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Return to work for temporary agency workers and unemployed workers, sick-listed due to musculoskeletal disorders

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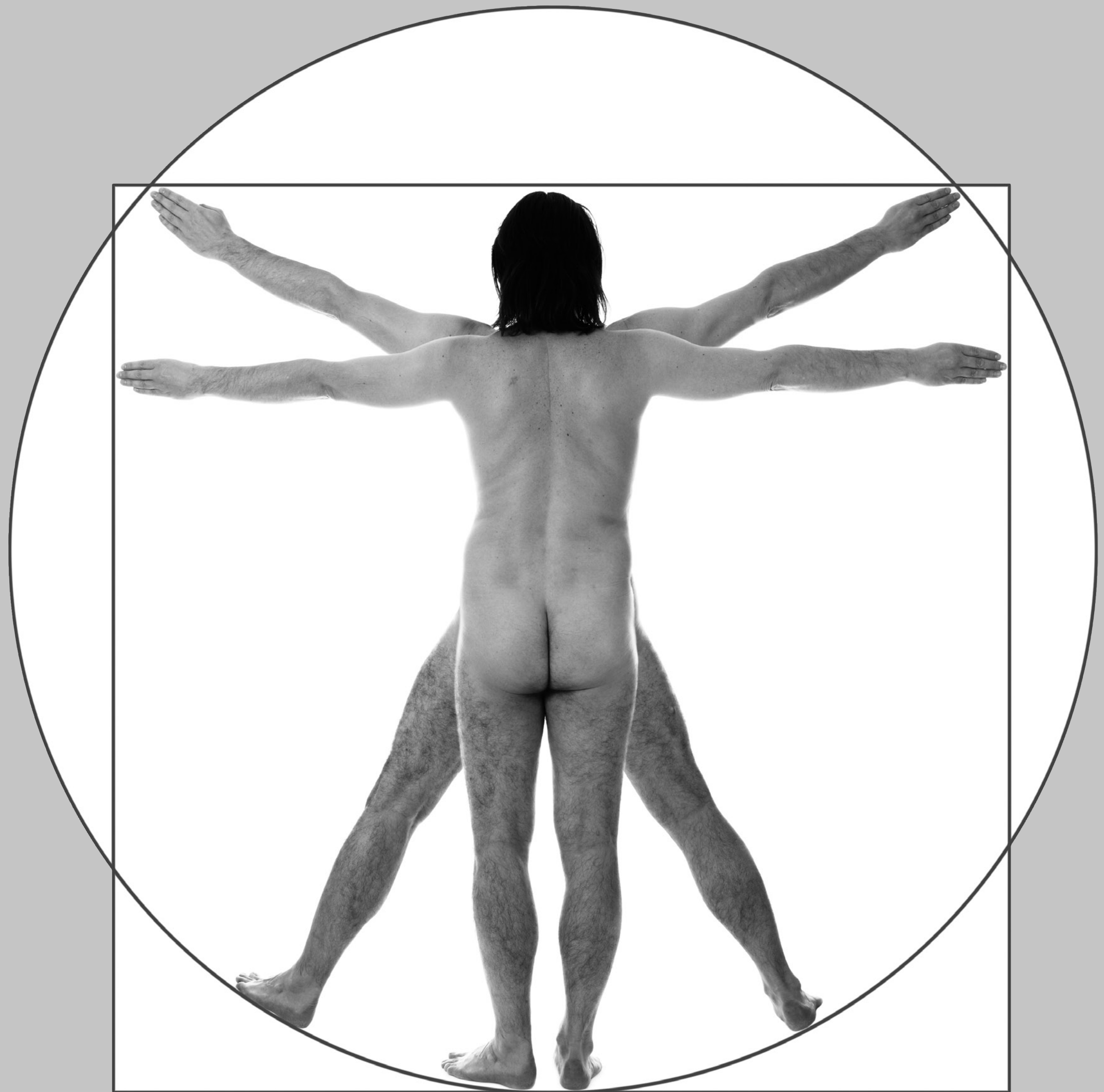

Chapter 8

General discussion

The main aims of this thesis were to develop a participatory return-to-work (RTW) program for temporary agency workers and unemployed workers, sick-listed due to a musculoskeletal disorder (MSD), and to investigate the feasibility, the effectiveness, and the cost-effectiveness of this newly developed participatory RTW program. First, based on a successful RTW intervention for regular employees, sick-listed due to low back pain, the Intervention Mapping (IM) protocol was used. To develop a tailor-made RTW program for temporary agency workers and unemployed workers, sick-listed due to MSD. Next, a randomized controlled trial was carried out to evaluate the feasibility, the effectiveness, and the cost-effectiveness of the new RTW program. This chapter will start with a summary of the main findings and key messages from this thesis, followed by a comparison of the study findings with the current literature. Furthermore, challenges in achieving an effective and healthy labour force and developments regarding work disability and return-to-work as part of an integrated health care approach will be discussed. Next, methodological aspects, i.e. limitations and considerations, of this study will be discussed. Thereafter, implications for implementation of the newly developed participatory RTW program in daily practice will be presented from the perspective of important stakeholders and placed within the developed conceptual framework for work disability and RTW for a worker without an employment contract (Chapter 1). Finally, implications of the study findings with regard to future research and occupational health care (OHC) practice will be discussed.

A summary of the main findings from this thesis

Examining current OHC practice for sick-listed workers without an employment contract in the Netherlands

Cross-sectional data analyses of a large cohort of sick-listed workers without an employment contract who were, at baseline, at least 13 weeks sick-listed, showed that, 7-9 months after reporting sick, only 19% of these workers had partially (7%) or completely (12%) returned to work. In about half of all cases RTW was not discussed by their OHC professional (46%) and three out of every four reported that no RTW action plan was made and discussed (74%). Moreover, both interventions,

i.e. discussing RTW and the making of a RTW action plan, proved to be positively associated with RTW (Chapter 2).

Development of a new participatory RTW program

The Intervention Mapping (IM) protocol was used to develop a structured stepwise RTW program for temporary agency workers and unemployed workers, sick-listed due to MSD. This new RTW program was aimed at making a consensus-based RTW plan with the possibility of a temporary (therapeutic) workplace. Following the IM protocol ensured the identification of important preconditions for successful implementation of the participatory RTW program, such as explicit appointments with management at the Social Security Agency (SSA) regarding the time needed for the OHC professionals to use the program and the development of a computerised support system for applying the stepwise program (Chapter 3).

