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Are we working (too) comfortably?: Collaborating with The Scottish Government to support their workforce to reduce desk-time whilst working at home

End of Project Report

January 2023

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Summary

The working landscape has changed since the beginning of the COVID-19 pandemic in early 2020. Many workers started working at home (W@H) as a result of lockdown restrictions, and many workers have continued to do so either for some (i.e., hybrid working) or all of their working week. W@H provides many benefits, but also unintended consequences such as an increase in sedentary behaviour (SB). SBs have been linked to adverse health and wellbeing issues, such as all-cause mortality, cardio-metabolic problems, and type 2 diabetes. Strategies to support workers to reduce their SB while W@H are necessary to ensure they are able to W@H safely and comfortably. To address this need, researchers at the University of Edinburgh developed an evidence-informed Toolkit to reduce desk-time and increase movement during the W@H day.

Working collaboratively with Active Scotland, project funding was secured to package and test the Toolkit with staff from The Scottish Government workforce (October to November 2022). The project aimed to evaluate the acceptability of the Toolkit for people who are W@H and refine the Toolkit using staff feedback.

This report presents:

- the background of the project and project details;
- the main findings from the evaluation; and,
- recommendations to reduce SB in the W@H environment.

The findings from this project can be used to inform wider roll-out and implementation of the Toolkit across the Scottish Government to support employees to reduce desk-time and increase movement during the W@H day. The findings are transferable and will be useful to other organisations with employees who W@H.

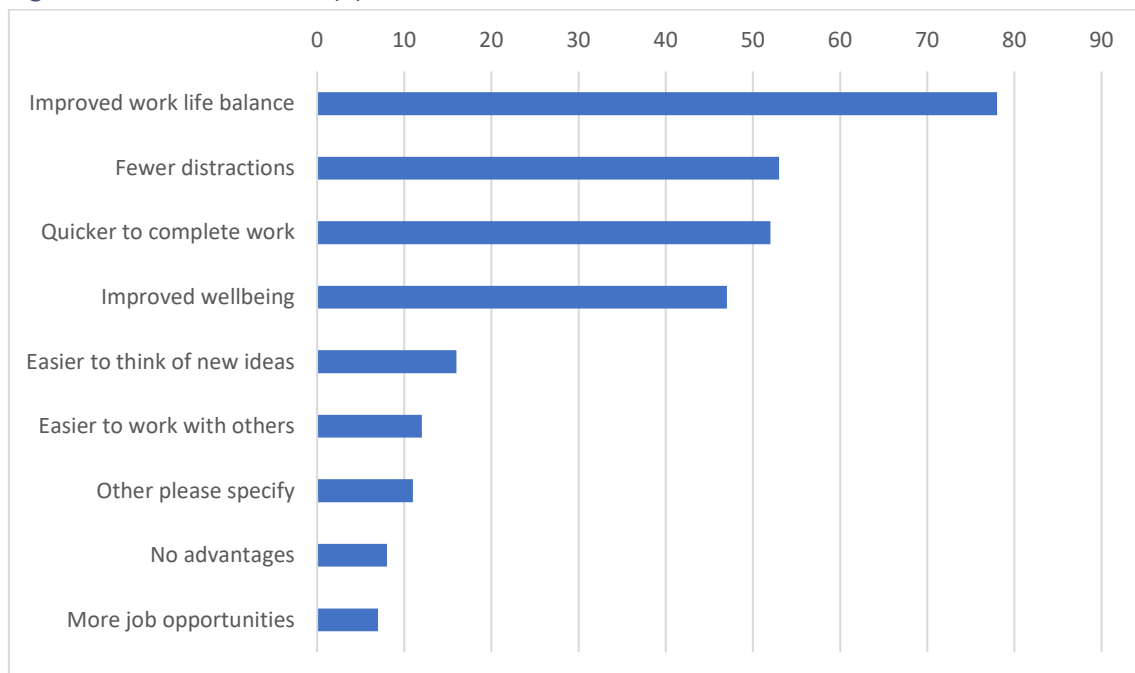
Background

The increase of W@H

During COVID-19 many organisations were required to pivot to having employees W@H in order to conform with lockdown restrictions. This enforced change in work location subsequently led to a transformation in working practices across the UK and internationally. Data from the Office of National Statistics (ONS), published in February 2022 [1] indicated that 84% of UK workers who were required to W@H during COVID-19, reported that they planned to continue with a mix of W@H and in their place of work (i.e., a 'hybrid' working pattern). Only 8% reported planning to return to their place of work on all working days. It is notable that the pivot to hybrid working is not equal across all demographic groups, with hybrid being most common in higher earners, and workers aged 30-49 [1].

Workers have reported many benefits to W@H. Figure 1 illustrates the findings from an ONS Opinions and Lifestyle survey (3-13 Feb 2022) showing a range of benefits, with improved work-life balance as the most common.

Figure 1. Benefits of W@H (1)



Whilst there are many reported advantages, there are also disadvantages to W@H. A Scottish Government report published in October 2022 [2] categorised the challenges into five areas (Figure 2). Within the category of Physical health and inactivity, is the recognised concern of the impact of home working on elevated SB.

Figure 2. Summary of challenges faced when W@H (2)



SB: what is it and how does it impact our health?

SB is defined as any waking activity characterised by low energy expenditure (≤ 1.5 METs) whilst sitting, reclining or lying [3]. SB can include behaviours such as driving, watching TV, scrolling on a phone, and working at a desk.

Time spent in SB is associated with increased risk of adverse health outcomes including all cause-mortality, cardio-metabolic markers, type 2 diabetes, and different types of cancer [4, 5]. Higher levels of SB have also been associated with increased risk of mental wellbeing issues, such as depression, decreased mental wellbeing, decreased cognitive function and, physical issues such as increased musculoskeletal pain and discomfort [6-9]. Within the workplace there is a small amount of evidence to indicate that SB is not associated with productivity, although higher levels are associated with increases in fatigue and decreases in job satisfaction [10], which may mediate an impact on decreased productivity.

Elevated SB in the workplace

The workplace is a high risk setting for SB. Workers in the office can spend around 80% of their working day being sedentary [11, 12]. Emerging evidence suggests that these high levels of SB are further exacerbated in the W@H environment [13]. Previous research we conducted with University staff showed 89% of the workday was spent in SB, equivalent to approximately 400 minutes per day [14]. This increase in SB may be attributed to a number of changes in behaviour when W@H including the loss of incidental movement, increase in online meetings, and loss of an [active] commute [15].

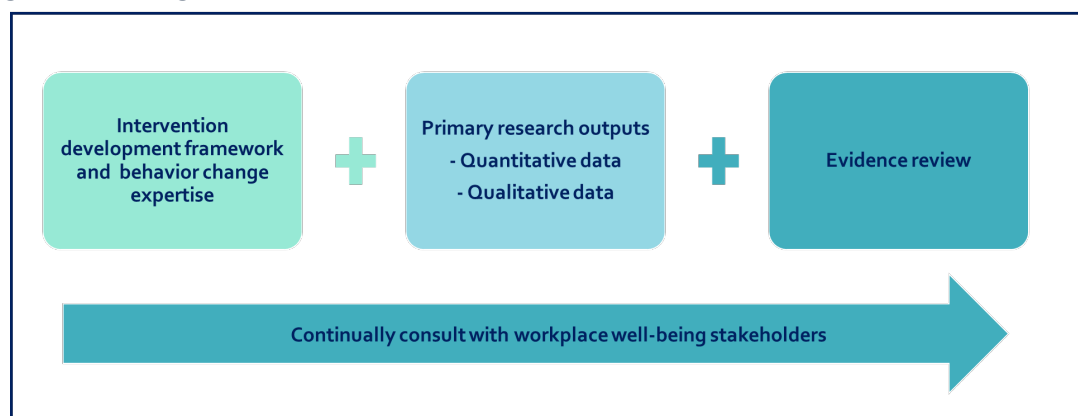
There is a need to support workers in the W@H environment to move more across the working day to reduce negative health consequences of prolonged SB. It is important to note that current evidence indicates that only physical activity at the highest levels (and beyond the levels of the majority of the population) is sufficient to attenuate the negative health consequences of the levels of SB evident in office-based workers [16]. In line with WHO recommendations it is important to encourage workers to limit the amount of time spent being sedentary. Replacing sedentary time with physical activity of any intensity (including light intensity) provides health benefits [16].

