

CATEGORY:

***HEALTH SERVICES, TECHNICAL,
PROFESSIONAL OR EDUCATIONAL***

**REACHING OUT BEYOND OUR WALLS:
CREATING COMMUNITY
PARTNERSHIPS
FOR THE HEALTH OF OUR CHILDREN**

SUBMITTED BY:

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Globe and Mail columnist, Andre Pickard, recently asked: “Is the true purpose of the public health system to help create a healthy population, one that not only treats the sick, but invests in preventing disease ...?”¹⁷ Most of us would agree philosophically with this concept for the public health care system. However, too often health promotion and illness prevention are neglected, as most of our energies and health dollars are consumed by the treatment of acute and chronic illness.

A conscious effort is being made in Newfoundland and Labrador to reverse this trend. In its report, *Moving Forward Together: Mobilizing Primary Health Care* (2003), the provincial government made a commitment to focus on health promotion, illness prevention, and wellness in its primary health care model. It also recognized the vital impact that the healthy growth and development of our children and youth will have on the creation of a self reliant and healthier population.⁵

Paediatric physiotherapists routinely address conditions that influence, either directly or indirectly, the growth and development of the musculoskeletal system. In an attempt to help meet the government’s primary health goals and enhance the physiotherapy service to include health promotion, illness prevention and wellness, the paediatric physiotherapists of the Child and Woman’s Health Program (CWHP) looked beyond the walls of the Janeway Child Health and Rehabilitation Centre for community partners willing to invest in the health and wellbeing of the future generation of Newfoundlanders and Labradorians.

Following the analysis of the CWHP physiotherapy waitlist, as well as provincial and national paediatric injury, illness and health risk trends, physiotherapists identified three distinct preventable conditions that could be addressed: plagiocephaly and torticollis in infants, back pain in our pre-adolescent and teenage populations, and inactivity in our youth. Recognizing the limitation of their human resources, they identified key stakeholders within the community to educate and to help disseminate information to the targeted client groups. These partners included: family physicians, paediatricians, community health nurses, Department of Education officials, School District assistant directors, principals and teachers, university students, community fitness facilities and their staff, daycare centres and community play groups.

The following is a summary of the proposed initiatives and a progress report on the implementation and evaluation of these projects.

Plagiocephaly and Torticollis in Infants

In 1998, plagiocephaly (asymmetrical flattening deformity of the skull) and torticollis (tightening of the muscles on one side of the neck limiting head control and movement) accounted for 11% of the total number of referrals to the CWHP physiotherapy service. In 2003, the number had escalated to approximately 25% of the clients consulted to CWHP physiotherapy.

This phenomenon is not unique to Newfoundland and Labrador. Since the launch of the “Back to Sleep Program” by the American Academy of Paediatrics and the National Institute of Child Health and Human Development, many physiotherapists in Canada and the United States have reported epidemic proportions of torticollis, positional plagiocephaly, and resultant gross motor delay.^{11, 14, 18} Although a minor problem compared to the success of lowering the risk of Sudden

Infant Death Syndrome, it has been reported that the treatment cost for children with plagiocephaly can be as high as \$5,000.¹¹

The key to effectively treating and in most cases, completely reversing positional plagiocephaly and torticollis is to identify the problem early, or ideally, give parents the information required to prevent it. The Hospital for Sick Children in Toronto recently developed a package containing resources for health professionals and caregivers to help prevent, identify and treat positional plagiocephaly and resulting torticollis.

In February 2005, supported by the Health Care Corporation of St. John's Green Award – Award for Innovation, the paediatric physiotherapists from the CWHP distributed this package of resources to the paediatricians and family physicians in the greater St. John's area. This group was chosen for the significant role they play in primary health care teams and for the number of referrals they generated for this condition every year.

At the present time, feedback is being sought from the target group regarding the usefulness of the information. So far, the response has been extremely positive. In addition, indicators such as number of referrals, age at time of referral and source of the referrals are being monitored to evaluate this initiative. A reduction in the number of referrals and a decrease in the age at the time of referral would be positive outcomes for the project.

If the desired outcomes are achieved, a broader distribution group for the information package, including all family physicians and paediatricians in Newfoundland and Labrador, may be considered. In addition, as the source of the referrals is being monitored, a new target group may also be identified (e.g. Community Health Nurses).

Back Pain in Our Pre-Adolescents and Teens

Back pain places a major economic burden on individuals, the health system, and society as a whole. In the western world, direct cost associated with back pain has been estimated around \$50 billion dollars per year¹. Furthermore, this condition is estimated to be responsible for close to 100 million work days lost per year¹.

Historically, neck and back pain in children was considered to be uncommon.¹³ Recent studies suggest that the incidence of back pain in children is approaching rates seen in adults.⁸ Studies have revealed that approximately 6% of these children will miss school, 25% will consult a health professional and 25% will refrain from physical activity.⁸

Backpacks are believed to contribute to back, neck and shoulder problems in children. According to the latest statistics, 97% of children and adolescents use backpacks.¹³ Parents and health professionals have voiced their concern that children are carrying backpacks loads beyond the limits recommended by experts (10-15% of the child's body weight).¹³

The physiotherapy service of the CWHP received 80 referrals for neck, back and shoulder pain in the past two school years with age of onset as early as 8 years old.

