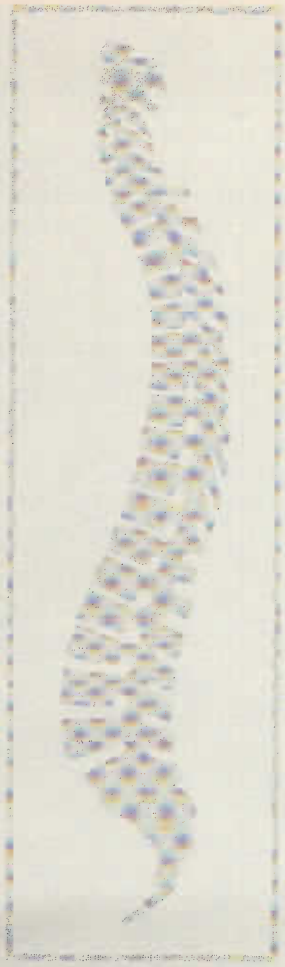

THE CHIROPRACTIC REPORT

An international review of professional and research issues, published bimonthly.

Editor: David Chapman-Smith, LL.B. (Hons.) November 1988 Vol. 3 No. 1

International Congress – Sydney, Australia

A. Introduction

1. This year's premier chiropractic meeting, the International Congress of Chiropractic, took place October 2-9 in Sydney, Australia at the University of New South Wales, the Intercontinental Hotel, and the Opera House. It attracted 850 chiropractors from 26 countries.

2. A week involving a comprehensive worldwide overview of chiropractic practice, education, research, legislation and future challenges was followed by an interprofessional research symposium entitled 'The Spine and Low Back Pain' which featured leading chiropractic and medical research scientists from Australia, Europe and North America. This is a report on both the chiropractic congress and the research symposium.

3. Chiropractic in Australia, as delegates at the Congress quickly perceived, is making impressive strides.

• First licensing legislation for chiropractic was in the state of Western Australia in 1964. Such legislation is now established in all Australian states and territories.

• The Australian federal government's Layton Report in 1986[1] concluded that chiropractic in Australia now had a strong educational base, a quite acceptable research and scientific base, and represented an approach to health care that was proven effective, cost-effective and enjoyed wide public acceptance. The Committee recommended government funding for chiropractic services in hospitals and other community facilities. (In this it made a clear distinction between chiropractic and other emerging health care disciplines such as osteopathy and naturopathy which were found not to meet the criteria for public funding).

• Australia's two undergraduate chiropractic programs, one affiliated with the University of New South Wales, are both government-funded and part of the national tertiary education system. A postgraduate university program (leading to a Master of Science in Chiropractic) will commence at Griffith University, Brisbane, Queensland in February 1990. This arises from the impressive research commitment and publications of Australian chiropractors during the past 10 years.

• The Australian Spinal Research Foundation, established by the chiropractic profession but having an interprofessional advisory board and funding inter-disciplinary spinal research, has this year raised $1 million in private funding from the chiropractic profession in Australia. This represents approximately $750.00 for each chiropractor in the country – impressive by any standards.

• The Journal of the Australian Chiropractors Association, like JMPT in North America, is formally indexed in the scientific literature and a credit to the profession and its editors, Drs. Mary Ann Chance and Rolf Peters.

• Former medical critics of the chiropractic profession now acknowledge its new maturity. One, Sir George Bedbrook of Perth, Western Australia, one of Australia's most distinguished spinal surgeons, flew the breadth of the country to be the keynote speaker at the interprofessional symposium (see para 16 and Table 2).

B. Congress

4. The week Monday to Friday featured two concurrent programs reviewing all aspects of chiropractic in 1988 - under segments entitled community, education, history, practice, research, and world overview. Program content is summarized in Table 1 (see Page 3). Virtually all of the profession's leaders were present. Dr. Kenneth Luedtke, President, represented the American Chiropractic Association, Dr. Gerry Clum, Vice-President, the International Chiropractors Association, Dr. Christoph Diem, President, the European Chiropractors' Union, and Dr. Maylon Drake, President, the U.S. Council on Chiropractic Education.

Nearly all chiropractic college presidents worldwide attended, many speaking on the program, and representatives of 26 national associations attended an historic meeting at which a World Federation of Chiropractic (WFC) was formally constituted (See Pg 5). Prominent North American chiropractors on the program included Drs. Arlan Fuhr (Activator), George Goodheart (AK), James Parker (Practice Management), Reed Phillips (Research), Glen Stillwagon (Technique), John Stump (Sports Chiropractic), Joseph Sweere (Industrial Health), Herbert Vear (Education) and Terry Yochum (Radiology). Selected highlights follow:

Professional Notes:

SCASA Controversy

On the eve of his September 20, 1988 departure from the office of U.S. Secretary of State for Education, Mr. William Bennett took the highly controversial step of recognizing the Straight Chiropractic Academic Standards Association (SCASA) as an official accrediting agency for chiropractic education. The recognition is for a 2-year period but SCASA is asked to report back within 6 months with respect to various deficiencies in its status.

The decision was highly controversial because the Secretary usually accepts the advice of a special Advisory Committee which conducts exhaustive hearings on all applications for status by accrediting agencies. Here he did not. Background to the SCASA application includes:

• In Spring 1988 the American Chiropractic Association (Dr. Ron Harris, Executive Vice-President), the International Chiropractors Association (Dr. Bruce Nordstrom, Executive Vice-President), the Council on Chiropractic Education (Dr. Maylon Drake, President), and NCMIC (Dr. Bill Dallas, President) appeared before the Advisory Committee to oppose SCASA's application. The Committee, as is normal, reserved its decision, and indicated that a formal decision on SCASA's status would be announced in Spring 1989.

• At the same sittings the Advisory Committee

continued on page 8.

Acceptance of Chiropractic – Wardwell

5. Professor Walter Wardwell of Connecticut, who completed his doctorate in sociology at Harvard in 1954 with a thesis on chiropractic, has been the most eminent commentator on chiropractic during the past 20 years and was the keynote speaker on the World Overview program. Wardwell, respected for his objectivity and ability, described chiropractic as a "marginal profession" in his early work. He now reported that chiropractic in the United States has not merely survived "but is now prospering - chiropractic has arrived". He traced the history of chiropractic since Californians forced a government referendum on chiropractic in 1917 and saw "remarkable success" in 5 areas:

- Public acceptance (shown by patient statistics and opinion polls).
- Legislative acceptance (universal state licensure).
- Reimbursement by third party payors.
- Advanced quality in education and research programs.
- A trend of acceptance of chiropractors as professional equals by the medical profession.

He described these remaining challenges:

- Disputes over scope of practice.
- Failure in the United States to merge the two national associations.
- Need to establish even more research.
- Broader clinical training.
- The crass commercialism of some practice building entrepreneurs.
- Broader links to third parties who intervene in decisions on health care choice.

Wardwell, as a sociologist, offered this warning. The future evolution of chiropractic will only be minimally influenced by what chiropractors think and want and do. In society "there is no vacuum – everything is related when it comes to change". Social attitudes, competitors in the marketplace, the findings of new research on back pain, new mechanisms of health care delivery, the attitudes of third party payors including government, are all important and largely outside the control of the profession.

The mood of the meeting, after hearing from Wardwell and other independent commentators, was that in today's world it is naive and wrong to simply embark upon the enthusiastic promotion of chiropractic from a chiropractor's point of view. Rather, with appropriate advice from qualified advisors, the chiropractic profession should promote a health care option and image that coincides well with prevailing social and economic realities in the community. (One speaker illustrated this with reference to chiropractic industrial health. During the past 10 years chiropractic has taken huge strides with U.S. industry, and untapped potential is enormous. However success has been achieved by talking the language of corporations not chiropractic – by focusing on cost savings, early return to work, self-help, other employer/employee needs, and then delivering on these claims. Industry is interested in results not chiropractic).

Education

6. A keynote speaker was Dr. Herbert Vear, former president of colleges in Canada (Canadian Memorial Chiropractic College, Toronto) and the United States (Western States Chiropractic College, Portland, Oregon) who noted these milestones:

- 1935 – the National Chiropractic Association in the U.S. embarks on the journey to create uniform minimum standards in chiropractic education.
- 1969 – the Federation of Chiropractic Licensing Boards (FCLB) in the U.S. finally establishes a standard basic curriculum.
- 1974 – Commission on Chiropractic Education (CCE) in the U.S. accepted by the government as an official accrediting agency for chiropractic education.
- 1988 – uniform accrediting standards in Australasia, Canada, Europe, South Africa and the United States governing chiropractic colleges with substantially similar and high educational standards – the equivalent of medical training in basic sciences and various diagnostic and other clinical skills including skeletal radiology.

7. Following presentations from chiropractic college presidents in Australia, Canada, England and the United States (Cassata, Northwestern; Christensen, Anglo-European; Clum, Life-West; Drake, Los Angeles; Hagen, Logan; Kern, Palmer; and Winterstein, National), leading figures from accrediting agencies, and representatives of the practicing profession these conclusions were reached:

a) Because of the requirements of accrediting agencies and licensing boards there is a demonstrably high standard of education, equalling that of any health care discipline in comparable subjects.

b) There has been – for obvious political reasons, including the need to sit the same science board exams as medical graduates in the U.S. – too much adoption of the medical model in the area of basic sciences.

