

**Health Professions Council
Scope of Practice Review
Respecting Core Competency**

**Reply Submission of the B.C. College of Chiropractors
May, 1996**

Introduction

Common themes on issues of significance to chiropractors emerge from the scope of practice submissions of the various health professions to the Health Professions Council (the "Council"). Certain important distinctions are key to resolving these issues within the mandate of the Council.

The reply of the B.C. College of Chiropractors (the "College") to the submissions of other health professions and organizations is organized according to the following key distinctions and common themes:

- * The terms "manipulation" and "adjustment" must be distinguished in order to properly serve the public interest in the scope of practice review.
- * Core competency defines scope of practice. Only chiropractic includes two years of mandatory core training in the understanding and competent use of spinal adjustments. The lack of a comparable core competency in other professions must be recognized by restricting the performance of adjustments to chiropractors.
- * The current chiropractic scope of practice accurately reflects chiropractic core educational training in diagnosis and symptomatology. Chiropractors must routinely determine whether presenting patient problems are within the chiropractic field of treatment and whether any contraindications exist to providing the treatment to the patient.
- * There are several valid public interest arguments in favour of prohibiting dual practices.

The first section of the reply addresses the response to the chiropractors request that "adjustment" be distinguished from "manipulation" and reserved to chiropractors only. The responses made to date by other professions reinforce the validity of the chiropractic position.

The current and proposed scope of practice in relation to diagnosis is explained in the second section of the reply.

Next, the important topic of dual practices is addressed. While there may well be a public interest in allowing business associations amongst health professions, and while certain professions may be compatible for dual licensure, in the context of professions where there is an overlapping scope of practice there are strong arguments to be made that the public interest goals in professional regulation are not enhanced by allowing dual licensure.

The final section of the reply contains the chiropractic response to the scope of practice submissions of the other health professions. The College does not consider it necessary to respond to the submissions of dental technology, emergency medical assistance, optometry, pharmacy, or psychology. The response to the issues of significance to chiropractors is contained in the first three sections. The response in the fourth section addresses the material issues in other scopes of practice. If there is no comment or response to a particular question posed by the Council, the Council can proceed on the basis that the College has no objection or nothing material to add.

The submissions of the massage therapists and physicians develop a list of general "dangerous practices". They call these "reserved acts" when in fact they more closely resemble the "controlled acts" concept used in Ontario of defining general dangerous areas of practice, rather than the specific acts which fall within these dangerous areas of practice. The Council has not asked the College to comment on whether the Council should adopt a "controlled acts" approach to regulating services or health professions. To date,

chiropractors have assumed that the Council is simply concerned about specific services that entail a serious risk of harm to the public. However, the College would be pleased to provide its comments on whether a list of controlled acts should be developed and what acts should be included on the list, if so requested by the Council.

Adjustment and Manipulation - Key Distinctions

The submissions of the massage therapists, naturopaths, and physiotherapists demonstrate the importance of establishing a clear understanding of the distinction between the meaning of "manipulation" and "adjustment".

All spinal manipulation techniques are not similar. The chiropractic adjustment is a distinct technique requiring specialized training and constant application.

Massage therapists recognize the uniqueness of the chiropractic adjustment. The massage therapists explicitly state that they do not want a shared reserved act for the chiropractic adjustment.

However, physiotherapists and naturopaths constantly obscure the discussion by referring to manipulation generally and equating it to the concept of adjustment. It is dangerous to patient safety and not in the public interest to allow a generic definition of "manipulation" to be exploited by professions where adjustment is not a core competency.

There is growing recognition that the public interest is not well served by allowing confusion to prevail. As a result, clear distinctions are being drawn between manipulation and adjustment. For example, in Ontario, the distinguishing features of adjustment have been identified as a controlled act while manipulation remains in the public domain.

The Council and public will only clearly understand the differences between the services provided by each of these professions, the focus of their treatment and the unique aspects of their scopes of practice by adopting the consistent use of these terms as specific descriptors of particular services.

The concept of "manipulation" is commonly understood within chiropractic to be clearly distinguishable from "adjustment".

"Manipulation" is best understood as the passive movement of joints, bones or soft tissues carried out - with or without anaesthetic, and often forcefully - as a deliberate step in 'treatment. (See Chiropractic Scope of Practice Submission, p. 9.)

As defined, manipulation, without anaesthetic is within the public domain and within the scope of practice of several health professions.

An adjustment is a specialized type of manipulation requiring the use of sophisticated leverage techniques. The key distinguishing features of an adjustment are the high velocity low amplitude thrust and the movement of the joints beyond their physiological but within their normal anatomical range of motion. Specialized knowledge is required to safely determine the precise depth and distance to be travelled by the chiropractor's thrust, the amount of required thrust and what grade of adjustment should be provided with minimum risk to the patient. These distinguishing features have been recognized as a controlled act in Ontario, while manipulation remains in the public domain.

Massage therapists agree that manipulation and adjustment refer to different treatments. The massage therapists submit that their practice of the "manipulation of muscles" does not include "high velocity manipulation" or what chiropractors refer to as "adjustment".

However, physiotherapists say that the definition of adjustment is synonymous with manipulation. Naturopaths say that "manipulation is manipulation" suggesting no one can tell the difference. The risk of harm to the public is enhanced by this imprecision.

Confusion contributes to harm

If physiotherapists can practice manipulation and, if manipulation equals adjustment, then any physiotherapist can perform an adjustment even though adjustment is not a core physiotherapy competence. This is a ludicrous and dangerous proposition.

There is no evidence provided by physiotherapists of any training of physiotherapists in adjustment, either at the undergraduate or graduate level. The training referred to by physiotherapists is clearly optional post graduate training and is only acquired by a few physiotherapists. The manipulation or manual therapy referred to by physiotherapists (via the Bobath and Neuromuscular Facilitation techniques) does not involve high velocity, low amplitude thrusts of the spinal column. Accordingly, while physiotherapists equate manipulation with adjustment, this is inconsistent with their training which does not encompass adjustment.

The naturopathic submission on the definition of manipulation and adjustment is troubling. On the one hand, Dr. Pontius explicitly states in his April 3, 1996 letter to the Council that the BCNA agrees with the definition of adjustment in our submission. In contrast, the commentary attached to Dr. Pontius' letter, specifically opposes our definitions of manipulation and adjustment.

If in fact the naturopaths oppose our definition of manipulation, their comments suggest that no one can tell the difference between spinal manipulative therapies because "the similarities are greater than the differences". At the same time, the BCNA commentary recognizes that there is a risk of harm to the public which can only come from an adjustment and that naturopaths do not have the same amount of training as chiropractors.

It is overly simplistic to define manipulation as the application of force to greater and lesser degrees. Perhaps the naturopath's casual approach to the definition of manipulation reflects the fact that adjustment is not a core competency in naturopathic training. Within the context of serving the best interests of the public, it is quite inappropriate to adopt this casual approach when naturopaths recognize there is a significant risk of harm and where adjustment is not a core competency for the naturopathic profession.

Caution Required

The scope of practice review is focused on defining what regulated health professions do and determining the risk of harm to the public. It is not focused on the relative effectiveness of competing or alternative treatment methods. The failure to recognize this distinction clouds the discussion and undermines the credibility of certain submissions.

The College does not agree with the physiotherapy suggestion that our concept of manipulation contradicts the definition used in the Report of the Ontario Ministry of Health (what the physiotherapists refer to as the Manga Report). The Ontario Ministry of Health Report is erroneously used by the physiotherapists as a source document for the definition of chiropractic services or the services of other professions. The Ontario Ministry of Health Report only purports to be a study on the effectiveness of chiropractic treatment for lower back pain.

The physiotherapists' criticisms of the Ontario Ministry of Health's Report and the Meade study (British Medical Journal, 1990) are misleading and riddled with factual inaccuracies. We have included as Appendix A a detailed response to the physiotherapists' criticisms of these reports. A sample of some of the inaccuracies include:

- * the statement that no "high quality randomized clinical trials" support the Ontario Report's conclusions that one approach to the treatment of lower back pain may be better than another. The Meade study is a clinical comparative study of chiropractic and outpatient hospital clinics primarily staffed by physiotherapists on manipulation for lower back pain and supports the Ontario Report's findings.

- * the physiotherapists cite the Magee report in support of the contention that the Meade study has major design flaws that necessarily limit the accuracy of its findings. In almost every example cited in the Magee report, the Meade study took the necessary steps to address any alleged problems in the design of the study. Further, the researchers were candid enough to outline any limitations of the study and their possible impact on the results of the study. None of the limitations had any significant impact on data collection, data analysis or the study's conclusions.

If the Council decides to review the Ontario Report and Meade study, as well as the studies cited in the physiotherapists' submissions, we are confident that the scientific validity of the findings in the Ontario Report and Meade study will be apparent.

We clearly outlined in our initial submission how chiropractors devote about 1,000 hours of courses and practical application of chiropractic sciences to adjustment. Two years of a chiropractor's education is devoted to training in the understanding and competent use of spinal adjustments. Mandatory core chiropractic educational courses focus on the uniqueness of adjustments as a form of spinal treatment, as differentiated from the type of manipulations used by other health professionals. We specifically listed the types of courses and clinical education that is required in the core training of a practitioner to safely perform adjustments.

No other health care provider has the same educational and clinical practice training. Adjustment is not in the core educational curriculum of naturopaths, physiotherapists or any other profession. Further, none of these professions has outlined to the Council what specific courses form part of the mandatory core educational training on adjustments and how many hours of courses and clinical training, if any, are devoted to adjustment.

The lack of core curriculum on the use of adjustments in any of the other health professions' educational training necessarily reveals that there is a clear distinction between the broader concept of manipulation and the specialized service of adjustment.

Constant application and continuing competency

Competent performance of adjustments is also dependent on the regular application of the service. Chiropractors are the only health professionals that devote a major part of their daily practice to adjustment. It is not a random involvement. The chiropractor's skill in adjustment is always applied, leading to greater levels of proficiency and competence over time.

Further, the College is the only regulatory body that requires and monitors continued competency in the performance of adjustments. Continued competency is not ensured by the naturopath, physiotherapist or physician who claims to only occasionally perform adjustments.

Just as a patient would not entrust the performance of a surgical intervention, however minor, to a physician who took a few graduate courses in the area and occasionally performs the procedure, nor should we entrust adjustments to professionals that do not receive adequate training and engage in regular performance of the service.

Naturopathy

Naturopathic training does not include core courses in adjustment. Similarly, adjustment is not included in the additional post-graduate educational training programs offered to naturopaths, as outlined in the Naturopathic Medicine Program at Bastyr College.

The Naturopathic Medicine Program at Bastyr College requires 322.5 credits for completion. Of the 322.5 credits, only 11 credits are required in "Naturopathic Manipulation". This reinforces that "manipulation" as defined by chiropractors, is in the public domain and only requires basic training by other health professionals to ensure competency.

The naturopathic curriculum makes no reference to training in "chiropractic adjustment or manipulation", but instead explicitly recognizes that the training of naturopaths is in "physiotherapy", "mechanotherapy" and "naturopathic corrections and manipulation" (page 1, Appendix 15 of the BCNA's brief). All of these therapies are distinct from chiropractic.

The 11 credit requirement of naturopathic manipulation does not approximate the level of training required to safely perform adjustments, as included in the two years of mandatory core chiropractic study. On an hourly basis, the chiropractic education and training is at least 5 times greater.

Accordingly, we disagree with the contention in Dr. Pontius' letter of April 3, 1996 to the Council that "body mechanics and adjustment/manipulation, being part of the naturopathic curriculum is an integral part of naturopathic medicine". Instruction in "body mechanics" and "manipulation" does not include adjustment.

Physiotherapy

Physiotherapy does not include core courses in adjustment. Similarly, the competent performance of adjustment is not ensured simply by some physiotherapists taking a few graduate courses in manual therapy.