Feasibility of the new participatory RTW program

Overall, adherence to the participatory RTW program was in accordance with the protocol. The majority of the sick-listed workers felt taken seriously during the meetings with the OHC professionals and the workers were satisfied with the presence of the RTW coordinator. Although overall feasibility for implementation of the participatory RTW program in daily practice was found, timely offering of suitable temporary workplaces proved to be difficult (median delay of 44.5 days). Furthermore, several other barriers for implementation were identified, such as insufficiently clear description of the program goals and the professional's roles, and insufficient support for workers suffering from complex multi-causal health problems (Chapter 5).

Effectiveness of the participatory RTW program

The participatory RTW program resulted in a non-significant delay in RTW in the first 90 days of follow-up, followed by a considerable gain in RTW rate after 90 days. The median duration until sustainable first RTW was 161 days in the participatory RTW program group, compared to 299 days in the usual care group. No statistically significant effect of the participatory RTW program was found on the measured

secondary outcomes, i.e. sickness benefit duration, pain intensity, perceived health, and functional status (Chapter 6).

Cost-effectiveness of the participatory RTW program

Cost-effectiveness evaluation from both the social insurer's (SSA) and the societal perspective, showed that the newly developed participatory RTW program was more effective but also more costly, compared to care as usual. To gain one day earlier sustainable RTW in the participatory RTW program group €76 or €82 needed to be invested by the SSA or society, respectively. However, it was estimated that, from a societal perspective, there was a net monetary benefit after 12 months of €2,073 per worker due to productivity gain (Chapter 7).

Key messages and recommendations

The results of thesis lead to the following key messages and recommendations:

1. Workers without an employment contract represent a vulnerable group within the working population. They have an increased risk for long-term work disability. Moreover, the greater distance to the labour market is reflected in a substantially lower RTW rate. Also, current occupational health care for this group of workers is unsatisfactory. Hence, there is a need for the development of adequate, i.e. tailor-made, occupational health care, including the presence of a (therapeutic) workplace, to optimize vocational rehabilitation and RTW of sick-listed workers without an employment contract (based on Chapter 2).
2. The overall feasibility of the newly developed participatory RTW program is good. Nonetheless, for future use of the new RTW program, it is recommended to ensure timely offering of therapeutic workplaces, to provide clear communication with regard to the program content, and to offer additional support for workers suffering from complex multi-causal health problems (based on Chapter 6).
3. The participatory RTW program seems to be a promising intervention to facilitate work resumption and reduce work disability among

temporary agency workers and unemployed workers, sick-listed due to musculoskeletal disorders. From a societal perspective, the gains in higher RTW rate and earlier RTW outweigh the added cost burden by enhancing social participation and by generating a net economic benefit in terms of productivity. Hence, from a societal perspective, implementation of the new RTW program may be a worthwhile investment as it has potential to achieve a productive contribution of vulnerable workers to the labour force (based on Chapter 5 and 7). However, investments were on the part of the SSA (and thus from public money) and benefits were on the part of the employers. It is recommended to find solutions to minimize this division in social insurer's (SSA) investments and employer's benefits to increase the chance of successful implementation nationwide (Chapter 7).

Comparison with other studies

Addressing the multicausality of work disability

Findings in the international literature show that the best-documented return-to-work (RTW) rehabilitation programs concern workers with musculoskeletal disorders (MSD)[1,2]. Additionally, it shows that a global perspective has been adopted to address the multicausality of work disability proposing that RTW interventions should address the following three central elements: 1. individual factors, 2. work(place) factors, and 3. involvement of the various stakeholders[1]. Also, studies indicate that RTW interventions should be carried out close to the workplace[3-5]. The newly developed RTW program in our study encompassed the three aforementioned essential intervention elements, namely: (1) work disability management tailored to the needs of the sick-listed worker to remove the (individual) barriers to return to work, i.e. the making of a tailor-made consensus-based RTW action plan, (2) addressing work factors by offering the possibility of a suitable temporary (therapeutic) workplace for RTW, and (3) stimulating strong involvement of the different stakeholders involved in the RTW process of the worker. The importance of a strong focus on actual RTW, i.e. creating an actual RTW perspective by offering the possibility of a suitable temporary (therapeutic) workplace, was also underlined by recent findings of Schuring and

colleagues[6]. Their study focused on sick-listed unemployed workers receiving Social Security benefits in Rotterdam, The Netherlands. No beneficial effect was found of a health promotion program on work resumption in regular work. Their explanation was the absence of a clear focus on actual RTW and the lack of a strong integration of the intervention program into regular vocational rehabilitation practice. In our study, the use of a comprehensive and systematic approach, i.e. the Intervention Mapping (IM) protocol, in the design of the new RTW program helped us to identify and incorporate important keystones in the new RTW program. For example, making arrangements with selected vocational rehabilitation agencies prior to the start of the study to facilitate the finding of temporary (therapeutic) workplaces. Although the IM approach has been used extensively in the design of complex community health programs for over 20 years[7], it is more novel in the occupational setting[8-10].

Cost-effectiveness of participatory RTW interventions

A Cochrane review of van Oostrom and colleagues (2009) showed that there is moderate-quality evidence to support the use of workplace interventions to reduce sickness absence among regular employees with MSD[11]. Moreover, a recent Dutch study on best-practices in the field of vocational rehabilitation programs showed that there is substantial evidence that work-related rehabilitation programs for people with musculoskeletal health complaints are effective in achieving earlier RTW and have a positive cost-benefit balance[12]. The extra costs of the studied intervention programs (varying from several hundred Euros to 7000 Euros) were earned back within several months to one and a half year. Furthermore, participatory RTW interventions including a workplace component have shown to be cost-effective on work-related outcomes for regular employees sick-listed due to sub acute low back pain, i.e. in the early stage of sickness absence[13-15], as well as for chronic back pain patients with an advanced phase of work disability[16]. In addition, Loisel and colleagues showed that an early investment in a participatory RTW intervention for employees with sub acute low back pain was also cost-effective in the long-term (mean follow-up of 6.4 years) with a mean cost-saving of 18,585 US dollars per employee[14].

However, while the aforementioned studies on participatory RTW interventions focused on regular employees, i.e. those with relative permanent employment

relationships, this study showed that a participatory RTW intervention with the possibility of a suitable (therapeutic) workplace was also effective on RTW for a more vulnerable group within the working population, i.e. sick-listed workers who have no (longer an) employer/workplace to return to.

However, when comparing our new participatory RTW program with similar participatory RTW programs for sick-listed employees sick-listed due to low back pain in the Netherlands[17,18], the cost-effectiveness results in this study showed a substantially higher ICER, i.e. more costs were needed in order to achieve earlier RTW, compared to care as usual. A possible explanation for this is the fact that, in contrast to regular employees, in this study the sick-listed workers had no workplace to return to. To find suitable (therapeutic) temporary workplaces commercially operating vocational rehabilitation agencies were contracted and offered a financial reward for their services. In addition, as incentive for willing employers, the worker was placed in a temporary workplace with ongoing supportive benefit from the SSA. Hence, additional costs were needed to realize RTW.