Creating an evidence-informed Toolkit to reduce SB when W@H

Building the evidence

Over the last two years, the University of Edinburgh team have undertaken research to inform the development of a Toolkit to support workers to reduce SB when W@H. Figure 3 outlines the process adopted to build the evidence base for the Toolkit. The team have expertise in behaviour change and adopted appropriate intervention frameworks [17, 18]. In order to understand the influences on SB when W@H, the team collected questionnaire [14], focus group and workshop data with both employees and employers. The team also conducted an evidence review of what works to reduce SB in the office environment and evaluated with experts in workplace wellbeing, the transferability of these strategies to the W@H environment [19]. Additionally, throughout this process there was ongoing consultation with stakeholders who have a remit for workplace health, physical activity and well-being.

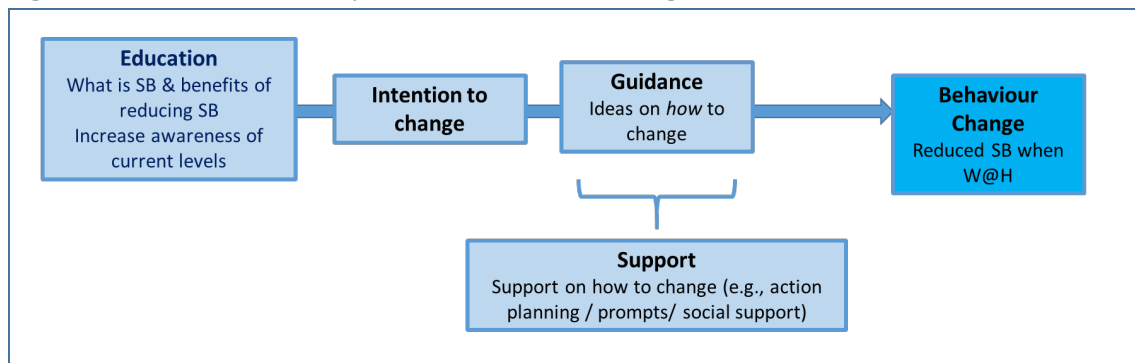
Figure 3. Building the evidence base for the Toolkit



Changing SB when W@H with a Toolkit

Based on the process detailed in Figure 3, the team developed a framework for behaviour change that informed the Toolkit development (Figure 4). It was clear that there was a need for education regarding what SB is, the health consequences (including that typically physical activity is not sufficient to attenuate risks), and feedback on individuals' own levels of SB. Education may lead to an 'intention to change' one's behaviour. However, an intention is rarely sufficient to result in behaviour change and guidance on 'how' to do so, and support is needed to facilitate behaviour change.

Figure 4. Evidence-informed process of behaviour change to reduce SB when W@H

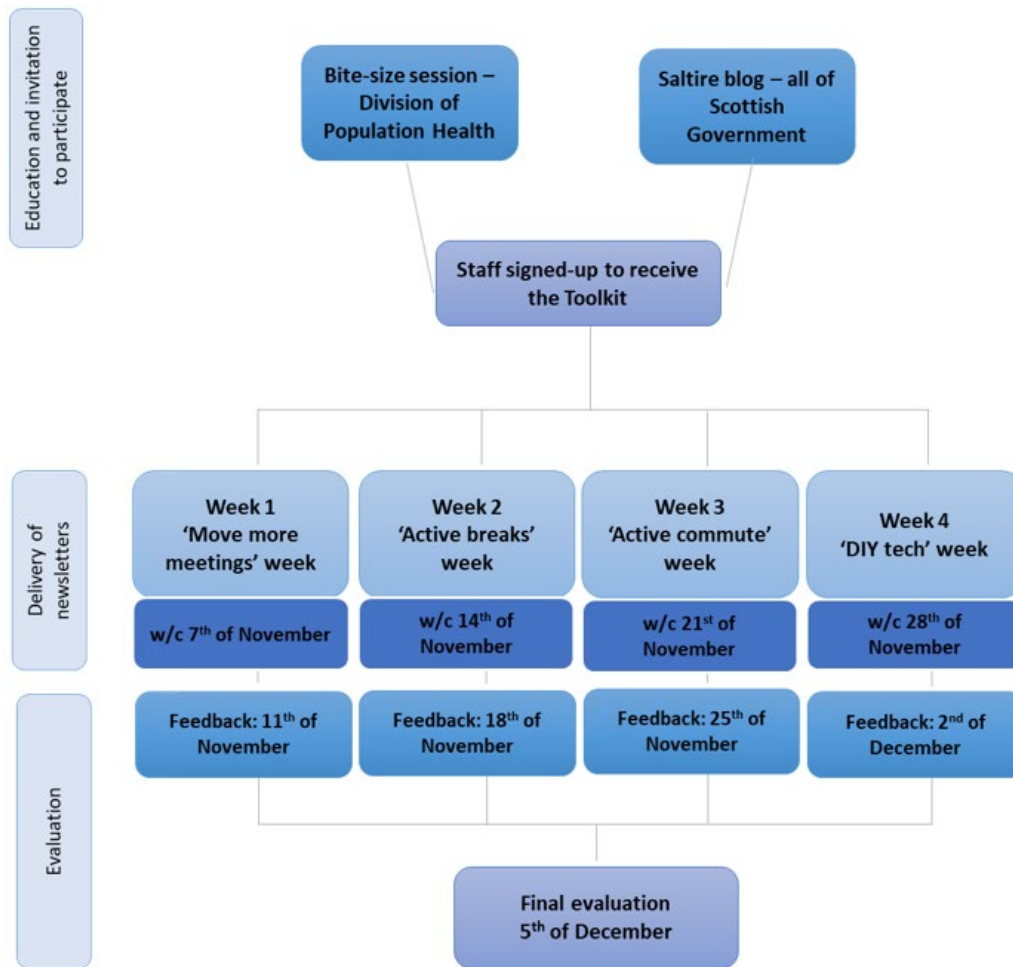


Informed by this understanding of behaviour change, a series of strategies were developed to build a 'Toolkit' of resources. New bespoke materials were developed, and existing appropriate resources from trusted partners were also included. The Toolkit was reviewed by the team to ensure the materials were inclusive including representative imagery, and avoiding ableist language such as 'sit less, move more'. Additionally, and primed by Active Scotland, the Toolkit detailed in this report included a focus on mental health and well-being, as this was a priority focus of The Scottish Government.

Delivering and testing the Toolkit with The Scottish Government workforce

During October-December 2022 the Toolkit was tested with Scottish Government staff, and evaluative information collected to capture metrics on engagement and feedback regarding staff experiences. Figure 5 illustrates the timeframe for the rollout of the Toolkit, including education and invitation to participate, 4-week delivery of a series of email newsletters, and collection of both weekly and end of project evaluative feedback.

Figure 5. Timeframe of the rollout of the project and collection of evaluative feedback



Education and invitation to staff to try the Toolkit

An online MS Teams webinar was delivered by University of Edinburgh staff to the Population Health Directorate of The Scottish Government (20th October 2022) as part of the programme of 'Bite-Size' sessions. This session included background educational content (e.g., information in relation to SB and health; elevated SB in the W@H environment) and concluded with an invitation to sign-up to participate in the four-week project and receive weekly email newsletters with strategies to reduce SB when W@H.

The project was also promoted through Saltire, an internal blog for The Scottish Government staff. The Saltire Blog is included in Appendix 1, had similar educational content to the webinar and also included an invitation to join the project.

Delivery of the Toolkit via email newsletters

Each weekly email newsletter was sent on a Monday and covered a specific theme. A summary of each week is included in Tables 1a-1d. A screenshot of the weekly email newsletters is included in Appendix 2.

Table 1a. Summary of the weekly strategies in the email newsletters (week 1)

Weekly theme	Examples of suggestions
Week 1. 'Move more meetings' week	<p>Suggestions for moving during meetings, through animated videos :</p> <ul style="list-style-type: none"> • Active meetings including standing, walking, wheeling. Could you have an active meeting? • DIY your own standing desk. In an online meeting could you stand for some or all of the meeting? • Move more during online meetings (e.g., 2-minute stand, seated stretch). Standing stretch during meeting • Have a 50-minute meeting. Seated stretch between 50-min meeting <p>Action planning with suggestions for the week:</p> <ul style="list-style-type: none"> • What can I do this week? (e.g., schedule breaks into calendar) • What need to be in place for me to do this? (e.g., share progress with a colleague) <p>Links to external resources:</p> <ul style="list-style-type: none"> • DIY standing desk Considerations for a DIY standing desk • Kneeling while working Consider kneeling

Table 2b. Summary of the weekly strategies in the email newsletters (week 2)

Weekly theme	Examples of suggestions
Week 2. 'Active breaks' week	<p>Suggestions for taking 'active breaks', through animated videos. Examples include:</p> <ul style="list-style-type: none"> • Short-break suggestions (e.g., have a boogie). Time for a short break? Could you have a boogie? • Kettle-cises (exercises while boiling the kettle). Making a hot drink? Could you do some Kettle-cises? • Doing house chores (e.g., water plants, do laundry). Could you take a short break? How about watering your plants? Time for a short break? Could you do some laundry? <p>Educational information on the benefits of micro-breaks</p> <p>Action planning with suggestions for the week:</p> <ul style="list-style-type: none"> • What can I do this week? (e.g., online yoga videos) • What need to be in place for me to do this? (e.g., monitor breaks with phone) PAHRC YouTube Channel <p>Links to external resources:</p> <ul style="list-style-type: none"> • Paths for all One minute movers • Paths for all Ditch the desk: One minute movers

Table 3c. Summary of the weekly strategies in the email newsletters (week 3)

Weekly theme	Examples of suggestions
<p>Week 3. 'Active commute' week</p>	<p>Suggestion to add a 'home-to-home commute' to the working day (i.e., schedule in some outdoor active time before and after work).</p> <p>Additional active commute resources:</p> <ul style="list-style-type: none"> • Step Count Challenge blog with information about the research Are we working (too) comfortably? • Animation video suggesting home-to-home commute Home to home commute <p>Action planning with suggestions for the week:</p> <ul style="list-style-type: none"> • What can I do this week? (e.g., taking a walk/cycle/wheel before and/or after work) • What need to be in place for me to do this? (e.g., join a challenge to keep on track progress) <p>Links to external resources:</p> <ul style="list-style-type: none"> • The Daily Mile (e.g., Daily Mile Toolkits for individuals, groups and workplaces) The Daily Mile - Fit for life The Daily Mile - Toolkit • Paths for all (e.g., Step count challenge) Step Count Challenge 28 day wellbeing challenge Planning a walking route

Table 4d. Summary of the weekly strategies in the email newsletters (week 4)

Weekly theme	Examples of suggestions
Week 4. 'DIY tech' week	<p>DIY tech-based prompts suggestions using:</p> <ul style="list-style-type: none"> • Computer reminders (e.g., adding breaks to calendar) • Smartphone (e.g., use phone alarms to remind to take breaks) • Smartwatch (e.g., set reminders to break desk-time) <p>Action planning with suggestions for the week:</p> <ul style="list-style-type: none"> • What can I do this week? (e.g., using various tech devices to break up desk-time) • What need to be in place for me to do this? (e.g., using breaks suggestions from previous weeks after get tech reminders) <p>Other tech tools:</p> <ul style="list-style-type: none"> • Desk-time calculator • Pomofocus (online tool)

In addition to the Toolkit strategies that we delivered and tested with staff, we also developed a suite of digital tools including an MS Teams prompt and a toolbar nudge. While we had hoped to be able to test these with staff, following discussions with IT at the Scottish Government we realised it would not be possible within the timeframe of this project. However, and linked with evaluative feedback (see next section), we understand staff would value these tools. As such, there is potential to explore further the opportunities to work with The Scottish Government to implement organisation-wide.

Evaluation of the Project¹

Recruitment metrics

Eighty-five members of staff attended the Bite-size session on 20th October 2022. The Saltire blog was released on 1 November, and up to 7 December it had been accessed 1003 times (903 unique views). This number of views compares favourably with other blogs on physical activity (71 views in ~2 years), and another blog on an unrelated topic released on the same day (709 views over the same time period)

Ninety-six Scottish Government staff signed up to receive the Toolkit. From these 96 sign-ups, 54 signed up after the Bite-size session and 42 signed up after the blog had been released. Although we do not have the data to know with certainty what prompted the sign-up, based upon the timeline and the numbers this could be indicative of a 64% sign-up conversion from the Bite-size, and a 4.2% conversion from the blog.

Engagement metrics

The engagement with the email newsletter was over half of the staff who signed-up to receive the Toolkit for the first week (55% email newsletters opened) and decreased week by week (42% for week 2, 26% for week 3, 22% for week 4).

Weekly evaluation

At the end of each week, staff were sent a link to a questionnaire to provide feedback on that week's email newsletter and suggestions (Friday 11th of November to 2nd of December 2022). From 96 staff who signed up to receive the weekly email newsletters (94 in week 1), 29 provided feedback on the week 1 materials, and 27, 15 and 8 in weeks' 2-4 respectively.

Table 2 summarises the feedback for each weekly email newsletter. Overall, staff reported the email newsletters were a useful reminder to move more while W@H, and suggestions provided were practical without requiring additional costs or resource to implement. The feedback for week 2 ('Active breaks' week) was particularly positive with 'micro-breaks' being especially popular with staff acknowledging and appreciating the opportunity to make use of house chores as breaks. These micro-breaks were perceived to be useful to build into daily routines while W@H.

¹ The evaluation component of the project was reviewed and approved by Moray House School of Education and Sport Research Ethics Committee (Ref: SMOR03102022)

Table 5. Summary of weekly feedback

Week	Positive comments	Improvements / Refinements
<p>Week 1. 'Move more meetings' week</p> <p>n=29 feedback responses.</p> <p>n=27 – liked</p> <p>n= 2 – didn't like</p>	<ul style="list-style-type: none"> - Getting the email newsletter was a useful reminder to be conscious of SB, and to move more during meetings. - Suggestions are practical and do not require additional costs to implement and were easy to engage with. - Good to have reminders to move / stretch during meetings. - Kneeling was a practical, useful suggestion that made a good alternative to standing. - Felt incentivised to try a walking meeting. 	<ul style="list-style-type: none"> - Receiving the email newsletter earlier on a Monday would allow for planning and fitting the strategies into the working week. - Suggestions were good but were difficult to implement. - Animations did not work well because they lacked detail and would be better suited to social media. - Having MS Teams loaded onto phone would help facilitate walking meetings.
<p>Week 2. 'Active breaks' week</p> <p>n= 27 feedback responses</p> <p>n=27 – liked</p>	<ul style="list-style-type: none"> - Short active breaks were useful, and helped with feeling there was permission to take short breaks – also considered to be efficient use of time. Most popular were suggestions that included ideas for exercises (e.g., kettle-exercises, active breaks with house chores, yoga videos). - Micro-breaks were interesting. - Receiving the email newsletters encouraged the addition of activity into breaks both at home and in the office. - Validating to know that house chore breaks are beneficial. - Links to external videos (e.g., yoga, one-minute movers) were useful. 	<ul style="list-style-type: none"> - Suggestions were not novel for some staff. - Feeling of getting limited benefits from active breaks. - Suggestions did not feel memorable as the week progressed. - Need to overcome concerns around employer not looking favourably on these types of breaks. - Difficult to integrate the suggestions into some types of roles (e.g. if role requirements mean location of work can vary).

