

# MOVE MORE SIT LESS

FOR A BETTER QUALITY OF LIFE



...SECONDS INTO THE FUTURE!



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an initiative of  BLUEARTH



Bluearth Foundation is a national health promotion charity on a mission to improve the health and wellbeing of all Australians and address the burden of diseases associated with our increasingly sedentary lives. Bluearth aligns with the World Health Organisation definition of health 'A complete state of physical, mental and social wellbeing, and not merely the absence of disease or infirmity'. The work of Bluearth is based on international and national research that evidences the significant contribution that an active life makes to physical, mental and social wellbeing. Recognising that widespread impact will require generational change, Bluearth works within early childhood, schools and in the broader community. Bluearth has a strong commitment to working collaboratively with Aboriginal and Torres Strait Islander communities to use physical activity and movement to improve overall wellbeing.

Move More Sit Less is a whole of community initiative of Bluearth Foundation. Move More Sit Less is all about getting people moving more and sitting less and changing sedentary behaviours of Australians. It's recognising that the less you move and the more you sit, you are putting your health and quality of life at serious risk. Rather than a prescriptive call, Move More Sit Less is about raising the awareness of our sedentary habits and through that awareness providing a nudge in the right direction. Move More Sit Less builds on previous national health campaigns about physical activity, encouraging people to move more and sit less for a better quality of life.

# FOREWORD

Since the first known use of the term *sedentary* (*latin sedere – to sit*) in the late 16th century, we have seen substantial shifts in how we spend our days. The introduction of new technology and mass manufacturing, the home-based labour savings devices, car ownership, screen-based entertainment and work have contributed to our lives becoming increasingly sedentary. We have become a nation of sitters.

Over the last century the Australian labour force has shifted from predominantly manual labour to an office or automated factory environment. Chronic diseases have replaced infectious diseases as the nation's biggest killers. 70%\* of the Federal Government health budget is the management of chronic disease of which sedentary living or inactivity is a major contributing factor. Only 1.8% of this budget is in preventative health. We are sedentary more than ever before.

Government has recognised the need to invest in preventative health, and corporate wellness programs have been in place since the 1980s. Though it is only in recent years that Government, business and individuals are recognising the impact of our increasingly sedentary lives.

Government initially supported the introduction of corporate wellness programs; supporting programs that helped improve absenteeism, productivity, employee satisfaction and reduce the risk of injury and illness. This included changes to environment (sit/stand options, bike racks etc), gym memberships, in-house health and fitness professionals, and entering corporate teams into fitness challenges.

“The subsequent increase in the number of affordable programs allowed businesses to recognise the benefits of promoting health and wellbeing in the workplace. However, the end of government funding and support schemes midway through the period led to a dramatic fall in the industry's fortunes. Many industry operators that previously relied on government support to deliver affordable programs have since left the industry”.

*IBISWorld Corporate Wellness Services Market Research Report | Life Sciences | Wellness Services | Sep 2015*

This new Move More Sit Less research highlights people's assessment of their sitting behaviour and how it affects their sense of wellbeing. It also asks respondents what is needed to change this sitting behaviour. Environment and culture were the two highest recommendations to come out of this paper. There was a multitude of suggestions that could be incorporated into every workplace with little or no expenditure. Standing desks cost less than most ergonomic chairs. Studies have shown that the potential return on investment by organisations investing in workplace health programs is 5:1.

