THE CHIROPRACTIC REPORT

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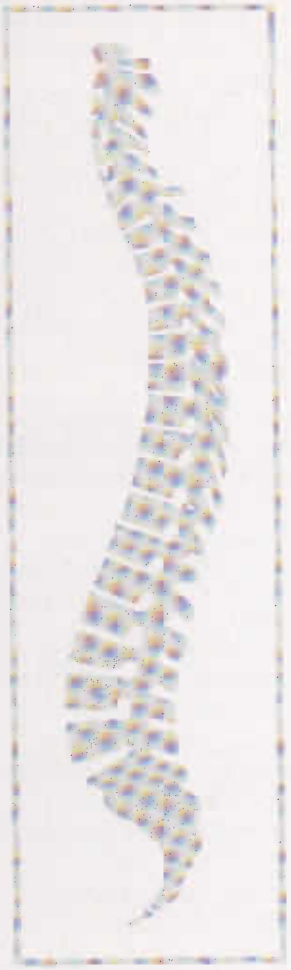

Professional Notes

FCER Funds Otitis Media Study

Otitis media (OM) is an inflammation of the middle ear, commonly seen in infants and young children. It is not a primary disease, but a complication of colds, sinusitis, sore throats, etc.

Medical treatments have significant limitations. First line treatment is with antibiotics, but these are frequently ineffective. One reason may be that 40% of cases involve sterile effusions unresponsive to antibiotics.

Second line medical treatment is insertion of tympanostomy tubes - in the U.S. 21 per 1000 children under the age of four, and 18 per 1000 at ages 4-9, have these tubes. For many they will be ineffective, and 40% will suffer permanent structural damage to the tympanic membrane.

What of chiropractic care? The literature at present only contains case reports. Nicholas Phillips DC from Ohio reported a case last year in which:

- A two year old girl had suffered chronic OM in both ears for 13 months despite several regimens of antibiotics and tympanostomy tube insertions in both ears.
- The parents noted no improvement in symptoms following the tube surgery - symptoms included sore throats, nausea, poor appetite, ear pain and ear discharge. Six months after surgery

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Cost-Effectiveness - The Manga Report

"In our view, the constellation of the evidence of:

(a) the effectiveness and cost-effectiveness of chiropractic management of low-back pain.

(b) the untested, questionable or harmful nature of many current medical therapies.

(c) the economic efficiency of chiropractic care for low-back pain compared with medical care.

(d) the safety of chiropractic care.

(e) the higher satisfaction levels expressed by patients of chiropractors, together offers an overwhelming case in favour of much greater use of chiropractic services in the management of low-back pain.

There should be a shift in policy to encourage and prefer chiropractic services for most patients with low-back pain ... a very good case can be made for making chiropractors the gatekeepers for management of low-back pain in the workers' compensation system."

Manga Report to Ontario Ministry of Health (August 1993)

A. Introduction

1. Bias lurks everywhere and there is only one way to discover the truth. This is through independent inquiry, by appropriately qualified persons, using legitimate procedures.

For chiropractic the new Manga Report, from health economists in Canada, is the third major independent validation of the claims of the chiropractic profession:

i) The *New Zealand Report* (1979)[1] established that, on the basis of its education, research, practice and principles, the modern chiropractic profession was a soundly based and valuable branch of the healing arts. Its services should be recognized and funded in government health care plans.

ii) The *Wilk et al v American Medical Association* et al anti-trust case (1987)[2] established that the chiropractic profession's complaint against organized medicine, that there was a long term, AMA led, illegal conspiracy to contain and eliminate chiropractic as a competitor based on the calculated and unfair portrayal of the chiropractic profession as 'cultist' and 'unscientific', was a legitimate complaint. A federal court ruled there was such an illegal conspiracy, and imposed orders that have paved the way for - and rapidly led to - much greater cooperation between chiropractors and medical doctors in practice, education and research.

iii) In the newly released *Manga Report* (1993 - 216 pp),[3] commissioned by the government of Ontario in Canada, leading health economists find that chiropractic management is superior to medical management for patients with low-back pain - in terms of safety, scientific evidence of effectiveness, evidence of cost-effectiveness and - last but not least - patient satisfaction.

