Despite a growing number of studies suggesting a health risk associated with prolonged sitting, many workplace environments, continue to be highly sedentary with little opportunity for standing breaks or movement. A recent study found that compared with office workers and customer service employees, call centre employees spent proportionally more of their time at work sitting, and accumulate this time in prolonged, unbroken sedentary periods (Thorp et al, 2013).

Between April and November 2015, NSW Ambulance introduced a Sit Less & Move More program to its Sydney and Newcastle Control Centres. The program, a co-design between NSW Ambulance and the University of Sydney’s Prevention Research Collaboration (PRC), was delivered and evaluated by the PRC. It involved a number of strategies to reduce prolonged sedentary behaviour in desk-based call takers and dispatchers who already had sit-stand desks, including:

- timer lights;  
- posters; and  
- informative emails.

Participants showed a reduction in the time spent sitting during their work day and an increase in the time spent standing.

The program was generally well received and participants considered most of the supporting resources and education to be beneficial. It was highlighted that due to the demanding and time critical nature of work in control centres, programs need to be tailored to staff environments and alternative communication methods, aside from email and mobile phone, could be considered to prompt people to sit less.

**Program Aim**

The aim of the program was to find out how a workplace intervention which seeks to reduce sedentary behavior, can be adapted and improved to meet the needs of an emergency call centre environment.

**What was done?**

Electronic, height-adjustable desks were installed in NSW Ambulance Control Centres in 1999, however little is known about the staffs’ use of the desks in the sitting or standing positions. Participants of the NSW Ambulance Sit Less & Move More program were divided into two groups: control and intervention. The control group received no education or changes in the workplace environment; the
intervention group was provided with three main components to promote the use of the height-adjustable desks:

- **Timer Lights**: Two horizontal bar lights which displayed the text ‘Try Standing Up’ when illuminated, were installed in the open plan Sydney control room. The light was set to automatically turn on the light for 30 minutes and off for 60 minutes continuously;
- **Posters**: A series of Sit Less & Move More posters were displayed in high traffic areas or visually noticeable areas to prompt people to sit less; and
- **Informative emails**: A series of weekly emails that included tips, guidelines and reminders to sit less and move more was issued throughout the workday.

The program was run over a 75 day period beginning with a baseline period of four working days in which all participants were monitored before the program. Following the baseline measurement, the Sit Less & Move More program components were delivered to participants in the intervention group. The control group received no change in their work practices or environment. Both the control and intervention groups were measured at two time points after the program started, four and 11 weeks later (refer to Figure 1).

### What did NSW Ambulance achieve?

Participants of the NSW Ambulance Sit Less & Move More program enjoyed its various elements and thought it to be a useful reminder about their sit-stand patterns at work. In particular, participants in the intervention group:

- showed a reduction in the proportion of their work day spent sitting (from 79% to 64%);
- reported a doubling in their standing time at work; (13% to 27%);
- reported feeling more alert, inspired and active when standing, compared to when they were sitting;
- had a decline in self-reported neck or shoulder pain at follow-up, compared with the control group;
- had more positive perceptions of work.

Participants rated the timer light as the most useful program component, while they rated the reminder emails as the least useful, due to their inability to access emails while working. Participants also emphasised the demanding and time-critical nature of their shift work, impacting on their sleep and energy levels, both mentally and physically.

Overall, the program was well received by participants who reported that they stood more, and felt encouraged to change their sitting behaviour.

### Sustainable outcomes and future directions

The co-design of this pilot study was unique and provides insights into how workplace ‘sit less & move more’ programs can be tailored to suit the needs of individual workplaces.

While the results of this study are promising, it is clear that in order to encourage positive outcomes, workplaces need to consult with workers, as well as maintain flexibility in their programs. In the case of NSW Ambulance, the demanding and time-critical nature of the work experienced in 24 hour control centres, needs particular attention when designing an appropriate program.

Recommendations to improve the roll-out of future program elements include:

- identify and promote a workplace champion who is invested and interested in the program;
- invite call takers and dispatchers to participate in the program design phase to better tailor program elements to their needs and foster greater staff engagement;
- introduce wellness program activities within paid working hours to increase participation levels; and
- consider using computer prompt software to remind users to take a break, change sitting/standing posture, or stretch with advice and support from relevant IT stakeholders at NSW Ambulance.

### References: