IWH Research Alert May 14, 2021

Missed an issue? Catch up on previous *Research Alerts* available on the IWH website <u>https://www.iwh.on.ca/journal-articles/research-alerts</u>

Research Alert is a service provided to you by the Institute for Work & Health (IWH) to help you keep abreast of recent literature in the areas of occupational health and safety, epidemiology, public health and others within the IWH mandate. Please note that these articles have not been reviewed by Institute scientists to assess the quality of the studies. *Research Alerts* should not be considered an endorsement of the findings. Readers are cautioned not to act on the results of single studies, but rather to seek bodies of evidence. It should also be noted that the Institute for Work & Health cannot provide full-text of articles listed in *Research Alerts* to individuals outside of the organization, as this violates copyright legislation.

*Jetha A, Tucker L, Chen C, and Gignac MAM. Impact of the COVID-19 pandemic on the employment of Canadian young adults with rheumatic disease: longitudinal survey findings. Arthritis Care and Research. 2021; [epub ahead of print]. https://doi.org/10.1002/acr.24617 [open access] Abstract: BACKGROUND: The COVID-19 pandemic has had considerable economic repercussions for young workers. We examine the impact of the pandemic on the employment of young adults with rheumatic disease and on perceptions of work and health. METHODS: Surveys were administered to young adults with rheumatic disease prior to and following the COVID-19 pandemic. Surveys asked about employment status and collected information on sociodemographic, disease/health and work context factors. Items also asked about the perceived impact of the COVID-19 pandemic on work and health. A generalized estimating equation was fitted to examine the effect of the pandemic on employment. RESULTS: 133 young adults completed the pre-COVID-19 pandemic survey (mean age=28.9 years; 82% women). When compared to the pre-COVID-19 pandemic period, employment decreased from 86% to 71% following the pandemic, but no other changes were identified to



sociodemographic, disease/health or work context factors. The time period following the COVID-19 pandemic was associated with a 83% lower odds of employment compared to the pre-pandemic period (OR=.28, 95%CI=0.11, 0.71). Those with a post-secondary education or who reported more mental job demands were more likely to be employed following the pandemic. Also, a majority of participants reported that the pandemic affected health care (83%), treatment access (54%), working conditions (92%) and occupational health and safety (74%). CONCLUSION: The COVID-19 pandemic had socioeconomic implications for young people with rheumatic disease. To support economic recovery for people with rheumatic disease, strategies to promote employment should be designed that also account for the young adult life phase and occupational characteristics

Bai L, Lu H, Hu H, Smith MK, Harripersaud K, Lipkova V, et al. Evaluation of work resumption strategies after COVID-19 reopening in the Chinese city of Shenzhen: a mathematical modeling study. Public Health. 2021; 193:17-22.

https://doi.org/10.1016/j.puhe.2020.12.018 [open access] Abstract: OBJECTIVES: As China is facing a potential second wave of the epidemic, we reviewed and evaluated the intervention measures implemented in a major metropolitan city, Shenzhen, during the early phase of Wuhan lockdown. STUDY DESIGN: Based on the classic SEITR model and combined with population mobility, a compartmental model was constructed to simulate the transmission of COVID-19 and disease progression in the Shenzhen population. METHODS: Based on published epidemiological data on COVID-19 and population mobility data from Baidu Qianxi, we constructed a compartmental model to evaluate the impact of work and traffic resumption on the epidemic in Shenzhen in various scenarios. RESULTS: Imported cases account for most (58.6%) of the early reported cases in Shenzhen. We demonstrated that with strict inflow population control and a high level of mask usage after work resumption, various resumptions resulted in only an insignificant difference in the number of cumulative infections. Shenzhen may experience this second wave of infections approximately two weeks after the traffic resumption if the incidence risk in Hubei is high at the moment of resumption. CONCLUSION: Regardless of the work



resumption strategy adopted in Shenzhen, the risk of a resurgence of COVID-19 after its reopening was limited. The strict control of imported cases and extensive use of facial masks play a key role in COVID-19 prevention

Bentley T, Green N, Tappin D, and Haslam R. State of science: the future of work: ergonomics and human factors contributions to the field. Ergonomics. 2021; 64(4):427-439. https://doi.org/10.1080/00140139.2020.1841308