2. The Manga Report is of such significance because:

- Low-back pain (LBP) is the most frequent complaint of patients seen in chiropractic practice.
- As the Report concludes, "today LBP has become one of the most costly causes of illness and disability ... a phenomenon which does not appear to be generally appreciated or understood in medical and government circles ... it is ubiquitous, probably the leading cause of disability and morbidity in middle aged persons and by far the most expensive source of workers' compensation costs ...".[4]
- As leading medical and chiropractic researchers have suggested, and Manga accepts, current management of LBP "clearly represents *the single greatest and most inefficient expenditure of health care resources in our society today ... and the greatest single opportunity for productive change and cost savings.*"[5]

3. This Report reviews the Manga Report - its background, terms of reference, authors, principal findings/ recommendations, and implications. The Report then looks at the two separate components of the cost-effectiveness argument:

a) The superior cost-effectiveness of one service over another.

b) The ability to capture the potential cost savings - to introduce and use the more cost-effective service as a substitute service, not an 'add-on' or additional layer of cost.

B. Background

4. Last year the Province of Ontario had a staggering public deficit of approximately $12 billion - a debt exceeded by only four nations, led by the U.S.A. and Canada.

1995 Centennial Celebrations
Canada: May 31 to June 4, Toronto, Ontario. *United States:* July 5-9, 1995, Washington DC (incorporating the 1995 World Chiropractic Congress) and September 13-17, 1995, Davenport Iowa. Clear those dates now.

More than 1 in 3 dollars - 34% of total government expenditure - is currently spent on health care. (All medical costs are covered by the government plan, and MDs cannot opt out or balance-bill the patient. Chiropractic services are partially covered. Chiropractors are free to balance-bill, but this out-of-pocket cost is a market disincentive for use of chiropractic services.).

Understandably, the government is now giving high priority to reforming its health care plan - widely accepted as being over-generous and, in the words of analysts Rachlis and Kushner, "outrageously inefficient".[6]

5. How do you save money in a health care system? One may do many useful things such as encouraging more community care and fewer/smaller hospitals, reducing the number of diagnostic tests performed, and creating a focus on prevention and health promotion. However, because approximately 80% of the total cost of all health care systems comprises payments to health care workers (professionals, administrators, hospital staff, etc.), the core areas for reform must be:

a) Control/reduction of the number of people employed in the health care sector.

b) Substitution of more efficient services for those that are less efficient.

This area, formerly called 'manpower planning', is now 'human health resources (HHR) planning'.

6. The government of Ontario, belatedly but now under real threat of disintegration of its health care system, has been moving boldly in the area of HHR during the past five years. Thus, for example:

a) There has been a 10% cut in enrolments in medical schools and, more drastically, imposition of a freeze preventing any MD outside Ontario from commencing practice in the province. This freeze, agreed to by the Ontario Medical Association, is currently until 1996 but will likely be extended.

b) It is government policy to substitute midwifery services for physician services for over 90% of well births by the year 2000. (A government inquiry in the late 1980s found that midwives, of whom there were under 20 in the province, provided a superior service to obstetricians in terms of effectiveness, cost-effectiveness and patient satisfaction. This led to the Midwifery Act 1991, enacted to recognize and regulate the practice of midwifery, and new government-funded educational programs). An obstetrician is more expensive to train and costs the plan $500,000 a year, a midwife $50,000 a year.

7. The Manga investigation flows from this environment. Much research has suggested that the management of low-back pain (LBP) is a prime area of waste and potential cost savings. Alarmingly, evidence from North America[7] and the United Kingdom[8] suggests that each year the number of people disabled from LBP is increasing at a far higher rate than the population - the problem is rapidly getting worse.

In 1992 the Ontario Ministry of Health turned its attention to LBP and decided to fund a comprehensive study by a prominent health economist on 'The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain'.

C. Terms of Reference

8. For the full Terms of Reference see Table 1 (on page 5).

D. Authors

9. The two principal authors, senior health economists, are:

a) Professor Pran Manga, Director, Health Administration Program, University of Ottawa. Manga, a graduate of McMaster University (MA in economics) and the University of Toronto (PhD in economics, 1970) is an internationally renowned health economist who has authored over 80 monographs and articles.

In Canada, he is a former Director-General, Health and Social Policy Directorate, Government of Canada, and has been a member of many advisory councils to government, most recently the Panel on Health Goals for Ontario.[9] Internationally he has taught executive programs and been retained as a government advisor in health administration and economics in many developing countries, most recently China, India and Zimbabwe. He was born in South Africa.

b) Professor Douglas Angus, Adjunct Professor of Health Economics, University of Ottawa, and Adjunct Professor of Community Health and Epidemiology, Queens University, Kingston. Angus is currently Project Director for a major government-funded study due September 1994 entitled 'The Cost-Effectiveness of the Canadian Health Care System'.

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Thought-Provoking Facts on Back Pain

- 80% of people will experience disabling low-back pain during their lives. 6.8% of the U.S. adult population is suffering from an at least 2-week long episode of low-back pain at any given time.[1]
- Disability from LBP is increasing faster than any other form of disability - about 13% per annum in the U.K.[2] and 17% per annum in the U.S.[3] It is now the second most common cause of physical disability after cardiovascular disease.[2]
- However, LBP is the leading cause of disability and cost in adults aged 30-50[4] - the prime workforce - and thus its huge cost in real economic terms.
- In workers' compensation plans approximately 30% of all claims are for back sprain/strains, more than twice the frequency of any other category of injury. However, this 30% of claims gives rise to approximately 60% of total compensation paid because of the huge cost of chronic LBP claims.[5]
- "We are now facing an epidemic of lower back disability in all western societies ... and there is now sufficient evidence to demand the fundamental reappraisal of our basic strategy of management for low back pain."

Gordon Waddell, orthopedic surgeon Glasgow, (1993)[2].

References

1 Deyo R (1987) 'Description Epidemiology of Low-Back Pain and its Related Medical Care in the United States', Spine 12(3):264-268.

2 Waddell G (1993) 'Simple Low-Back Pain: Rest or Active Exercise', Annals Rheum Dis, 52:317-319.

3 Hazard RG, Fenwick JW et al (1989) 'Functional Restoration with Behavioral Support', Spine 14(2):157-162.

4 Spengler et al (1986) 'Back Injuries in Industry: A Retrospective Study Part I Overview and Cost Analysis', Spine 11(3):241-245.

5 Burton CV and Cassidy JD 'Economics Epidemiology and Risk Factors', Chapter 1 in 'Managing Low-Back Pain', ed Kirkaldy-Willis WH and Burton CV, (1992) 3rd edition, Churchill Livingston, New York.

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Figure 1

MANGA REPORT - EXECUTIVE SUMMARY

Introduction

The serious fiscal crisis of all governments in Canada is compelling them to contain and reduce health care costs. It has brought a new and unprecedented emphasis on evidence-based allocation of resources, with an overriding objective of improving the cost-effectiveness of health care services.

The area of low-back pain (LBP) offers governments and the private sector an excellent opportunity to attain the twin goals of greater cost-effectiveness and a major reduction in health care costs. Today LBP has become one of the most costly causes of illness and disability in Canada - a phenomenon which does not appear to be generally appreciated or understood in medical and government circles in Canada. Studies on the prevalence and incidence of LBP suggest that it is ubiquitous, probably the leading cause of disability and morbidity in middle-aged persons, and by far the most expensive source of workers' compensation costs in Ontario - as indeed in most other jurisdictions.

Much of the treatment of LBP appears to be inefficient. Evidence from Canada, the USA, the UK and elsewhere shows that there are conflicting methods of treatment, that many of these have little if any scientific evidence of effectiveness, that costs of treatment are very high but that despite this levels of disability from LBP are increasing.

In the Province of Ontario LBP is managed mostly by physicians and chiropractors, with physiotherapists also playing a significant role. Medical services are fully insured under Medicare, chiropractic care services are only partially covered. LBP patients incur the highest out-of-pocket expenses for chiropractic services. Virtually no out-of-pocket expenses are incurred for medical treatment, with the exception of drugs, and out-of-pocket expenses incurred for physiotherapy services fall somewhere in between the two.

Physicians, chiropractors, physiotherapists and an assortment of other professionals together offer about thirty-six therapeutic modalities for the treatment of LBP. In this study we focused principally on the effectiveness and cost-effectiveness of chiropractic and medical management of LBP.