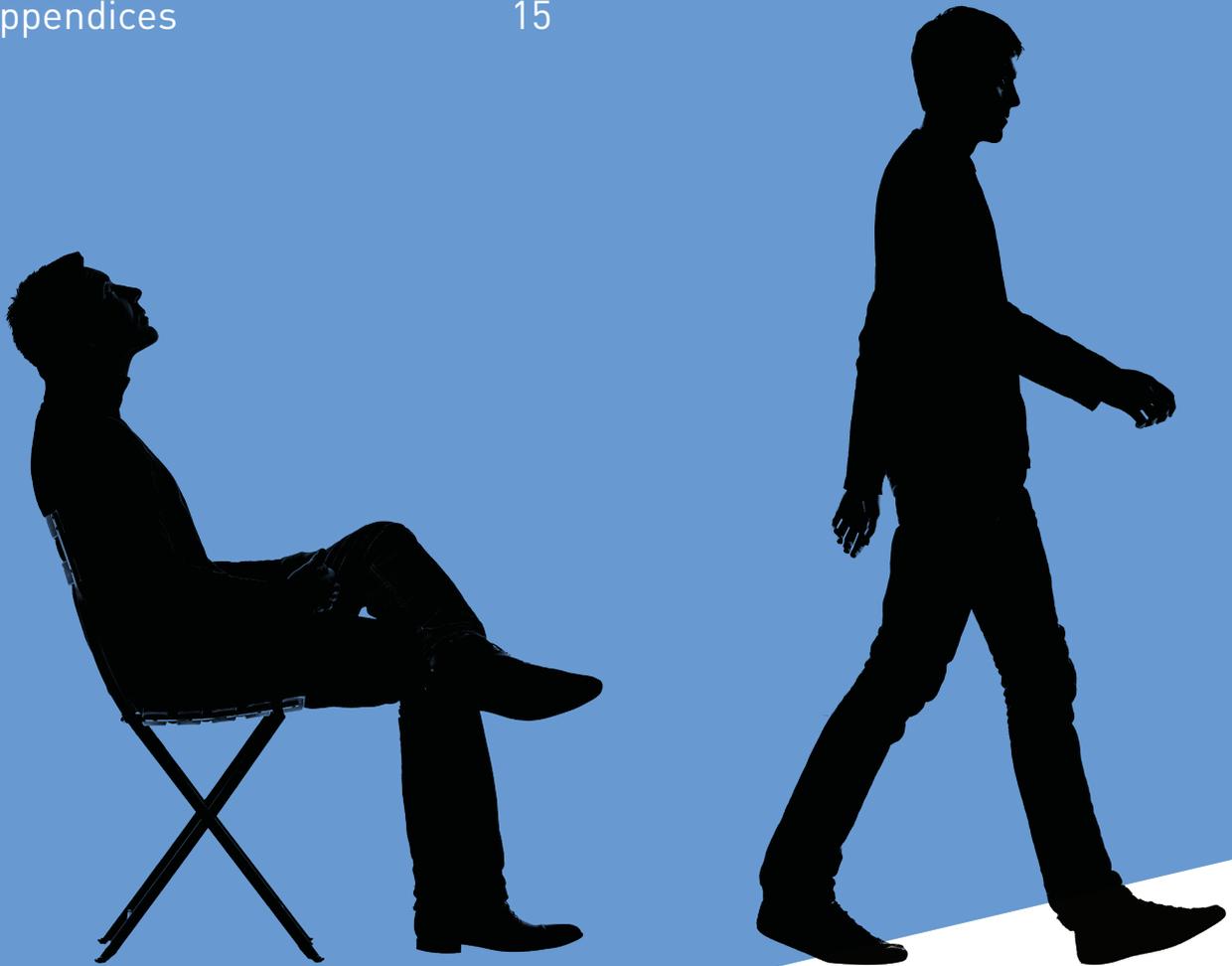
Move More Sit Less is addressing the behaviour behind why we sit and what support mechanisms we need to change our workplace culture from one of sitting to one of movement. How much we sit is alarming. Almost all of us want to sit less. This report provides a clear overview of how people feel about sitting and what we can do to sit less and move and build a **movement movement**.

*Phil Ruthven AM, Founder and Director  
IBISWorld*

\* Australian Institute of Health and Welfare

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## BACKGROUND

In the last two decades there has been a growing body of evidence that links prolonged sitting/ sedentary behaviour with an increased risk of chronic disease. With links to poor health now being shown, the term Sedentary Death Syndrome<sup>i</sup> has been used by a number of researchers.

Research in the 1950s by Morris et al<sup>ii</sup> highlighted the link between occupational physical activity and risk of cardiovascular disease on a study of London bus drivers and conductors. This research laid the foundations for clear health messages about the need to be more active, to move more. In recent years, research has recognised that prolonged sedentary behaviour is a health risk separate to, and in addition to, too little exercise. Reflecting back with the knowledge we have now, the impact of sitting for long periods in addition to the lack of activity were both likely risk factors for the London bus drivers.

It is also important that we acknowledge how much our environment, the physical, economic and social environments have changed and the impact that this has had on how much we sit or move in our daily lives. These changes, in technology, in transport, communications, workplaces and homes have resulted in a significant reduction in the need for physical activity. Physical activity has become a choice rather than a necessity.

Medibank Private commissioned research in 2007<sup>iii</sup> and 2008 to show the economic impact of physical inactivity in the Australian community. The report showed that direct healthcare savings of \$1.5 billion

could be achieved if more Australians did 30 minutes of physical activity a day. The net impact of physical inactivity, when indirect costs are considered such as reduced quality of life, shorter life expectancy and reduced workforce participation, is almost 10 fold higher, reaching \$13.8 billion<sup>iv</sup>.

There has also been significant research related to physical activity participation; how people use their time, with screen-based time significantly increasing for young people; the cost of participation with most households spending more on screen based activity than physical activity, despite reporting the cost of physical activity was one the prohibitive factors.

Over the last decade there has been consistent messaging about how much we need to do to meet the national physical activity guidelines. In the current environment we know only one third of adults and two thirds of children meet the national guidelines regarding physical activity.

There is also increasing evidence that we need to not only ensure we meet the national physical activity guidelines but also that we meet sedentary behaviour guidelines. Media headlines such as that in *The Age*, 30 May 2013, "Sitting is the new smoking"<sup>v</sup> has refocused people's attention on sedentary life. This has now been recognised at the public policy level with Australia's *Guidelines for Physical Activity*<sup>vi</sup> being updated to include guidelines on sedentary behaviour.

## THIS STUDY

To date much of the research about sedentary behaviour has focussed on the measurement of sedentary time and the health risks. In contrast, the Move More Sit Less research was designed to gather information about people's levels of awareness of their sitting habits, their feelings and attitudes associated with prolonged sitting and suggested strategies to support people to move more and sit less.

The research was conducted over a two month period in July-August 2015. The survey was designed by Bluearth in collaboration with Dr Jeff Simons, Bluearth Board Member and Professor of Kinesiology at the California State University East Bay, specialising in the psychology of physical activity and Professor Stuart Biddle, of the Institute of Sport, Exercise & Active Living (ISEAL) at Victoria University, Melbourne.

The survey was distributed to businesses and individuals, both those directly involved with Bluearth Foundation and also through social media and other professional networks. A total of 1032 participants completed an online survey about their sedentary habits.

The Move More Sit Less survey looked at a range of sitting behaviours and issues including;

- awareness of the risks associated with sedentary behaviour;
- perceived and reported sitting habits;
- awareness of physical activity and sedentary behaviour guidelines;
- feelings associated with long periods of sitting;
- feelings about breaking up periods of sitting;
- perceptions about sitting and wellbeing; and
- strategies to reduce the frequency and duration of prolonged periods of sitting.

The analysis of the survey material has been undertaken by Wendy Gillett and Jacey Octigan from Bluearth; Phil Ruthven, IBIS World; Prof Stuart Biddle, Dr Ineke Vergeer, Jhai Madden, Victoria University and in consultation with Dr Jeff Simons, Bluearth Board Member and Professor Kinesiology California State University East Bay.

## EXECUTIVE SUMMARY

The Move More Sit Less research report provides an overview of key findings of a national survey on the sitting habits, attitudes and feelings of over 1,000 Australians.

### The Move More Sit Less survey examined a range of sitting habits including;

- awareness of the risks associated with sedentary behaviour
- perceived and reported sitting habits
- awareness of physical activity and sedentary behaviour guidelines
- feelings associated with long periods of sitting
- feelings about breaking up periods of sitting
- perceptions about sitting and wellbeing and
- strategies to reduce the frequency and duration of prolonged periods of sitting.

### Key findings

- 1 in 6 people sit for more than 11 hours per day, increasing their risk of early death by 40%
- 2 out of 3 of people sit for longer than they thought each day
- 80% of people would like to sit less
- 67% of people incorrectly think 30 minutes of exercise a day is enough to keep you healthy even if you sit for long periods throughout your day.
- 98% had heard that extended periods of sitting was not good for health
- 53% regularly actively tried to break up long periods of sitting
- 67% felt more refreshed after taking a short break
- 68% said that sitting less at work could 'definitely' improve their wellbeing

### When sitting for long periods –

- 82% of people felt tired and lethargic
- 65% felt less productive
- 69% felt unhealthy
- 50% felt stiff and tense

### The key strategies identified to encourage and support people to move More and Sit Less were

- Physical changes to the work environment (58% respondents)
- Campaign to remind people (40%)

- Cultural change – seeing others move more and sit less (37%)
- An app to remind people (33%)
- Guidelines to follow (23%)

Respondents also identified a number of barriers to moving more and sitting less in the workplace.

*“Currently a medical certificate is required to obtain a stand up desk. I’d prefer support in place that doesn’t require sickness first.”*

It is clear from the survey that, people are both

- aware of the negative impact of prolonged sitting on health and wellbeing; and
- have a genuine desire to sit less

However, although they are aware of the health impacts of prolonged sitting there are still a significant number that think 30 minutes of activity per day is enough to keep you healthy. This suggested the desire to move more and sit less is driven by more immediate benefits than the physical health benefits which are generally more long term.

Respondents associated moving more and sitting less with feeling more productive, refreshed, relaxed, healthy and happy and like they should do it more. Conversely prolonged sitting was associated with feeling unproductive, lethargic, fed up and unhealthy.

There has been significant media over the last decade highlighting the dangers of sitting, however there have not been any coordinated health promotion campaigns focussed on providing information about sitting. Responses to the survey highlight that people are seeking more information and support in order to move more and sit less. Indeed a multifaceted approach is required which combines awareness raising, cultural change, changes to the physical environment, reminders and guidelines.

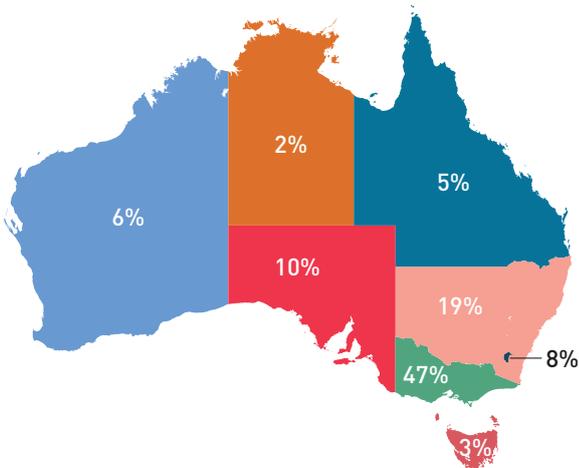
There is also much to be learnt from those that are already sitting less (4 hours or less). A commitment to taking regular breaks, an awareness that 30 minutes is not enough to keep you healthy, limiting long periods of sitting, limiting sitting time at work and an active lifestyle are all factors associated with low daily sitting levels.

# PROFILE OF RESPONDENTS

## Location

The survey was distributed through organisations with an existing relationship with Bluearth, and distributed through social media. As the Bluearth national office is based in Victoria, there was a significant proportion of respondents from Victoria, far exceeding population demographics, however the numbers of respondents in others states and Territories was also significant. While numbers in Tasmania and the Northern Territory are low, assessment of responses across State/Territory boundaries did not show any significant variation worthy of further exploration.