<p>Week 3. 'Active commute' week</p> <p>n=15 feedback responses</p> <p>n=12 - liked</p> <p>n=3 – didn't like</p>	<ul style="list-style-type: none"> - Suggestions were easy and achievable, and raised awareness of volume of SB. - Learning about the benefits of engaging with a 'home-to-home commute' was useful and should be recognised widely. - Lunchtime is an alternative time to do an active commute / break up the W@H day, if before/after/ when it's dark isn't an option. - Regularly engaging with a 'home-to-home commute' helps to build resilience and daily step count. 	<ul style="list-style-type: none"> - Implementing a 'home-to-home commute' was reported to be difficult due to weather, less daylight, and lack of time. - Having an early start time was highlighted as a barrier to being able to engage in activity before work. - Suggestions simply aren't suitable for all. - Turning the suggestions into actions was highlighted as a barrier – even if the intention is there.
<p>Week 4. 'DIY tech' week</p> <p>n=8 feedback responses</p> <p>n=7 - liked</p> <p>n=1 – didn't like</p>	<ul style="list-style-type: none"> - Tech ideas were easy to implement, without losing productivity. - Tools to set regular breaks (e.g., Pomofocus) were popular. - The use of a desk-time calculator (which calculated the total time spent in different work activities such as replying emails, online meetings) highlighted the need to move more during the W@H day. - Using a smartphone app to set reminders to move – was useful, and also helped improve focus. 	<ul style="list-style-type: none"> - Can be difficult to block time out in the calendar as there is an operational need to have flexibility here. - Reminders integrated into existing IT (MS Teams, Saltire, etc.) would be useful.

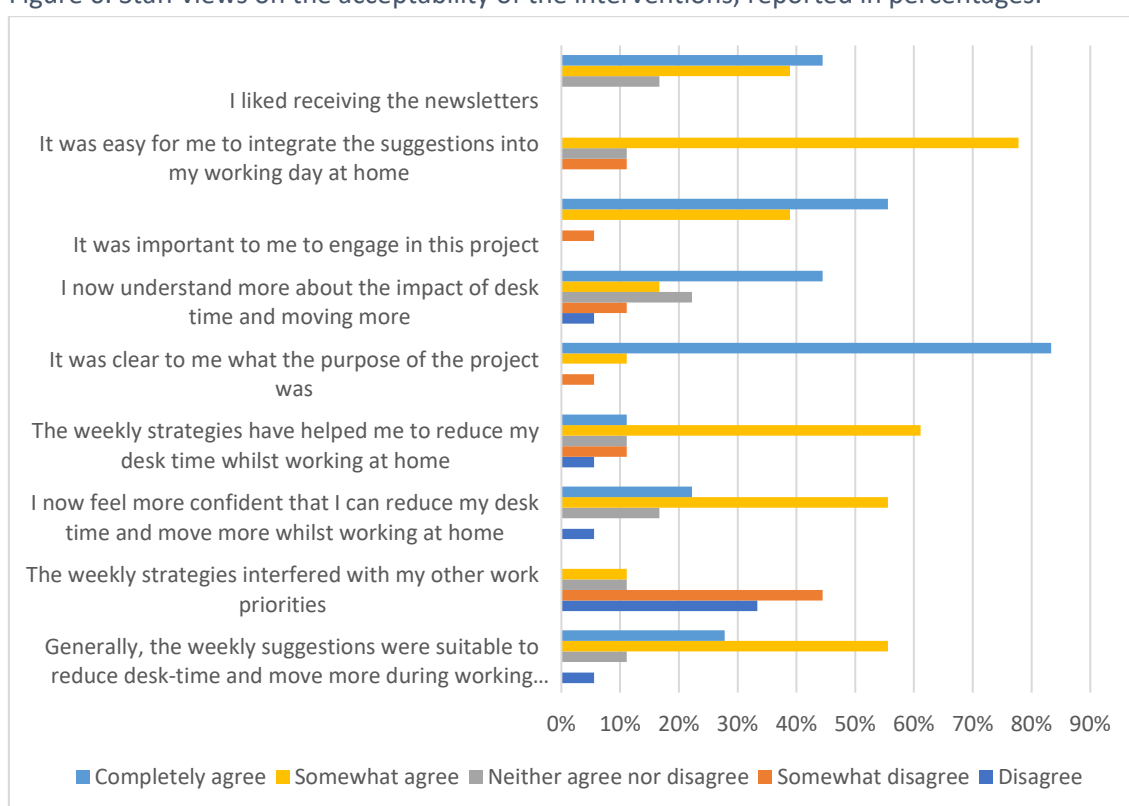
Overall evaluation

At the end of the project, staff were invited to complete a final online evaluation questionnaire (5th December). The questionnaire was developed with reference to current best practice [20] and included assessment of 1) the acceptability of the Toolkit; 2) the preferred weekly theme; 3) the strategies individuals would continue to use; 4) the perceived benefits of participation; and 5) any additional feedback. A total of n=18 staff completed the final evaluation, although not every participant completed each question. This represents a response rate of 18.8% from the original 96 sign ups, and as such the findings should be interpreted with some caution.

Acceptability of the Toolkit

Figure 6 illustrates responses (n=18) to statements designed to evaluate the acceptability of the Toolkit in terms of purpose, delivery and outcomes. Although responses were mixed, it is evident that participants primarily 'agreed' or 'somewhat agreed' to the majority of the statements. For example, in responses to the statement 'I liked receiving the email newsletters', 44% of staff agreed, 39% somewhat agreed, and 17% neither agreed nor disagreed.

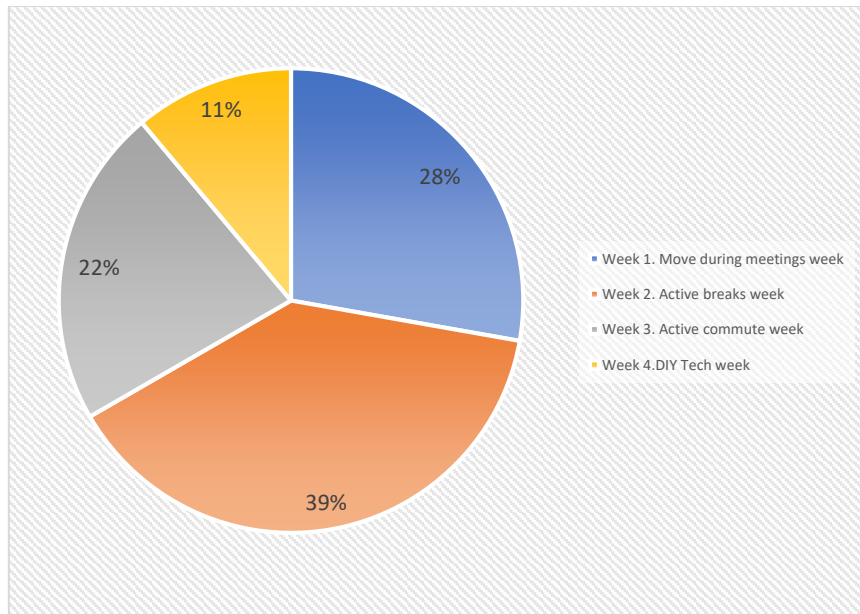
Figure 6. Staff views on the acceptability of the interventions, reported in percentages.