Findings

F1. On the evidence, particularly the most scientifically valid clinical studies, spinal manipulation applied by chiropractors is shown to be more effective than alternative treatments for LBP. Many medical therapies are of questionable validity or are clearly inadequate.

F2. There is no clinical or case-control study that demonstrates or even implies that chiropractic spinal manipulation is unsafe in the treatment of low-back pain. Some medical treatments are equally safe, but others are unsafe and generate iatrogenic complications for LBP patients. Our reading of the literature suggests that chiropractic manipulation is safer than medical management of low-back pain.

F3. While it is prudent to call for even further clinical evidence of the effectiveness and efficacy of chiropractic management of LBP, what the literature revealed to us is the much greater need for clinical evidence of the validity of medical management of LBP. Indeed, several existing medical therapies of LBP are generally contraindicated on the basis of the existing clinical trials. There is also some evidence in the literature to suggest that spinal manipulations are less safe and less effective when performed by non-chiropractic professionals.

F4. There is an overwhelming body of evidence indicating that chiropractic management of low-back pain is more cost-effective than medical management. We reviewed numerous studies that range from very persuasive to convincing in support of this conclusion. The lack of any convincing argument or evidence to the contrary must be noted and is significant to us in forming our conclusions and recommendations. The evidence includes studies showing lower chiropractic costs for the same diagnosis and episodic need for care.

F5. There would be highly significant cost savings if more management of LBP was transferred from physicians to chiropractors. Evidence from Canada and other countries suggests potential savings of many hundreds of millions annually. The literature clearly and consistently shows that the major savings from chiropractic management come from fewer and lower costs of auxiliary services, much fewer hospitalizations, and a highly significant reduction in chronic problems and levels and duration of disability. Workers' compensation studies report that injured workers with the same specific diagnosis of LBP returned to work much sooner when treated by chiropractors than by physicians. This leads to very significant reductions in direct and indirect costs.

F6. There is good empirical evidence that patients are very satisfied with chiropractic management of LBP and considerably less satisfied with physician management. Patient satisfaction is an important health outcome indicator and adds further weight to the clinical and health economics results favouring chiropractic management of LBP.

F7. Despite official medical disapproval and economic disincentive to patients (higher private, out-of-pocket cost), the use of chiropractic has grown steadily over the years. Chiropractors are now accepted as a legitimate healing profession by the public and an increasing number of physicians.

F8. In our view, the constellation of the evidence of:

(a) the effectiveness and cost-effectiveness of chiropractic management of low-back pain.

(b) the untested, questionable or harmful nature of many current medical therapies.

(c) the economic efficiency of chiropractic care for low-back pain compared with medical care.

(d) the safety of chiropractic care.

(e) the higher satisfaction levels expressed by patients of chiropractors, together offers an overwhelming case in favour of much greater use of chiropractic services in the management of low-back pain.

F9. The government will have to instigate and monitor the reform called for by our overall conclusions, and take appropriate steps to see that the savings are captured. The greater use of chiropractic services in the health care delivery system will not occur by itself, by accommodation between the professions, or by actions on the part of the workers' compensation board or the private sector generally.

Recommendations

Our recommendations for reform include the following:

R1. Current policy discourages the utilization of chiropractic services for the management of LBP. There should be a shift in policy to encourage and prefer chiropractic services for most patients with LBP.

R2. Chiropractic services should be fully insured under the Ontario Health Insurance Plan, removing the economic disincentive for patients and referring health providers. This one step will bring a shift from medical to chiropractic management that can be expected to lead to very significant savings in health care expenditure, and even larger savings if a more comprehensive view of the economic costs of low-back pain is taken.

R3. Chiropractic services should be fully integrated into the health care system. Because of the high incidence and cost of LBP, hospitals, managed health care groups (community health centres, comprehensive health organizations, and health service organizations) and long-term care facilities should employ chiropractors on a full-time and/or part-time basis. Additionally such organizations should be encouraged to refer patients to chiropractors.

R4. Chiropractors should be employed by tertiary hospitals in Ontario. Hospitals already employ chiropractic in the United States with good effect. Similar recommendations have been made recently by government inquiries in Australia and Sweden, and following government funded research in the U.K. and other countries. Unnecessary or failed surgery is not only costly but also represents low quality care. The opportunity for consultation, second opinion and wider treatment options are significant advantages we foresee from this initiative which has been employed with success in a clinical research setting at the University Hospital, Saskatoon.

R5. Hospital privileges should be extended to all

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Figure 1: *continued from page 3*

chiropractors for the purposes of treatment of their own patients who have been hospitalized for other reasons, and for access to diagnostic facilities relevant to their scope of practice and patients' needs.

R6. Chiropractors should have access to all pertinent patient records and tests from hospitals, physicians, and other health care professionals upon the consent of their patients. Access should be given upon the request of chiropractors or their patients.

R7. Since low-back pain is of such significant concern to worker's compensation, chiropractors should be engaged at a senior level by Workers' Compensation Board to assess policy, procedures and treatment of workers with back injuries. This should be on an interdisciplinary basis with other professional, technical and managerial staff so that there is early development of more constructive relationships between chiropractors, physicians, physiotherapists and Board staff and consultants. A very good case can be made for making chiropractors the gatekeepers for management of low-back pain in the workers' compensation system in Ontario.

R8. The government should make the requisite research funds and resources available for further clinical evaluation of chiropractic management of LBP, and for further socio-economic and policy research concerning the management of LBP generally. Such research should include surveys to obtain a better understanding of patients' choices, attitudes and knowledge of treatments with respect to LBP. The objective of these surveys should be better information for health policy, programme planning and consumer education purposes.

R9. Chiropractic education in Ontario should be in the multidisciplinary atmosphere of a university with appropriate public funding. Chiropractic is the only regulated health profession in Ontario without public funding for education at present, and it works against the best interests of the health care system for chiropractors to be educated in relative isolation from other health science students.

R10.Finally, the government should take all reasonable steps to actively encourage cooperation between providers, particularly the chiropractic, medical and physiotherapy professions. Lack of cooperation has been a major factor in the current inefficient management of LBP. Better cooperation is important if the government is to capture the large potential savings in question and, it should be noted, is desired by an increasing number of individuals within each of the professions.

Main Article: *continued from page 2*

E. Methodology

10. The study comprised an expert analysis, from the perspective of independent health economists, of the published evidence worldwide. Greatest weight was given to randomized controlled trials, and then in descending order of importance case control/cohort studies, descriptive studies and meta analyses/literature reviews. Government and workers' compensation sources were used for relevant statistics. There were no hearings, and no oral or written submissions from interested parties. In summary, this was an objective appraisal of the statistics and the literature.

F. Findings

11. The principal findings and recommendations of the Manga Report appear in its Executive Summary which is reproduced in full - see Figure 1.

They represent a powerful endorsement for chiropractic management of LBP, leading to the fundamental conclusion that the government of Ontario should institute "a shift in policy to encourage and prefer chiropractic services for most patients with low-back pain". (Rec. 1). Specific ways to achieve this appear in the subsequent recommendations. Chiropractic services should be fully funded on the same basis as medical services, so there is no economic disincentive for consumers, and chiropractic education and practice should be fully integrated into the health care system.

12. On the central issue, that of cost-effectiveness, the Report finds:

i) "There is an overwhelming body of evidence indicating that chiropractic management of low-back pain is more cost-effective than medical management. We reviewed numerous studies that range from very persuasive to convincing in support of this conclusion. The lack of any convincing argument or evidence to the contrary must be noted and is significant to us in forming our conclusions and recommendations."

ii) "There would be highly significant cost savings if more management of LBP was transferred from physicians to chiropractors. Evidence from Canada and other countries suggests potential savings of many hundreds of millions annually (in Ontario). The literature clearly and consistently shows that the major savings from chiropractic management come from:

- fewer and lower costs of auxiliary services
- much fewer hospitalizations
- a highly significant reduction in chronic problems and levels and duration of disability.

Workers' compensation studies report that injured workers with the same specific diagnosis of LBP returned to work much sooner when treated by chiropractors than by physicians. This leads to very significant reductions in direct and indirect costs."

G. Discussion

13. The Report is filled with detail worthy of discussion. Significant points include:

a) **Manipulation has most research.** "Although many other forms of treatment exist for LBP, none has been as extensively examined as has manipulative therapy.".

b) **Medical treatments unresearched**. The scientific evidence for all medical treatments, other than the use of exercise, is so thin or non-existent that Manga et al conclude:

"... questions that either or both of the medical profession and third party payors of medical care ought to answer are just 'how and why do so many medical technologies and procedures used in the medical management of low-back pain get adopted and diffused so widely without clinical evidence of their effectiveness'."

c) **Bedrest.** On bedrest, still a medical mainstay but according the few trials performed harmful if prolonged belong two days, the Report is particularly critical. Documented negative effects of bedrest include tissue contracture, demineralization of bone, loss of strength and muscle tone, inhibition of tissue healing, depression and illness behaviour, and disability. The Report quotes medical leaders such as Mooney in the U.S. and Allan and Waddell in the U.K. who say respectively that "prolonged rest no longer has a place in treatment" and, because the medical profession has based management on rest, "we have actually prescribed low-back disability."

Yet in reply to a recent questionnaire 67% of U.K. general practitioners selected bedrest as the "correct" treatment for a 38-year old man with a 2-week history of simple low-back pain.[8]

d) **Patient Satisfaction.** Chapter 6 is devoted to a review of the evidence of patient satisfaction. A large number of published studies, principally from the U.S. and Canada, are reviewed with the conclusion:

"...the high rate of utilization of and satisfaction with chiropractic treatment, despite lower insurance coverage and higher out-of-pocket payment, is remarkable."

In the language of economics a 'revealed preference' is found, which is "in itself ample testimony of patient satisfaction."

H. Substitution - Capturing Savings

14. But will increased utilization of chiropractic services, cost-effective through they may be in themselves, actually lead to substitution of medical and physiotherapy services – or will

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they be an added cost?

Ultimately, as in any policy for substitution of human health resources – such as midwives for obstetricians as previously mentioned, or nurse-practitioners for family physicians as in many health care settings in North America, this depends upon many factors and coordinated policies.

15. The Report proceeds to conclude, however, that "chiropractic can indeed substitute for medical care...leading to reduced overall health costs". Evidence cited includes economic meta-analysis by Schifrin[10] and Dean and Schmidt[11] in Virginia and sophisticated new analysis of US insurance data by Professor Miron Stano, a health economist from Michigan. Relevant details of Stano's most recently published work[12] are:

a) The database comes from the records of MEDSTAT Systems Inc. of Ann Arbor, Michigan, a health benefits management consulting firm which processes insurance claims for clients which include many of the US's largest corporations. From the records for approximately 2 million patients, Stano has generated a database comprising:

- 395,641 patients across the US.
- Under the age of 65 and enrolled in self-insured plans in the fee-for-service sector.
- Having one or more of 493 ICD-9 neuromusculoskeletal conditions/codes that are used by DCs and MDs - many, but not all, relating to LBP.

The database is their entire claims history for a two year period, from July 1, 1988 to June 30, 1990.

b) Some of the insurance plans include chiropractic services, some do not. This is important and has enabled Stano to develop the following four cohorts or groups:

- Group A - patients receiving medical care only.
- Group B - patients receiving chiropractic care only (relatively small, having negligible in-patient utilization, not a good basis for comparison with Group A).
- Group C - patients receiving both chiropractic and medical care.
- Group D - a combination of Groups B and C. 23% of all patients belong to Group D - in other words 23% of patients had received chiropractic care, usually as well as medical care, for these 493 neuromusculoskeletal conditions over the 2-year period.

c) From a comparison of Group A and Group D, Stano found that patients who received chiropractic care, ether solely or in conjunction with medical care, experienced "significantly lower health care costs ... on the order of $1000 each over the 2-year period" than those who received only medical care. Specifically, total insurance payments were $1,138 (30% higher) for those who elected medical care only.

d) The lower costs for chiropractic patients were attributable both to lower in-patient and out-patient costs, and indicated that "chiropractic treatment substitutes for other forms of out-patient care".

e) Stano notes that his current findings in a large ongoing project do not yet provide "definitive evidence" on cost superiority because analysis of case mix, severity of symptoms and outcomes is continuing, but concludes that "the wide gap in overall costs experienced between chiropractic and medical patients cannot easily be dismissed, even by sceptics of the chiropractic profession."

f) The above results apply to all 493 neuromusculoskeletal ICD codes (covering headache, neck pain, back pain, radiating pain, etc.). They show that, when an insurance plan adds

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Manga Report - How to Order

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Table 1

GOVERNMENT'S TERMS OF REFERENCE

Preamble

The Government of Ontario is placing increasing emphasis on allocating public funds for services that are relatively more cost-effective and appropriate. Since health care services are labour intensive, the appropriate use of health human resources is of paramount significance. The appropriate numbers, distribution and mix of health professionals, and their interrelationships and roles in the provision of health services is an important part of the Government's health reform agenda.

The Government of Ontario is also keenly interested in reducing the incidence of work-related disability and injury and to improve the rehabilitation of disabled and injured workers. The Ontario Worker's Compensation Institute (OWCI) has just proposed a research agenda focusing on "soft-tissue sprains and strains, particularly low back strain". The OWCI notes that "low back pain is ubiquitous. 12 to 30% of people in modern industrialized societies reported low back pain in the past year". It also notes that "if treatments of unproven worth or with major side effects are used in those with low-back pain, there is a potential for both iatrogenic disability and wasted resources".

In light of these objectives and concerns of the Government of Ontario, the proposed study will examine the effectiveness and cost-effectiveness of chiropractic management of low-back pain.

Terms of Reference

The study shall include reports on six components as follows:

1. **Overview of Cost of Low-Back Pain**. An overview of the incidence, prevalence and economic costs of low-back pain. The analysis will involve a review of the epidemiological and health economics literature, data from the Workers' Compensation Boards in Ontario and other jurisdictions, and Statistics Canada. Information from other countries will also be assessed.

2. **Description of Services.** A general description of chiropractic, medical and other management of low-back pain, and how these services are billed for by the various professions who treat low-back pain in Ontario.

3. **Evidence of Effectiveness.** A critical review and assessment of the current scientific evidence of the safety, efficacy and effectiveness of chiropractic and other professional management of low-back pain.

4. **Evidence of Cost-Effectiveness.** A critical review and evaluation of empirical studies reflecting on the cost-effectiveness of chiropractic and other professional management of low-back pain. The analysis will include a review of pertinent studies of the Workers' Compensation system.

5. **Evidence of Patient Satisfaction.** Assessment of evidence of patient satisfaction with chiropractic and other profession of management of low-back pain.

6. **Survey Design**. Sample design of questionnaires for separate surveys of patients, chiropractors and medical practitioners concerning the treatment and management of low-back pain. The scope and content of these surveys should be informed by the literature review and analysis undertaken for the five preceding components of the study.

Main Article: *continued from page 5*

coverage of chiropractic services, overall costs go down. The expense of chiropractic services is more than offset by reduced cost of medical services - in economic terms chiropractic *substitutes* and produces a substantial saving per person/insured.

I. Conclusion

16 Release of the Manga Report should mean that long-standing calls for reform in the management of low-back pain are now heeded. It gives the chiropractic profession a completely new quality of evidence – a truly independent, expert, economic analysis, commissioned and funded by government not the profession, that comes to the unequivocal conclusion that chiropratic management of low-back pain is proven superior – scientifically, economically and, not withstanding higher direct patient costs – in terms of patient satisfaction.

References

1 New Zealand Report (1979) P.D. Hasselberg, Government Printer, Wellington.

2 Wilk et al v AMA et al. U.S. District Court Northern District of Illinois Eastern Division) No. 76 C 3777, Getzendanner J, Judgement dated August 27, 1987.

3 Manga P, Angus D et al (1993) 'The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low-Back Pain', Pran Manga and Associates, University of Ottawa, Canada.

4 Ref 3, supra, Executive Summary.

5 Burton CV and Cassidy JD 'Economics Epidemiology and Risk Factors', Chapter 1 in 'Managing Low-Back Pain', ed Kirkaldy-Willis WH and Burton CV, (1992) 3rd edition, Churchill Livingston, New York.

6 Rachlis M, Kushner C (1989) 'Second Opinion: What's Wrong with Canada's Health Care System and How to Fix It', Collins Toronto, 3.