Supportive RTW interventions within the Social Security Context

Our study was performed within the Dutch Social Security context. For employers in the Netherlands, employing a worker with a disability can present a financial risk. Once a worker is employed and the workers productivity is not meeting the requirements, it can be difficult for an employer to end the employment contract. In our study, to find employers who were willing to offer suitable temporary workplace, incentives were provided (not having to pay wages and not being obliged to offer an employment contract). The Dutch Social Security System is illustrative for a *Social-democratic* policy model. It is characterised by a high level of job protection, a low entry threshold for a (partial) disability benefit, and a highly accessible integration policy package with a strong focus on vocational rehabilitation[19]. It provides support for those who can and want to work. However, as in our study, by ensuring that it pays for employers to help sick workers to return to work it also potentially expensive.

In comparison, implementation of supported employment interventions, to help integrate people with disability into the regular labour market, has been successful

in countries with a *Liberal* disability policy model, e.g. the US[20]. To illustrate, in the US supported employment interventions for people with psychiatric disability are robustly validated RTW interventions. It helps people with psychiatric disabilities to obtain and succeed in competitive employment[21-23]. A Liberal disability policy setup is characterized by very strong work incentives, a higher threshold to get onto benefits, and lower benefit levels. On the other hand, they are also characterized by a less developed integration policy focus. Employment policies (e.g. prevention of unemployment and provision of an adequate minimum living wage) are on a lower level. In addition, vocational rehabilitation is relatively underdeveloped. As a result, the effect of the stronger inbuilt work incentives resulting from less generous benefits are only partially harvested in terms of labour force participation[19]. To illustrate, literature findings from an international study on work incapacity and reintegration showed a high number of workers in the US (73%) who did not receive benefit and who did not resume working two years after reporting sick due to chronic low back pain[24] .

Returning to the *Social-democratic* model, an example of a successful supported employment intervention is the Danish Flex-jobs Scheme, i.e. offering subsidised jobs for disabled workers with partial work capacity. Flex-jobs are associated with special working conditions, e.g. reduced working hours, adapted working conditions, and restricted job demands. A permanent wage subsidy is paid to employers to compensate for the workers' reduced work capacity, while flex-job workers receive a standard wage. The subsidy is unlimited in duration, existing as long as the worker retains the flex-job. A substantial, positive employment effect of the scheme was found for the target group, i.e. employment probability for people with partial work capacities was raised by 33 pct. points[25]. However, compared to the Dutch Social Security System with its (relative) high level of job protection, Denmark is the foremost real-life life example of flexicurity. The Danish system combines easy hiring and firing, a generous social welfare system, and an active labour market policy. Contrary, in the Netherlands current subsidised workplace arrangements are limited in duration, i.e. only possible on a temporary basis as a step-up towards obtaining competitive employment[19].

Challenges and developments in achieving an effective and healthy labour force

Contemporary western society is affected by profound labour market transformations. The global integration of economies worldwide has led to a strong demand to make labour markets, employment and work organisation more flexible. A broad variety of new or non-standard forms of employment relationships have emerged, including part-time work, temporary agency-based work, fixed-term work, and new forms of self-employment[26]. Moreover, many organizations see advantages in the move towards developing an ever more flexible workforce, with a number of staff on temporary or fixed-term contracts. However, at the same time, an equally strong demand exists for providing security to employees, especially vulnerable groups, and for maintaining social cohesion in our societies. As a result, it remains a topic for debate whether non-standard work increases job insecurity and subsequently is harmful for the welfare of individuals as well as public health or increases social welfare by providing the opportunity to tailor jobs to the needs and wishes of workers[27]. On the one hand, the new forms of work might help to facilitate access to jobs or entry and re-entry to the labour market of vulnerable workers. For example, the upcoming of part-time work has facilitated the large-scale entry of women into the Dutch paid workforce. On the other hand, flexibility has a downside as it can present being in a more precarious, less secure state which in its turn leads to stress. In line with this, a growing number of studies have suggested that non-standard work is associated with a negative impact on workers' health and well being[28-31]. Contrary, a recent study failed to find support for the assumption that exposure to non-standard (i.e., part-time and/or fixed term) labour contracts would give rise to adverse health effects[32]. However, they did find support for the presence of several key aspects of work-related precariousness and related adverse health consequences. Exposure to low earnings, no annual increase in earnings, substantial unpaid overtime hours, benefits inadequacy in the form of an absence of pension coverage, and manual work increased the risk of reporting poor health outcomes. However, as aforementioned, ongoing globalization of the economy increases the demand for 'flexible' employment practice. But what is the cost? Development of adverse health effects as a result of exposure to work-related precariousness is not

merely a workers' problem, it also affects their families, and, ultimately, society as a whole. For instance, it can lead to an increased pressure in the health care sector due to an increase in morbidity in the short term, but also development of long-term degenerative disease[27]. It seems likely that investing in social participation by creating supportive networks and by social institutions that serve the interest of the working population are more beneficial to public health[27]. While developing jobs that increase the social participation of disabled people is perhaps the most difficult work organization challenge, it highlights the principles of human capability development. From this perspective, the aforementioned Danish system of subsidised "flex-jobs" can be viewed as a promising example. The Danish labour policy encompasses two key elements, namely *activation* and *corporate social responsibility* measures to enhance inclusion of vulnerable groups into the labour force[25]. By offering subsidised jobs for disabled people with partial work disability, the scheme aims to improve social inclusion, to improve self-supportiveness of disabled workers, and to improve their health and well being. Despite a very small positive net social benefit, flex-jobs have been incorporated into the Danish labour market reform policy[25]. Furthermore, as stated by the Danish government, strengthening the labour supply and a continued strengthening of measures targeting integration of vulnerable workers is viewed of vital importance for the welfare of the Danish society in the coming years[33]. The Danish perspective can be used to look at the cost-effectiveness results of our study. Economical evaluation was performed from both the social insurer's and the societal perspective. For the Social Security Agency the new intervention led to higher costs (occupational health care costs and sickness benefit costs). From a societal perspective, however, the benefits due to productivity gain outweighed the extra costs. In addition, improved social participation and improved perceived health can also be viewed as a non-monetary gain. Although not statistically significant, there was a positive trend towards health improvement. The difference in mean utility between the baseline measurement and 12 months was 0.12 points gained (on a 0 to 1 scale) in the participatory RTW program group, compared to 0.02 points in controls. The mean utilities for the participatory RTW program group at baseline, 3, 6 and 12 months were 0.55 (SD=0.27), 0.59 (SD=0.30), 0.64 (SD=0.28), and 0.67 (SD=0.29), respectively. For the usual care group the mean

utilities were 0.58 (SD=0.24), 0.55 (SD=0.32), 0.60 (SD=0.31), and 0.60 (SD=0.34), respectively. Hence, promotion of labour integration of vulnerable workers within Dutch society can be a worthwhile investment from a public health perspective. Still, an important system barrier for using the participatory RTW program in daily practice is the division in costs for the Social Security Agency and productivity benefits for the employers. This separation may result in, on the one hand, the Social Security Agency not willing to implement a RTW program that is more costly than usual care, and, on the other hand, employers who are not interested in paying for RTW of vulnerable sick workers without an employment contract.

Furthermore, in view of the international trend of an ageing workforce, there is a need for active labour-market policies[34]. Development of such policies is of great importance to maintain the welfare and competitiveness of Dutch society and other Western countries. From this perspective, it is not only important to improve participation of older workers[34,35], but also to utilise and strengthen present and potential vulnerable labour force sources, for instance workers with partial work disability[36].

Work disability and return-to-work as part of an integrated health care approach

Traditionally, health care comprises the diagnosis, treatment, and prevention of disease, illness, or injury. Therapeutic interventions are offered to cure or control disease. Up to recent years recovery of functional abilities was viewed as directly linked to recovery of health complaints. The introduction of the International Classification of Functioning, Disability and Health (ICF)[37], marked a new way of thinking. Functioning of humans is now viewed as the result of a dynamic interactive process, i.e. disease can lead to impairment in bodily functions, and subsequent development of functional limitations can lead to restrictions at the participation level (all within the context of medical, personal, and external factors). From this perspective, recovery of functioning is equally important as regain of health. Notably, although functioning in work is an essential part of adult's working and social life, health care by general practitioners and medical specialists still seems to be primarily directed at diagnosis and treatment of health-related problems[38,39]. However,

health problems leading to an inability to work can have substantial consequences. Prolonged work disability may lead to poorer quality of life, loss of social identity, and long-term or even permanent exclusion from work. From a health care perspective broadening the medical scope from the patient in the consulting room towards the patient in his/her personal and social context is essential. Recognition of the importance of interweaving treatment of disease with rehabilitation aimed at patients' functioning in daily life is the first step. For example, this integration of disease management and improvement of (personal, social, and occupational) participation is taking shape in the treatment of patients with chronic disease[39,40]. In the Netherlands, treatment of health complaints, socio-medical guidance in case of sickness absence, and assessment of (long-term) work disability are all part of disability management for patients who experience health-related work limitations. In daily medical practice, however, the separate care elements are provided by different physicians, e.g. a general practitioner for disease management, an occupational physician for sickness absence guidance, and an insurance physician for the assessment of work disability. In addition, co-ordination of care between the different physicians involved is poor[41]. There is a need for more coherent disability management, i.e. an integrated care approach[42]. As part of such integrated disability management, the added value of an insurance physician is to a lesser extent related to patient care per se (as opposed to, for instance, a general practitioner and an occupational physician). The expertise of an insurance physician is to place the course of health complaints, diagnosis and treatment, the recovery process, and RTW efforts, in the context of relevant medical, personal and external factors. By applying the aforementioned ICF model to an individual patient the insurance physician can indentify medical and non-medical causes of persistent (personal, social, and work) dysfunctioning. In addition, if stagnation of the recovery process is established an inventory of possible causes is performed. Hence, to incorporate work disability management and RTW as part of an integrated health care approach, an insurance physician can play a key role in network building. By forming a link between primary and secondary care, and occupational health medical practice, the insurance physician can contribute to improvement of communication between all health care professionals involved in (occupational) health care guidance of the sick worker.

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Methodological considerations

With regard to the overall quality of the study, we believe our study met most of the CONSORT Statement requirements for high quality trials[43-45], i.e. an evidence-based, minimum set of recommendations for reporting randomized controlled trials. However, our view should be confirmed by independent researchers by performing a quality assessment of our study. Furthermore, several methodological aspects should be acknowledged. First of all, the inclusion of participants was performed within 18 months, as planned, wherein 163 workers were enrolled in the study. Comparable studies[46-48] experienced more difficulty in selecting workers, i.e. their recruitment was more time-consuming. Two possible explanations for this can be 1. the method of recruitment of participants (recruitment via physicians versus using the SSA database that records sick leave and diagnosis) and 2. the number of potentially eligible workers willing to participate. As to the latter, in our study 784 (=50.3%) workers could be contacted by phone after receiving the screening questionnaire. On the other hand, in view of the relative large number of immigrants among workers without an employment contract, it is fair to conclude that in our study only a part of the target group was reached. Although we used broad inclusion criteria to resemble current practice as good as possible, sufficient proficiency of the Dutch language was a necessary inclusion criterion for filling in the questionnaires and taking part in the meetings with the RTW coordinator. However, for applying the program in daily practice, the presence of an interpreter should be considered, while taking into account that this will, very likely, make implementation of the RTW program more complex and more costly. Secondly, the contribution of the intended target group with regard to the development of the new RTW program was relatively modest. Due to the fact that the new RTW program had to be carried out by the OHC professionals of the SSA, the majority of the stakeholders involved in the Intervention Mapping process (Chapter 3) were from the SSA. On the one hand, in addition to the results of a large cohort study among sick-listed workers without an employment contract (Chapter 2), the use of focus group meetings could have given us direct input and feedback from the workers of the intended target group. On the other hand, the new RTW program contained several important

elements to fulfil the need of this vulnerable group of workers for (more) tailor-made RTW interventions, namely: more contact with the OHC professionals of the SSA, the making of a consensus based RTW implementation plan, the possibility of a temporary (therapeutic) workplace to RTW, and structural communication between all parties involved in the RTW process. For implementation of the new participatory RTW program in daily practice we, however, recommend active involvement of the workers. The participatory approach should not only be used as a key element in the RTW program, but also as an important implementation strategy to create support among all important stakeholders. Thirdly, during the execution of the STEP-UP study we changed the secondary outcome measure sustainable first RTW into the primary outcome measure. Duration of the sickness benefit period became secondary outcome measure. We decided on changing the primary outcome measure based on advanced insight. Complete RTW follow-up data for all participants proved possible by using the register-based data from the continuous RTW registration in the SSA database and the client files at the SSA, instead of using only self-report questionnaires for RTW data collection. Beforehand, we thought that these register-based data would not be available for us. Literature findings show moderate to reasonable agreement (ranging from 58% to 74%) between self-reported sickness absence versus register-based data collection[49-51]. Hence, the use of good quality registers, when available, is recommended[52]. Furthermore, the aim of the new RTW program was to enhance (work) participation (and indirectly perceived health) of sick workers, i.e. to achieve earlier sustainable RTW, compared to care as usual. From this perspective sustainable first RTW is not only a logical choice, but also a commonly used primary outcome measure in RTW intervention research. In addition, duration of sickness benefit as primary outcome measure would entail that ending of sickness benefit could occur without actual work participation of the worker. Hence, all in all, we had several scientific and pragmatic arguments in favour of changing the primary and secondary outcome measures. Fourthly, participation of the workers in our study was on a voluntary basis. As a result, our study findings may be biased due to the presence of merely motivated workers. The question of whether the new program is also effective for sick-listed workers who did not want to participate in this study cannot be answered. A fifth limitation is related to the

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measurements instruments used in this study. Data on RTW and sickness benefit were collected from the continuous registration database at the SSA. Database registration by the SSA is monitored by the Inspection Service for Work and Income on behalf of the Dutch Ministry of Social Affairs and Employment. It provided good quality register-based data collection with complete follow-up for all participants. With regard to the secondary health-related outcomes, these were measured using self-report questionnaires. Self-report can lead to over- or underestimation of outcomes. However, in our opinion, the use of validated and internationally accepted questionnaires provided scientifically acceptable measurements for perceived health, pain intensity, and functional disability. A final methodological aspect that we want to address is the fact that our study findings may be valid in the Netherlands only. The pragmatic RCT design and the broad inclusion criteria are reflective for current practice at the Dutch SSA that, as regulated in the Dutch Sickness Benefits Act, provides supportive income and vocational rehabilitation support for workers without an employment contract who become sick-listed. These so-called 'social security safety netters', are, for instance, sick-listed temporary agency workers and sick-listed unemployed workers. Although, from an international perspective, social security systems differ greatly, aspects of our study results may be generalizable to other social insurance systems and worker groups, for instance the possibility of a suitable temporary workplace as a step-up for vulnerable sick-listed workers who experience a great distance to the labour market. Nonetheless, application of this intervention in a different setting should be preceded by tailoring of the program, taking into account the specific characteristics of the population as well as the social, political and cultural context in which the program will be implemented and used.

Implications for implementation

Implementation of study results is a challenging but important capstone in RTW research[53,54]. Development of a (cost-)effective RTW intervention does not automatically result in successful implementation in daily practice due to the complexity of work disability, i.e. implementation is subject to multiple legal, administrative, social, political, and cultural challenges. Hence, a thorough

insight into the characteristics of the new intervention, the target group, relevant stakeholders, and the (social, cultural, and political) setting is essential. The process evaluation in our study (Chapter 6) showed barriers and facilitators related to the intervention, the users, the target group, and the context. In the next part important barriers for future implementation on a national scale will be discussed. In addition, the identified barriers will be placed within the developed conceptual framework for work disability and RTW for a worker without an employment contract (Chapter 1).

Medical care

- Occupational health care

The RTW coordinator plays a key role in the participatory RTW program. Among researchers in the field of OHC there is a shared acknowledgement of the importance of an independent RTW coordinator[55,56]. However, in our study the OHC professionals experienced difficulty in distinguishing between the role of the RTW coordinator and the role of the labour expert. We believe a possible solution for this could be a clearer introduction of the RTW coordinator during training of the OHC professionals. For instance, to focus (more) on similar competencies such as RTW focus and attitude, and RTW facilitation skills; and distinguishing competencies such as process guidance skills and specific consensus competencies. In addition, the role of the RTW coordinator can be (more clearly) underlined by incorporating the participatory RTW method in current OHC guidelines[57]. Furthermore, to avoid confusion of roles and questionability with regard to the independence of the RTW coordinator, we believe it is desirable that the RTW coordinator is not a close colleague of the labour expert.

- Co-operation between health care professionals

Firstly, an important barrier related to current Dutch health care practice is the segregation between curative health care and occupational health care. As a result, despite the fact that work is an essential part of adult life, in general practice the focus is mainly on diagnosis and treatment of health-related problems and rarely on work-related factors and work resumption[38]. To achieve a stronger co-operation between curative care professionals and OHC professionals we recommend improving the communication between the health care professionals involved.

Comparable initiatives are already present in Belgium[58]. Moreover, in line with the recently developed integrated care program for patients with chronic low back pain, improving the coordination of disability management can have a substantial impact on reduction of work absenteeism and improvement of the perceived quality of life[16,18]. In our study, to prevent conflicting advice about RTW, the worker's general practitioner received a letter with information about the study and the allocation of their patient to either the intervention group or the control group, and a communication form in case the general practitioner wanted to consult the insurance physician. In addition, the general practitioner was asked to adhere to his/her professional guidelines for MSD. Instead of using this somewhat open-ended approach, to optimize communication and alignment of treatment goals, we recommend periodic contact between the health care professionals involved, for instance by organizing a conference call.

Secondly, stronger cooperation between physicians who work in the field of occupational health is desirable[59]. An essential difference between an occupational physician and an insurance physician is close contact with employers/workplaces. The absence of a workplace/employer to return to is not merely an important obstacle for the sick-listed worker, but also for the insurance physician at the SSA who guides the worker. From this perspective, structural contact and cooperation between insurance physicians and occupational physicians may help to cross the essential workplace gap. More specifically, occupational physicians can help to find suitable therapeutic workplaces for RTW of sick-listed workers who have no employment contract.

ASE (Intention to RTW & RTW behaviour)

- Sick-listed worker

A possible barrier for implementation is the (predominant) focus of the worker on reducing his/her health complaint(s) and not on restoration of functional capacities. By following a two-track approach early on the goal setting can be directed towards both recovery of health and work resumption in suitable work taking into account the worker's functional limitations. Most of the workers in our study complied with the participatory RTW program, i.e. complied with the two-track approach. Moreover, this change of goal setting towards not only recovery of health but also towards function

restoration already has been adopted in current Dutch OHC guidelines as formulated by the Netherlands Society of Occupational Medicine (NVAB). However, to be able to implement the new intervention in OHC practice for sick-listed workers without an employment contract successfully, the realization of (temporary) workplaces for (therapeutic) work resumption is an essential precondition. Besides the essential change of focus towards work ability, this can provide the required bonding with work to facilitate a sustainable return to the labour market.

