



National Health Promotion Program

# Healthy Spines National Health Promotion Program: 2007 Evaluation Report

## Executive Summary



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Healthy Spines is a community service initiative of the Chiropractors' Association of Australia: <http://www.chiropractors.asn.au>



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*beyond...*(Kathleen Stacey & Associates) Pty Ltd (2008). *Healthy Spines National Health Promotion Program: 2007 Evaluation Report*. Chiropractors' Association of Australia: South Penrith, NSW.



## 1. Executive summary

### Overview of Healthy Spines

The Healthy Spines National Health Promotion Program targets young people in Years 3–5, their teachers, parents and school management. Through Healthy Spines, young people learn why their spines are important and how to take care of their spines. Teachers gain ideas and resources to incorporate spinal health knowledge into other areas of the curriculum, and schools are supported in creating policies and environments that promote spinal health. Parents are invited to participate and support their children’s learning.

Healthy Spines runs over 3–4 months and includes two classes in each school. It involves initial meetings with the school management, staff and school community (parents, guardians and friends), three interactive 1–1.5-hour classroom sessions, an optional additional ‘celebration’ session, and a follow-up visit to gather information on what the students and staff have learned.

As a community service initiative of the Chiropractors’ Association of Australia (CAA), Healthy Spines was developed to address a major health problem. The research literature indicates that at least 80% of the adult population experience back problems at some stage in their lives. These problems commonly relate to poor posture and injuries sustained during their early years. Young people consistently report that they experience neck and back problems; rates vary between studies but are commonly between 25% and 50%. The program is based on the understanding that the prevalence, severity and frequency of later problems can be reduced by providing information that increases individuals’ knowledge and influences their behaviours, and creating environments and policies that support good spinal health in childhood.

The program is conducted by volunteer chiropractors who have completed a comprehensive training program in health promotion and working within schools. The training program involves 70 hours of training time, personal study, observation and evaluation activities. Once participants complete all training requirements to a satisfactory standard, the CAA approves their involvement and they qualify as Healthy Spines Program Team Members (PTMs). They are then linked into a regional and national Healthy Spines support structure that guides their activities within schools. This preparation and support structure ensures that they are well prepared, qualified and supported for running all aspects of the program. More broadly, the program enables chiropractors to play an informed and positive role in health promotion as part of the contemporary approach to public health in Australia.

### Annual programs run to date

A pilot for Healthy Spines was first run in 1999 with chiropractors and schools in South Australia. In 2004, Healthy Spines became an official national program, with the numbers of trained chiropractors, involved states and participating schools growing each year. By 2007, the fourth year of the program, 83 chiropractors had completed all requirements of the training program and qualified as PTMs, with 67



maintaining their involvement with the Healthy Spines Program. They represent five states: New South Wales, Victoria, Queensland, Western Australia and South Australia. Fifty-six programs have been run in 45 schools, as several schools have now adopted Healthy Spines as an annual program.

### Program evaluation outcomes

This report presents the combined outcomes from the 2004, 2005, 2006 and 2007 national programs. The programs run in each year employed the same activities and evaluation tools, with only minor modifications being made in subsequent years to finetune delivery and support smooth implementation. Drawing now on a larger base, in terms of number of schools and all categories of participants, these combined results build on those reported for the previous three programs, and can be reported with a high level of confidence.

Forty-five individual schools have participated in a Healthy Spines program so far on 56 occasions in total. This has entailed the direct involvement of over 3100 students, and almost 200 school staff and 440 parents. Evaluation information is gathered from students, staff, parents and PTMs prior to the program starting and then, after an interval of four to five months, 6–8 weeks after it finishes. Almost all schools have provided data for the evaluation each time they participated in a program, but complete sets of data relating to all groups have not been available in all instances. This report presents student data from 48 programs, staff data from 29 programs, parent data from 39 programs and PTM data from 52 programs. The main outcomes are summarised below.

### Schools

In relation to school **policies** that support good spinal health, over the 4–5 months of the program there was a small overall increase in the proportion of staff reporting that such policies existed or were being developed (from 30% to 39%). This small change also reflected an ‘honesty’ effect, e.g. initially staff thought that some policies existed, or they were unsure, but through the program they realised they did not have all the policies they originally thought were present or were unsure if they had been finalised.

Over the same period, good spinal health **practices** were reported to be occurring more consistently (a stronger change, from 58% to 72%). The main areas of improvement related to posture, physical status or activity, and ergonomics. Injury prevention was already a strong focus in almost all schools and practices regarding spinal health curriculum stayed relatively stable. Although school staff were happy with these changes, they saw room for further improvement. Examples of practical and relatively easy changes made included:

- better ergonomic arrangement of furniture in classrooms and libraries, including placing computer monitors or laptops at the right height for students
- storage of books or other materials at easy to reach heights in classrooms and libraries
- creating rules to support good posture in class and prevent back/neck twisting



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- providing reminders around posture, including involved teachers and other staff using program language to reinforce concepts
- the *correct* use of backpacks, as well as using them in preference to other bags
- displaying the Healthy Spines posters in prominent places in the class or near where students store backpacks
- allowing time for stretch breaks, i.e. the value of *flexibility*, not just physical activity
- reducing the amount of time in static or less comfortable activities, and balancing the amount of time spent on the floor, at table activities or on computers
- using extension activities to embed spinal health concepts across the curriculum
- wearing protective equipment during sport
- identifying and rectifying hazards in the playground or walking areas
- dealing with congested areas more effectively.