Fig 1: Percentage of respondents by state/territory

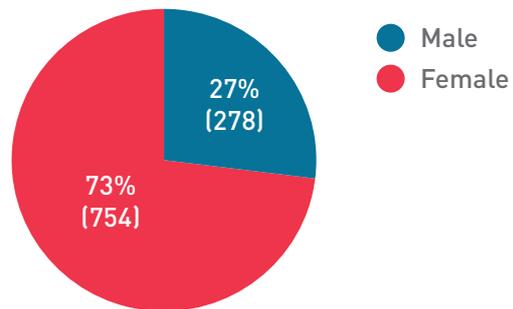


## Gender

There were a significantly higher proportion of women responding to the survey, which may be reflective of the companies and individuals the survey was distributed to, those more predisposed to completing it, or some combination thereof. While the gender ratio of respondents was significantly different to population demographics, the overall numbers of respondents made gender analysis with the survey results possible. Across most questions there were not significant gender differences. However, women were less likely to report having an active lifestyle. These differences mirror gender differences in ABS data on physical activity.

The Australian Bureau of Statistics *Perspectives on Sport Series Nov 2013* reported a continued trend of sedentary levels of physical activity increasing over time from 34% in 2004-05 to 41% in 2011-12. This increase occurred for both males and females from 2004-05 (33% for males and 35% for females) to 2011-12 (39% for males and 42% for females). Although females reported higher rates of sedentary levels of physical activity than males at the three time periods, there is not enough evidence to suggest that these differences are statistically significant. Similar results were found in the MMSL survey.

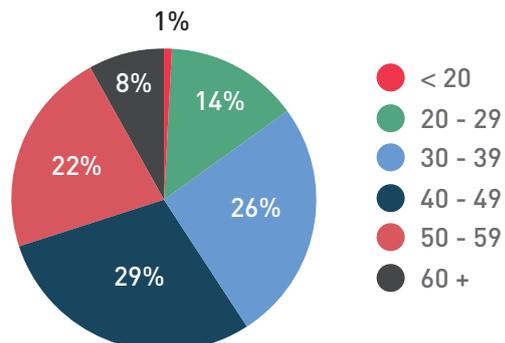
Graph 2: Respondents by Gender



## Age

Given the nature of the survey, which focussed on sitting habits at home and at work, the target audience was working age adults. The age of respondents was well spread across the working years, with the greatest proportion being those 40-49 years.

Graph 3: Distribution of respondents' age



# RESULTS

## Sitting time

Previous research on sitting time using accelerometers has suggested Australians sit on average for 8.6 hours per day<sup>9</sup>, with time spent sitting on work days significantly longer than on non-work days. The results from the Move More Sit Less survey focus on work days and are consistent with previous research, though as expected with self-reporting the average figure is slightly lower with an average sitting time of 8.13 hours.

The concern is not just the average sitting time, but the number of people who are sitting for prolonged periods. 49% of respondents sit for more than 8 hours per day. This could increase their risk of early death by 15%. More alarmingly 16% of respondents sit for over 11 hours thereby increasing their risk of early death by up to 40% according to some estimates.

Although over half the respondents try and break up regular periods of sitting and 95% think sitting less would improve wellbeing, there were still over a third of respondents who sat for two or more hours without taking a break and one in eight sat for three hours or more, placing their overall health and wellbeing at risk.

## Perceived sitting vs actual sitting time

The majority of respondents (62%) sit for longer than they thought each day. When people reported on the time spent sitting at home, commuting, at work and during meals over the day it was higher than their perceived hours of sitting for the majority of people. Only 6% sat for less time than they thought. 31% reported that they were sitting for a much longer period than they had thought.

Graph 4: Respondents actual time vs perceived time

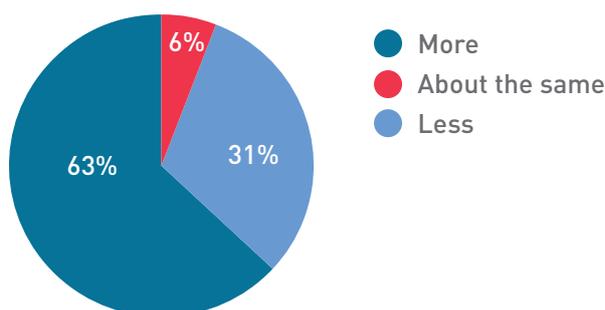


Table 1: Actual time spent sitting vs Perceived time spent sitting

Sitting Time	Respondents	%
Sit less than perceived (1-25% of perceived time)	2	0%
Sit less than perceived time (26-50% of perceived time)	9	1%
Sit less than perceived time (51-75% of perceived time)	51	5%
Sit same as perceived time	328	32%
Sit more than perceived (1-25% more than perceived time)	271	26%
Sit more than perceived time (26-50% more than perceived time)	194	19%
Sit more than perceived time (51-75% more than perceived time)	63	6%
Sit more than perceived time (76-100% more than perceived time)	114	11%
	1032	100%

### Perceptions vs reported sitting

Time Sitting	Perceived Sitting	
	No of Respondents	% of total Respondents
4 hours or under	267	26%
Between 4 hours and 8 hours	455	44%
8 hours and less than 11 hours	192	19%
11+ hours	118	11%
<b>Total</b>	<b>1032</b>	<b>100%</b>

Time Sitting	Actual Sitting	
	No of Respondents	% of total Respondents
4 hours or under	120	12%
Between 4 hours and 8 hours	414	40%
8 hours and less than 11 hours	338	33%
11+ hours	160	16%
<b>Total</b>	<b>1032</b>	<b>100%</b>

While one in four people perceived they only sit for 4 or less hours a day, in reality it was closer to one in eight people who achieved this relatively low level of sitting within a day. Interestingly the gap between perception and recorded time was much less significant for those who perceived they sit between 4 and 8 hours.

One in three people recorded sitting for between 8 and 11 hours, which was significantly more than the one in five that perceived this level of sitting.

One in six people sit for more than 11 hours per day.

Recent studies from Canada, Australia, and the United States have shown the relationship between sedentary behaviours and early death. Importantly, research demonstrates that even if adults meet current public-health guidelines on physical activity, sitting for prolonged periods puts their health at risk.

However sitting for long periods has a negative impact on more than just physical health. While almost all respondents (98%) were generally aware that sitting for long periods without a break isn't good for your health, over two thirds of respondents thought 30 mins of physical activity per day was sufficient for good health. This highlights the importance of building on previous health messaging and reminding

people that while 30 minutes of moderate to vigorous physical activity on most days is important, that alone will not remove all health risks.

It's also important to avoid sitting for prolonged periods and to regularly move throughout the day. People are already interested in making the change with 80% keen to sit less. Significantly even those sitting only 4 hours a day or less were keen to reduce their sitting. Those sitting between 8 and 11 hours per day had the highest proportion of people wanting to sit less.



**67%**  
of survey respondents believe that 30 minutes of activity per day is enough to keep you healthy



Not surprisingly, people who sat for over 11 hours per day were more likely to think that 30 minutes of exercise a day was enough to keep you healthy.

Table 5: Is 30 minutes of activity enough to keep you healthy?

Actual Time Spent Sitting	Yes	No
4 hours or under	68%	32%
Between 4 hours and 8 hours	69%	31%
8 hours and less than 11 hours	61%	31%
11+ hours	73%	28%

Would you like to sit less?  
**80% YES**

Longest Period of Sitting	< 30 minutes	30 minutes – 1 hour	1 – 2 hours	2 – 3 hours	3 hours +	Total
Number of respondents	69	270	374	186	133	1032
%	7%	26%	36%	18%	13%	100%

### Does an active lifestyle help?

Respondents were asked to report whether they had an active, somewhat active or not active lifestyle. Almost two thirds of those reporting an active lifestyle sat less than 8 hours per day, whereas for those who considered themselves inactive the opposite was true, with two thirds sitting for over 8 hours per day.

For those reporting an active lifestyle only 6% sat for more than 11 hours per day, whereas for those reporting an inactive lifestyle almost one third sat for over 11 hours per day. Perception of an active lifestyle showed a strong relationship with lower sitting time. Given the high numbers that thought 30 minutes a day was enough to keep you healthy (67%), it is interesting many people want to move more and sit less (80%). This suggests people’s desire to move more is not just associated with health benefits.

Table 3: Respondents reporting Active Lifestyle Vs Hours Sitting

Actual Time Spent Sitting	Yes	Somewhat	No
4 hours or under	20%	8%	2%
Between 4 hours and 8 hours	44%	40%	32%
8 hours and less than 11 hours	29%	35%	35%
11+ hours	6%	17%	31%

## People who sit less (than 4 hours per day)

12% of respondents (120 people) reported sitting four hours or less per day. There were no significant differences regarding age or gender, however the location respondents lived did show significant differences. One quarter of South Australians respondents sit for 4 hours or less per day, whereas only 7.7% of those from NSW, Victoria and Tasmania achieve the same result. Further investigation is required to understand the reasons behind this variation.

People who sit less are much more likely (75%) to actively try and break up long periods of sitting, compared to the overall cohort (53%). They are also much more likely to report having an active lifestyle with 2 in every 3 reporting an active lifestyle compared to only one in three of the overall cohort. Prolonged sitting was also much less likely to be an issue for those who sit less with 75% sitting for no more than an hour at a time. The period of longest sitting occurred in the hours after work. Hours sitting at work was low, suggesting their existing work already enabled them to move more and sit less.

There were also differences in the priority given to various strategies to encourage people to move more and sit less. For those that sit less, a campaign was the top response, followed by physical environment and culture. It is possible that the physical environment of those sitting less is already supporting them to sit less, however the actual reason requires further investigation.