Abstract: This article is concerned with scholarly ergonomics and human factors (E/HF) contributions to date to the field of research inquiry known as the 'future of work'. The review considers E/HF perspectives on how the nature of work is changing and what this means for the practice of E/HF and for human performance and wellbeing at work. This field of research has attracted much attention from scholars from various disciplines as flexible working arrangements and casualised employment, in particular, have come under the microscope during the COVID-19 pandemic. The article begins by setting out the future of work field, focussing on the mega trends and future of work forces that are most relevant to the discipline. Next, E/HF contributions to this field are identified and discussed. Surprisingly, given the E/HF tradition as a system discipline fundamentally concerned with the study of human work, and as a contributor to transdisciplinary research related to the design of work systems, a search of the scholarly literature found few contributions outside of the automation systems field that addressed the future of work and E/HF directly. A research agenda is presented to address gaps in current knowledge in a number of key future of work domains. Practitioner's Summary: We reflect on E/HF contributions to the 'future of work' field and how the practice of E/HF needs to consider the changing nature of work. We outline future of work concerns and suggest research areas for further E/HF attention towards the design of decent and sustainable work for all. Abbreviations: E/HF: ergonomics and human factors; ILO: International Labour Organisation; COVID-19

Choi E, Choi KW, Jeong HG, Lee MS, Ko YH, Han C, et al. Long working hours and depressive symptoms: moderation by gender, income, and job status. Journal of Affective Disorders.

Institute

2021; 286:99-107.

https://doi.org/10.1016/j.jad.2021.03.001

Abstract: Background: Long working hours can be a risk factor for poor mental health; however, little is known about the potential factors moderating their relation. This study investigates the association between working hours and depressive symptoms, and explores the potential moderating effect of gender, income level, and job status on this association using a nationally representative sample of working population in South Korea. Methods: Data of 7,082 workers aged 19 years or above were obtained from the Korea National Health and Nutrition Examination Surveys (KNHANES) conducted in 2014, 2016, and 2018 in South Korea. Working hours were categorized into 35-39, 40, 41-52, 53-68, and =69 hours/week. Depressive symptoms were evaluated using the Patient Health Questionnaire-9 (PHQ-9). Results: Individuals working =69 hours/week were more likely to have moderate to severe depressive symptoms compared to those working 40 hours/week. The association between longer working hours and depressive symptoms was especially prominent in female workers, standard wage workers, and workers with low income levels. We observed significant partial mediation pathways between working hours and PHQ-9 scores through both perceived usual stress level and self-rated health in the total sample. Limitations: The cross-sectional design of the study limits causal interpretation of the findings. Conclusion: Working longer than the legal upper limit of 52 hours/week puts workers at a greater risk for depression. Females, low-income workers, and wage workers are more vulnerable to the negative consequences of long working hours on mental health.

Daniels K, Watson D, Nayani R, Tregaskis O, Hogg M, Etuknwa A, et al. Implementing practices focused on workplace health and psychological wellbeing: a systematic review. Social Science & Medicine. 2021; 277:113888.

https://doi.org/10.1016/j.socscimed.2021.113888 [open access] Abstract: RATIONALE: Workplace health and wellbeing practices (WHWPs) often fail to improve psychological health or wellbeing because of implementation failure. Thus, implementation should be evaluated to improve the effectiveness of WHWPs. OBJECTIVE: We conducted a systematic review to identify critical success factors for

Institute for Work &

WHWP implementation and gaps in the evidence. Doing so provides a platform for future theoretical development. METHODS: We reviewed 74 separate studies that assessed the implementation of WHWPs and their effects on psychological health or psychological wellbeing. Most studies were from advanced industrial Western democracies (71). Intervention types included primary (e.g., work redesign, 37 studies; and health behavior change, 8 studies). secondary (e.g., mindfulness training, 11 studies), tertiary (e.g., focused on rehabilitation, 9 studies), and multifocal (e.g., including components of primary and secondary, 9 studies). RESULTS: Tangible changes preceded improvements in health and wellbeing, indicating intervention success cannot be attributed to non-specific factors. Some interventions had beneficial effects through mechanisms not planned as part of the intervention. Three factors were associated with successful WHWP implementation: continuation, learning, and effective governance. CONCLUSIONS: The review indicates future research could focus on how organizations manage conflict between WHWP implementation and existing organizational processes, and the dynamic nature of organizational contexts that affect and are affected by WHWP implementation. This systematic review is registered [PROSPERO: the International Prospective Register of Systematic Reviews ID: CRD42019119656]