- Incentives for RTW

According to the Dutch Improved Gatekeeper Act, on the one hand, an employee might lose employment protection if he/she puts too little effort in vocational rehabilitation. On the other hand, if Dutch employers do not satisfy all reintegration steps, they are faced with a financial penalty, i.e. prolongation of paying wages up to one additional year. An unemployed worker or a temporary agency worker, when sick-listed, has no employment contract. Hence, other (financial) incentives are needed. The overall compliance of the participants in our study was good. However, the OHC professionals missed the possibility to impose a benefit sanction in case of noncompliance with the RTW action plan (Chapter 6). For application of the participatory RTW program in daily practice, we, therefore, recommend making agreements with the worker with regard to the effort expected from the worker to achieve RTW and to inform the worker regarding possible benefit sanctions in case of unsatisfactory compliance. This can be added to the agreements made in the RTW action plan. Notably, a similar arrangement already exists for young disabled workers as regulated in the New Disablement Assistance Act for Handicapped Young Persons (nWajong).

Perceived work disability

- Dutch Social Security System

In the Dutch Social Security System a worker without an employment contract can receive sickness benefit in case of work disability, i.e. functional limitations, with regard to the last job prior to reporting sick. Notably, even if there are functional abilities to perform other work (tasks) the worker is still entitled to sickness benefit on the ground of an established inability regarding the last job before reporting sick.

As a result, awarding sickness benefit despite the presence of work ability for other work can reinforce the perceived work disability by the worker and be a barrier for RTW. Hence, when applying the participatory RTW program it is important to change the focus from work disability to functional abilities in an early stage. Moreover, this focus on early recovery of activities, including RTW, was in our study identified as a facilitator for implementation (Chapter 6). In addition, to shift the focus towards perceived work ability, offering a temporary workplace for therapeutic RTW is, in our opinion, an important element to let the worker experience that work resumption in suitable work is possible.

- Sick-listed worker

Many of the workers in our study experienced complex multi-causal health problems, e.g. not just MSD but also psychosocial problems. This was earlier found to be a characteristic for our target group[60]. Moreover, it is commonly known that both work and non-work related factors can contribute to the perceived work disability of a worker. However, compared to regular employees, sick-listed workers without an employment contract experience more difficulty in returning to work due to a larger influence of non-medical social problems and demographic factors, such as level of education and marital status[61]. Hence, to increase the self-control of the worker in the early phase of sickness absence we recommend, in line with the developed participatory RTW program in our study, the use of the inventory of work- and non-work-related obstacles for RTW as home assignment after the first consult with the insurance physician. To stimulate the worker to take this first step to (re)gain control and to improve adherence to the vocational rehabilitation guidance we want to emphasize the importance of giving explanation by the insurance physician on how to perform this inventory at home. Moreover, to actually change the focus of the worker towards work ability, it is essential to warrant a short-term appointment with the RTW coordinator after the first consult with the insurance physician. Finally, when implementing the RTW program in daily practice, more attention should be paid to applying the RTW program to sick-listed workers with complex health problems (Chapter 6). If necessary, additional (medical and non-medical) support should be offered for these workers, e.g. referral to a graded activity program, offering short-term education, or help with debt repayment. Hence, in order to achieve

successful implementation, we recommend incorporating the use of the program for workers with complex health problems as a separate topic in the training for OHC professionals.

Threshold for return-to-work

- Workplace/employers

In the Netherlands there are no legislative mandates for employers to facilitate RTW of workers without an employment contract when they become sick-listed. Since 2003 there is an official covenant between the SSA and the Dutch association of temporary work agencies (ABU), in which responsibilities for RTW of sick-listed temporary agency workers have been stated. Major themes are attention for the sick-listed temporary agency worker, offering a perspective regarding RTW, and reducing sickness absence. However, although the introduction of the covenant resulted in a substantial decrease of (long-term) sickness absence[62], in daily practice temporary agency staff are still judged on turnover, not on time-consuming rehabilitation support (Chapter 3). Hence, offering the possibility for therapeutic work resumption as stepping stone to a sustainable return to the labour market is, to date, no common practice at temporary agencies. An additional barrier is the fact that the worker has a labour agreement with the temporary agency and performs his/her work at the user company. The user company, in its turn, is not obliged to offer adapted work tasks. The realization of a shared societal (and legal) responsibility (including penalties) between the temporary agency and the user company to facilitate RTW of sick-listed workers without a (relative) permanent employment relationship, e.g. by offering a suitable workplace for RTW, could decrease the threshold for RTW. Moreover, introducing corporate social responsibility measures for employers, e.g. by offering financial incentives, can help to lower the threshold for RTW of vulnerable sick-listed workers.

- Dutch Social Security System

Another possible barrier is the level of job protection in the Netherlands. The Dutch Social Security system is built upon the “solidarity principle”, which means that all people in the community will be cared for. As a result, for employers in the Netherlands, offering a workplace for a worker with a disability can present a risk.

If a worker is employed and the worker's performance is unsatisfactory, then the employer can have a difficult time attempting to fire this worker. However, one could argue that this "solidarity principle" of the current Dutch Social Security system provides more safety for workers with a chronic disease to remain or re-enter in the labour force[63]. Furthermore, in line with the experiences in Denmark with the Flex-Jobs Scheme, offering the possibility of subsidised workplaces can make employers less hesitant in employing workers with functional limitations. And, subsequently, make it easier for vulnerable workers to (re-)enter the labour market. Therefore, in my opinion, the existence of a 'social security safety net' with the possibility of therapeutic work resumption as well as offering (financial) incentives for employers to hire workers with functional limitations can increase participation of the most vulnerable workers within the working population.

- Consultation at the Social Security Agency

As aforementioned, to actually change the focus of the worker towards work ability, it is essential to warrant a short-term appointment with the RTW coordinator after the first consult with the insurance physician. This requires flexible consult planning opportunities, which may prove challenging at the SSA front offices (Chapter 6). A possible solution for this can be to weekly reserve time in the scheduling of consultation hours. If no consult with the RTW coordinator is requested, then other last-minute appointments can be made to fill the gap.

- Sick-listed worker

A possible barrier for implementation is the fact that workers with disabilities who are dependent on Social Security benefits may risk falling into the "benefit trap" and may be faced with financial disincentives when returning to work. It is, therefore, important to make no RTW less attractive. This can, for instance, be realized by benefit sanctions in case of not cooperating to achieve RTW or by financially rewarding workers with disabilities who (partially) RTW in accordance with their functional abilities, e.g. by supplementing the difference between income (wages or supportive sickness benefit) and full wages in last work. This agreement already exists for workers who receive a long-term disability benefit according to the 'Dutch Work and Income according to Labour Capacity Act (WIA)'.