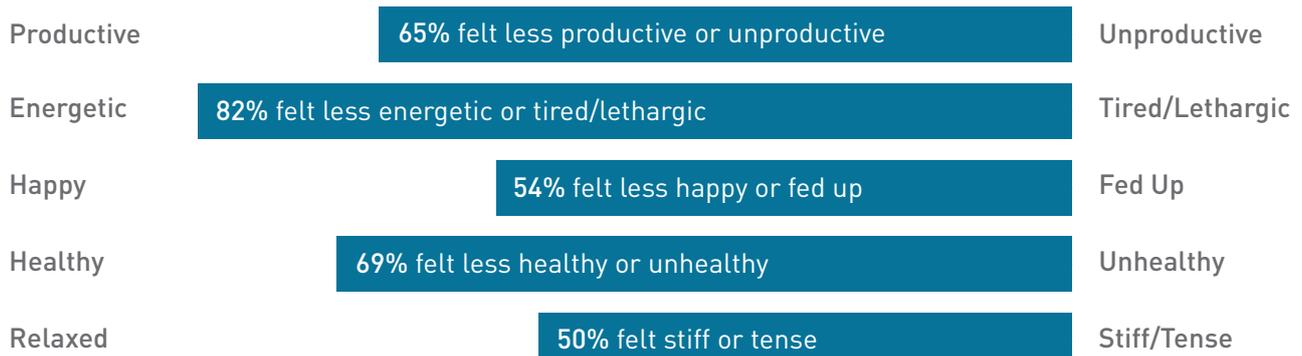
## Why focus on feelings?

Achieving a reduction in sitting time, like all successful health promotion behaviour changes, will take a multifaceted approach. It is not sufficient to have evidence of the effects of deleterious behaviours, nor even to have expert recommendations as to remedies. When it comes to humans--allowed to make their own decisions in daily living--change is dependent on opportunities, socio-cultural factors, and individual choices. That is, it requires good options supporting change and personal motivations to do so.

Society has an important role in creating options and support. Our [Bluearth Foundation] efforts focus on the person—each individual and people connected with one another. Considerable research into choice behaviours indicates that the most powerful and sustainable force behind personal behaviour change is something called intrinsic motivation. This is the motivation that comes from within each person, for his or her own reasons and her/his own satisfaction. People are intrinsically motivated to do an activity when it seems “right to them,” when it has meaning to them, and when it is satisfying or enjoyable. Ways of thinking or acting that are intrinsically motivating drive people to not only seek to repeat them but actively put effort into making them part of their lives. Thus, connecting people to meaning and intrinsic motivation are keys to the behaviour changes we wish for healthier communities.

For these reasons, the MMSL survey aimed to raise awareness of the feelings and effects associated with long periods of sitting versus those experienced when more regularly active. Such awareness is the beginning of choice at the individual level. As the differences in feelings, effectiveness, and overall satisfaction become more apparent, intrinsic motivation begins to take charge of personal choices in daily activities. When coupled with a range of environmental strategies, the power of each person’s own intrinsic motivation will more likely result in sustainable change.

Respondents were asked to rank how they felt on the following continuums after long periods of sitting.



Respondents were also asked how they felt on days when they sat most of the day. The results were similar to those above, however respondents' perceptions regarding feeling fed up, stiff/tense and unhealthy all increased when they sat most of the day.

### How did you feel when you got up and moved around?

Respondents were also asked to identify from a list, how they felt after getting up and moving, multiple responses were possible.

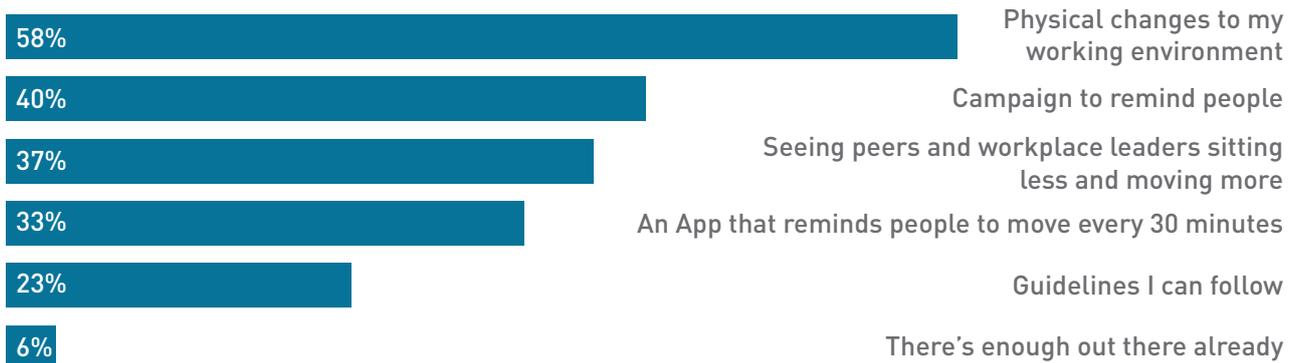
The graph below highlights the significant feelings – feeling refreshed and more productive drew the highest responses.



There is clearly a strong desire for people to move more and sit less, so consideration needs to be given to what may assist individuals.

## Making a difference

Individuals were asked what it would take to get people to move more and sit less



There was also space for people to make comment. Over 43% of respondents elected to provide a meaningful comment at the end of the survey regarding what they thought was likely to encourage people to move more and sit less. This level of engagement is significant and certainly suggests people are very interested in the topic and keen to find out more.

The comments highlighted that a range of options would need to be provided to individuals and organisations as no one solution would necessarily work for everyone.

### Reminders or apps

*"An app would be helpful, because I have an app that tells me to drink water and that has worked."*

*"I don't want another app! Lead by example, we are creatures of habit."*

### Changing the environment

In relation to the physical changes at the office, there was a strong focus on sit/stand desks, especially for those that are required to spend long periods at a computer. Those that already have sit-stand desks loudly extolled the personal benefits.

