting policy to take account of vulnerable groups

The recommendation phase of the HIAef involved the identification of opportunities for promoting work-related learning in vulnerable groups of workers and addressing the potential for avoidable (health) differences in the impacts of established work-related learning policy. The various identified opportunities are listed in Table 3. Identification of the opportunities was based largely on interviews with experts and stakeholders.

Table 3. Opportunities for adapting work-related learning policy to vulnerable groups of workers

<table>
<thead>
<tr>
<th>Employer</th>
<th>Government</th>
</tr>
</thead>
<tbody>
<tr>
<td>The chronically sick</td>
<td>- Make training specific and not supply-led.</td>
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<tr>
<td></td>
<td>- Make use of remote training, such as internet-based or e-learning.</td>
</tr>
<tr>
<td></td>
<td>- Make funds or training available at the right time (do not create barriers to participation)</td>
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<td></td>
<td>- Initiate discussion and intervene when a worker becomes unwell.</td>
</tr>
<tr>
<td>Older people</td>
<td>- Promote skills such as applying for jobs and networking, with a view to facilitating job switching.</td>
</tr>
<tr>
<td>Less educated people</td>
<td>- Implement extra initiatives for this group in order to address their fear of examinations (difficulty with formal learning).</td>
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<tr>
<td></td>
<td>- Keep training low-threshold and pay attention to informal learning (learning pathways within companies).</td>
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<tr>
<td></td>
<td>- Encourage training participation, learning at work and career guidance.</td>
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<td></td>
<td>- Ensure that educational resources are accessible for less educated workers.</td>
</tr>
<tr>
<td>The self-employed/flexi-workers</td>
<td>- Also invest in training people who are only temporarily attached to the organisation.</td>
</tr>
<tr>
<td></td>
<td>- Tie in with the infrastructure of educational facilities.</td>
</tr>
<tr>
<td>Lay carers</td>
<td>- Help lay carers to find an appropriate work-life balance (as a form of empowerment) so that they are able to take training</td>
</tr>
</tbody>
</table>

- Promote equal access to training and equal opportunities for learning new skills and competencies, lifelong learning. |
- Promote awareness amongst workers and employers of the importance of prompt retraining; people in physically strenuous professions are often unable to continue working when they get older. |
- Promote training participation by providing financial support. |
- Focus on measures to increase work participation amongst less educated women and on traditional vocational training. |
- Emphasise the importance of training for participation in the labour market. |
Employers have a very important role to play in this context, particularly in the creation of a working environment that encourages vulnerable groups of workers to learn, so that they can (continue to) participate without implications for their health and welfare. From both the literature and the interviews, it appears that the chronically sick and older people are given training opportunities by their employers less often than other workers, because their employers fear that members of these groups are liable to stop working early or drop out of work as a result of ill health. In order to support chronically sick and older workers, it is important to adapt training provision to their needs (i.e. early support) and to make (re)training available when needed. Where the chronically sick are concerned, it is important to take account of the sickness process and to enable remote learning (e-learning). In less educated people, willingness to train appears to be negatively influenced by adverse experiences at school and fear of examinations. Policy on work-related training therefore needs to make use of informal learning or diminish the fear factor (i.e. make low-threshold training opportunities available). According to the interviewed experts, improved access to educational resources is also essential for less educated workers. During the interviews with stakeholders, they stated that lay carers find it hard to strike an appropriate work-life balance and consequently require more encouragement from their employers to participate in training. The self-employed and flexi-workers have fewer work-related learning opportunities because they tend to be only temporarily attached to organisations that can provide such opportunities. It is therefore important that employers utilise an infrastructure of educational facilities, to which the self-employed and flexi-workers have access as well (e.g. accessible setting, culture). The interviewees additionally observed that the government had a key role to play too, by for example encouraging lifelong learning, promoting awareness of the need for prompt retraining and ensuring that vulnerable groups have equal access to training.

4. Discussion

4.1 Collaboration on work and health
This study involved a HIAef of the policy on work-related learning included in the Ministry of Social Affairs and Employment’s Vitality Package. The aim of the exercise was to establish whether the policy affected certain groups of workers differently from others and whether avoidable health differences were discernible in the disadvantaged groups. Undertaking such an assessment was felt to tie in with developments in the relationship between ministries of Health and Social affairs, particularly the increasing emphasis on promoting employability and vitality amongst (older and younger) workers, as opposed to merely seeking to prevent ill health and work drop-out [48]. Work and health are closely interrelated and the findings of
this HIAef therefore serve to inform and support further collaboration (between government, employers and workers) and integrated policy formulation and decision-making in this field [49]. However, the current economic climate may make it difficult for employers to prioritise work-related learning policy with a view to promoting the sustainable employability of their personnel. Employers are sometimes obliged to shed staff, rather than invest in them by facilitating work-related learning.

### 4.2 Complex interrelationship of training, work and health

The HIAef found that, in general, work-related learning policy can have a positive influence on health, mainly through intermediate (work-related) factors. However, the chronically sick, older people, less educated people, the self-employed/flexi-workers and lay carers all participate in work-related learning less often than other workers (as a result of less provision, difficulties with formal learning, temporary attachment to organisation). The literature reports that, in those groups as in the wider workforce, work-related learning has a positive influence on training-participation, employability, pay and productivity and thus indirectly on health. The phenomenon has been studied mainly in older people and less educated people; little research has yet been done in the chronically sick, the self-employed and flexi-workers, and lay carers. Furthermore, little has been published about the direct influence of work-related learning on health, such as energy, motivation and stress. The conclusions presented in this paper accordingly relate only to what is known about the possibility that training influences work and/or health; no conclusions are reached regarding the strength of any such relationship.

A further limitation is that the HIAef sought to ascertain only whether impacts of work-related learning policy on vulnerable groups of workers and their health differ from the impacts of that policy on other workers, whereas health is, of course, also required in order to work and has a positive influence on (prolonged)working and training [25].

### 4.3 Health equity in workplace learning

The Vitality Package is designed mainly with older people in mind, because sustainable employability tends to be lower amongst older people than amongst other workers [17]. The HIAef has shown that it is desirable for employers and the government to pursue work-related learning policies that also take specific account of other vulnerable groups, such as the chronically sick, the self-employed/flexi-workers and lay carers. In 2012, 67 per cent of the Netherlands’ potential working population as a whole (eleven million people) were doing paid work for at least twelve hours per week (net work participation) [50]. Meanwhile, the 2012 Health Survey found that an increasing number of working people aged twenty-five to sixty-five were chronically sick [51]. The self-employed/flexi-workers and lay carers are also growing groups on the Dutch labour market [48]. Where vulnerable groups of workers
are concerned, stakeholders have highlighted the importance of training being demand led, better tailored to workers’ needs, and less supply led. That implies a work context in which work-related learning is accessible (e.g. setting, culture), appropriate (e.g. e-learning, low-threshold) and available when needed (e.g. early support or retraining). There is, however, a difference between what large employers can do and what can be expected of their smaller counterparts (e.g. work-related learning may be easier to realise in a larger organisation). Besides, workers themselves also have a role to play in achieving continuous development and motivation [16].

4.4 The use of the HIAef on a national level
This HIAef on a national level shows that it is possible to adopt health equity as a core principle in all HIA phases. Factors facilitating the HIAef included amongst others: a mandate from the Ministries of Health and Social Affairs, the use of a structured HIA process, the composition and level of experience of the support team, and the availability of resources to execute HIAef. The relative low level of concreteness of the policy and measures complicated the application of the HIAef in a way that the HIAef could not focus on these specific measures. Moreover, it appeared to be difficult to draw evidence out of the literature with regard to possible avoidable differences in work-related learning policy for vulnerable groups and context specific equity impacts. However, by applying a mixed method design (document searches, literature searches, interviews scientific experts and stakeholders) and the input of the support team, the available evidence in the literature was related to scientific views and practical experiences. In this way, recommendations could be formulated with regard to taking vulnerable groups in work-related learning policy into account.

5. Conclusion
The HIAef found that the chronically sick, older people, less educated people, the self-employed/flexi-workers and lay carers make less use of work-related learning opportunities. From the literature, it is also apparent that little research has been conducted into the impact of work-related learning on health (determinants) in those vulnerable groups of workers. Work-related learning may have a positive influence on health through (work-related) factors, such as employability, levels of pay, longer employment rate and training-participation. The influence of work-related learning has been studied mainly in older people and less educated people. In the interests of equality of opportunity in work-related learning policy, experts and stakeholders recommend to ensure that training for vulnerable groups is accessible (e.g. setting, culture), appropriate (e.g. e-learning, low-threshold) and available when needed (e.g. early support or retraining).
Such a strategy has the potential to positively influence the health of the relevant groups by facilitating their (continued) participation in the labour market.

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