Only chiropractors have a recognized educational program in adjustments that requires all its members to participate in intensive core courses devoted to adjustment and to maintain continuing competency in this area.

The information included in the physiotherapists' brief on their educational training for spinal treatment fails to support any contention that they have the requisite training to perform adjustments. The physiotherapists have not indicated that they have mandatory core courses in high velocity training nor have they outlined the course content for the optional graduate courses in the B.C. Section of the Orthopaedic Division.

In comparison to the chiropractors' intensive two year study in adjustment, it is alarming to suggest that purely voluntary attendance in the B.C. Section of the Orthopaedic Division provides any physiotherapist with the requisite training to perform adjustments. Of those physiotherapists that even attend the B.C. Section of Orthopaedic Division, the physiotherapists have not outlined how many of the participants actually pass the course and subsequently engage in the necessary degree of regular performance of adjustment to ensure continuing competency.

Due to the high risk of harm from the improper performance of adjustments, it is not in the public interest to give other health professions a carte blanche to provide adjustments when only a small percentage of their members may have taken some graduate courses in a related area.

Medicine

Medical training does not include core courses in adjustment. However, there is a trend of physicians learning to perform "spinal manipulation" through one-day continuing medical education workshops. For example, in Vancouver in May of 1996, the program for the Annual Scientific Assembly of the College of Family Physicians of Canada includes a one-day workshop on manipulation.

While it is significant that medical practitioners increasingly accept that spinal manipulation is an efficacious treatment, many physicians also recognize that taking a single, short course in spinal manipulation does not provide a physician with sufficient training to safely perform adjustments. For example, one physician recently wrote in a letter to the editor of Canadian Family Physician that:

...it is foolish to think that one can take a 1-day course in spinal manipulation and be competent. Chiropractors spend 4 years learning the proper techniques of manipulation, including manipulator and patient positioning, direction and depth of thrust, and how and why to isolate a specific joint. They participate in daily drills to improve and ensure a high-velocity but low-amplitude thrust without taking a "running start" at the maneuver. Chiropractors continue to perfect these skills, performing on average an estimated 500

manipulations every day. For doctors to take a 1-day course and expect to deliver the same standard of care as chiropractors is ludicrous. This can be likened to a chiropractor taking a 1-day course in removing an appendix. Would you let him or her remove yours?

Manipulation is not just the manual maneuver but also where and when, in what order, and when not to manipulate. Let us consider cervical spinal manipulation. The most serious adverse effect is stroke. The incidence is amount 0.0002%, that is, two cases per million treatments. Positioning of the cervical spine during manipulation, excessive force, poor screening for risk factors, and lack of skill in the manipulator all contribute to adverse effects, minor or major, or even lack of positive response. Incompetence due to inadequate training can only multiply the patient's risk of adverse effects. Why subject patients to increased risk when chiropractors are readily available?

(Vol. 12, April 1996, Canadian Family Physician, p. 619)

In summary, there is a compelling case for respecting the core competency of chiropractic in the performance of the adjustment by making adjustment a reserved act for chiropractors.

The College's proposal for a reserved act for adjustments is not novel. Indeed, the necessity for establishing the distinctive features of the adjustment as a reserved act is reflected in Ontario's treatment of it as a controlled act.

However, most importantly, there is a growing understanding in other jurisdictions that it is in the public interest to recognize and distinguish the chiropractor's unique specialized training and competence in adjustment.

California has specifically legislated that physiotherapists do not have the right to do adjustments. The 1976 opinion from the Attorney General of California (Appendix B) states that physiotherapists may not directly adjust the spine or any other body structure and that "adjustment" is not even a term used in physiotherapy. The Attorney General specifically recognized that there is a substantial difference between massaging the muscles surrounding the spine and actually manipulating and adjusting the various bones that make up the spine.

A recent opinion from the Attorney General of Kansas (Appendix C) states that the scope of practice of medicine does not include adjustments.

In addition, the Canadian Federation of Chiropractic Regulatory Boards recently passed a resolution stating that only practitioners with the full chiropractic training or its equivalent should be able to perform adjustments.

These developments reinforce the emerging view that only chiropractors, due to their specialized training, are competent to perform adjustments.

While Ontario delegated the controlled act of adjustment to physiotherapists and physicians, it is submitted that the Ontario government did not sufficiently consider the depth and amount of specialized training that is required to safely perform an adjustment. It is anticipated that with the recent developments in the United States and the Canadian Federation of Chiropractic Regulatory Boards' resolution to restrict adjustments to chiropractors or equivalently trained professionals, that Ontario may revisit the wisdom of allowing other professionals who do not have specialized training in adjustments as part of their mandatory core education to perform the service.

Diagnosis

Some concerns have been expressed on the meaning of "communicate a diagnosis" in s.9(1)(a) of our proposed scope of practice definition. For example, ICBC suggests that it may be "purposely unlimiting" while the BCHA suggests that it should be modified to read "chiropractic diagnosis". The concerns expressed are not well founded.

The current Chiropractors Act requires all chiropractors to be trained in "diagnosis and symptomatology". This requirement is not new nor is it limited or modified. Training in diagnosis is an extensive part of a chiropractor's core education. The public interest in minimizing the risk of harm demands that chiropractors engage in the diagnostic process before recommending and commencing chiropractic treatment.

It adds nothing to the public's understanding of chiropractic to refer to a "chiropractic diagnosis". The phrase is circular and meaningless. Diagnosis is not conducive to compartmentalization and it is not in the public interest to do so.

As a primary care practitioner, chiropractors assess their patients for the purpose of discovering the physical nature of the patient's trouble. The disease is the same no matter the school to which the attending practitioner belongs. The diagnostic process allows the primary care practitioner to determine whether the presenting problem is within the field of treatment of the practitioner. It includes determining whether there are any contraindications to providing the treatment to the patient.

For example, chiropractors are educated and trained to recognize conditions such as adverse metabolic problems, cancerous lesions, and fractures for which chiropractic treatment is contraindicated and properly within the medical realm. Chiropractors sometimes diagnose conditions outside of the "spinal column/nervous system relationship" if necessary. For example, back pain and a functional scoliosis may be attributable to unequal leg length. Therefore, rather than focus on just the scoliosis, chiropractors would examine leg lengths and analyze normal walking gait, to determine if the resulting scoliosis can be associated with leg length and poor walking gait. This is communicated to the patient as part of a comprehensive treatment of back pain if indicated.

Once the diagnostic process is complete, the primary care practitioner may be able to communicate a diagnosis to the patient and make a recommendation to the patient for treatment. There is distinction between diagnosis and treatment. Chiropractors will provide chiropractic treatment only. Within the context of chiropractic, chiropractors will often conclude that chiropractic treatment is contraindicated. This too must be communicated to the patient and it will usually be accompanied by a referral recommendation.

In Ontario, communicating a diagnosis is considered to be a controlled act. If communicating a diagnosis is only delegated to certain professions in B.C., then the authority to do so should be reflected in the legislative definition of the profession's scope of practice. It is for this reason that it was specifically described in our proposed revisions to the chiropractic scope of practice. Diagnosis in an unrestricted form already exists within the chiropractic scope of practice.

Dual Practices

Citing the Seaton Commission's recommendation for eliminating barriers to multi-disciplinary practices, the massage therapists have expressed some concern about the prohibition against dual practices contained in s.9(2) of the proposed scope of practice definition.

We agree that health professionals should be able to establish partnerships or other business associations with practitioners from a wide array of disciplines provided there are no public interest concerns and no obstacles to the effective regulation of the practitioners by their respective Colleges. In addition, barriers to multi-disciplinary practice should not be maintained if they are motivated by professional concerns.

However, the Seaton Commission did not provide any explanation on why barriers to multi-disciplinary practice are not in the public interest. The recommendation is without any thoughtful consideration of its negative impact on professional governance and the quality of health care services.

The Council should be extremely wary of simply embracing the Seaton Commission's blanket prohibition against multi-disciplinary practices without a thorough understanding of its effect on professional regulation and public safety. The Council must be confident that the general application of the Seaton Commission's recommendation is in the public interest and will not compromise the quality of chiropractic services and professional regulation.

The present prohibition and the College's proposal for its continuation in s.9(2) of the proposed scope of practice is based on several public interest concerns.

Regulatory Nightmares

Dual practices for professions with overlapping scopes of practice create serious problems for effective and safe professional governance. The type of practitioner that would most likely want to establish a dual practice would choose professions with an overlapping scope of practice. For example, dual practices for chiropractors, naturopaths and physicians are more likely than for denturists and physiotherapists.

If there is a problem with the patient care by a practitioner who is a chiropractor and/or naturopath or physician, how will the respective colleges be able to determine their jurisdiction to deal with the complaint? How would the patient be able to assess to which college it should report a complaint? The practitioner's treatment plan will likely include elements from all of the professions and it may be impossible to determine which act caused the complaint and which college should assume jurisdiction. There is a risk that no college would assume jurisdiction and the professional would not be prosecuted for the alleged misconduct.

In circumstances where the standards of practice of professions conflict, how will the practitioner be able to assess which treatment plan should be implemented? If the practitioner decides to implement a treatment plan that conflicts with the standards of practice established by one profession, but not with the other, should the practitioner be prosecuted for misconduct? For example, there may be instances where chiropractic treatments are contraindicated from a physician's or naturopath's perspective. If the practitioner decides to administer chiropractic care, and a complaint ensues, should the practitioner be prosecuted for violating the standards of conduct for naturopaths or physicians?

Professional Skill and Knowledge for Adjustments

Only chiropractors perform adjustments on a sufficiently regular basis that ensures continued competency. Any practitioner that has a dual practice necessarily would not be practising adjustments on a sufficiently regular basis to ensure continued competency.

Public Access

The College is not aware of any public demand for chiropractors to be registered simultaneously in another profession in order to offer other scopes of practice. We are not aware of any evidence suggesting that public access to chiropractic services is an issue or that the public seeking chiropractic services would be served better by dual practice practitioners.

Double Billing

In the case of chiropractors, physicians and naturopaths, how would double billing under the Medical Services Plan be avoided?

Public Safety and Informed Consent

Patient care and informed consent are jeopardized if a patient goes to a chiropractor for specific chiropractic treatments, but as a dual practitioner the chiropractor decides to administer naturopathic or medical treatments. The patient may not understand the difference between the services. Further, the practitioner may have difficulties distinguishing between the standards of practice of each profession, assuming they are even compatible, which may not always be the case.

The practitioner also would have to be able to clearly explain the differences between the treatments to the patient, which relies heavily on the practitioner's ability to effectively communicate and the patient's ability to understand the information and make an informed judgment on treatment options. Under these

circumstances, an informed consent may not be obtained. If the patient has a subsequent complaint, it will be hard for the patient and colleges to determine which college has jurisdiction to review the complaint.

Public Interest Justification

We have not received any information on the health care advantages of dual licensure that outweigh the economic advantages to the practitioner. In fact our information indicates that the quality of chiropractic services and other health care services would be jeopardized by dual licensure. A minimal restriction that should be placed on dual licensure includes prohibiting dual licensure for professions with overlapping scopes of practice.

We are confident that if the Council seizes this opportunity to explore whether there are sound public interest justifications to support the general application of the Seaton Commission's recommendation, it will discover that there are genuine public interest justifications for maintaining the prohibition in certain circumstances. If the Council specifically elicits the opinion of other colleges on this matter, we expect that other colleges will express significant public interest justifications in support of the prohibition.

Chiropractic Response to Other Scope of Practice Submissions

Massage Therapists

No Shared Reserved Acts

With respect to any proposals for shared reserved acts for massage therapy techniques, since all such techniques are within the public domain, they should not be a reserved act.

