CPR stands for Cardiopulmonary Resuscitation and involves completing a number of steps, including chest compressions and breaths, on an unconscious patient. The aim of CPR is to return the patient to consciousness through pumping blood and oxygen around their body. The CPR4Kids program in Mount Gambier is an ongoing study involving the teaching of Year Seven students from rural South Australian Schools the basics of CPR.

Why is CPR important?
According to the National Heart Foundation over 30,000 adults have cardiac arrests in Australia annually, however only 20% receive bystander CPR. This is significant as research has shown that the performance of CPR improves the outcome of patients following a pre-hospital cardiac arrest by a factor of 2-4.1 Additionally, it has been found that the earlier in life the learning of Basic Life Support (BLS) the more sustainable the training may be.2 Such as its importance, in 2011 the American Heart Association published an advisory statement which recommended that CPR training for schoolchildren be made mandatory.3

What we did
The program involved facilitating a 90-minute session to teach 200 students from 8 schools the basics of CPR and the D.R.S.A.B.C.D. process. The students were given a pre- and post- session survey to complete in order to assess and compare the knowledge of CPR before and after the CPR4Kids session. These surveys also allowed the comparison of CPR knowledge between students from schools located in different socio-economic regions of Mount Gambier.

To compare student knowledge between schools and before and after sessions we developed a scale:

0 = No comment/ completely wrong
1 = Little understanding of CPR
2 = Moderate to good understanding of CPR
3 = Very good understanding of CPR

Survey data was analysed using the statistical program GraphPad Prism. A Kruskal-Wallis test with Dunn’s Multiple Comparison Test was performed. Results were considered significant with P < 0.05.

What we found
After completing the CPR4Kids session significant increases in the knowledge of CPR were observed in students from all schools, compared to their knowledge before the session (Figures 1 & 2).

It was observed that students who attended school in regions of lower socio-economic status, as defined by the Australian Bureau of Statistics (ABS)4, were found to have a significantly lower knowledge of CPR both prior to and after completing the CPR4Kids session, when compared to students whose schools were located in regions of a higher socio-economic status.

These findings demonstrate the importance and value of teaching school-aged children the basics of CPR. They also highlight the need for an increased focus on CPR teaching to students from schools located in lower socio-economic regions.

What next?
We recommend that students from schools in areas of socio-economic disadvantage attend an additional CPR4Kids session to further increase their CPR knowledge. We also believe a follow-up program for all students, two to three years after the initial session, would greatly help to consolidate and further develop their CPR knowledge.

References
4. ABS Industry Catalogue/5236.0/2012/65/166/65/166/Overview/Current+Edition/2012/65/166/65/166/Overview