Dierckx de Casterle B, De Vliegher K, Gastmans C, and Mertens E. Complex qualitative data analysis: lessons learned from the experiences with the Qualitative Analysis Guide of Leuven. Qualitative Health Research. 2021; 31(6):1083-1093. https://doi.org/10.1177/1049732320966981

Abstract: In this article, the authors discuss critical factors to be considered when analyzing complex qualitative data. The experiences with the use of the Qualitative Analysis Guide of Leuven (QUAGOL) to analyze qualitative data were used as starting point to develop a deeper understanding of what a good qualitative analysis requires and how to deal with its challenges in less optimal research contexts. A critical analysis and discussion of the strengths and weaknesses of the guide in a broader methodological context supports its potential for use in developing strong qualitative evidence. The analysis highlighted three key strategies of



Institute for Work & Safe Work Health Healthy Workers undertaking the analysis of complex narrative data: the case-oriented approach, the method of constant comparison, and the use of datagenerated codes. Having a good understanding of the underlying principles and how to implement them are key to conducting methodologically sound analyses

Harari L and Lee C. Intersectionality in guantitative health disparities research: a systematic review of challenges and limitations in empirical studies. Social Science & Medicine. 2021; 277:113876.

https://doi.org/10.1016/j.socscimed.2021.113876

Abstract: RATIONALE: Quantitative health disparities research has increasingly employed intersectionality as a theoretical tool to investigate how social characteristics intersect to generate health inequality. Yet, intersectionality was not designed to quantify, predict, or identify health disparities, and, as a result, multiple criticisms against its misapplication in health disparities research have been made. As such, there is an emerging need to evaluate the growing body of quantitative research that aims to investigate health disparities through an intersectional lens. METHODS: We conducted a systematic review from earliest records to January 2020 to (i) describe the scope of limitations when applying intersectionality to quantitative health disparities research, and (ii) identify recommendations to improve the future integration of intersectionality with this scholarship. We identified relevant publications with electronic searches in PubMed and CA Web of Science. Studies eligible for inclusion were English-language publications that used quantitative methodologies to investigate health disparities among adults in the U.S. while explicitly claiming to adopt an intersectional perspective. Out of 1279 articles reviewed, 65 were eligible for inclusion. RESULTS: Our review found that, while the value of intersectionality to the study of health disparities is evident, the existing research struggles with meeting intersectionality's fundamental assumptions. In particular, four limitations were found to be widespread: narrowing the measurements of intersectionality, intersectional groups, and health outcomes; placing primacy on the study of certain intersectional groups to the neglect of others; overlooking underlying explanatory mechanisms that contribute to the health disparities experienced by intersectional groups; and, lacking



in the use of life-course perspectives to show how health disparities vary across different life stages. CONCLUSION: If the goal of health equality is to be achieved among diverse intersectional groups, future research must be assisted by the collection and examination of data that overcomes these limitations

Kim HK, Kim KM, Kim JH, and Rhee HS. The effect of changes in employment on health of work-related injured workers: a longitudinal perspectives. Healthcare. 2021; 9(4):470. https://doi.org/10.3390/healthcare9040470 [open access] Abstract: This longitudinal study attempted to identify changes in employment status and overall health status. The participants were workers who had experienced work-related injuries in the past. In this study, we used the Panel Study of Workers' Compensation Insurance from 2013 to 2017. This study utilized propensity score matching for a quasi-experimental design study of the first year to exclude the effects of the confounding variables and exclude the effect of employment status, which is the main independent variable. After applying propensity score matching the research subjects totaled 1070. Changes in employment status were found to have a negative effect on overall health status. This raises new implications for existing industrial accident-related support policies. Thus, it is considered that the scope should be expanded from policies related to re-employment of workers after an industrial accident to improving quality of life through maintaining employment from a long-term perspective. The notable point of this study was to apply the PSM methods. By applying PSM, we clearly identified the effect of changes in employment status on health status

Klasen SH, van Amelsvoort LG, Jansen NW, Slangen JJ, Tjin AT, and Kant I. Efficacy of an indicated prevention strategy on sickness absence and termination of the employment contract: a 5-year follow-up study. Scandinavian Journal of Work, Environment & Health. 2021; 47(4):258-267.

https://doi.org/10.5271/sjweh.3945 [open access] Abstract: OBJECTIVE: It was shown that an indicated prevention strategy (IPS), based on screening and early intervention, can considerably decrease future risk of long-term sickness absence (LTSA>28 days) over one year. Given the nature of the interventions,