Preferred weekly theme

Figure 7 illustrates participant's (n=18) ranking of their most preferred weekly theme. 'Active Breaks' week was most popular, with 39% of staff ranking it as their number 1 preference. Only 11% of staff rated 'DIY tech' week as their most preferred week.

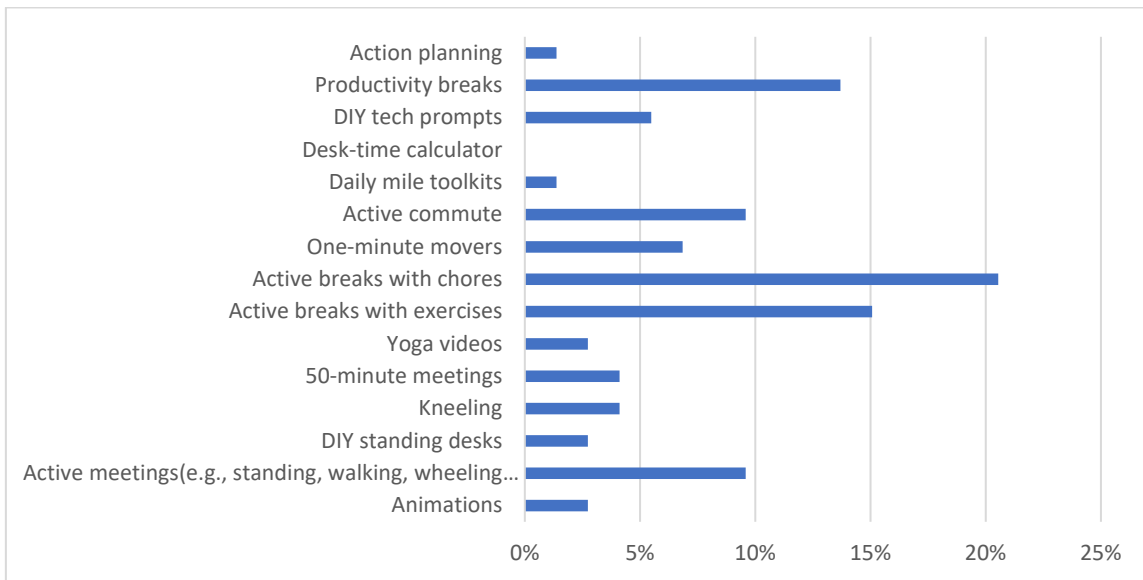
Figure 7. Most preferred weekly theme by Scottish Government staff



Toolkit strategies that participants will continue to use

Participants were asked to select up to four strategies from the Toolkit that they anticipated they would continue to use. N=18 responded and Figure 8 illustrates, in percentages, the strategies that respondents would continue to use. The most popular strategy was 'active breaks with chores' which was selected by 21% of staff, followed by 'active breaks with exercises' and 'productivity breaks' (15% and 14% respectively).

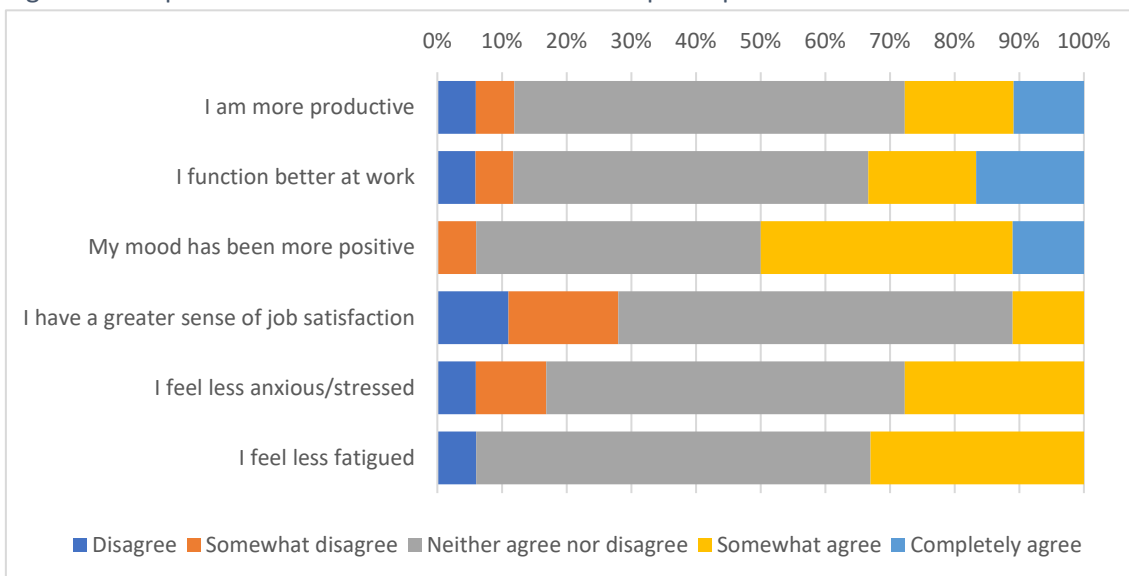
Figure 8. Percentage of respondents who indicated they would continue to use individual strategies



Perceived benefits of participation in the project

N=18 responded to questions on benefits of participation, participants were asked to indicate the perceived impact of the project on mental health, productivity, and wellbeing. As illustrated in Figure 9, most of responses showed that staff had mixed feelings, by mainly selecting the 'neither agree nor disagree' option for work productivity (61%), work function (56%), job satisfaction (61%), mental health (44% mood, 56% anxiety/stress), and fatigue (61%). Notably 50% of respondents reported improvements in mood, and more than a quarter of participants reported being more productive, and functioning better at work.

Figure 6. Responses to statements on the benefits of participation



Additional feedback

Staff were also asked for additional feedback to help refine the Toolkit. Eight participants responded and suggestions included:

- reducing the number of external links embedded in the email newsletters to help make content easier to digest
- expanding the animations to include more detailed instructions for movement, (e.g., stretches)
- embedding an app with pop up reminders / reminders into work calendar to remind staff to engage with the strategies
- enhancing organisational endorsement to provide 'permission' for engagement with the strategies
- enhancing leadership involvement and for senior staff to lead by example
- a webinar may provide a useful mechanism for discussing the strategies

Core considerations and recommendations for integrating the Toolkit

Overall, the project was delivered as intended, was well received, and some participants reported benefits from participation. Engagement decreased across the 4-weeks. A clear issue going forward will be maintaining engagement with the Toolkit and ensuring that staff are supported to engage with the strategies on a long-term basis. The Toolkit strategies appear to be appropriate for The Scottish Government workforce, however, opinion on the most appropriate way to deliver the strategies was not unanimous, and therefore, ahead of wider organisational roll out, there will be value in exploring alternative delivery models to implement and embed. Crucial to this will be a supportive environment, where staff feel encouraged and permitted to take breaks from their desk across the course of the W@H day.

Given the positive uptake following the Bitesize session and from those who read the Saltire blog, there is an interest in reducing SB while W@H, and it is very likely that by educating staff on this topic then uptake will be increased. However, further support will be needed to encourage continued staff engagement, and this may come from management and/or at organisational level.

In the text that follows, a summary of the feedback on each element of the project is presented with key recommendations.

Bitesize Session

The Bitesize session was well attended and well received by staff in the Population Health Directorate of the Scottish Government, demonstrating an interest and relevance of the topic to employees. Almost all who attended the session went on to sign up to receive the email newsletters. The Bitesize session was a good mechanism to increase awareness of the topic and to recruit participants.

Recommendation: Repetition or follow-up sessions via the Bitesize programme may be beneficial to target additional staff, and/or to share more detail on Toolkit strategies.

The Saltire blog

The Saltire blog was read by just a small proportion of The Scottish Government workforce, however the number of page views was good in comparison to other blogs, indicating an interest in the topic. Furthermore, based on an estimate there is an

indication that conversion from number of those who read the blog to those who signed up was relatively good (~4.2%).

Recommendation: Identifying additional pathways to dissemination of the blog would enhance readership, education and awareness of the Toolkit.

Delivery of the Toolkit through email newsletter

University of Edinburgh approved email newsletter software was used to create and deliver a series of four weekly email newsletters, incorporating strategies. Through the software a project brand and identity were developed, and it offered a low burden mechanism to deliver the email newsletter at scale.

As a mechanism for delivery, the email newsletter format worked well and there were minimal technical issues. Additionally in the evaluation, most staff (89%) told us that email newsletters were a good way to deliver the Toolkit. However, the volume of email newsletters opened each week decreased from 55% in week 1, to 22% in week 4, indicating a decreasing level of engagement week by week. This potentially indicates that the email newsletter alone is not sufficient to sustain engagement, and additional support through the organisation would also be beneficial (e.g., leadership support, engaging as a ‘team’).

Alternative suggestions from participants as to how best to receive the Toolkit included delivery through a webinar and integrating software at organisational level. As noted above, we had conversations with the IT support team to explore this avenue. Although it was not possible to integrate these tools in the timescale of the current project and with the current infrastructure, there is potential in the future. For example, by integrating prompts or reminders into existing work platforms such as MS Teams and MS calendar.

Recommendation: Identify additional mechanisms to share/reinforce the Toolkit with staff using existing organisational software and additional webinars.

The Toolkit

It was evident that different people liked different strategies, and this reinforces the value of creating a Toolkit with a range of strategies for individuals to try at different points in time. Nevertheless, ‘active breaks’ were identified as strategies that most participants felt they would continue to use. The ‘home-to-home commute’ was also popular. Most of the staff who tried the ‘desk-time calculator’ reported this being useful

in raising their awareness of the volume of time being accumulated at their desks, and this awareness acted as a prompt to move more.

Some participants indicated that the suggestions became less memorable as the week progressed, suggesting that regular 'drip feeding' of the Toolkit strategies would help in reminding staff to engage. Some participants felt that permission from the organisation to engage in strategies to break up desk-time was important, and therefore, it is imperative that there is a clear, visible, explicit, and ongoing support for this Toolkit across The Scottish Government, including at team level.

Some staff felt it was difficult to integrate some of the suggestions into their working pattern, for example, if their role varied in terms of location, or if they needed to maintain flexibility in their calendar. For team leaders, it will be useful to have discussions with teams to ensure they are supported to engage with the Toolkit, and to consider what needs to be in place to support staff who may have variation in their role(s). It might be useful for team leaders to consult the most current Scottish Government Occupational Health (OH) guidance and align this with discussions about moving more while working at home, or perhaps referring employees to OH for a specialist assessment of their working environment.

Recommendation 1: Retain Toolkit format with multiple, optional strategies and consider more frequent delivery (drip feed). Prioritise active breaks if resources are limited.

Recommendation 2: Visible and ongoing leadership and/or organisational level for supporting engagement and embedding Toolkit (e.g., reminder at start of team meetings).

Recommendation 3: Team leaders should support team members to identify which of the Toolkit strategies work best for them and fit into their working pattern (e.g., in monthly conversations).

What next?

The project team will refine the Toolkit based on the staff feedback and findings from the evaluation. Planning has commenced to make the Toolkit available on the [Actify](#) platform, which is an online space that enables sport and physical activity organisations to create and host digital content. Following curation of these resources we will work to signpost to this resource so that Scottish Government and other organisations can use them to support those working at home to move more for health and well-being.

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Appendices

Appendix 1. Saltire blog



ARE WE WORKING (TOO) COMFORTABLY?

In Active Scotland Division, *our vision is of a Scotland where more people are more active, more often.* The recent change in working habits to working at home and hybrid working has led us to consider how we might tackle reduced levels of movement during the working day.

We know that working at home means we spend less time moving, and can find ourselves spending long periods of time at our desks and screens in back-to-back MS Teams meetings. This reduced movement is not good for our physical or mental health. We are therefore thrilled to announce an exciting opportunity for colleagues. Active Scotland have part funded the University of Edinburgh to trial intervention strategies to reduce desk-time when working at home with the Scottish Government workforce and we would like to invite you to be involved in testing these resources.

The Project

The Physical Activity for Health Research Centre at the University of Edinburgh have already completed part one of the research with their own workforce. Their 2021 study showed that staff are accumulating desk-time for up to 89% of the working day. This is an increase from previous research

which showed office-based employees sit for between 58-78% of the day. Presenting this research in a series of focus groups, participants agreed this reflected their own experiences of working at home, and all agreed they would like to find ways to break up their desk-time using innovative and individualised solutions.

The University of Edinburgh colleagues have therefore developed a toolkit to support those who are working at home to help break up their desk-time. Starting on 7 November 2022, they will be trialling 4-weeks of interventions with volunteers from the Scottish Government. Each week the toolkit will cover a different theme with different strategies for breaking up desk-time.

One example theme is 'Move More Meetings Week' which will focus on the implementation of 55-minute non-deskbound meetings, to encourage participants to engage in some movement rather than remaining at their desk at home.

As you can see from the above snapshot, all of the intervention strategies are straightforward, free, inclusive-for-all and could have significant health benefits to staff in the directorate going forward!

Head of Active Scotland, Andy Sinclair, commented:

"After the evaluation process, the findings of the research project will support the wider SG Health and Wellbeing Strategy, with the potential to be rolled out across the Scottish Government so everyone can unlock the potential benefits."



Call For Volunteers

If you're interested in this exciting new project, then please contact Dr Sarah Morton – sarah.morton@ed.ac.uk for further details on how to get involved to reduce your desk-time and move more!

Appendix 2. Screenshots of the weekly email newsletters

Appendix2a: Week 1 Newsletter – Move More Meetings

Welcome to Week One of suggestions to move more while working at home

Move More Meetings Week

Welcome to Week One: 'Move More Meetings'!

During this week, we are suggesting that you look for ways to move more during your meetings. All of our suggestions have been developed with people who are working at home or manage a team who are working at home.

Before getting started, you might find it useful to have a look through all of our suggestions for this week, consider which would work best for you, and make a brief action plan to help you stick it out for the week.

Action planning can be quick and easy, to get you started, we recommend thinking about the following:

1. What can I do this week?
2. What needs to be in place for me to do this?

TOP TIPS FOR MOVING DURING MEETINGS

Could you ditch the screen and have an active meeting?

[Click Here](#)

Could you set up a DIY standing desk during meetings?

[Click Here](#)

Could you do 2-mins of movement during meetings?

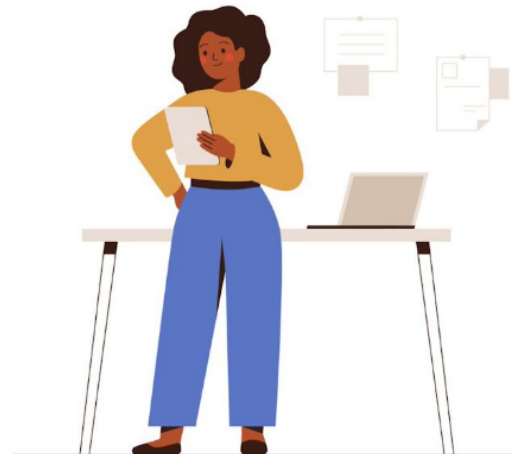
[Click Here](#)

Could you have a seated stretch between 50-min meetings?

[Click Here](#)

50-minute meetings

Could your meeting be scheduled for 50-minutes rather than the standard 1-hour? If possible, set your meeting up for 50-minutes, and use the extra time at the end of the meeting to move away from your desk, and do something active. Try to be dedicated to doing some activity - and avoid using the time to reply to those emails that came in during your meeting!



If you are chairing a meeting, try to keep the agenda to the agreed 50-minutes, and remind participants to take an active break once you close the meeting.