7 Hazard RG, Fenwick JW et al (1989) 'Functional Restoration with Behavioral Support', Spine 14(2):157-162.

8 Waddell G (1993) 'Simple Low-Back Pain: Rest or Active Exercise', Annals Rheum Dis, 52:317-319.

9 Spasoff RA et al (1987) 'Report on the Panel on Health Goals for Ontario'.

10 Schifrin LG (1992) 'Mandated Health Insurance Coverage for Chiropractic Treatment: An Economic Assessment, with Implications for the Commonwealth of Virginia', Virginia Chiropractic Association, Richmond, Virginia.

11 Dean DH and Schmidt RM (1992) 'A Comparison of the Costs of Chiropractors versus Alternative Medical Practitioners', Virginia Chiropractic Association, Richmond, Virginia.

12 Stano M (1993) 'A Comparison of Health Care Costs for Chiropractic and Medical Patients', J Manipulative Physiol Ther 16:291/299.

Professional Notes: *continued from page 1*

they sought chiropractic care.

- Palpation revealed the first cervical vertebra was subluxated right and lateral. Adjustment "to remove laterality and rotation thereby restoring normal (joint) function" produced noticeable reduction in ear drainage and pain over the following three days. Further treatments brought complete relief.
- There were acute re-occurrences 5 and 6 months later. Adjustment of C1 cleared symptoms within seven days on each occasion. The patient has been symptom-free for four years since.
- Phillips gives a careful analysis of potential mechanisms.

In essence these relate to the ability of a cervical adjustment, through altered neurophysiology (reflex effects or removal of inhibition/facilitation caused by joint subluxation), to influence the tone of muscles that can cause auditory tube dysfunction - the suspected key to OM in this case.

(Nicholas J. Phillips DC 'Vertebral Subluxation and Otitis Media: A Case Study', Chiropractic: J Chiro Research and Clin Investigation (July 1992) 8(2):38-39).

Cases such as this have led to a pediatrician and chiropractor in Florida examining the outcome of chiropractic management of OM over a case series of infants during the past five years. Results have been so encouraging that application has been made to the Foundation of Chiropractic Education and Research (FCER) for funding for a study which will compare:

- Group A - 100 patients treated by a chiropractor only.
- Group B - 100 patients treated by a medical doctor only.
- Group C - 200 patients who have received treatments from both doctors of chiropractic and medicine.

FCER confirmed funding in August and the study commences this month. Principal investigators are Anne Spicer DC, Charles Sawyer DC, and Kaasem Kassack MPH PhD from Northwestern College of Chiropractic, Bloomington, Minnesota.

New Research on Somatovisceral Reflexes

Spinal reflex physiology, including the somatovisceral effects of noxious stimulation of the spinal nerves, is at the center of chiropractic. A second recent FCER grant of interest is to Brian Budgell DC MSc of Toronto who, armed with a black belt in aikido, this month joints Akio Sato MD PhD in his world-renowned spinal reflex physiology laboratory in Tokyo.

Sato's work is known to chiropractors from his chapter in the first edition (1980) and second edition (1992) of Haldeman's 'Principles and Practice of Chiropractic'. Rand Swensen DC PhD from National College worked with Sato during the 1980s. Budgell's initial work with Sato will be a study of the effects of stimulation of the facet joints on blood perfusion to the sciatic nerve in rats.

CCR to Study Appropriateness of Manipulation for the Cervical Spine

The ongoing RAND study 'The Appropriateness of Spinal Manipulation for Low-Back Pain', initiated by the Consortium for Chiropractic Research (CCR) and California Chiropractic Association, with major funding from FCER, ACA and the NCMIC, has produced major benefits for the profession (details - see September 1991 issue of this Report).

At its recent annual meeting CCR approved an equally important project for the chiropractic profession - a similar study into 'the appropriateness of spinal manipulation for the cervical spine'. For this:

- Principal investigators are William Meeker DC MPH, CCR President and Dean of Research, Palmer-West and Alan Adams MS DC, LACC.
- The study will follow the format and design of the RAND project - starting with a literature review, then appropriateness ratings by all-chiropractic and multi-disciplinary panels of experts.
- Funding for the project will come from a fund established with costs awarded against the AMA in the Wilk case - a fund which now generates over $300,000 annually to the CCR research budget.