No Risk of Harm

There is no serious risk of harm to the public from any of the services provided by massage therapists that warrants the creation of reserved acts or shared reserved acts. Massage therapy is only regulated in B.C. and Ontario. The main justification for the regulation of massage therapy is the risk of harm to the public of sexual abuse, and not the risk of physical harm from the performance of massage therapy services.

Proposed Scope of Practice Definition

The College has serious concerns about the second half of the scope of practice definition of, " Š the treatment and prevention of physical disorders, dysfunction, injury and pain of the soft tissues and joints to develop, maintain, rehabilitate or augment physical function".

The College is unaware of any physical disorders that are treated by massage therapists. This proposal represents a significant expansion of the massage therapists' scope of practice that does not appear from their submission to be based on any mandatory core educational training.

Accordingly, the College urges the Council to consider the following issues in its analysis of the massage therapists' scope definition:

- * the lack of any courses in the core curriculum of massage therapy in treating physical disorders.
- * the articles included in Appendices G, I and J of their brief do not support the contention that the massage therapists treat physical disorders. In fact they only refer to massage in very general terms and do not even refer to the practice of massage therapy. Rather the articles indicate that massage therapists do not have the requisite training to treat physical disorders and that massage therapy treatments may be contraindicated for some of the disorders cited in the articles, such as "traumatic ossification of the elbow" discussed on page 477 of Appendix G.

- * the massage therapists have not explained what physical disorders they treat and which disorders are susceptible to massage therapy treatments. What specific injuries do they treat? Which joints do they treat?

Specific Reserved Acts

Manipulation of muscles of the anterior cervical spinal column

There is no need to draw special attention to the service of the "manipulation of muscles of the anterior cervical spinal column" when massage therapists already massage all body muscles in general. If massage therapists are claiming that they have a specific expertise in the manipulation of muscles of the anterior cervical spinal column, the following questions should be answered:

- * What core educational training do they have in contraindications arising from vertebrogenic conditions, occlusions of cervical arteries, or thyroid disease states?
- * How many hours of study are required in this area and what are the qualifications of the instructors?
- * What core educational courses do massage therapists take in anatomy and physiology that provide them with the necessary training to treat physical and related health conditions? How many hours are the courses? What are the instructors' qualifications?

Putting a hand or digit beyond the point in the nasal passages where they normally narrow, the anal verge, and the labia majora.

The massage therapists' mandatory core educational curriculum does not provide the necessary training to safely perform any of these services. There is no information to suggest massage therapists are competent to perform any of these services.

The massage therapists have not submitted any scientific documentation on the clinical benefits to the public on the use of these techniques on the disorders they claim to treat.

In Ontario, the controlled act of "putting a finger beyond the anal verge for the purpose of manipulating the tailbone" has not been delegated to massage therapists.

Massage of the structures of the abdomen

Massage therapists massage the muscles of the abdomen, and do not treat "structures" beyond the abdomen. The meaning of the "structures" of the abdomen is unclear. What training and qualifications do they possess to perform this type of treatment?

There does not appear to be a justification for the creation of a shared reserved act for this service: i.e. there is not a serious risk of harm to the public from the improper performance of the act. This act is more properly classified as an act within the public domain.

Touching a nude or semi-nude body

This act cannot practically be a shared reserved act of any profession. It is appropriately classified as an act in the "public domain" that cannot be regulated, except according to the standards of practice and codes of ethics of each profession.

Using massage therapy techniques when certain contraindications exist

There is an absence of information that indicates that massage therapists have the requisite education or training to perform any of these acts or that there is a serious risk of harm to the public that would warrant the creation of a reserved act for this service.

Massage therapists propose that hydrotherapy should be a supervised act by massage therapists over non-registrants.

The College does not have any objections to non-registrants performing hydrotherapy since hydrotherapy is a service that cannot be regulated, and is more appropriately classified as a service within the public domain.

If massage therapists are not trained in hydrotherapy, they should not be allowed to supervise non-registrants in the performance of this service.

Massage therapists propose that the prohibition against their "use of therapeutic electrical modalities" should be removed.

The College understands that the use of "therapeutic" electrical modalities includes electrical modalities that are not directly available for use by the public, without the supervising care of a qualified health practitioner.

Accordingly, the massage therapists must demonstrate that they participate in mandatory core educational courses on this type of therapy that provide them with the requisite specialized knowledge to safely administer these therapies. None of this information is supported by or provided in their submission. Alternatively, massage therapists should restrict the proposal to electrical modalities that can be safely administered in the absence of a qualified health practitioner.

Massage therapists propose that they should be able to administer anesthetics that allow for the application of ointments and vapocoolant sprays to the skin that may have a mild anaesthetic effect.

There are no objections to this proposal, provided it is restricted to over the counter medications.

Massage therapists propose that, "masseur" and "masseuse" be reserved titles to massage therapists, in addition to their current reserved titles (massage therapists, registered massage therapists, massage practitioner, registered massage practitioner).

The titles "masseur" and "masseuse" should remain within the public domain and not be reserved to any profession.

It is already confusing to the public to differentiate between the present four reserved titles of massage therapist, registered massage therapist, massage practitioner and registered massage practitioner. Accordingly, it would be in the interests of the public to only reserve the title of "registered massage therapist" since it is the one title that has become most closely associated with the profession, adequately serves the public in describing massage therapy services and is a quality signal to the consumer.

Physiotherapy

General Comments

The physiotherapists identify critical aspects to the changing practice patterns that affect their scope of practice as:

- * technology and consumer focus towards effectiveness and fiscal accountability;
- * devices that support physical therapy practice are increasingly more sophisticated; and
- * advances in communication technology.

However, they do not identify specific developments currently affecting their scope of practice nor do they describe how these developments affect their scope of practice. It is necessary to know what the physiotherapists mean by these statements in order to evaluate the submission properly.

Scope of Practice Definition

The current definition of the physiotherapists' scope of practice is clearer than the proposed definition. The proposed definition is too general. It does not provide a clear definition of the unique focus of physical therapy, what methods physiotherapists use for treatment and the purpose of their treatment methods, as required in the Council's guidelines for the scope of practice definition. The present scope of practice definition satisfies the Council's requirements for clarity more closely than the proposed definition.

It is unclear which services physiotherapists are proposing that they should be able to independently perform. Our understanding of the physiotherapists' practice is that it is highly dependent on medical supervision. For example, physiotherapists propose that their practice includes the "Assessment of neuromusculoskeletal and cardiorespiratory systems and establishment of a physical therapy diagnosis".

What do the physiotherapists mean by "physical therapy diagnosis"? Are there any limits that should be placed on their ability to make a diagnosis? Are physiotherapists suggesting that they can independently assess cardiorespiratory systems and establish a diagnosis? Physiotherapists do not independently make a diagnosis, they work according to a physician's diagnosis and a physician usually monitors the progress of the physiotherapist's treatment. The controlled act of diagnosis in Ontario was not delegated to physiotherapists, which reinforces our understanding that physiotherapists do not independently make a diagnosis.

The proposed scope of practice definition significantly changes and expands the current definition. Most of the services are not included in the core educational training of physiotherapists. Many aspects of the proposed scope definition actually require further graduate training for the competent performance of the proposed services. It is questionable whether most physiotherapists presently have the requisite training to perform services that would fall within the proposed scope definition. Graduate training would be required in at least the proposed services of diagnosis, joint mobilization and manipulation, acupuncture and certain forms of hydrotherapy and electrotherapy, before a physiotherapist could competently perform these services.

What do the physiotherapists mean by the, "administration of physical therapy related medications"? What medications are they referring to? This proposal cannot be evaluated without further clarification.

Reserved Acts

- * "Physical therapy assessment/diagnosis";
- * "Ongoing monitoring of response to physical therapy interventions";
- * "Discharge from physical therapy services"; and
- * "Administration of physical therapy related medications through iontophoresis"

These services fall within the scope of practice of physiotherapists, and only registered members of the College of Physiotherapists should be able to perform these services. However, no additional regulation of the services in the form of creating a reserved act is required to protect the public. These acts are standard physical therapy services and as such, should not be reserved acts unless they have a significant risk of harm to the public. The physical therapy submission fails to provide an adequate explanation of a serious risk of harm to the public that would warrant reserving these acts to any profession.

In addition, it is our understanding that not all physiotherapists independently perform these services. A physician may monitor the physiotherapist in the performance of all of these services. In addition, a chiropractor may refer a patient to a physiotherapist and also monitor the progress of the treatment and the "physical therapy assessment or diagnosis".

Shared Reserved Acts

- * Therapeutic exercise prescription;
- * Ergonomic assessment, modification, education and counselling;
- * Equipment prescription; and
- * Electrotherapy.

These services should not be regulated as reserved acts for any profession because the risk of improper performance to the public is not significant enough to warrant the creation of a shared reserved act. The standards of practice of each profession that is qualified to perform the service are sufficient regulatory safeguards to protect the public from the risks of improper conduct of the service. Chiropractors perform all of these services, although electrotherapy does not form a large part of a chiropractor's regular practice.

Physiotherapists fail to explain which other professions are qualified to share the proposed reserved acts

Except for adjustments, none of the shared reserved acts proposed by the physiotherapists should be reserved to any profession due to the lack of any justification of a serious risk of harm to the public. It is difficult to evaluate the proposal without knowing which professions the physical therapists contend are qualified to share the reserved acts.

It is unclear how discharge planning and case management would be a joint reserved act as it is purely a standards of practice issue. Every practitioner provides this service within their particular scope of practice.

Acupuncture

The physiotherapists fail to outline the basis of their qualifications to perform acupuncture and what courses in their mandatory core educational curriculum prepare them to safely perform this service. It is our understanding that only those physiotherapists that voluntarily decide to take specialized courses in acupuncture would be qualified to perform this service, subject to any commentary by The College of Acupuncture.

Medicine

Concerns about the Current and Proposed Abbreviated Scope of Practice Definition

It is difficult to define all of the services within the scope of practice of medicine. However, like all regulated health professions participating in the Council's scope of practice review, medicine should be required to define its core competencies. Medicine should also substantiate its scope of practice by demonstrating which courses in its core curriculum train physicians and surgeons to perform the core competencies.

Medicine's current "all inclusive" scope definition does not recognize that there are some services that do not fall within their scope of practice. If medicine's scope of practice does not recognize that it has some limitations, it will jeopardize the safety of health services.

Medicine cannot justify its all inclusive scope definition simply on the basis that physicians can perform any service, irrespective of whether training for the service is included in their core curriculum. Participating in random post-graduate courses in specialized areas, such as adjustment, does not provide a physician with the necessary training to competently perform all services. The argument that all health professions must define their scope of practice to reflect their core competencies and training must be equally applied to medicine.

What limitations, if any, should be imposed on the performance of services by physicians and surgeons?

Adjustments of the joints of the spine for the purpose of the restoration or maintenance of human health are outside the scope of practice of medicine.

As already stated, a recent opinion from the Attorney General of Kansas (Appendix C) states that the scope of practice of medicine does not include adjustments. In addition, the Canadian Federation of Chiropractic Regulatory Boards recently passed a resolution that only practitioners with the full chiropractic training or its equivalent should be able to perform adjustments. These developments reinforce the emerging view that only chiropractors, due to their specialized training are competent to perform adjustments.

ICBC states in its April 2, 1996 letter to the Council that physicians should not be restricted from performing chiropractic adjustments because the outcomes among patients with acute lower back pain are similar whether they receive care from general practitioners, chiropractors, or orthopaedic surgeons. A recent study by Timothy Carey in *The New England Journal of Medicine* (October 5, 1995; 333:913-7) is cited in support of this contention.

For the Council's information, a critique of the Carey study is provided in Appendix D. However, the flaw in ICBC's argument is apparent irrespective of the quality of the Carey study. The central issue is whether physicians are competent to safely perform adjustments. There is no information in ICBC's response to the Council or any of the other responses to the Council to suggest physicians possess the requisite competencies.