*"Having very recently purchased a sit-stand desk, I can honestly say there needs to be more literature on how easy and cost effective they are to incorporate into a work space. There should be more promotion of the benefits of standing and working and incentives for workplaces to convert existing workstations."*

*"I have a stand up desk at work and only sit to eat lunch, drive, and evening TV or reading. It has done wonders to my health and wellbeing including my clarity of thought and better posture."*

*"I have found a stand-up desk has changed my world!!! If others had the option they might receive benefits they didn't know exist."*

There were many respondents keen to use a sit-stand desk however that was not always easy to organise in some workplaces.

*"Currently a medical certificate is required to obtain a stand up desk. Prefer support in place that doesn't require sickness first."*

## Cultural changes – Managers acting as role models, seeing peers and workplace leaders sitting less and moving more

*“Biggest impact would be cultural change with it becoming normal for people to move around the office as they work and get through their daily activities. Empowered and knowledgeable individuals being good role models for those around them is a great way to accomplish this.”*

*“I think if there is a culture of moving in an organisation and others are doing it then it encourages people to also move... I think if the push comes internally from a company that is the best way. In some workplaces periods away from the desk are considered disciplinary issues.. that mentality needs to shift if we want to get up more.”*

*“I think all the reminders and guidelines in the world won't help if it isn't supported by the culture of an organisation – the change needs to be on an institutional level so that it is OK for people to get up and take a “movement break.”*

## Guidelines and education initiatives

While the majority of people have heard that sitting for long periods wasn't great for their health, many people were not aware how long they sat each day, nor did they know how often they should move more and break up prolonged sitting.

*“I think there should be Government implemented guidelines to limit people sitting for long periods and that every 30 mins we should have a standing break.”*

*“If there were guidelines my workplace would incorporate them into OH&S, put on notice boards and generally make employees aware of the benefits.”*

There was also the suggestion that there needed to be a legislative framework to drive the change.

*“Changes to workplaces, policy at Government level making it illegal for workers to sit for more than 30mins at a time.... Work place reward system for those employers who implemented changes.”*

## Awareness raising

*“A campaign, a poster that reminds me to get up every half an hour, and even just suggestions for 2 minute things to do in that break would be perfect.”*

*“Sometimes people need information constantly ‘in their face’ to get them moving.”*

*“It's going to have to become the new non-smoking campaign[CR]- guidelines[CR]- environmental change[CR]- education of the negative effects on health start in at the school level[CR]- money to encourage work place change.”*

## Other

Of those that selected other, the general comments covered a broad range of topics included above.

Other comments included the need for:

- A “movement movement” with more high level leadership and discussion on this insidious transition in how we live
- Get more people involved and hence it becomes normal practice
- Change the corporate culture that sitting is working and standing up or moving is not
- Include a stand up item on every meeting agenda.
- Have less comfy office chairs.

## CONCLUSION

It is clear from this survey that, people are both

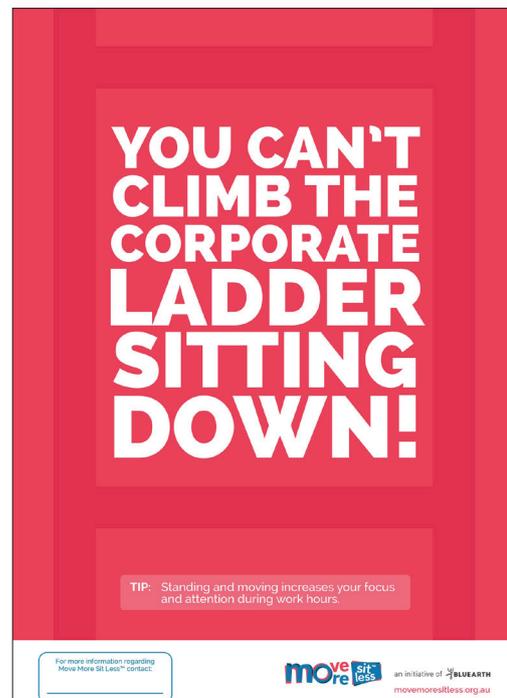
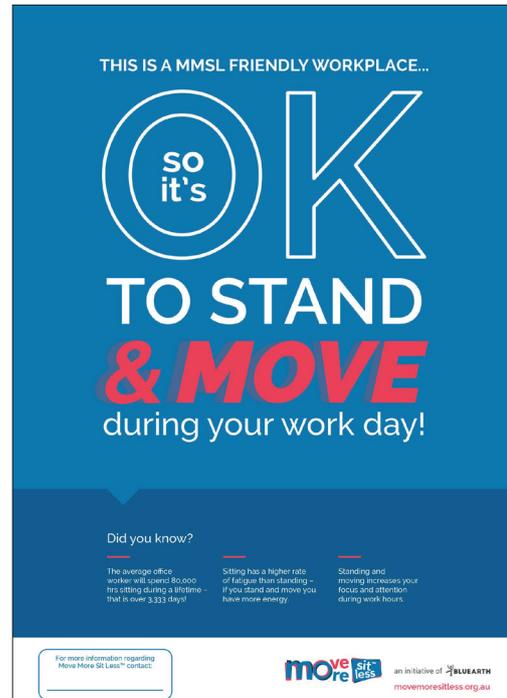
- aware of the negative impact of prolonged sitting on health and wellbeing; and
- have a genuine desire to sit less

However, although they are aware of the health impacts of prolonged sitting there are still significant numbers that think 30 mins of activity per day is enough to keep you healthy. This suggested the desire to move more and sit less is driven by more immediate benefits than the physical health benefits which are generally more long term.

Respondents associated moving more and sitting less with feeling more productive, refreshed, relaxed, healthy and happy and like they should do it more. Conversely prolonged sitting was associated with feeling unproductive, lethargic, fed up and unhealthy.

There has been significant media over the last decade highlighting the dangers of sitting, however there have not been any coordinated health promotion campaigns focussed on providing information about sitting. Responses to the survey highlight that people are seeking more information and support in order to move more and sit less. Indeed a multifaceted approach is required which combines awareness raising, cultural change, changes to the physical environment, reminders and guidelines.

There is also much to be learnt from those that are already sitting less (4 hours or less). A commitment to taking regular breaks, an awareness that 30 minutes is not enough to keep you healthy, limiting long periods of sitting, limiting sitting time at work and an active lifestyle are all factors associated with low daily sitting levels.



<http://www.movemoresitless.org.au/download-posters/>

# APPENDICES

## Appendix 1 – 2015 Move More Sit Less Survey Questions

Do you think you lead an active lifestyle

Yes                      Somewhat                      No

What was the longest period you sat for in the last 24 hours without a break?

< 30 minutes    30 minutes – 1 hour    1 – 2 hours    2 – 3 hours    3 hours +

How long in total do you think you spent sitting down in the last 24 hours

Now we would like to calculate how long in total you spent sitting down in the last 24 hours or on your last working day?

Before Work    At Work                      After Work

Actual Sitting Time (Calculation)

Was that more or less than you thought?

More                      About the same                      Less

Have you heard that sitting for long periods without a break isn't great for your health?

Yes                      No

Do you think that 30 minutes of activity per day is enough to keep you healthy?

Yes, definitely    Somewhat                      Possibly                      No, not at all    I don't know

Would you like to sit less?

Yes                      No

How many times during the last 24 hours – from waking up to going back to bed – did you sit for more than 30 minutes?

Before Work    At Work                      After Work

How many times did you sit for more than 30 minutes

Do you actively try and break up long periods of sitting?

Yes, regularly    Occasionally                      Rarely                      No, never

How do you feel after long periods of sitting

I do not sit down for long periods of time

Productive	Less Productive	The Same	Slightly Unproductive	Unproductive
Energetic	Less Energetic	The Same	Slightly Tired/lethargic	Tired/lethargic
Happy	Less Happy	The Same	Slightly Fed Up	Fed Up
Healthy	Less Healthy	The Same	Slightly Unhealthy	Unhealthy
Stiff/tense	Less Stiff/tense	The Same	Slightly Relaxed	Relaxed

When you got up and moved around, how did those breaks make you feel?

Refreshed      Tired                      Happy              Relaxed              More Stressed

How do you feel on days when you sit most of the day

I do not sit down for long periods of time

Productive	Less Productive	The Same	Slightly Unproductive	Unproductive
Energetic	Less Energetic	The Same	Slightly Tired/lethargic	Tired/lethargic
Happy	Less Happy	The Same	Slightly Fed Up	Fed Up
Healthy	Less Healthy	The Same	Slightly Unhealthy	Unhealthy
Stiff/tense	Less Stiff/tense	The Same	Slightly Relaxed	Relaxed

Do you think that sitting less during your workday could improve your wellbeing?

Yes, definitely      Somewhat                      Possibly              No, not at all      I don't know

What would it take to get more people to change their sitting habits and move more?

A campaign to remind people	Guidelines I can follow	Physical changes to my working environment
Seeing peers and workplace leaders sitting less and moving more	There's enough out there already	
An App that reminds people to move every 30 minutes	Other	

## Appendix 2 - General Statistics on Sitting

- The average Australian adult sits for 8.6 hours per day.
- Adults spend more hours sitting than sleeping.
- The average office worker will spend 80,000 hours sitting during their lifetime. Sitting for that long – you could drive around Australia 320 times!
- By the time we are 65, most of us would have sat in front of a TV for over 9 years. That is the equivalent of watching the entire five series of Game of Thrones (50 episodes) 60 times in a row.
- Reducing your sitting by at least 3 hours a day – could not only extend your life by 2 years but also improve your quality of life.

### Appendix 3 - Move More Sit Less data

- Only 32% of people correctly identified that 30 minutes of physical activity a day is not enough to keep you healthy if you live a sedentary lifestyle the rest of the time
- 30% of people perceived they sat for 8+ hours a day, however when adding up sitting time at home, at work, commuting and during meals this increased to almost 50%!
- 50% felt stiff and tense after long periods of sitting
- 53% regularly actively tried to break up long periods of sitting
- 65% felt less productive after long periods of sitting
- 67% felt more refreshed after taking a short break
- 68% said that sitting less at work could 'definitely' improve their wellbeing
- 69% felt unhealthy after long periods of sitting
- 80% wanted to sit less
- 82% felt tired and lethargic after long periods of sitting
- 98 % had heard that extended periods of sitting was not good for health

### Appendix 4 - References

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