Over time, more schools have expressed an interest in running Healthy Spines annually, which is a way of embedding the program within the school over time so that an increasing number of children, parents and staff are exposed to it. Seven schools in the 2007 program had already implemented this policy, and a further 11 first-time schools requested that this happen from 2008 onwards, which is 39% of total schools involved to date.

### School staff

School staff said that Healthy Spines is a valuable, professional and high quality program that makes a positive contribution to both student and staff spinal health understanding, attitudes and behaviour. They reported an observable increase in student awareness of and actions to support good spinal health. Increasingly staff are reporting that this includes students being able to assess and modify their environment to support good spinal health, and use language from the Healthy Spines Program to describe how their own or other people's actions would affect their spinal health or could be changed, as well as taking personal steps supported by staff and schools.

Over half the staff indicated that the program provided personal and professional development opportunities in relation to caring for their own spinal health and assisting students – both current and future. Teachers appreciated the set of eight worksheets and two activity plans provided in the 2007 program that complemented the extension ideas outlined in the program handbook and on the Healthy Spines website. They were keen to have access to additional easy-to-reproduce curriculum materials, as well as audio-visual resources and online interactive games and activities.

### Students

Students were consistently positive about their experiences in the Healthy Spines Program, with the younger Year 3 and 4 students being more enthusiastic than their



older peers in Years 5 and 6. On average, when students were asked questions about three areas of spinal health – knowledge, reasoning and application – increases in the accuracy, quality and range of answers were seen, as well as in the number of accurate answers.

***Spinal health knowledge*** – questions focused on the job of their brain, spinal cord and nerves and where they live in the body: The proportion of fully accurate answers increased from 45% pre-program to 60% post-program, partly right answers shifted from 27% to 22%, and inaccurate answers decreased from 28% to 18%.

***Spinal health reasoning*** – questions focused on why they should look after their spinal health: Accurate answers increased from 36% to 43%, partly right answers decreased slightly (53% to 50%) and inaccurate answers decreased from 12% to 7%. Importantly, students were able to provide an expanded range of reasons for looking after their spinal health, and there was a 10% increase in the average number of accurate ideas per child (from 0.94 to 1.04 ideas per child).

***Spinal health application*** – questions focused on what they could do individually, and what the school could do, to care for spinal health: Accuracy increased from 64% to 78%, partly right answers decreased from 13% to 9%, and inaccurate answers from 23% to 14%. Following the program, students showed greater awareness of the range of ways in which they or the school could look after spinal health. When their recommendations were grouped into those relating to personal skills, policy or the environment, far more (56% rather than 24% pre-program) related to the school environment. The average number of accurate ideas per child also improved markedly (from 0.85 to 1.16, or 35%).

Improvements in spinal health reasoning and application are essential, as they provide the foundation for students to make practical everyday changes in the way they care for their spinal health and encourage schools to support them in this. For example, students demonstrated their understanding and creativity in the skits they designed and performed, and in the posters they created, to convey prevention and spinal health promotion messages that they shared with other members of the school community.

In another program activity, students reviewed the spinal health safety of different areas of their school, identified what could change and provided recommendations on how the school could support students to ‘work safe’ and ‘play safe’. Although there were many features already supporting spinal health, areas that could be improved were identified in every school. Schools were encouraged to listen to student ideas and act on them. Change occurred to varying degrees depending on the level of school engagement with the program and the cost implications, although the majority of schools identified and made the manageable yet significant changes listed above in the ‘Schools’ section. An increasing proportion are taking on substantial changes, such as updating school furniture, improving storage areas, bringing in better school bags, and making changes in the school grounds. Students were not always informed about changes that schools made, although they were often keen to know.



### Parents and guardians

Over 69% of parents who responded to post-program surveys were aware of the Healthy Spines Program. Overall, they were positive, experiencing Healthy Spines as a high quality program and welcoming the opportunity for their child and school to be involved. Although program information was distributed widely in schools, 38% wanted to know more, including learning how they could support their child's spinal health knowledge and skills. Almost all parents who were aware of the program reported at least some change in their children's spinal health knowledge, and that they were making positive changes to care for their spinal health. Examples of these changes included improving their posture, correcting or advising family members about posture, being more careful in physical play, and carrying their bag correctly.

Parents had less awareness about what their child's class had done to encourage the school to make positive changes for spinal health. However, 51% of those who were aware reported this had occurred to some extent, although they were much less familiar with the specific actions that schools had taken. Over 35% of parents provided additional comments about the program. Sixty-seven per cent of this group commended the program and were keen for the Healthy Spines Program to continue and expand, as they believed it was an important topic, while 18% wanted further information so they could reinforce the Healthy Spines messages at home. Parents also advocated that schools implement the recommendations that came from the program and develop a school-wide focus on spinal health.

