The Issue
As the working population ages, there will be increasing reliance on the productivity of young workers. We know very little about work productivity loss among young workers associated with specific health conditions such as musculoskeletal pain on their work productivity.

The Study
We analysed cross-sectional data from the longitudinal Raine study in Western Australia. Participants were approximately 23 years of age. We estimated the rate of work productivity loss from absenteeism due to health reasons, absenteeism due to other reason (excluding vacation) and presenteeism. We also examined the impact of musculoskeletal pain on productivity loss.

Main Findings
General productivity loss
The mean hours lost in annual productivity per worker from all causes was 530 hours a year (53 hours from absenteeism due to health reasons, 175 hours from absenteeism due to other reason and 302 hours from presenteeism). This equates to the mean annualised cost of $18,836 per worker.

There were significant differences in mean hours lost in annual productivity by occupation and industry (Figure 1). Machinery operators & drivers reported more mean hours lost in productivity than workers in other occupations. Workers in Mining had the highest mean hours lost per worker from absenteeism due to health reasons and presenteeism. Construction workers had the highest mean hours lost from absenteeism due to any other reason.

The national estimate of the cost of work productivity loss for 23 year old workers, based on the Raine data, was $3.8 billion per year.

The impact of back or neck pain on work productivity loss
Current health professional diagnosed back or neck pain was reported by 20% of young workers in the Raine Study.

The rate of absenteeism due to health reasons was 1.8 times greater in those with back or neck pain compared to those without back or neck pain. This equated to 73 additional hours lost per year among those with back or neck pain compared to those without back or neck pain.

Diagnosed back or neck pain was also associated with increased rate of absenteeism due to any other reason (1.4 times greater). This equated to 65 extra hours lost per year from absenteeism due to any other reason among workers with back or neck pain compared to those without back or neck pain.

The additional annual productivity loss due to back or neck pain from both types of absenteeism was $3,554 per worker. This equates to $139 million nationally for 23 year old workers.

Back or neck pain was not associated with increased rate of presenteeism among young workers in this study.

Conclusion
The study showed that musculoskeletal pain has a significant impact on the absenteeism of young workers.

A more detailed report on these findings is available at www.swa.gov.au.

Figure 1. Mean annualised hours lost per worker due to lost productivity by occupation and industry