Follow-up on the case description

To further illustrate, taking into account the aforedescribed implications for implementation, the case as described earlier in Chapter 1 can be presented in a modified version as follows:
A 48-year old female worker with a low level education has been working in several jobs as a temporary agency worker for the past two years. Since her divorce, approximately two years ago, she needs additional income as her alimony is not sufficient for household maintenance. For the past three months she has been working fulltime as a factory worker in a food factory. This is physically demanding work with frequent lifting and carrying of heavy boxes. She would like to work as a shop assistant. However, due to her lack of work experience and the presence of a national economical crisis, it is difficult to find work, let alone finding suitable work that she wants to do. Since approximately two weeks she has a severe pain in the lower region of her back without radiation. Her general practitioner diagnoses her complaints as non-specific lower back pain. He prescribes pain medication and refers her to a physical therapist. Additionally, in view of the heavy work demands, he advises her to report sick. She is not happy with her work in the factory and she has already thought about reporting sick. Being a temporary agency worker, she feels like an outsider at the factory. One week after visiting the general practitioner, the severe low back pain is still present and hinders her in all daily activities. Therefore, although she has two waiting days before she can receive sickness benefit, she decides to report sick at the Dutch Social Security Agency (SSA). Because she is a temporary agency worker, the temporary agency and the user company, i.e. the food factory where she worked, have no legislative responsibilities to continue payment of wages during sick leave. However, in line with the national covenant between Dutch temporary agencies and the SSA, her consultant at the temporary agency contacts her the day after reporting sick to inform why she has reported sick, to ask how she is doing, and to inquire whether she has any idea when she will be able to RTW. She lets the consultant know that she is unsure if short-term RTW is possible but she hopes that the pain medication and physiotherapy will soon have effect. The consultant reassures her that, in case of short-term sickness absence, she will be able to return to the food

R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19 R20 R21 R22 R23 R24 R25 R26 R27 R28 R29 R30 R31 R32 R33 R34

factory where she worked. Additionally, an appointment is made for telephone contact in two weeks time in case of no RTW. To approve her sickness benefit claim, she is invited to the consultation hour of the insurance physician at the SSA. During this consult she explains that the low back pain is still present. The prescribed pain medication and physical therapy have not (yet) helped to (sufficiently) relieve her back pain. Activities such as bending and lifting remain very painful. She explains to the insurance physician, that she is not able to do her work. In line with the guidelines for OHC the insurance physician follows a two-track approach. Medical examination rules out the presence of severe underlying pathology and the insurance physician confirms the diagnosis non-specific low back pain. He reassures her and advises her to stay active and to continue the physical therapy. In addition, he explains that work resumption in suitable work taking into account her functional limitations is not harmful. Furthermore, he refers her to the RTW coordinator for the making of a RTW action plan and, as a preparation for the meeting with the RTW coordinator, he gives her a home assignment to identify work- and non-work-related obstacles for RTW and explains how to perform this inventory of RTW obstacles. To align the treatment goals and to prevent conflicting advice with regard to vocational rehabilitation and RTW the insurance physician contacts the general practitioner. They agree to periodically have contact in order to evaluate the (vocational) recovery process. In addition, the general practitioner adheres to his professional guidelines for MSD. Immediately after the consult with the insurance physician, she has a meeting with the labour expert. Based on a personal examination of her work abilities and expert knowledge of the (regional) labour market, the labour expert assesses her distance to the labour market. One week later she returns to the SSA for the meetings with the RTW coordinator and the labour expert. During the meetings she feels the RTW coordinator understands well what her problems are and she is actively involved, which gives her the confidence that she can achieve RTW in suitable work. The resulting consensus-based RTW action plan consists of the following items: following a short-term job application training, coordination with the general practitioner and the treating physiotherapist to evaluate recovery of occupational functioning capacity, searching for a temporary (therapeutic) workplace as a shop assistant by the UWV Werkbedrijf, directly after placement in a temporary workplace short-term

guidance by a co-worker at the workplace with regard to how to perform the shop assistant tasks, and a gradual RTW, i.e. starting with half days and weekly increase working hours with one hour per day. Six weeks later, she returns to see the insurance physician. The back pain has improved and she has been able to resume working in a temporary workplace as a shop assistant in a drugstore. She was offered two suitable temporary workplaces and she has choosen this workplace. Furthermore, one week before the consulting hour she was contacted by the consultant of the temporary agency to ask how she is doing and they have made agreements to search for a job as a shop assistant following on the temporary workplace. The insurance physician is satisfied with the (vocational) recovery process and establishes full recovery of work ability. Three months after reporting sick the temporary workplace ends and the sickness benefit stops and she is offered an employment contract by the manager at the drugstore. She fits in well with the team of colleagues and the manager is satisfied with her work performance. She accepts the job offer and lets the consultant at the temporary agency know she now is having an employment contract. She is happy to have work she likes to do and to be no longer an outsider at the workplace.

Recommendations for future research

· *Studies with longer follow-up*

The findings of our study indicate that it is important to, on the one hand, stimulate active involvement of and input from the sick-listed worker with the making of a consensus based RTW action plan, and, on the other hand, to create the necessary work immersion experience by offering the possibility of a temporary (therapeutic) workplace. Nonetheless, we recommend future studies with longer follow-up. Placement in a temporary workplace can be seen as a step-up to achieve sustainable competitive employment. It would be interesting to investigate the RTW patterns after one year to see whether the trend of more sustainable RTW continuous.

· *Exploration of long-term disability benefit patterns*

In addition, given the fact that sick-listed workers without an employment contract have an increased risk for long-term work disability, we recommend to explore the

long-term disability benefit patterns, i.e. the number of applications and awarded benefit claims according to the 'Work and Income according to Labour Capacity Act (WIA)' after two-year follow-up. To see if an earlier sustainable return to the labour market in the first year (and possibly also after the first year) results in a decrease of (awarded) long-term disability benefit claims after two years. This can subsequently convince policymakers that implementation of the new participatory RTW program is a worthwhile and necessary investment to achieve a sustainable contribution of vulnerable workers to the labour force.

· *Insight into effectiveness of the separate RTW program elements*

Furthermore, because the participatory RTW program was offered as a combined intervention, our study design was not suitable to answer the question with regard to the effectiveness of the separate elements, i.e. the participatory process with the making of a RTW action plan and the possibility of a temporary (therapeutic) workplace. To gain insight into their contribution to the overall effectiveness, i.e. the effectiveness of both elements separately, new research with a factorial study design can be used.

· *Performance of exploratory subgroup analyses*

The current study results showed effectiveness of the participatory RTW program on first sustainable RTW, but is the effect found in our study the same for the entire study population? Examining the heterogeneity of effect sizes within the population in our study can lead to information on the (cost) effectiveness of the intervention in subgroups of workers[64]. To uncover what works best for whom (and at what cost) we, therefore, recommend exploratory subgroup analyses. These results can then be incorporated in OHC guidelines, e.g. by making a selection instrument for assignment to the participatory RTW program.

· *Application of the RTW program for other target groups*

Another recommendation is to investigate if the participatory RTW program is also (cost-)effective for other groups of sick-listed workers without an employment contract, for instance workers with chronic MSD or workers with mental health

disorders. In line with earlier findings[15,16], which have shown that the participatory workplace intervention is effective for sick-listed regular employees with acute as well as chronic low back pain, it seems worthwhile to investigate whether the participatory RTW program is also effective for sick-listed workers without an employment contract who experience chronic MSD with prolonged work disability. Furthermore, the importance of developing (cost-)effective RTW interventions for workers with mental health complaints is underlined by the fact that in the Netherlands 19% of all sickness absence can be ascribed to mental health problems[65] and about one-third of all paid work disability benefits by the Dutch Institute for Employee Benefit Schemes (UWV) are related to mental health[66,67]. In addition, we believe a promising development can be to adapt the participatory RTW program in order to (further) improve the coherence of clinical and primary care practice and occupational health care practice. Therefore, in our opinion, it would be interesting to investigate an integrated care approach, i.e. to combine the participatory RTW program with integrated care-management[16,68], by forming a structural link between curative health care practice and occupational health medical practice[39,69,70]. The importance of the development of a transdisciplinary health care infrastructure for people with mental health disorders, which encompasses for instance medical care, practical support and (vocational) rehabilitation, has been recently emphasized by the Health Council of the Netherlands[42].

Recommendations for practice and policy

· *Fundamental change in policy for sick-listed workers without an employment contract*

The risk of becoming long-term work disabled (> 18 months) with application for a disability benefit is three times higher for sick-listed worker without an employment contract, compared to sick-listed employees[71]. Also, vocational rehabilitation and RTW guidance for this group is unsatisfactory[60,71]. Hence, in our opinion, a fundamental change in Dutch policy is needed to improve labour participation of sick-listed workers without an employment contract. On the one hand, our study findings show that from a societal perspective earlier RTW contributed to social

participation and generated a net economic benefit in terms of productivity gain. On the other hand, investments were on the part of the SSA and thus from public money. This division in costs and benefits will, very likely, make implementation more challenging. However, in line with the aforementioned Danish labour market policy, we believe that it is important to emphasize the importance of using community money to enhance social participation of vulnerable working populations in order to increase their contribution to the labour market[72]. For instance, the use of community money for realization of subsidised temporary workplaces. By realising subsidised (temporary) workplaces costs and benefits can be shared between the SSA and the employers. Furthermore, we believe that strengthening the responsibilities of temporary agencies to offer suitable workplaces for RTW can be an important step towards successful vocational rehabilitation. We, therefore, want to recommend to asses the possibilities to make temporary agencies more responsible for RTW of sick-listed temporary agency workers, i.e. offering a suitable workplace for (therapeutic) RTW and having financial responsibilities with regard to vocational rehabilitation costs. It is desirable to embed this responsibility in the national covenant between the SSA and the Dutch temporary agencies.

· *Incorporation of study findings in health care guidelines*

Next, we want to recommend to incorporate our study findings in guidelines for occupational health care for sick-listed workers without (relative) permanent employment relationships. In the Netherlands this means incorporating the participatory RTW program in vocational rehabilitation practice at the SSA. In addition, to achieve effective implementation of our study findings at the SSA, we believe that it is of great importance to seek connection as much as possible with current organisational, political, and social developments regarding the tightening of the Dutch Sickness Benefit rules. However, in our opinion, the participatory RTW program fits in well with the announced measures by the Dutch Ministry of Social Affairs to activate (more) workers who receive Sickness Benefit to RTW. Furthermore, to improve the co-operation between curative health care, occupational health care, and social insurance medical practice we believe incorporating our findings in multidisciplinary guidelines for MSD is equally important. This can contribute to

more focus on work-related factors and improve coordinated care between all health care professionals involved and subsequently decrease unnecessary long-term work disability.

· *Revision of sickness benefit criteria*

We also want to recommend a revision of the sickness benefit criteria for establishing full work ability. The current sickness benefit criteria make it difficult to end sickness benefit in case of work resumption in other work with equal earnings if the worker still has functional limitations, i.e. is (partially) work disabled, with regard to the last job before reporting sick. In line with the already existing work disability regulation for regular employees, implementation of the participatory RTW program could be facilitated if it would be possible to establish full work ability on the ground of RTW in suitable other work with equal earnings. Moreover, this can help the worker to change the focus towards work ability and possibilities for RTW.

· *Utilization of existing expertise/networks to improve availability of temporary workplaces*

We also want to recommend creation of a network/database of available temporary workplaces. As a result of a decrease in public reintegration budgets, there is an upcoming of in-house vocational rehabilitation guidance at Dutch government funded institutes such UWV Werkbedrijf and Municipalities with subsequent less outsourcing to commercially operating agencies[73]. In our opinion, UWV Werkbedrijf can play an essential role in the finding and offering of suitable temporary workplaces for sick-listed workers who receive sickness benefit from the SSA. This way, already existing expert knowledge of the labour market with the presence of regional job/employer networks can be utilised, and, also important, no contracting of commercially operating (costly) vocational rehabilitation agencies is needed.

· *Stringent selection of skilled RTW coordinators*

Another recommendation is related to the role of the RTW coordinator, being an essential element in the participatory RTW program. We advise to use a clear defined competency profile to select RTW coordinators. Moreover, we want to emphasize

that the role of the RTW coordinator requires certain key competencies, such as interpersonal skills, process guidance skills, specific consensus competencies, and specific skills related to coordinating among all stakeholders involved with the RTW process. Hence, to achieve successful application of the participatory RTW program a good selection procedure at the SSA is important.

· *Use of a computerised support system*

Finally, we advise the use of a computerised (web-based) support system to strengthen the coordination and collaboration between all stakeholders involved in the RTW process, i.e. to be able to document all data related to the vocational rehabilitation process and to have this data accessible to all stakeholders involved in the RTW process of the worker. However, a necessary precondition for such a web-based system is adequate protection of personal and medical information. The results of the group interviews with the involved stakeholders in the STEP-UP study, e.g. insurance physicians, labour experts, RTW coordinators, case managers of vocational rehabilitation agencies, showed that the presence of a computerised support system is an important facilitator for implementation as it ensures sufficient communication between the professionals involved.

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