The Canadian Physiotherapy Association recently published guidelines for the use of backpacks in school-aged children.³ In September 2004, following the publication of these guidelines, the paediatric physiotherapy service requested assistance from the Department of Education in distributing these guidelines to all the schools in the province. The Minister of Education agreed to share the guidelines with the School District Assistant Directors Programs and subsequently disseminate them to principals and teachers in all of the province's schools.

In May 2005, the paediatric physiotherapists of the CWHP evaluated the impact these guidelines have had on backpack carrying practices. With the consent of the school authorities, parents and children at one of the local junior high schools, physiotherapists weighed loads, inspected backpacks for proper fit and made appropriate adjustments where required. The visit revealed that some guidelines were being followed while others were not. They noted that, in some cases, the backpacks weighed in within the recommended guidelines while others were markedly too heavy. In addition, they also observed that most children were wearing their backpacks incorrectly. To correct this, reminder bookmarks, devised with the assistance of the Healthcare Corporation's Communication Department, were distributed to all the children.

Similar visits to other schools are planned for the fall to further evaluate the impact of the guidelines and to distribute bookmark reminders as required.

Inactivity in Our Youth

Paediatric obesity has become a modern epidemic of considerable significance.¹² Eighty percent of obese children become obese adults.¹² Paediatric obesity seriously increases the risks of acquired obesity-related medical conditions in adolescence and adulthood.¹² Research has shown an association between obesity in childhood and high blood pressure, coronary heart disease, diabetes, respiratory disease, some cancers, orthopaedic disorders (such as arthritis), and psychological disorders.¹²

Studies have reported that patients diagnosed with obesity were more likely to receive weight and diet counselling, but no more likely to receive exercise counselling compared to non-obese patients.⁶ Strong evidence exists to demonstrate greater change in body composition for diet combined with exercise compared with diet alone.⁷

Other studies have evaluated the relationship between physical activity during childhood and adolescence and health status.¹⁸ Researchers not only concluded that physical activity during youth is related to health status during youth, but also related to physical activity during adulthood and adult health status.¹⁸

Researchers have proposed that increasing physical activity can help reduce costs to the health system by billions of dollars.¹⁰ In 1999, about \$2.1 billion, or 2.5% of the total direct health care costs in Canada, were attributed to inactivity.¹⁰ It has been suggested that even a 10% reduction in the prevalence of physical inactivity has the potential to reduce direct health care expenditures by \$150 million a year.¹⁰

Yet according to the Newfoundland and Labrador Centre for Health Information's *Health Scope 2004*, in 2003, Newfoundland and Labrador reported higher physical inactivity rates (53.3%)

than Canada overall (46.4%).¹⁵ Equally as bleak is Health Canada's report on physical inactivity levels in children and youth in this province: Newfoundland rated second at 61 per cent.⁴

Recently, the results of a systemic review suggest that school-aged youth should have 60 minutes or more of moderate to vigorous physical activity daily.²

In light of these alarming provincial statistics and the new guidelines, the paediatric physiotherapists, with the help of a third year physiotherapy student from Dalhousie University and the Healthcare Communications' Department developed a pamphlet entitled "Strengthening for Children, Preteens and Teens". It is designed to alleviate the misconceptions regarding youth and strength training. It will be distributed to seventeen health facilities in the St. John's/Mount Pearl area.

Contact was also made with the Department of Education, Physical Education Specialist, Mark Jones, regarding upcoming changes to the physical education curriculum suggesting a focus on healthy lifestyles instead of athletic performance.

In addition, initiatives to distribute the *Canada's Physical Activity Guide for Children and Youth*⁹ and to raise awareness of the suggested guideline for physical activity have been discussed. Partners would include: Community Health St. John's Region and Health Check 3, daycare centres, and children's play groups.

Evaluating this initiative will be very difficult. Feedback and public distribution of the "Strengthen" pamphlet by fitness facilities will be evaluated and changes in amount of physical activity included in daycare programming will be monitored. In addition, the paediatric physiotherapists of the CWHP will advocate for paediatric obesity rates and inactivity profiles to be included in annual governmental reports such as the Annual Report: Early Childhood Development Initiatives or Health Scope 2005. It is hoped that such monitoring will raise awareness of this epidemic at all levels of government and society.

Conclusion

In a system where funding and resources are shrinking and demands are increasing regional, provincial and national health, injury and disease trends must be considered carefully by decision makers and health providers alike. Decisions must not only be made in response to the population needs of today but must also plan for the sustainability of the system for generations to come.

It has been recognised that prevention will play a significant role in sustaining the public healthcare system. Prevention, targeted specifically at our children and youth, will ensure the reduction, and maybe even the elimination, of some diseases and conditions.

Education is the key to prevention. Knowledge transfer from healthcare provider to the community is vital to the success of any health promotion, illness prevention and wellness initiatives.

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By sharing knowledge of best practice guidelines and resource materials, and by fostering partnerships with other health professionals, government agencies, schools personnel, and community centres/facility staff, the paediatric physiotherapists of the Child and Woman's Health program are not only ensuring health and well-being for our children today but are attempting to do their part in sustaining a public healthcare system for the future.

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