Institute

the potential of an effect extending beyond the original one year of follow-up might be present. This study aims to determine the efficacy of this IPS on LTSA and termination of employment contract over five years by extended follow up of IPS trials. METHODS: Company records on sickness absence and termination of employment contract over five years were used from two randomized controlled trials (RCT) on the efficacy of the IPS (RCT I employees at high-risk for LTSA: intervention: N=263; RCT II high-risk employees with concurrent mild depressive complaints: intervention: N=139). Survival analysis was used to model time until the first LTSA episode and termination of employment contract. RESULTS: RCT I showed a decrease of 43.2 days of sickness absence (P=0.05) and a lower 5year risk of LTSA in the intervention, as compared to the control group [hazard ratio (HR) 0.61, 95% confidence interval (CI) 0.41-0.90], however no considerable impact on employment contract (HR 0.85, 95% CI 0.54-1.35) (intention-to-treat, ITT). For RCT II, we found no large difference in days of SA and no difference in LTSA risk over five years (HR 1.31, 95% CI 0.70-2.47), whereas the risk of termination of the employment contract was lower (HR 0.62, 95% CI 0.39-0.99) (ITT). CONCLUSION: Effects of the IPS were observed over five years, albeit differential between the two approaches. A combination of elements of both interventions might lead to optimal results but needs further study

Lappalainen L, Liira J, and Lamminpaa A. Work disability negotiations between supervisors and occupational health services: factors that support supervisors in work disability management. International Archives of Occupational & Environmental Health. 2021; 94(4):689-697.

https://doi.org/10.1007/s00420-020-01623-5

Abstract: PURPOSE: A work disability negotiation takes place between a supervisor, the disabled employee and the occupational health service (OHS) to support the disabled employee in returning to their work, often with temporary work accommodation. The objective of this study was to define the factors of a work disability negotiation with OHS that supported or hindered supervisors in their task/role in work disability management. METHODS: The study setting comprised two parts: the creation of survey questions and the actual survey of supervisors (N=254) from six public and private



organizations in Finland. Of these, 133 (52%) had participated in one or more work disability negotiations. The responses covered about 240 work disability cases and considerably more negotiations. RESULTS: The study identified four key elements that the supervisors expressed as major success factors in the negotiations. First, it was crucial that the supervisors learned about the employee's health restrictions and understood the issues relating to their work disability. Second, the parties should aim for common solutions and conclusions through collaboration. Third, active participation of all the negotiation parties is important. The supervisors gave a high rating to OHS taking their views seriously. Last, the supervisors appreciated collaboration in a constructive atmosphere. CONCLUSION: In order for a negotiation to help supervisors in their challenges, it should reach solutions, conclusions and a restructured comprehension of the work disability problem in a constructive atmosphere and with active communication between stakeholders

Pirzadeh P and Lingard H. Working from home during the COVID-19 pandemic: health and well-being of project-based construction workers. Journal of Construction Engineering and Management. 2021; 147(6):04021048.

https://doi.org/10.1061/(ASCE)CO.1943-7862.0002102 [open] access]

Abstract: In the ongoing attempt to prevent the spread of the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) virus and flatten the curve, governments and employers have encouraged (and in some cases required) workers to work at home. This sudden widespread shift to home-based teleworking was not anticipated. Consequently, the ability to make provisions to ensure the health and safety of workers was limited. Further, in many cases, the shift to working at home has been involuntary and likely to continue for an extended period. The study presented in this paper aimed to examine the health and well-being experiences in a sample of professional/managerial workers who were engaged in teleworking as the coronavirus disease 2019 (COVID-19) pandemic situation developed. Data were collected from workers in the Australian construction industry who were required to work from home on alternate weeks to reduce the number of people in project offices. A multiwave survey was conducted at three construction projects.



Longitudinal analysis of the data indicated a consistent gradual decline in the mental well-being of participants. The analysis identified a positive and significant relationship between work-life satisfaction and mental well-being and indicated that the effects of work hours, work pressure, work engagement, and work-life interference on mental well-being were mediated by the extent to which participants were satisfied with their work-life balance. Combining these results with qualitative comments made by participants helped to understand their varying experiences during the pandemic and the impact on their mental well-being. The results highlight the importance of considering work–life satisfaction and creating opportunities for improved work-family balance when designing teleworking arrangements. The paper contributes to knowledge and practice by providing the evidence that helps organizations to maximize the health benefits and reduce the risks associated with home-based working during (and potentially beyond) the pandemic.

Shiri R, Hakola T, Harma M, and Ropponen A. The associations of working hour characteristics with short sickness absence among part- and full-time retail workers. Scandinavian Journal of Work, Environment & Health. 2021; 47(4):268-276. https://doi.org/10.5271/sjweh.3952 [open access] Abstract: Objective: This study aimed to determine the associations of working hour characteristics with short (1-3 days) sickness absence (SA) among retail workers. Methods: As part of "RetailHours-project", 4046 employees of 338 Finnish retail stores were included. Registry-based data on working hour characteristics and short SA were utilized. A case-crossover design was used and the odds ratios (OR) were controlled for the clustering effect and working hour characteristics. Results: There were strong doseresponse relationships between percent of short (<11 hours) shift intervals and short SA among part- and full-time workers, men and women, and younger and older workers. Compared to workers without short shift intervals, the risk of SA was 1.47 times [95%] confidence interval (CI) 1.29-1.68] higher among workers who had short shift intervals <10% of work times, 2.39 times (95% CI 2.03-2.82) higher among workers who had 10-25% of work times, and 4.03 times (CI 2.34-6.93) higher among workers who had short shift



intervals >25% of work times. Weekly working hours >40 hours were associated with SA among part-time workers [odds ratio (OR) 2.22, CI 1.65-2.98], women (OR 1.62, CI 1.27-2.07) and among workers <30 years of age (OR 1.68, CI 1.20-2.35) as well as among workers aged =30 years (OR 1.43, CI 1.07-1.92). Furthermore, working mainly night shifts was associated with SA among full-time workers (OR 2.41, 95% CI 0.99-5.86) and women (OR 1.72, CI 1.02-2.89). Conclusions: A short shift interval is an important risk factor for short SA. Improving intervals between shifts and shortening long weekly working hours could reduce the risk of short SA among retail workers.

Smith L, Sherratt F, Barnett Y, Cao C, Tully MA, Koyanagi A, et al. Physical activity, sedentary behaviour and cannabis use in 15,822 US adults: cross-sectional analyses from NHANES. Public Health. 2021; 193:76-82.

https://doi.org/10.1016/j.puhe.2021.01.018

Abstract: Objectives: The aim was to analyse the overall and sexspecific associations between cannabis use and physical activity and sedentary behaviour. Study design: Cross-sectional analyses from the National Health and Nutrition Examination Survey (NHANES). Methods: Data on cannabis use and leisure time physical activity and sedentary behaviour from NHANES cycles 2007-2008 to 2015-2016 were analysed. Multivariable regression models were carried out. Results: About 15,822 participants were analysed (mean age ± standard error = 37.5 ± 0.19 years, range 20-59 years). Significantly higher odds were found for being active and ever used cannabis in the overall sample (odds ratio [OR] = 1.2, 95% confidence interval [CI]: 1.1-1.4) and in males (OR = 1.3, 95% CI: 1.1 to 1.5) and females (OR = 1.2, 95% CI: 1.0-1.4), respectively. In respective of sedentary behaviour, ever used cannabis was associated with higher odds of TV viewing =2 h/day in the overall sample (OR = 1.2, 95% CI: 1.0-1.4). However, this association was observed in males only (OR = 1.3, 95% CI: 1.1-1.6). Ever used cannabis was associated with total sitting time (beta-coefficient = 0.3, 95%CI: 0.1-0.4), which was more evident in females (beta-coefficient = 0.4, 95% CI: 0.1-0.6). Conclusions: Cannabis consumption was associated with higher levels of physical activity and sitting time. When intervening to reduce cannabis consumption in the US populations, it may be appropriate to

Institute Health

promote physical activity and ensure physical activity is maintained once cannabis consumption is stopped.

van Heijster H, Boot CRL, Robroek SJW, Oude Hengel K, van Berkel J, de Vet E, et al. The effectiveness of workplace health promotion programs on self-perceived health of employees with a low socioeconomic position: an individual participant data meta-analysis. SSM - Population Health. 2021; 13:100743. https://doi.org/10.1016/j.ssmph.2021.100743 [open access] Abstract: The aim of the current study was to evaluate whether workplace health promotion programs improve self-perceived health of employees with a low socioeconomic position (SEP), and whether differential effects exist between individuals with a low SEP for gender, marital status or age. Individual participant data from six Dutch intervention studies aiming at promoting healthy behavior and preventing obesity in the work setting, with a total of 1906 participants, were used. The overall intervention effect and interaction effects for gender, marital status and age were evaluated using twostage meta-analyses with linear mixed regression models. In the first stage effect sizes of each study were estimated, which were pooled in the second stage. Compared to control conditions, workplace health promotion programs did not show an overall improvement in self-perceived health of employees with a low SEP (ß0.03 (95%CI: -0.03 to 0.09)). Effects did not differ across gender, marital status and age. Future research could be focused on the determinants of selfperceived health next to health behavior to improve the health of employees with a low SEP.

Waongenngarm P, van der Beek AJ, Akkarakittichoke N, and Janwantanakul P. Effects of an active break and postural shift intervention on preventing neck and low-back pain among highrisk office workers: a 3-arm cluster-randomized controlled trial. Scandinavian Journal of Work, Environment & Health. 2021; 47(4):306-317.

https://doi.org/10.5271/sjweh.3949 [open access] Abstract: OBJECTIVE: This study evaluated the effects of the promotion of active breaks and postural shifts on new onset of neck and low-back pain during a 6-month follow-up among high-risk office workers. METHODS: A 3-arm cluster-randomized controlled trial with

Institute

6-month follow-up was conducted among healthy but high-risk office workers. Participants were recruited from six organizations in Bangkok, Thailand (N=193) and randomly assigned at cluster level into active break intervention (N=47), postural shift intervention (N=46), and control (N=100) groups. Participants in the intervention groups received a custom-designed apparatus to facilitate designated active breaks and postural shifts during work. Participants in the control group received a placebo seat pad. The primary outcome measure was new onset of neck and low-back pain during 6-month follow-up. Analyses were performed using Cox proportional hazard models. RESULTS: One-hundred and eighty-six (96%) predominantly female participants were successfully followed up over six months. New onset of neck pain during the 6-month follow-up occurred in 17%, 17%, and 44% of the participants in the active break, postural shift, and control groups, respectively. For new onset of low-back pain, these percentages were 9%, 7%, and 33%, respectively. Hazard rate (HR) ratios after adjusting for biopsychosocial factors indicated a protective effect of the active break and postural shift interventions for neck pain [HRadj 0.45, 95% confidence interval (CI) 0.20-0.98 for active break and HRadi 0.41, 95% CI 0.18-0.94 for postural shift] and low-back pain (HRadi 0.34, 95% CI 0.12-0.98 for active break and HRadi 0.19, 95% CI 0.06-0.66 for postural shift). CONCLUSION: Interventions to increase either active breaks or postural shifts reduced new onset of neck and low-back pain among high-risk office workers

Weber F, Knapp G, Glass A, Kundt G, and Ickstadt K. Interval estimation of the overall treatment effect in random-effects meta-analyses: recommendations from a simulation study comparing frequentist, Bayesian, and bootstrap methods. Research Synthesis Methods. 2021; 12(3):291-315. https://doi.org/10.1002/jrsm.1471

Abstract: There exists a variety of interval estimators for the overall treatment effect in a random-effects meta-analysis. A recent literature review summarizing existing methods suggested that in most situations, the Hartung-Knapp/Sidik-Jonkman (HKSJ) method was preferable. However, a quantitative comparison of those methods in a common simulation study is still lacking. Thus, we conduct such a simulation study for continuous and binary outcomes, focusing on the

Institute for Work &

medical field for application. Based on the literature review and some new theoretical considerations, a practicable number of interval estimators is selected for this comparison: the classical normalapproximation interval using the DerSimonian-Laird heterogeneity estimator, the HKSJ interval using either the Paule-Mandel or the Sidik-Jonkman heterogeneity estimator, the Skovgaard higher-order profile likelihood interval, a parametric bootstrap interval, and a Bayesian interval using different priors. We evaluate the performance measures (coverage and interval length) at specific points in the parameter space, that is, not averaging over a prior distribution. In this sense, our study is conducted from a frequentist point of view. We confirm the main finding of the literature review, the general recommendation of the HKSJ method (here with the Sidik-Jonkman heterogeneity estimator). For meta-analyses including only two studies, the high length of the HKSJ interval limits its practical usage. In this case, the Bayesian interval using a weakly informative prior for the heterogeneity may help. Our recommendations are illustrated using a real-world meta-analysis dealing with the efficacy of an intramyocardial bone marrow stem cell transplantation during coronary artery bypass grafting

*IWH authored publication.