Image © Getty Images: Ponomariova Maria



Making a Plan to Move More During Meetings

Here are some suggestions to help you make plans to move more during your meetings:

1. What can I do this week?

- Use your online calendar for daily task planning - in the same way you would schedule a meeting, try scheduling in short active breaks. Colour coding them will help make them stand out.
- Try using an online planner checklist.

2. What needs to be in place for me to do this?

- You might find it useful to link up with a colleague and catch up with them through the week to share your progress.

Image © Getty Images: Architetta

LINKS TO EXTERNAL RESOURCES

Each week, in addition to the materials we have developed, we will also be providing links to some external resources that you may find useful. Please note, the external resources have not been developed at the University of Edinburgh.

DIY Sit-Stand Desk

If you don't already have access to a sit-stand desk, you might have heard other people talk about them. They've become very popular in recent years, and there are an abundance of options available on the market. However, you might find it useful to consider a DIY option before investing, requesting one from your OH department, or simply because you just don't have the space for another desk!

See here for some great suggestions: [THE COMPLETE GUIDE TO DIY STANDING DESKS](#)

Kneeling While Working

For some of us, standing while working isn't an option, and this can be for many different reasons. Another concept that might be useful for breaking up prolonged desk-time is kneeling. It's a great way of introducing some active time while you are at your desk, and can be useful if you would like to move, for example, during a meeting, but perhaps feel uncomfortable standing or being visibly active.

See here for some suggestions about kneeling: [HOW TO SPARE YOUR SPINE BY KNEELING AT YOUR DESK](#)

Thanks so much for signing up to our newsletter - we hope you have enjoyed our suggestions for this week and that you have found them useful. Look out for next week's newsletter - arriving next Monday around the same time.

We will be in touch again on Friday of this week, around lunchtime, with a very short feedback form. It shouldn't take any longer than a couple of minutes to complete, and your feedback will help us to improve the materials. For a reminder of what feedback we are collecting and how we will use it, please see the [PIS](#).

If you are interested in learning more about our research, please visit the [PAHRC](#) website, or have a look at our [Twitter](#) and [YouTube](#) accounts.



If you no longer wish to receive these newsletters, please contact: [Dr Sarah Morton](#) who will remove you from the mailing list.

You do not need to provide a reason for unsubscribing, unless you would like to.

Welcome to Week Two of suggestions to move more while working at home

Active Breaks Week

Thank you for registering to receive our newsletters with suggestions for moving more while working at home.

Welcome to Week Two: 'Active Breaks Week'!

During this week, we are suggesting that you look for ways to take more active breaks when you are working at home. All of our suggestions have been developed with people who are working at home or manage a team who are working at home.

Before getting started, you might find it useful to have a look through all of our suggestions for this week, consider which would work best for you, and make a brief action plan to help you stick it out for the week.

Action planning can be quick and easy, to get you started, we recommend thinking about the following:

1. What can I do this week?
2. What needs to be in place for me to do this?

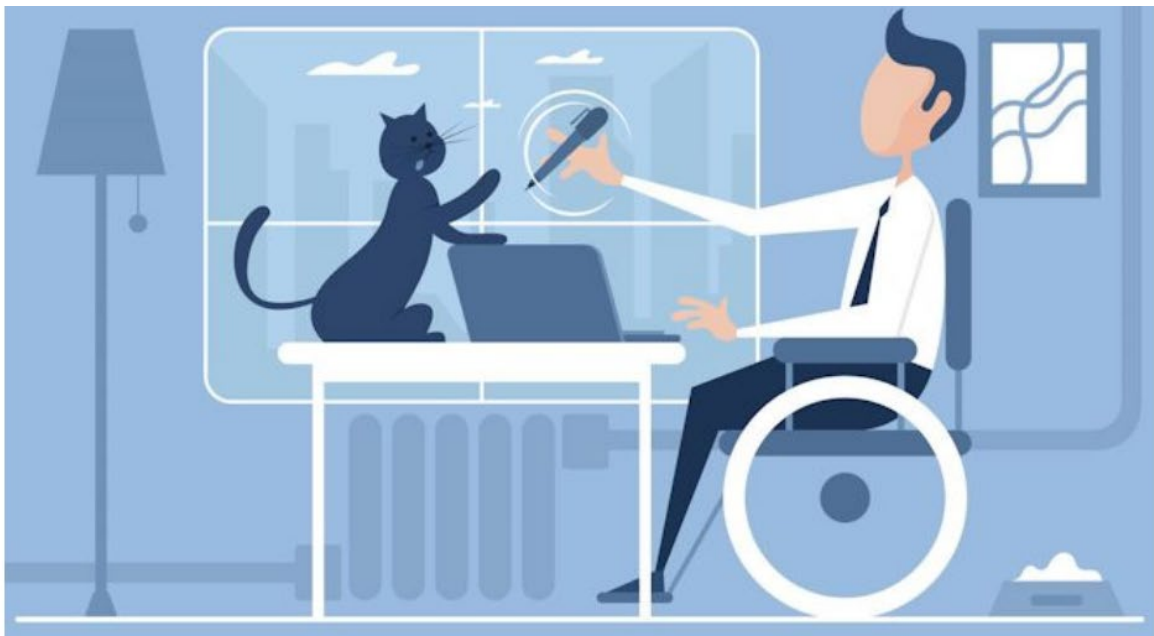


Image © Getty Images: GettyImages-1347693073 [studiostockart]

TOP TIPS FOR TAKING ACTIVE BREAKS

Time for a short
break?

Could you have
a boogie?

[Click Here](#)

Making a hot
drink?

Could you do
some kettle-
cises?

[Click Here](#)

Could you take
a break?

Why not water
your plants?

[Click Here](#)

Time for a short
break?

Could you do
some laundry?

[Click Here](#)

Micro-breaks

Micro-breaks are short breaks that can last just a few seconds to a few minutes but can be really beneficial for refreshing both your body and mind. When working at home, we are spending more time at our desks, and short micro-breaks, where we move away from the laptop, can be really great for positive mental and physical wellbeing. Micro-breaks don't need to be disruptive, nor do you need to have a set schedule for taking them. All you need to do is be conscious of the time you are spending at your desk, and set yourself a goal of taking a few micro-breaks throughout the day. Micro-breaks work best if you move away from your desk - and try to avoid using them to reply to emails or check something online! For more



information on micro-breaks, see this [BBC article](#).

Image © Getty Images: Ponomarivova Maria



Making a Plan to Take Active Breaks at Home

Here are some suggestions to help you make plans to take active breaks when you are working at home:

1. What can I do this week?

- Add breaks to your schedule using your online calendar / sticky notes
- Try some of the active breaks developed by our in-house team at [PAHRC](#) - with options ranging from 1 to 9 minutes.

2. What needs to be in place for me to do this?

- You might find it useful to set reminders on your phone or download a tracking app - to help you monitor your micro-breaks.

Image © Getty Images: GettyImages-1377498716 [Color_life]

LINKS TO EXTERNAL RESOURCES

Each week, in addition to the materials we have developed, we will also be providing links to some external resources that you may find useful. Please note, the external resources have not been developed at the University of Edinburgh.

One-minute Movers

[Paths for All](#) have developed a series of short animations with some great suggestions that fit perfectly with the concept of taking a short active break.

See here for the blog: [One Minute Movers](#) and here for some additional suggestions: [Ditch the Desk](#).

Image © Getty Images: GettyImages-1246363848 [Larysa Amosova]



Thanks so much for signing up to our newsletter - we hope you have enjoyed our suggestions for this week and that you have found them useful. Look out for next week's newsletter - arriving next Monday around the same time.

We will be in touch again on Friday of this week, around lunchtime, with a very short feedback form. It shouldn't take any longer than a couple of minutes to complete, and your feedback will help us to improve the materials. For a reminder of what feedback we are collecting and how we will use it, please see the [PIS](#).