### Program Team Members

The Healthy Spines Program Team Members (PTMs) were optimistic about what Healthy Spines offered the chiropractic profession and themselves personally. They reported that the training program stretched them in unexpected ways, but believed it was effective and valuable in preparing them for their role. They found that what they learned became more meaningful as they implemented Healthy Spines in a school. In addition, an overwhelming majority of PTMs reported examples of how they had transferred their learning to other professional and personal environments. They also reported that their participation in Healthy Spines had increased their enthusiasm for and commitment to doing health promotion work. Further, they believed it provided new options for sharing their knowledge and offering a service to the community, and that it was important for the CAA and the profession to continue the program.

### Summary

The combined program evaluation outcomes from the first four years of Healthy Spines indicate that the program is making good progress in achieving its goals and objectives as a school-based health promotion program. Both students and school staff demonstrate positive changes in their knowledge and awareness of spinal health care, and of actions they can take personally or within schools to strengthen and promote good spinal health. Increasingly this is translating into practical change within schools, although change at a policy level or with funding implications takes longer to achieve.



The responses from program participants indicate that Healthy Spines is perceived as a high quality, well-organised, enjoyable and credible program. The outcomes indicate that the program operates by a sound process, while opportunities exist to strengthen the impact of the program within schools and extend its reach across the community.

### Recommendations for 2008

The evaluation outcomes and conclusions lead to recommendations across the following five areas. The first four areas are the responsibility of the CAA, the National Program Consultant and individual PTMs, while the final area will rely on the level of engagement and support that PTMs achieve with participating schools.

#### Overall Program

1. Continue development of low-cost, easily reproducible and distributed resources, including a student workbook that accompanies and extends program content, and a 'one-year follow-up session'.
2. Create a Healthy Spines CD for schools that accompanies their Program Handbook, which includes all reproducible curriculum resources associated with the extension activities and other new developments, e.g. student workbooks.
3. Identify and promote any existing interactive online activities on spinal health promotion that complement the Healthy Spines Program, and explore options for and cost implications of developing audio-visual resources and additional interactive online activities to extend the Healthy Spines Program.
4. Finalise the curriculum mapping process for the Healthy Spines Program so that the state curriculum for all involved states and territories has been mapped and verified by a locally involved teacher in consultation with the state/territory education department and/or Board of Studies.
5. Develop a parent version of the program content, with take-home suggestions and activities to undertake with their children that PTMs can deliver to interested schools as an adjunct to the classroom program.
6. Liaise with state and territory departments of education to work on the development of spinal health policy templates for use in primary schools.
7. Identify and negotiate with an experienced school and PTM to video the entire classroom program being delivered to create a training and education resource.
8. Hold a forum for CAA Board Members and Healthy Spines PTMs to directly discuss strategies for implementation in 2008-2009 that will improve program reach while maintaining program quality.
9. Undertake case studies in at least three schools that have participated in Healthy Spines over two or more years to ascertain environment or policy changes made over the longer term, and their opinion on the value and application of the Healthy Spines curriculum mapping documents.



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10. Investigate options for collaboration with relevant universities or research groups to undertake independent and comparative research on the strengths and capacities of the Healthy Spines Program.

### **PTM Training Stage**

11. Introduce compulsory rather than voluntary 'course counselling' for interested participants in the 2008 Training Program.
12. Increase the last training session that is focused on role-play practice by 1.5 hours.

### **Implementation Stage**

13. Persist with implementing strategies to ensure that program documentation reaches parents of **all** children involved and, wherever possible, there is greater parent engagement and involvement with the program and its key messages.
14. Update the 2008 Healthy Spines Program Handbook to refine and extend the program activities, 'strategies for success', and 'extension activities' sections based on feedback and ideas identified through the 2007 program.

### **Evaluation Stage**

15. Increase the level of detail that PTMs are required to report to Team Leaders on the completion of all evaluation requirements so delayed or missing post-program surveys can be tracked and recovered more efficiently and quickly.
16. Encourage more PTMs to request updates from the National Program Consultant on the arrival of their school's pre and post-program data in the online database.

### **Actions for schools**

17. If a PTM is available, arrange for the Healthy Spines Program to be incorporated into their curriculum at the Year 3, 4 or 5 level and run on an annual basis.
18. With support from their PTM, identify a variety of strategies for sharing the outcomes of student work in Healthy Spines with students and teachers in other classes to spread the key program messages to more of the school community (the evaluation report documents several examples that schools could consider).
19. With support from their PTM, share the outcomes of student work in Healthy Spines with their parent councils (or equivalent structures) so that those bodies can work with school management to determine what steps the school is in a position to take in regards to making improvements at an environment or policy level.
20. Inform parents about any action the school has taken to improve the school environment or to develop/revise policies relating to spinal health; this might be achieved via the newsletter or any other pathway that is regularly used to communicate to the wider school community.
21. Inform students about any actions taken in response to the recommendations they made in their school environment case studies.