Taking into account the prevailing interest of risk of harm to the public, what acts should be restricted to physicians and surgeons?

The scope of practice submission of medicine has not provided a list of acts that should be restricted to physicians and surgeons. It would be difficult to define a comprehensive list of specific acts that should be restricted to physicians and surgeons.

Obviously there are numerous additional areas of practice in which the risk of harm to the public is readily apparent that do not appear in the Council's consultation letter. For example, the adjustment of the joints of the spine is not included in the list, whereas it was specifically recognized as a controlled act in Ontario.

Further, it is clear that even within the physicians' abbreviated list of areas in which there is a high risk of harm to the public, they are not the only profession that provides services within these practice areas. Accordingly, some of the services that fall within these practice areas would have to be shared reserved acts. For example, chiropractors perform services which are included within those listed on page 4 of the Council's consultation letter:

- (a) all treatment or investigations of physical and mental disease including those involving any application of ordering the application of energy, or administering of substances by injection or inhalation; and
- (c) examinations and communications with individuals which might result in (a) or (b) or which involve a diagnosis identifying a disease or disorder as the cause of symptoms including the testing for and identification of allergies or the communication of such a diagnosis.

Is there sufficient risk of harm to the public to warrant the type of supervision outlined by the physicians?

Whether there is a sufficient risk of harm to the public to warrant this type of supervision cannot be determined, unless the question is asked within the context of a specific act that the physicians propose must be supervised.

However, for the Council's information there are no chiropractic acts that require the supervision of a physician. Further, physicians do not "delegate" any services to chiropractors.

Do the proposed reserved titles adequately serve the public in describing the services their users provide and distinguishing their users from other people performing similar services?

The title "doctor" should be reserved jointly with other professionals who, on the basis of their qualifications, satisfy the Council that they should be able to employ this title. Chiropractors have historically used the title "doctor" and have the requisite qualifications to continue to use the title.

However, is there a sufficient public interest justification to reserve such a wide breadth of professional titles to physicians and surgeons as listed on pages 8-9 of the Council's letter? The public likely will not be able to associate all of these titles with physicians and surgeons and may find them confusing.

For example, many other professionals legitimately use variations of the titles: "community medicine, public health physician", "occupational physician", "medical scientist", "physician", and "physical medicine and rehabilitation physician". Simply adding "physician" to a description of a practice area should not enable physicians to reserve a title.

The proposed reserved titles add nothing to the current reserved titles of "doctor" or "Dr." in terms of alerting the public to the training of a physician, the differences between their practices from other professionals and their quality of care. Accordingly, it would not be in the public interest to expand the physicians' list of reserved titles.

Nursing

Exemption from Reserved Acts

All nurses should not be exempt from any reserved acts. Like all professions, they should be required to submit proof of competency and sufficient training to practice any specific reserved acts recommended by the Council. It is not a sufficient regulatory safeguard to say that the public will be protected from nurses practising outside their scope simply "through supports and controls of the profession" or the standards of practice of each profession.

Further, nurses must submit evidence to the Council that they are presently qualified to perform any of the reserved acts proposed by other professions. The College of Licensed Practical Nurses' statement in their April 3, 1996 letter to the Council that a chiropractic reserved act of adjustments raises the question of "whether it could be a learned skill" fails to address the need to protect the public by only allowing practitioners who are presently qualified to perform the service. Based on our information, nurses do not presently have the training and qualifications to perform adjustments and they have not provided any information to the contrary in their submissions.

Nurses may always apply to the Council or Ministry of Health for an expanded scope of practice if their education and training changes to include reserved acts performed by other professions. We disagree with the licensed practical nurses comments that reserved acts can erect artificial barriers between professions based on protection and have very little to do with public safety if demonstrated competence is the baseline. Any skill may be learned, but the justification for reserved acts is that the act requires a particular type of specialized training that has been recognized by a regulatory body as a prerequisite for public protection and the safe performance of the service. The nurses have failed to provide any information that supports the contention that their education and training provides them with a sufficient background to safely perform any proposed reserved act.

Naturopathy

Scope of Practice Definition

The naturopaths have proposed that their scope of practice be expanded to include such services as, applying anaesthesia and performing minor surgery.

For all of the expanded services proposed by the naturopaths, we question whether their core curriculum provides the necessary training to perform these additional services. In order to fully evaluate the naturopaths' proposal, they should explain which courses in their core curriculum provide the necessary

training to safely perform the proposed additional services and how many hours of training are devoted to the area of practice. If sufficient training for these services does not appear in their core curriculum, the expanded scope of practice should not be granted.

In addition, naturopaths have not defined what they mean by "minor surgery" and what anaesthetics they propose to use. Accordingly, additional explanation and clarity of the proposal is required. Further, minor surgery is not even mentioned in either of the proposed scope definitions of the BCNA or ANPBC.

Limitations on Scope of Practice

For the reasons outlined earlier, naturopaths should not be permitted to perform adjustments.

Laboratory Privileges

The BCNA in its October 1995 brief to the Council outlines certain efforts made by the College of Physicians and Surgeons of B.C. to deny laboratory privileges to naturopaths. The BCNA has asked the Council to recommend to the Minister of Health that naturopathic physicians be granted privileges at all public laboratories, especially those under the direction and control of public hospitals.

For the Council's information, chiropractors have also experienced similar efforts by the College of Physicians and Surgeons to deny chiropractors access to laboratory testing procedures. This obviously impedes the chiropractor's ability to order laboratory testing procedures which are within the chiropractor's scope of practice. The College of Physicians and Surgeons has failed to provide any explanation for their efforts and should be required to do so as part of the Council's scope of practice review.

A health profession should be given direct access to all laboratories if it possesses the training and competence required to order laboratory tests and interpret the results according to the profession's scope of practice.

Conclusion

The College has made extensive efforts to demonstrate that its proposed scope of practice definition reflects core competencies and training in chiropractic. Chiropractors registered with the College possess the required training and competency to provide the services within the proposed scope of practice definition.

Furthermore, it should be apparent to the Council that only chiropractors possess adequate training in adjustment to safely provide the service to the public.

Generally, certain other professions have not submitted thorough and accurate information on their core competencies and training in support of their proposed scope of practice definitions or expanded scopes of practice. Massage therapists, physiotherapists, naturopaths and registered nurses have asked for expanded scopes of practice without sufficient proof that their basic education provides the necessary training to provide these additional services. Many proposals for reserved acts lack a sufficient public interest justification and proof of core educational training in the proposed reserved act. Medicine has not even fully participated in the scope review, as it has failed to propose a scope of practice that genuinely reflects its core competencies and training.

The safety of health care services depends on the Council establishing a proper respect for the core competencies of all health professions and reserving acts only to those professions that have effectively demonstrated the requisite training in the service.

Appendix A

The Mandate of the Ontario Report

The scope of the Ontario Ministry of Health Report, "The Effectiveness and Cost-Effectiveness of Chiropractic Management of Low Back Pain" by P. Manga et al (the "Ontario Report"), was to "examine the effectiveness of chiropractic management of low back pain" [Page 9 of the Report]. It does not include a "comprehensive" and "critical" evaluation of every type of treatment intervention for low back pain or a comparison of treatment results of mobilization and manipulation. However, for the Council's information, the Ontario Report, which was published in 1993, reviewed relevant literature over a 37-year period, i.e. from 1955 to 1992.

There are statements in the Ontario Report that reflect its recognition of the "effectiveness of various management strategies for lower back pain". For example, the Ontario Report notes that, "LBP is managed mostly by physicians and chiropractors, with physiotherapists also playing an important role" Indeed the Quebec Task Force in Spinal Disorders (QTFSD) (1987) identified thirty-six therapeutic modalities for the treatment of activity related spinal disorders" (emphasis added). [Page 27, Ontario Report]

The scientific validity of the Ontario Report is not challenged by the physiotherapists' contention that it does not include a review of literature that is unrelated to the mandate of the Ontario Report (Page 3, CPA Commentary). It is incumbent upon the physiotherapists to cite particular pieces of literature that should have been examined by the authors of the Ontario Report.

The CPA has erroneously stated that the Ontario Report suggests that "qualified professionals other than chiropractors are unsafe in applying manipulative techniques" (Page 3, CPA Commentary). The Ontario Report was not concerned with evaluating the competencies of medical, physiotherapy and other health care providers with respect to specific manipulation techniques. Instead, the Report focuses on patient treatment outcomes and the cost effectiveness of intervention strategies.

For the Council's information, there is recent evidence in the literature regarding the misuse of literature in discussions of spinal manipulative therapy injuries by non-chiropractors. A review of forty publications on spinal manipulative therapy injuries attributed to chiropractors were in fact performed by physicians (12), physiotherapists (4), osteopaths (6), naturopaths (4), and others including masseurs, kung-fu practitioners and lay practitioners (14). [Terrett, 1995]

As outlined in our initial submission to the Council, research on the effectiveness and cost effectiveness of the treatment of back pain conducted by non-chiropractors, has continued to favour professional intervention by chiropractors.

Rigorous Scientific Studies were Included in the Ontario Report

We do not agree that there are no "high quality randomized clinical trials" which support the Ontario Report's conclusions. For example, there is a randomized comparative study of chiropractic and hospital outpatient treatment of lower back pain published in the British Medical Journal by Meade et al in 1990. Other studies that support the Ontario Report's findings include Anderson et al. (1992) and Assendelf et al. (1992).

The scientific rigor of the Meade study is reflected in its:

- * design of randomized controlled trials;
- * setting of chiropractic and outpatient clinics in 11 centres;
- * study population of 741 patients between the ages of 18 and 65 who had not received treatment within a month;
- * intervention or treatment approach of examining the chiropractic manipulation technique in comparison with other types of manipulation techniques commonly used by physiotherapists such as the Maitland technique; and
- * reliable measurement instruments of the Oswestry instrument complemented with functional clinical tests.

We believe that the Meade study uses accepted criteria for rigorous scientific investigations and provides, through the involvement of physiotherapists in hospital outpatient clinics, a current direct outcome

comparison of chiropractic and physiotherapy approaches to the treatment of low back pain, including long term effects and costs.

For the Council's information, some of the major findings of the Meade study are directly reproduced as follows:

"Though many randomized controlled trials of treatment for low back pain have been carried out, there have so far been no clear indication in favour of any particular method. The place of manipulation in back pain has been reviewed by Jayson who concluded that any minor benefit seems to be confined to those with acute pain of recent onset, that there was no evidence that manipulation helped those with severe or chronic back problems, and that it did not reduce long term complications or prevent recurrences. For chiropractic our findings suggest otherwise". [Page 1435, Meade study]

"The effects of chiropractic seem to be long-term, as there was no consistent evidence of a return to pre-treatment Oswestry scores during the two years of follow-up, whereas those treated in hospital may have begun to deteriorate after six months or a year. The results from the secondary outcome measures suggest that the advantage of chiropractic starts soon after treatment begins. In fact, the main difference between hospital and chiropractic treatment was seen from six months or a year onwards, well after treatment and contact with therapists had ended". [Page 1436, Meade study]

"The potential economic, resource, and policy implications of our results are extensive. Some 300,000 patients are referred to hospitals for back pain each year. If all these patients were referred for chiropractic instead of hospital treatment the annual cost will be about (four million pounds). Our results suggest that there might be a reduction of some 290,000 days in sickness absence during two years, saving about (13 million pounds) in output and (2.9 million pounds) in social security payments. There is, therefore, economic support for use of chiropractic in low back pain". [Page 1435, Meade study]

These results were published by Meade and associates in 1990 and confirmed in their follow up study of 1995 (Br. Med. J. 311:349 - 351, August 5, 1995).

It is our understanding that rigorous criteria were used by the authors of the Ontario Report to evaluate the "validity and applicability of therapeutic trials". Specifically, the authors relied on the Quebec Task Force classification of methodologies in categorizing the literature. These include "randomized control trials", "well-conducted cohort or case control studies", "descriptive studies", literature reviews and "meta-analyses". [Pages 35 - 50, Ontario Report]

It appears that the CPA accepts the findings of the Quebec Task Force on Spinal Disorders with respect to the detrimental nature of bed rest in the treatment of low back pain, but at the same time criticizes the findings of the Ontario Report for utilizing the same methodology [Page 3, CPA Commentary]. We are unable to discover any logic in these comments by the CPA.

Although the CPA states that "the ratings given to the randomized controlled trials by the authors are questionable", [Page 3, CPA Commentary] the CPA has neither suggested an appropriate rating system for randomized controlled trials nor provided objective, quantitative and methodological reasons for rejecting the ratings used in the Ontario Report.

Consequently, we can only infer that these CPA commentaries are without foundation. We fail to understand how this particular CPA observation influences the validity of the study since the three methodological classifications and rating systems used in the Ontario Report arrive at the same conclusion. In addition, the results of the Meade study which also used an appropriate rating system for randomized controlled trials arrived at the same conclusions noted in the Ontario Report.

Physiotherapy and Medicine

The Ontario Report states:

In this study we focused principally on the effectiveness and cost effectiveness of Chiropractic and medical management of LBP. [Page 11, Ontario Report]

Physiotherapists work very closely with physicians and in many cases rely on a medical diagnosis in the performance of their services. Many physiotherapists are still subject to medical authorization and validation for much of their work. Therefore it is fair to say that the "medical management of lower back pain" includes physiotherapy.

In addition, much of the medical work evaluated in the Ontario Report involves referrals for physiotherapy. Moreover, some studies have not differentiated the work of physiotherapists with respect to lower back pain from medical care. Rather some studies have specifically noted that much of non-surgical medical care for lower back pain is undertaken by physiotherapists, as already discussed in our references to the Meade study.

Misleading Criticism by Physiotherapists

The CPA refers to a report (the "Magee Report") prepared by David Magee for the Alberta Physiotherapy Association entitled, "A Physical Therapy Response to the Document: Recent Evaluations of the Effectiveness and Efficiency for Chiropractic Treatment for Lower Back Pain: Policy Implications" (January 26, 1994). It is important to note that the Magee report is essentially an advocacy presentation directed towards anticipated public policy changes in Alberta. However, we respond to its findings as follows:

Magee states that "The 1990 Meade study compared the skilled specialist practitioner-chiropractors, with skilled non-specialist physiotherapists".

This statement is misleading. As already stated, the Meade study compared chiropractic and hospital outpatient treatment for managing low back pain of mechanical origin in 11 centres where each centre consisted of a chiropractic clinic and a hospital clinic.

The argument that skilled specialist chiropractors have been compared with non-skilled physiotherapists is designed to detract attention from the focus of study. The skill of the practitioner is irrelevant to the Meade study's objective of monitoring the outcome of treatment intervention by chiropractors and physiotherapists on lower back pain.

Magee contends that one of the flaws in the Meade study was that "Private practice chiropractic was compared with National Health Service outpatient care in Britain." (Page 4, Magee report). The Meade study properly compared private chiropractic practice with outpatient care in Britain since private medical, chiropractic and physiotherapy clinics in Britain, as in Canada, operate on an outpatient basis.

Appendix 1 of the Magee report lists 20 perceived methodological problems. However, the appendix is entitled, "Some Problems Which May Occur Using Randomized Clinical Trial" (emphasis ours). There is no evidence that any or all of the listed problems occurred. The list inappropriately assumes that research findings are only accurate if all clinical randomized trials remedy all anticipated, academically determined problems. There is no evidence that any or all of the listed problems significantly affected the Meade study's outcome.

The criticisms in the Magee report are misleading on the following points:

That the methodological quality lacks information on:

- * age of patient False. The age of patients, (18 -65) is provided on page 1431.
- * diagnosis of pathology False. The study population included patients with "low back pain of mechanical origin." (Page 1431)
- * inclusion criteria of study False. Patients "who had no contraindications to manipulation and who had not been treated within the past month. (Page 1431) "Patients were not included if there was evidence that a nerve root was affected", or there was evidence of major structural abnormalities visible on radiography, or osteopenia, or an infectious cause was suspected, included social

conditions and pending litigation." (Page 1432) The criteria for the eligibility of centres were presented in the study. The inclusion criteria also consisted of, "Š chiropractors who used chiropractic manipulations and Š hospital staff, who most commonly used Maitland mobilization or manipulation or both. (Page 1431, emphasis ours).

* selection of study population False. Study population was patients with "low back pain of mechanical origin" and was selected following a feasibility study. (Pages 1431 - 1432)

Neither the CPA nor the Magee study provide an example of an acceptable randomized clinical trial which has met all scientific methodological limitations, nor has physiotherapy undertaken an appropriate study to refute the findings of the various studies they consider problematic.

There is no evidence in the CPA commentary and the Magee report that there were problems in the Meade study associated with "loss of patients", "change in treatment protocol", "lack of control of treatment protocol", "type of treatment", "number of treatments", "practice characteristics", "treatment variables", the generalization of study findings according to study objective, internal validity, reliability of measurement instrument, the size of study sample, experimenter bias, and statistical method. Yet these were the areas of concern noted by the physiotherapists and in the Magee report. All of these concerns were addressed in a scientific manner and accounted for in the Meade study.

The distortion and inaccurate reporting in the Magee Report of the findings of the Meade study is very disturbing. The Magee report cites two references in support of the following statement "It is further pointed out that in two centres, there were physical therapists specializing in spinal manipulation, and in these centres, the treatment was as good or better than chiropractic" (Page 4, Magee report). There are three problems with this statement.

First, the authorities cited in Magee in support of the above statement are in the form of letters to the editor of physiotherapy and medical journals. The letters hardly qualify as scientific sources.

Second, there is no evidence in the Meade study that two hospital centres had physiotherapists specializing in spinal manipulation therapy.

Third, the findings of the Meade study are very seriously misrepresented by the above comment in the Magee report. Reproduced below is the verbatim information from the Meade study that demonstrates the inaccuracy of the comments in the Magee report.

"In only one centre was hospital treatment possibly more effective than chiropractic, by 3" and 1" on the Oswestry scale at six months and two years respectively. This centre recruited many patients, mostly through open access arrangements, and omitting its results increased the apparent effectiveness of chiropractic treatment in the 10 other centres. Two centres showed little if any difference between chiropractic and hospital treatment, and in eight chiropractic was more effective. [Page 1435, Meade study, emphasis ours]

The Meade study concludes as follows:

"Whatever the explanation for the difference between the two approaches, however, this pragmatic comparison of two types of treatment used in day to day practice showed that patients treated by chiropractors were not only no worse off than those treated in hospital but almost certainly fared considerably better and that they maintained their improvements for at least two years". [Page 1435, Meade study, emphasis ours]

The pattern of misleading interpretations of study findings in the Magee study is not limited to the work of Meade. Magee writes on page 4 of the report that,

"less current studies (i.e. those carried out before 1980) strongly supported chiropractic. However, more recent studies which are better documented regarding treatment costs and the calculation of compensation (in workers compensation cases) are less consistent in their support of chiropractic."

Magee cites the study by Arsendedelt and Bouter (1993) as supportive evidence of this statement. Arsendedelt and Bouter's comments are reproduced below to demonstrate the inaccuracy of Magee's statements.

"The retrospective character of WC studies and the use of large WC databases harbor severe methodological problems like the incomparability of study groups, absence of information on prognostic indicators, insufficient outcome measures and missing data. The results of older WC studies (before 1980) and the more recent WC studies, which were of better methodological quality, are presented separately. The older studies are in favour of chiropractic. Two of the six more recent WC studies challenge chiropractic effectiveness". [Page 161, Arsendedelt and Bouter, emphasis ours]

First, the authors admit the incomparability of the study groups in this particular study. Second, Magee interprets the findings of more methodologically sound recent studies described by the authors as being "less consistent in their support of chiropractic". We do not agree that 2 out of 6 findings constitute serious research findings or in any way refute Meade's 1990 and 1995 significant findings on the effectiveness of chiropractic.

Finally, in criticizing the array of comparative studies that have emerged recently in support of spinal manipulative therapy, Magee notes that, "comparisons are made with often dubious treatment regimes such as heat alone, short wave diathermy and detuned short waves diathermy". [Page 7, Magee, emphasis ours]

It is remarkable that a key aspect of physiotherapy treatment for lower back pain is considered of dubious effectiveness and yet continues to be used, with or without research validation, in the treatment of a variety of conditions with serious cost implications. Nonetheless, physiotherapists still argue that further studies of chiropractic will be required despite the accumulating knowledge that chiropractic treatment for lower back pain is more effective than other forms of manipulation therapy.

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Appendix B

The following opinion was published by the Attorney General of the State of California in 1976:

Opinion NO.CV 75-282 - January 21, 1976

SUBJECT: PRACTICE OF CHIROPRACTIC-PHYSICAL THERAPY-PHYSICAL CULTURE - A chiropractor may use physical therapy techniques in his practice of chiropractic to the extent that such techniques are used as an adjunct to chiropractic manipulation, but he may not practice or hold himself out as a physical therapist unless he is licensed to do so. A physical therapist cannot directly manipulate or adjust the spine or any other body structure since such activity is a chiropractic technique. Physical culture as used in California Administrative Code Title 16, section 302 is a term of art dealing with the systematic care and development of the body. Physical therapy is a system of treatment to rehabilitate or correct bodily or mental conditions. Physical culture may be involved in a course of physical therapy, but not always.

Requested by: SENATOR, 11th DISTRICT

Opinion by: Evelle J. Younger, Attorney General, William M. Goode, Deputy

The Honourable Nicholas C. Perris, Senator, Eleventh District, has requested the opinion of this office on the following questions concerning the Chiropractic Act:

1. Can a chiropractor under any circumstances use physical therapy in his practice of chiropractic? If so, what are those circumstances?
2. Are there any circumstances under which a physical therapist can manipulate or adjust the hard tissue (i.e., the spine)? If so, what are those circumstances?
3. Section 302, Title 16, California Administrative Code, defines the practice of chiropractic and provides that a chiropractor may make "use of light, air, water, rest, heat, diet, exercise, massage

and physical culture ..." What is "physical culture" and what is its relationship to and/or difference from physical therapy?

The conclusions are:

1. A chiropractor may use physical therapy techniques in his practice of chiropractic to the extent that such techniques are used as an adjunct to chiropractic manipulation. Only a chiropractor who is registered as a physical therapist may hold himself out as a physical therapist.
2. A physical therapist may not directly manipulate or adjust the spine or any other bony structure.
3. Physical culture is a term of art dealing with the systematic care and development of the body. Physical therapy is a system of treatment to rehabilitate or correct bodily or mental conditions. Physical culture may in some instances be involved in a course of physical therapy, but not always.

Analysis

Background

A brief sketch of the background and history of chiropractic is necessary to understand the question presented. Chiropractic as a healing art was first formally recognized by the State of California in the Medical Practice Act of 1907 (Stats. 1907, ch. 212, p. 252), which provided for the issuance of three different forms of certificates by the Board of Medical Examiners to practitioners:

- (1) a certificate authorizing the holder to practice medicine and surgery,
- (2) a certificate authorizing the holder to practice osteopathy, and
- (3) a certificate authorizing the holder to practice any other system or mode of treating the sick and afflicted, not otherwise referred to. In order to qualify for a certificate in the third category the applicant had to file a diploma from a legally chartered college of the system or mode.

In 1909, the Legislature amended the Medical Practice Act of 1907 (by Stats. 1909, ch.276, p.418) to provide that any person who then held an unrevoked certificate of naturopathy issued by the Board of Examiners of the Association of Naturopathy of California, a private organization incorporated on August 3, 1904, could continue to practice naturopathy. Naturopathy was not defined in either the 1907 or 1909 statutes above cited. In *Millsap v. Alderson*, 63 Cal. App. 518 (1923), the court was called upon to distinguish between the rights of a physician and surgeon on one hand and a naturopath on the other. At page 525 the court found that the Legislature, in its 1909 amendment to the Medical Practice Act, gave official recognition to the Association of Naturopaths of California, and at pages 526-527 looked to the articles of incorporation of that organization to find that naturopathy involved treatment of the sick and afflicted by "light, air, water, clay, heat, besides rest, diet, herbs, electricity, massage, Swedish movements, suggestive therapeutics, chiropractic, magnetism, physical and mental culture."

In 1922 an initiative measure to provide for separate licensing and regulation of chiropractors was submitted to the electors. It was approved on November 7, 1922, and became effective December 21st of that year as the Chiropractic Act. Section 7 of that Act provides: "One form of certificate shall be issued by the board of chiropractic examiners, which said certificate shall be designated 'License to practice chiropractic,' which license shall authorize the holder thereof to practice chiropractic in the state of California as taught in chiropractic schools or colleges, and, also, to use all necessary mechanical and hygienic and sanitary measures incident to the care of the body, but shall not authorize the practice of medicine, surgery, osteopathy, dentistry or optometry, nor the use of any drug or medicine now or hereafter included in materia medica." Except for the language in section 7 the Chiropractic Act does not otherwise define the meaning of chiropractic. In *Evans v. McGranegban*, 4 Cal. App. 2d 202 (1935) at page 205, the court held that section 7 of the Chiropractic Act was impossible of precise construction and placed the burden of showing what was taught in chiropractic schools upon the party claiming his conduct was authorized thereby. Shortly thereafter, in the landmark case of *People v. Fowler*, 32 Cal. App. 2d Supp. 737 (1938), the court made a comprehensive analysis of section 7 and concluded at page 746, that the "Sgeneral consensus of definitions, current at and before the time the Chiropractic Act was adopted, shows what was meant by the term 'chiropractic' when used in that act"¹ The principal enunciated in *Fowler* has been followed by the

courts of this state. *Crees v. California State Board of Medical Examiners*, 213 Cal. App. 2d 195, 205 (1963); *People v. Augusto*, 193 Cal. App. 2d 253, 257-258 (1961); *Jacobsen v. Bd. of Chiropractic Examiners*, 169 Cal. App. 2d 389, 392 (1959); *People v. Mangiagli*, 97 Cal. App. 2d Supp. 935, 939 (1950); *People v. Nunn*, 65 Cal. App. 2d 188, 194-195 (1944). In *People v. Mangiagli*, supra, 97 Cal. App. 2d Supp. at 943 (1950), the court invalidated a regulation adopted by the Board of Chiropractic Examiners which defined chiropractic as follows: " 'The basic principle of chiropractic is the maintenance of the structural and functional integrity of the nervous system. The practice of chiropractic consists of all necessary means to carry out these principles.' (Cal. Admin. Code, title 16, subchap. 4, art. I, § 302 (a).) Š" The rejection was based on the finding that a chiropractor might under that regulation engage in almost any sort of treatment of the sick or afflicted. In 1954, the Board of Chiropractic Examiners adopted a new section 302, Title 16, California Administrative Code providing:

- (a) Practice of Chiropractic: The basic principle of chiropractic is the maintenance of structural and functional integrity of the nervous system. The practice of chiropractic consists of the use of any and all subjects enumerated in Section 5 and referred to in any and all other sections of the act." The regulation was held invalid in *Crees v. California State Board of Medical Examiners*, supra, 213 Cal. App. 2d 195, 209, on the basis that it purported to alter or enlarge the scope of chiropractic under the Chiropractic Act. In 1965, as a result of the *Crees* decision, the board of Chiropractic Examiners amended section 302, Title 16, California Administrative Code, to its present language as follows:
- (a) Practice of Chiropractic: The basic principle of chiropractic is the maintenance of structural and functional integrity of the nervous system. A duly licensed chiropractor may only practice or attempt to practice or hold himself out as practicing a system of treatment by manipulation of the joints of the human body by manipulation of anatomical displacements, circulation of the spinal column, including its vertebrae and cord, and he may use all necessary mechanical, hygienic and sanitary measures to the care of the body in connection with said system of treatment, but not for the purpose of treatment, and not including measures as would constitute the practice of medicine, surgery, osteopathy, dentistry, or optometry; and without the use of any drug or medicine included in materia medica. "A duly licensed chiropractor may make use of light, air, water, rest, heat, diet, exercise, massage and physical culture, but only in connection with and incident to the practice of chiropractic as hereinabove set forth." (Emphasis added)

(Footnotes)

1 *People v. Fowler*, supra, at pages 745-747: "The practice authorized must be 'chiropractic' and it must also be 'as taught in chiropractic schools or colleges'." Neither of these expressions can rule the meaning of the statute, to the exclusion of the other. Considering the first of them, the word 'chiropractic' had, when this law was passed in 1922, a well-established and quite definite meaning. In the Standard Dictionary, 1913 edition, it was defined as 'A drugless method of treating disease chiefly by manipulation of the spinal column.' Other equivalent definitions taken from dictionaries and encyclopedias appear in the decisions quoted below. In volume 11 of Corpus Juris, which was published in 1917, the following definition is given for 'chiropractics': 'A system of healing that treats disease by manipulation of the spinal column; the specific science that removes pressure on the nerves by the adjustment of the spinal vertebrae. There are no instruments used, the treatment being by hand only: in support of which Webster's Dictionary is cited, also several court decisions. In *State v. Barnes* (1922) 119 S.C. 213 [112 S.E. 62, 63], the court said: 'Chiropractic has been defined, and is commonly understood, as a system of treatment by manipulation of anatomical displacements, especially the articulation of the spinal column, including its vertebrae and cord.' In *State v. Hopkins*, (1917) 54 Mont. 52 [166 Pac. 304, 306, Ann. Cas. 1918D, 956], the court quoted from Webster's New Standard Dictionary this definition of 'Chiropractic': 'A system of [or] the practice of adjusting the joints, especially of the spine, by hand for the curing of disease.' In *Commonwealth v. Zimmerman*, (1915) 221 Mass. 184 [108 N.E. 893, 894, Ann. Cas. 1916A. 858], the court quoted from Webster's International Dictionary a definition of 'chiropractic' as follows: 'A system of healing that treats disease by manipulation of the spinal column.' The same definition was cited in *State v. Gelleger*, (1911) 101 Ark. 593 [143 S.W. 98, 38 L.R.A. (N.S.) 328, 330], and *State v. Johnson*, (1911) 84 Kan. 411 [114 Pac. 390, 41 L.R.A. (N.S.) 539, 541]. In *Board of Medical Examiners v. Freenor*, (1916) 47 Utah, 430 [154 Pac. 941, 942, Ann. Cas. 1917E, 1156], the court quoted definitions of 'chiropractic' as follows: 'A system of the therapeutic

treatment for various diseases, through the adjusting of articulations of the human body, particularly those of the spine, with the object of relieving pressure or tension upon nerve filaments. The operations are performed with the hands, no drugs being administered.' (taken from Nelson's Encyclopedia), and 'A system of manipulations which aims to cure disease by the mechanical restoration of displaced or subluxated bones, especially the vertebrae, to their normal relation.' (from International Encyclopedia). "This general consensus of definitions, current as and before the time the Chiropractic Act was adopted, shows what was meant by the term 'chiropractic' when used in that act. "The words of a statute must be taken in the sense in which they were understood at the time when the statute was enacted." (25 B.C.L. 959; Werner v. Hillman etc. Co., (1930) 300 Pa. 256 [150 Ad. 471, 70 A.L.R. 967, 970]; Dunn v. Commissioner, (1933) 281 Mass. 376 [183 N.E. 889, 87 A.L.R. 998, 1002]; see, also, Lowder v. Union Tr. Co., (1926) 79 Cal. App. 598 [250 Pac. 703]. Nor has the accepted meaning of 'chiropractic' since changed, for in the latest (1958) edition of Webster's New International Dictionary we find the same definition quoted in State v. Hopkins, supra, (1917) 54 Mont. 52 [116 Pac. 304, 306, Ann. Cas. 1918D, 956]. Words of common use, when found in a statute, are to be taken in their ordinary and general sense. (Corbett v. State Board of Control, (1922) 188 Cal. 289. 291 [204 Pac. 823]; In re Alpine, (1928) 203 Cal. 731, 737 [265 Pac. 947, 58 A.L.R. 1500]; Bagg v. Wickizer, (1935) 9 Cal. App. (2d) 753, 758 [50 Pac. (2d) 1047].) "The effect of the words 'as taught in chiropractic schools or colleges' is not to set at large the signification of 'chiropractic', leaving the schools and colleges to fix upon it any meaning they choose. Were the word 'chiropractic' of unknown, ambiguous or doubtful meaning, this clause, 'as taught' etc, might serve to provide a means of defining or fixing its signification, but there is here no such lack of clarity. The scope of chiropractic being well known, the schools and colleges, so far as the authorization of the chiropractor's license is concerned, must stay within its boundaries; they cannot exceed or enlarge them. The matter left to them is merely the ascertainment and selection of such among the possible modes of doing what is comprehended within that term as may seem to them best and most desirable, and so the fixing of the standards of action in that respect to be followed by chiropractic licensees. Such we understand to be the effect of the holding in In re Hartman, (1935) 10 Cal. App. (2d) 213, 217 [51 Pac. (2d) 1104]. Evans v. McGranegban, supra, 4 Cal. App. (2d) 202, is not clearly to the contrary, but if it can be so regarded we prefer to follow the later Hartman case. If our opinion in People v. Schuster, (1932) 122 Cal. App. (Supp.) 790, 795 [10 Pac. (2d) 204], is thought to go farther than this, we now qualify it in that respect, deeming the rule just stated to be the proper one. The court's instruction defining 'chiropractic' in the words already quoted from Webster's New Standard Dictionary was correct."

With that background sketch we can proceed to the specific questions presented.

1. Use of Physical Therapy by Chiropractors

We are first asked whether a chiropractor may use physical therapy in his practice of chiropractic. It is our opinion that many of the techniques and agents used in physical therapy are properly within the range of techniques available to a chiropractor in his practice of chiropractic. At the same time, a chiropractor may not practice or hold himself out as a practitioner of physical therapy, unless licensed to do so, except as such physical therapy techniques are a part of the practice of chiropractic in a particular instance. The practice of physical therapy is limited by Business and Professions Code section 26302 which provides: "It is unlawful for any person or persons to practice , or offer to practice, physical therapy in this state for compensation received or expected or to hold himself out as a physical therapist, unless at the time of so doing such person holds a valid unexpired and unrevoked license issued under this chapter. "Nothing in this section shall restrict the activities authorized by their licenses on the part of any persons licensed under this code or any initiative act, or the activities authorized to be performed pursuant to the provisions of Article 4.5 (commencing with Section 2655) of this chapter or Article 18 (commencing with Section 2510) of Chapter 5 of this division.

"A person licensed pursuant to this chapter may utilize the services of an aide to assist the licentiate in his practice of physical therapy. Such aide shall at all times be under the orders, direction, and immediate supervision of the licentiate. Nothing in this section shall authorize such an aide to independently perform physical therapy or physical therapy procedure.

"The administration of massage, external baths or normal exercise not a part of a physical treatment shall not be prohibited by this section."

Physical therapy is defined in section 2620 as follows:

"Physical therapy means the art and science of physical or corrective rehabilitation or of physical or corrective treatment of any bodily or mental condition of any person by the use of the physical, chemical, and other properties of heat, light, water, electricity, sound, massage, and active, passive and resistive exercise, and shall include physical therapy evaluation, treatment planning, instruction and consultative services. The use of roentgen rays and radioactive materials, for diagnostic and therapeutic purposes, and the use of electricity for surgical purposes, including cauterization, are not authorized under the term ' physical therapy ' as used in this chapter, and a license issued pursuant to this chapter does not authorize the diagnosis of disease". A comparison of the statutory definition of physical therapy and the accepted definition of chiropractic, and specifically the definition adopted by the Board of Chiropractic Examiners in section 302, Title 16, California Administrative Code, reveals that physical therapy and chiropractic each involve the use of physical agents used by the other. We do not believe that this common use of agents presents a major problem because a chiropractor is prohibited by section 2630 from practicing physical therapy as such and a physical therapist is prohibited by section 15 of the Chiropractic Act from practicing chiropractic. In 1953, chapter 5.6 pertaining to registered physical therapists was added to the Business and Professions Code by chapter 1823, Statutes of 1953, and chapter 5.7 pertaining to licensed physical therapists was added to the Business and Professions Code by chapter 1826, Statutes of 1953. The major difference in the two categories then established was that registered physical therapists were required to work under the direction or supervision of a physician and surgeon. See 43 Ops. Cal. Atty. Gen. 157 (1964). The two categories were merged in the Physical Therapy Practice Act in 1968 (Stats. 1968, ch. 1784, p.2415) which does not require that physical therapists work under the direction or supervision of a physician or surgeon. We are informed, however, that most do. In 23 Ops. Cal. Atty. Gen. 179 (1954), we held that the enactment of the two physical therapy statutes in 1953 neither increased nor decreased the scope of the practice of chiropractic, and that a chiropractor could continue to practice physical therapy to the same extent that he could prior to the enactments. The basis for that conclusion was that an initiative measure cannot be amended except by vote of the electors, unless there is a provision in the initiative act authorizing legislative amendments. There is no such authorization in the Chiropractic Act. For the same reason, when the 1968 Physical Therapy Practice Act was enacted, it did not, and could not, alter the permissive range of activity for chiropractors. We therefore conclude, that just as a physical therapist could not use light, heat, water, exercise and other physical agents for chiropractic purposes, a chiropractor cannot use such agents for physical therapy purposes. A chiropractor may, however, use these and any other agents which are mechanical, hygienic or sanitary measures within the meaning of section 15 of the Chiropractic Act and which do not involve the practice of medicine or surgery, or the use of drugs or medicine, provided such techniques are directly involved in chiropractic procedures.

(Footnote)

2 All section references are to the Business and Professions Code unless otherwise specified.

2. Manipulation and Adjustment of Hard Tissues by Physical Therapists

Having determined the extent to which a chiropractor may use physical therapy techniques, we proceed to the question of determining whether a physical therapist may manipulate or adjust the hard tissues (i.e., the spine). It is our opinion that a physical therapist may not directly manipulate or adjust the spine or other bones. " Adjustment" is not a term used in physical therapy. It is a chiropractic word defined in Schmidt's 's Attorney's Dictionary of Medicine (1974), at page A-64, as follows: " In chiropractic practice, a manipulation intended to replace a displaced vertebra, or one assumed to be displaced and the cause of symptoms." It is defined in Dorland's Medical Dictionary (23rd Ed.1957) at page 37 as "Ša chiropractic word for replacement of an alleged subluxed vertebrae for the purpose of relieving pressure on a spinal nerve." Blakiston's New Gould Medical Dictionary (1st Ed. 1951), at page 26, defines adjustment as a chiropractic treatment aimed at reduction of subluxed vertebrae. We do not believe that adjustment as thus defined, is within the scope of activity permitted a physical therapist under section 2620. Another term which requires scrutiny is "manipulation of hard tissues." We have been unable to glean from any medical literature a definition of the term "hard tissue". The reference to spine suggests that hard tissue as used in the questions presented

refers to bones or body structures of the body. Bone is an osseous tissue, in effect a support, rigid, connective tissue. Blakiston's New Gould Medical Dictionary (1st Ed. 1951), page 147. In responding, we have therefore assumed that hard tissue has reference to bones. "Manipulation" has an accepted medical meaning, being defined in Blakiston's New Gould Medical Dictionary (1st Ed. 1951) at page 592, as "[t]he use of hands in a skillful manner as reducing a dislocation, returning a hernia to its cavity, or changing the position of a fetus." "Chiropractic" is defined in Blakiston's New Gould Medical Dictionary (1st Ed. 1951), at page 207, as "[a] method which aims at restoring health by palpating the spinal column for subluxations or misplaced vertebrae and adjusting them by hand without other aids or adjuncts." In 39 Ops. Cal. Atty. Gen. 169 (1962) at page 170, we noted that there was substantial difference between massaging the muscles surrounding the spine and actually manipulating and adjusting the various bones that make up the spine. Based on that observation, we concluded that adjusting the spine by hand for the curing of disease constitutes the practice of chiropractic and under section 15 of the Chiropractic Act is beyond the permissive activity of a physical therapist. We know of nothing that changes that conclusion. Therefore, we believe that the adjustment and manipulation of "hard tissues," that is bones and bone structures, is peculiarly a chiropractic technique beyond the scope of authorized activity for a physical therapist.

3. Meaning of Physical Culture and its Relationship to Physical Therapy

The final question asks the meaning of physical culture as that term is used in section 302, Title 16, California Administrative Code, and its relationship to physical therapy. We believe that the term physical culture is generally synonymous to physical education and deals with the systematic care and development of the physical body, whereas physical therapy is a system of treatment to rehabilitate or correct bodily or mental conditions. We have been unable to find the term physical culture defined in any medical literature or in any literature dealing with either physical therapy or chiropractic. Webster's Third International Unabridged Dictionary (1961), at page 1706, defines physical culture as "the systematic care and development of the physique." World Book Dictionary (1975 Ed.) at page 1556 defines it as the "development of the body by appropriate exercise." Encyclopaedia Americana (International Ed. 1973) Volume 22, at page 22, refers the reader to the topic "Physical Education". As previously noted, the term first appeared in the field of chiropractic in the Articles of Incorporation filed in 1904 by the Association of Naturopaths of California, where reference was made to chiropractic and mental and physical culture as permitted materia medica for naturopaths. We find no reference to physical culture in the several Medical Practice Acts since 1904, in the Chiropractic Act, nor in any regulations adopted thereunder until the 1965 amendments to section 302, Title 16, California Administrative Code. The term does not appear in any effective statute, and appears only once, as noted above, in Title 16. Whatever meaning physical culture as used in section 302, Title 16, California Administrative Code, has, it must be a meaning which is fairly within the scope of the Chiropractic Act. It is a settled principle that an administrative regulation cannot exceed the scope of the statute under which it was adopted, or alter or enlarge the scope. *First Industrial Loan Co. v. Daigherty*, 26 Cal. 2d 545, 550 (1945); *Whitcomb Hotel, Inc. v. Cal. Emp. Com.*, 24 Cal. 2d 753, 757 (1944); *Col. Drive in Restaurant Assn. v. Clark*, 22 Cal. 2d. 287, 294(1943). In *People v. Fowler*, supra, 32 Cal. App. 2d. Supp. at 747, the court held that the authorization in section 7 of the Chiropractic Act for the use of mechanical, hygienic and sanitary measures incident to the care of the body is not a definition but rather permits chiropractors to use measures in the practice of chiropractic which would not otherwise be within the scope of their licenses. Because section 302, Title 16, California Administrative Code, is not in itself clear, it is manifest that whatever meaning was intended it must be consistent with and embraced in section 7 of the Chiropractic Act.

Appendix C

The following opinion was published by the Attorney General of The State of Kansas in 1996:

Kan. Atty. Gen. Op. No. 96-12, 1996 WL 101573 (Kan.A.G.) Office of the Attorney General
State of Kansas

Opinion No. 96-12 February 20, 1996

Re: Public Health - Healing Arts - Persons Deemed Engaged in Practice of Medicine and Surgery; Persons deemed Engaged in Practice of Chiropractic; Scope of Practice and Manual Manipulation

Synopsis: The practice of medicine and surgery and the practice of chiropractic are licensed professions each with their own scope of practice as defined by statute. While manual manipulation as defined generally may include methods of practice authorized to one or the other profession or both, chiropractic manual manipulation as taught in accredited schools of chiropractic is not within the scope of practice of medicine and surgery as defined by K.S.A. 65-2869. Cited therein: K.S.A. 65-2869; 65-2871.

The Honorable Gary Merritt State Representative, 20th District State Capitol, Room 175-W Topeka, Kansas 66612

Dear Representative Merritt:

As representative of the twentieth district, you inquire whether the language contained in K.S.A. 65-2869 authorizes physicians to perform manual manipulation. The statute defines persons engaged in the practice of medicine and surgery. It provides: "For the purpose of this act the following persons shall be deemed to be engaged in the practice of medicine and surgery:

"(a) Persons who publicly profess to be physicians or surgeons, or publicly profess to assume the duties incident to the practice of medicine and surgery or any of their branches,

"(b) Persons who prescribe, recommend or furnish medicine or drugs, or perform any surgical operation of whatever nature by the use of any surgical instrument, procedure, equipment or mechanical device for the diagnosis, cure or relief of any wounds, fractures, bodily injury, infirmity, disease, physical or mental illness or psychological disorder, of human beings.

"(c) Persons who attach to their name the title M.D., surgeon, physician, physician and surgeon, or any other word or abbreviation indicating that they are engaged in the treatment or diagnosis of ailments, diseases or injuries of human beings." The statute broadly defines the scope of practice of medicine and surgery and includes any person who professes to assume the requisite duties. The statute defines the duties as prescribing or furnishing medicine or performing any surgical operation for the diagnosis, cure or relief of any wounds, fractures, bodily injury, infirmity, disease, physical or mental illness of human beings. Additionally, subsection (c) defines the practice as engaging in the treatment or diagnosis of ailments, diseases or injuries in humans. At issue is whether this statute authorizes doctors of medicine and surgery to treat patients by manual manipulation. When a question of law involves the interpretation of a statute, it is the function of the court to interpret the statute to give it the effect intended by the legislature. *State v. Gonzales*, 255 Kan. 243 (1994). In construing a statute the court is not limited to the language in that statute but may give general consideration to the entire act. *McGranahan v. McGough*, 249 Kan. 328 (1991). Thus in order to determine legislative intent we will consider the act's purpose of protecting the public, K.S.A. 65-2801, and the nature and definition of the other branches of the healing arts act, specifically the practice of chiropractic, in order to construe the statute in question in the context of the entire act. *Kansas State Board of Healing Arts v. Foote*, 200 Kan. 447, 453 (1968). This analysis is particularly important in light of the prohibition in K.S.A. 65-2836 (g) against the unlawful invasion of the field of practice of another branch of the healing arts. The Kansas Supreme Court considered the language found in K.S.A. 65-2869 in *Acupuncture Society of Kansas v. Kansas State Board of Healing Arts*, 226 Kan. 639 (1979). At issue was whether acupuncture was prohibited in the practice of chiropractic by a statute which prohibited chiropractors from practicing surgery. The court, reasoning that the legislature could not have intended such a broad interpretation of surgery as to render the healing arts act nonsensical, found surgery to be more limited and thus allowed the practice of chiropractic to include acupuncture as a modality of treatment. 226 Kan. at 645-46. Similarly, we must determine whether manual manipulation, a term not otherwise defined by statute, is within the purview of the practice of medicine and surgery as defined in K.S.A. 65-2869. The question of whether a particular procedure is within the authorized scope of one practice or another is primarily one of statutory interpretation. 73 Am. Jur. 2d Statutes pounds sterling 195 (1974); 16 A.L.R. 4th 58, 65 (1982). When construing a statute, ordinary words are to be given their ordinary meaning which means that words used in a statute should be construed according to context and approved usage of the language. *State ex rel. Stephan v. Kansas Racing Commission*, 246 Kan. 708 (1990). The term manipulation is not found in K.S.A. 65-2869; however, it is part of the defined practice of chiropractic, K.S.A. 65-2871. Chiropractors in Kansas are expressly permitted to "adjust any misplaced tissue of any kind or nature, manipulate or treat the human