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Welcome to Week Three of suggestions to move more while working at home

Active Commute Week

Thank you for registering to receive our newsletters with suggestions for moving more while working at home.

Welcome to Week Three: 'Active Commute Week'!

During this week, we are suggesting that you look for ways to integrate some movement into the start and end of your work at home day(s). All of our suggestions have been developed with people who are working at home or manage a team who are working at home.

Before getting started, you might find it useful to have a look through all of our suggestions for this week, consider which would work best for you, and make a brief action plan to help you stick it out for the week.

Action planning can be quick and easy, to get you started, we recommend thinking about the following:

1. What can I do this week?
2. What needs to be in place for me to do this?



COULD YOU DO A 'HOME TO HOME' COMMUTE BEFORE AND AFTER YOUR WORK AT HOME DAY?



What is a 'home to home' commute?

During our research many of our participants discussed how they missed having a commute before and after work. Most especially, they missed having an active component of their commute. So, even for those who drove into work, they still spent some time in active movement, walking or wheeling, from wherever they had parked their car to their place of work. For those participants who normally had an active commute for their whole journey to and from work, they were really feeling the loss. Participants also told us that without their commute, the start and end of their working day could become blurred - they might start earlier,

finish later, or both - and this was resulting in them accumulating more time at their desk. So, we came up with the idea of a 'home to home' commute whereby, on your work from home days, you try and do something active, and ideally outside, before and after work. You can read more about our research, in our recent [Step Count Challenge](#) blog.





Making a Plan to do a 'Home to Home' Commute

Here are some suggestions to help you make plans to add a 'home to home' commute into your day when you are working at home:

1. What can I do this week?

- Take a walk / wheel / cycle before and after work - can be a quick and short 'around the block' or something longer.
- Team up with a colleague / neighbour / family member for your 'home to home' commute.

2. What needs to be in place for me to do this?

- You might find it useful to join a challenge to keep you on track and develop a longer-term habit. Some options are:

[Paths for All 28-day Wellbeing Challenge](#)

[Paths for All Step Count Challenge](#)

[The Daily Mile Planning a Walking Route](#)

LINKS TO EXTERNAL RESOURCES

Each week, in addition to the materials we have developed, we will also be providing links to some external resources that you may find useful. Please note, the external resources have not been developed at the University of Edinburgh.

The Daily Mile

The Daily Mile is a popular concept that has been around for a while, and you may already have heard about it. You might even know that Scotland is the world's first Daily Mile Nation! The idea centers around doing 15-minutes of self-paced activity each day - and that can include, as examples, walking, wheeling, cycling, or jogging. The emphasis is not on high energy workouts, but rather taking just 15-minutes to get outside and enjoy some movement as part of your daily routine. There are some great resources that have been produced by the Daily Mile to get you started, and to keep you on track. Click the button below for more details.



The Daily Mile Toolkit

Thanks so much for signing up to our newsletter - we hope you have enjoyed our suggestions for this week and that you have found them useful. Look out for next week's newsletter - arriving next Monday around the same time.

We will be in touch again on Friday of this week, around lunchtime, with a very short feedback form. It shouldn't take any longer than a couple of minutes to complete, and your feedback will help us to improve the materials. For a reminder of what feedback we are collecting and how we will use it, please see the PIS.

If you are interested in learning more about our research, please visit the PAHRC website, or have a look at our Twitter and YouTube accounts.



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Welcome to Week Four of suggestions to move more while working at home

Tech Week

Thank you for registering to receive our newsletters with suggestions for moving more while working at home.

Welcome to Week Four: 'Tech Week'!

During this week, we are suggesting that you look for ways to integrate some movement into your work at home day(s) using technology. Our suggestions are based around tech items that you will hopefully have access to at home. There is no expectation that you will need to purchase anything specific for this week, but we are aware that not everyone will have access to all the tools to engage with all the suggestions this week. With that in mind, we would really appreciate if you would use the comments section in this week's feedback form (arriving with you on Friday) to let us know if there was anything you weren't able to do because of this. Similarly, if you come up with any of your own innovative tech ideas for breaking up your desk-time - please let us know about those too!

All of our suggestions have been developed with people who are working at home or manage a team who are working at home.

Before getting started, you might find it useful to get a sense of how much time you are spending at your desk each day. Being aware of this can help you to consider how and when to schedule your breaks. Try our [desk-time calculator](#) to see how much time you're spending at your desk.



DIY tech-based prompts for moving more while working at home



Laptop / Computer

Using the tools on your computer or laptop are a great way to use technology to remind you to move. Consider adding an appointment to your online diary - colour code it so it stands out from other appointments. By scheduling time for movement into your diary, you are making a commitment to yourself to use that time for some movement. Look back at the ideas from the weeks 1, 2, and 3 newsletters and add your favourites from our movement break suggestions and ideas into the diary appointment.

Smartphone

If you have a smartphone, make use of the alarm and reminder systems. Mostly, these tools are used for an alarm to get us up in the morning, and a reminder list of things we need to do or get from the grocery store! But this is also a great way of setting reminders to move, which can be set up in one go to cover across the day and for each day you are working at home. You could even add links to yoga / stretching videos. Have a look at the [PAHRC YouTube channel](#) for some of our movement videos for both seated and standing microbreaks.



Watch



Watches are another great way of using technology to set reminders to move. Many watches have an alarm function, and if you have a smartwatch the possibilities are endless - including linking with your phone, which can be useful for those reminders that come through when you're in a meeting. If you have a timer on your watch, this is a great way of keeping track of the time you're spending on a work task, which can act as a reminder not to forget to move when you might become engrossed!

Taking breaks for productivity

During our research with participants, many discussed becoming engrossed in tasks. The types of tasks that can cause someone to become engrossed vary between person to person. As examples, for some, report writing was highlighted, for others it was data analysis, some felt being in meetings required their complete attention. And the same will be true for you, there will be some tasks that you just can't peel yourself away from. However, many people find they feel more productive when they take a short break, and come back to the task feeling refreshed and ready to get stuck into it again. But, with those engrossing tasks it can be difficult to realise just how much time has



passed, and therefore how much time you have accumulated at your desk. Timers are quick and simple tech solutions that can help you to keep an eye on time, and to remind you to take a movement break. Try our external suggestion, [Pomofocus](#), to see how the concept works with your own movement plans.



Making a Plan to set use tech for movement breaks

Below are some suggestions to help you make plans to add technology for movement breaks into your day when you are working at home.

1. What can I do this week?

- Use our desk-time calculator to gauge how much time you're spending at your desk and identify which tasks could be broken up with some movement.
- Consider what tech options you have available to you and make a plan / set things up with reminders. Please do bear in mind - tech doesn't have to mean a smartphone / smartpod / smartwatch - there are ways to set reminders using your work-issued laptop / computer or the timer on your oven or even a mechanical timer on a lamp!

2. What needs to be in place for me to do this?

- You might find it useful to identify what you will do during your movement break - see our previous newsletters for some suggestions. If you've come up with any novel and interesting ways to spend your movement break - we would love to hear about them in this week's feedback.

Thanks so much for signing up to our newsletter - we hope you have enjoyed our suggestions for this week and that you have found them useful. This is the final newsletter - we are currently working to prepare the materials for open access.

We will be in touch again on Friday of this week, around lunchtime, with a very short feedback form. It shouldn't take any longer than a couple of minutes to complete, and your feedback will help us to improve the materials. For a reminder of what feedback we are collecting and how we will use it, please see the [PIS](#).

Following the feedback for this week, we'll be in touch again with a final questionnaire. Through this, we will be collecting information about your overall perceptions of the weekly suggestions, which of the suggestions you most preferred, and if you perceived any health and wellbeing benefits through engaging with the suggestions. This questionnaire should take no longer than 10 minutes to complete.



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