body by manual, mechanical or natural methods..." subsection (b). Applying the rule that ordinary words are to be construed according to their context we may conclude that this type of manipulation is part of the definition of the practice of chiropractic, but the fact that manipulation is within the practice of chiropractic does not settle the question of whether manipulation, as a healing art, is within the practice of medicine. See *Acupuncture Society of Kansas v. Kansas State Board of Healing Arts*, 226 Kan. at 643 (the definition of the practice of chiropractic should not be used to obliterate the distinction between the practice of chiropractic and the practice of medicine and surgery [dictum]). In a medical context, the term manipulation is a general term often used to describe procedures performed by medical doctors, osteopaths, physical therapists and chiropractors. 1B *Attorney's Textbook of Medicine* 1237 (3d ed. 1994). See also: Schmidt, *Attorneys' Dictionary of Medicine and Word Finder* M-39 (1995); 3 Ausman and Snyder's *Medical Library Lawyers Edition* 4:29 (1993); *The Sloan-Dorland Annotated Medical-Legal Dictionary* 432 (1987); *Stedman's Medical Dictionary 5th Unabridged Lawyer's Edition* 832 (1982). As such the procedures performed vary, giving the term different definitions depending on the context in which it is found. See generally, *Mississippi Farm Bureau Mutual Insurance Company v. Garrett*, 487 So. 2d 1320 (Miss. 1986) (opinions of doctors of chiropractic are not barred by the sole ground that the field overlaps medicine.) As a general matter, manual manipulation may constitute the practice of various professions dealing with the well-being of one in need of treatment; the term, however, is defined in different ways depending on the particular practice in which it is found. In other words, the term manipulation is defined in context. For example the term manipulation is defined in *Stedman's Medical Dictionary*, *ibid.* as "any manual operation; e.g. palpation (examination by means of the hands p. 1018), extracting the fetus in difficult labor, or expressing the placenta ." One would be hard-pressed to argue that the extraction of a fetus in difficult labor is not the practice of medicine simply because the procedure might involve dextrous treatment by the hand. In *Sloane-Dorland Annotated Medical legal Dictionary*, *ibid.*, the term manipulation is defined as the skillful or dextrous treatment by the hand and cites an example from the practice of physical therapy. In *Attorneys' Dictionary of Medicine and Word Finder*, *ibid.*, the term is defined as " [s]killful handling in the adjustment of an abnormality or the bringing about a desirable condition, as the changing of the position of the fetus, the alignment of the fragments of a broken bone, the replacement of a protruding organ (in hernia), etc." It is clear from these examples that the term manual manipulation is not a term of art which has only one definition and found only within one practice or another. Thus, a finding that manual manipulation as generally defined is not authorized by K.S.A. 65-2869 as the practice of medicine and surgery would render the healing arts act nonsensical. K.S.A. 65-2869, subsection (c) broadly defines the practice of medicine and as a practical matter must include some of the procedures that are treatment by skillful use of the hands when one is "engaged in the treatment or diagnosis of ailments, diseases or injuries of human beings." However, the fact that the term has many meanings does not mean that there is no distinction between the manual manipulation provided by doctors of medicine and the treatment provided by doctors of chiropractic. We note in the interest of clarity that doctors of osteopathy (D.O.s) who are licensed to practice medicine and surgery pursuant to K.S.A. 65-2870 are outside the scope of our question regarding K.S.A. 65-2869. The legislature clearly intended the distinctions between healing arts branches not be obliterated. K.S.A. 65-2835 (g) prohibits a licensee from the invading the field of practice of any branch in which the licensee is not licensed to practice, and in *Kansas State Board of Healing Arts v. Burwell*, 5 Kan. App. 2d 357 (1980) the court upheld the revocation of a chiropractor's license when it held that Laetrile was properly found to be a medicine or drug, the use of which by chiropractors was expressly prohibited. Thus the overlap of the term does not mean that the professions or healing arts themselves overlap. See *McKissick v. Fry*, 25 Kan. 566, 592 (1994) (chiropractors are allowed to treat patients within the scope of specific therapies permitted by the healing arts act.) For this reason it is useful to discuss manual manipulation in the context of the practice of chiropractic. Chiropractic manipulation may involve lumbar intervertebral joint adjustment which is a passive manual maneuver during which the three joint complex is suddenly carried beyond the normal physiological range of movement without exceeding the boundaries of anatomical integrity. *Kirkaldy-Wallis, Managing Low Back Pain* 287 (2d ed., 1988). And while so defined in this publication, the term manual manipulation may be broader and may include other procedures in the context of the practice of chiropractic as defined in our state. Similarly, K.S.A. 65-2869 which defined the practice of medicine broadly is not a license to practice a modality of treatment specific to another field of the healing arts. However, manual manipulation is a term which encompasses many different treatments, specific to and limited by the context in which the term is found. In light of the possible interpretation for the term manual manipulation, in our judgement the term must be interpreted in context. It is thus our opinion that while manual manipulation as defined generally may include methods of practice authorized to one or another profession or both, chiropractic manual

manipulation as taught in accredited schools of chiropractic is not within the scope of practice of medicine and surgery as defined by K.S.A. 65-2869.

Very truly yours,

Carla J. Stovall
Attorney General of Kansas

Guen Easley
Assistant Attorney General
Kan. Atty. Gen. Op. No. 96-12, 1996 WL 101573 (Kan. A.G.)

Appendix D

The following media release was published by the Foundation for Chiropractic Education and Research on October 5, 1995:

FLAWED STUDY IN NEJM QUESTIONS CHIROPRACTIC COST-EFFECTIVENESS

ARLINGTON, VA - Primary care practitioners provide the least expensive care for acute low-back pain when compared to chiropractors and orthopedic surgeons. The gains of past few years - the Agency for Health Care Policy and Research (AHCPR) Guideline, the British Guidelines, the Manga Report, the Meade and Koes Studies - seem dulled by this damning and misleading conclusion to a minor cost-effectiveness study by Timothy Carey, published in the October 5, 1995, issue of The New England Journal of Medicine. It is impossible to know what impact this seriously flawed study will have on those who are making decisions that will affect the already chaotic health care arena. The cost-containment fervor that currently permeates managed care could lead the undiscerning to make policy decisions that will prove unwise for both providers and patients in the long-term, unless the inaccuracies in this study are addressed. Anthony L Rosner, PhD, the Director of Research for the Foundation for Chiropractic Education and Research (FCER) isolated 11 points of error in Carey's study.

1. The effects of severity of illness are virtually ignored. The study lacks any measure of the severity of the conditions of the patients. Without this, there is no way to ensure an even case-mix among all practitioners. It is possible, therefore, that the chiropractors in this study had a disproportionately large caseload of patients with severe episodes of back pain., while other providers might have had more patients with less aggravated conditions. This could result in higher costs for chiropractic care, while artificially depressing the costs of the practitioners with more benign cases.
2. The degree of recovery does not receive adequate attention. At the end of six months, 31% of the patients had not recovered completely, indicating a significant amount of persistent low-grade disability, yet there is no data that indicates provider type. The recently published follow-up to the Meade Study (British Medical Journal, August 5, 1995) demonstrates that chiropractic patients reported 29% greater improvement when compared to hospital treatment. Chiropractic care may play an important role in reducing the number of acute low back pain cases that become chronic, yet this study does not address the issue. This information gap may also affect Carey's hypothesis on patient satisfaction. Is the high level of satisfaction with chiropractic due to the quality of history taking, examination, and explanation of the problem during the visit, or is it attributable to a higher rate of complete recovery?
3. Some of the results cited raise concerns about statistical methodology. Median costs (simple average) of the study were sharply lower than the mean (middle number) costs for several of the practitioners; in the case of primary care providers, they were less than one-half. This indicates that there are a significant number of inexpensive providers that are skewing the result. More important, this inconsistency suggests that the sampling mechanism used to collect the cost data is flawed, which compromises the entire economic portion of the project. Another area of concern is that the reported number of complete recoveries was only 69%. This would seem suspiciously low when compared to other studies, which raises the possibility that a sampling error may have occurred.

4. Matching of services with provider type may be irregular. A red flag was raised when Carey reported that chiropractic patients took an average of 0.7 prescription medications compared to 1.9 taken by the patients of other providers. Because chiropractors are not only philosophically against the use of drugs, but are actually barred from writing prescriptions in any of the 50 states, the only rational explanation for chiropractic patients to be taking any prescription drugs would be some corruption of provider types (and costs) for an unknown number of patients.
5. Compliance has been disregarded. It is impossible to bundle costs into provider type, as this study has done, if patient compliance is not factored in. Improperly taken prescriptions, ignored recommendations for ancillary procedures, and patient self-treatment hopelessly skew the results of an unmonitored study, such as this one. In David Eisenberg's 1993 article on unconventional medicine published in NEJM, he observed that seven out of ten patients do not tell their medical doctors that they are utilizing alternative health care. Consider the impact that could have on the outcome of this study.
6. Episodes are poorly defined or contained. The concept of recurrence is completely ignored. Recent research by T.W. Meade (BMJ, June 2, 1990, and Aug. 5, 1995) and B.W. Koes (BMJ, March 7, 1992) support the benefits of chiropractic intervention for up to 36 months. By omitting recurring conditions following treatments by practitioners other than chiropractors from the cost considerations, the true long-term costs may not be reflected.
7. No consideration is given to pathologic yield. There is no confirmation of diagnoses by laboratory tests across provider types. This would have a major bearing upon the true comparative costs of provider services.
8. Practice patterns of chiropractors are not considered. The study fails to take into consideration that any combination of nearly 100 different techniques may have been used by the chiropractors in the study. In addition, the ancillary procedures employed by some, but not all, chiropractors such as heat, cold, diathermy, ultrasound, electrical stimulation, and traction could inflate the costs of some chiropractors or vary the outcomes.
9. Types of medication and their side-effects are not specified. There is a wide range of medication specified in this study including acetaminophen, non-steroidal anti-inflammatory agents, muscle relaxants, and narcotic agents; however, they are not correlated with provider types. Given that many of these drugs have harmful side-effects, and that others are of questionable effectiveness in treating low-back pain, Carey does a disservice to the public by not indicating which providers employ which drugs. He treads on thin moral ice by recommending those providers over a therapy that avoids medication entirely.
10. The calculation of charges is neither precise nor balanced among provider types. The authors admit that the charges reported are approximations calculated from prevailing statewide charges assigned by a single health insurance carrier, plus a 40% markup from wholesale costs to the pharmacist. A recent study reports that chiropractic payments account for only 1.8% of total insurance payments, this under-representation could lead to a faulty estimation of chiropractic costs. The uncertainty of fiscal data, plus the significant exclusion of chiropractic services from insurance reimbursement undermines the validity of the cost data presented in this study.
11. The other concurring study to this report has been seriously discredited. The paper by P.G. Shekelle (Spine, Vol. 20, No. 2) cited in Carey's study, was based on data that is nearly 20 years old and ignores the explosive growth in medical health care costs during that time. It also contained many of the same flaws present in Carey's study. It should be remembered that no study is definitive, even those published in the most respected scientific journals. In fact, the publication of Carey's study could be viewed as further evidence that chiropractic has "arrived" and is considered a serious threat to the established health care hierarchy. The volume of evidence now being compiled makes a compelling case for the use of chiropractic as a means of controlling soaring costs in our overburdened health care system.