Excessive hours in chemistry and micro-pathology ("peering down microscopes") should be replaced with more relevant hours in growing fields of study such as biomechanics and clinical ergonomics.

However regulatory bodies, which have acknowledged importance, have too much control and inflexibility. "I can only change 1.4% of our basic science curriculum before conflicting with regulatory standards" – Dr. Ian Coulter, President, CMCC.

c) The only significant weakness in current chiropractic education is in clinical training.

"Would you like to be adjusted by the students you are graduating?" – Dr. Ken Luedtke, President, ACA.

"Students are not seeing the sick patient" – Dr. Donald Ross, FCLB member for 22 years.

"There is pressure to teach too many techniques – and as a result not master any" – Dr. Donald Kern, President, Palmer.

"Colleges must become patient care institutions with new emphasis on clinical experience and research" – Dr. Donald Cassata, Northwestern.

"The need for additional clinical training has been met in Europe by the requirement of internship for licensure – in Denmark (one year), Norway (one year) and Switzerland (two years) – and the requirement of a period of internship is now the official policy of the European Chiropractors' Union" – Dr. Arne Christensen, Principal, Anglo-European and Past President, ECU.

d) It is today important – particularly for the development of research skills, adequate funding, and full public acceptance of chiropractic education – that chiropractic undergraduate programs be established in a multi-disciplinary environment. In all

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CHIROPRACTIC CONGRESS - PROGRAM (Table 1)

CHIROPRACTIC IN PRACTICE

Techniques

Gonstead (Birchall, Aust)
Pierce-Stillwagon (Stillwagon, USA)
Sacro-occipital (Bastian, Aust)
Soft Tissue (Hammer, USA)
Thompson (Brady (Aust)
Activator Methods (Fuhr, USA)
Applied Kinesiology (Goodheart, USA)
Feldenkrais (Wildman, Aust)

Other

Stress Injuries (Patterson, Aust)
Extremity Subluxation (Bryner, Aust)
Athletes at Risk (Yochum, USA)
Advanced Spinal Imaging (Rowe, Aust)
A Clinical Research Office (Fuhr, USA)
Communicating Vertebral Subluxation (Herfert, USA)
Success Consciousness (Parker, USA)
Chiropractic Periodicals (Gibbons, USA, and others)
Report Writing (Chapman-Smith, Can)

CHIROPRACTIC AND COMMUNITY

Hospital Privileges (Davies, Aust)
Professionalism and Community Relations (Hill, Can)
Multi-disciplinary Settings (Walker, Aust)
The Patient's Perspective (Walters, Aust)
A Sociological Study (Scott, Aust)
Summary and Conclusions (Vear, Can)

Aspects of General Practice

Paediatrics (Oberklaid and Davies, Aust)
Sports and Posture Clinic (Pollock, Can)
Geriatric Patients (Winterstein, USA)
Handicapped Patients (Joseph, Aust)
Wholistic Health (Hetzel, Aust)
Health Promotion (Brimsmead, Aust)

Industry and Sports

Keynote Speaker on Industry: Dr. Joseph Sweere (USA)
Industrial Management (Baldwin, USA)
Perspectives on Rehabilitation (Hayes, Aust)
Repetitive Strain (Littlejohn, Aust)
Sports Chiropractic (Patterson, Aust)
The Multidisciplinary Approach (Auston, USA)
Effectiveness of the Airbelt (Stump, USA)

CHIROPRACTIC EDUCATION

Accreditation

History (Faye, USA)
Accreditation in Australia (Birrell, Aust)
Accreditation in Canada (Henderson, Can)
Accreditation in Europe (Christensen, UK)
The Significance of Accreditation (Hagen, USA)
The College Viewpoint (Miller, USA)

Challenges and Controversies

Nutrition (Jamison, Aust)
Clinical Sciences (Arnold, USA)
Computer-based Learning (Fysh, USA)

Evaluation

Entry and Completion Standards (Drake, USA)
Recommendations on Admission Criteria (Lines, Aust)
The National Board of Chiropractic Examiners (Plomaritis, USA)
Jurisprudence (Auerbach, USA)
Clinical Proficiency Exams (Webb, Aust)
Evaluation in Medical Education (Duckworth, Can)

Models

University-based (Coulter, Can)
End-on, university basic sciences then chiropractic college (Bonello, Aust)
Integration into Multidisciplinary Universities (Drake, USA)
The Future of Private Institutions (Clum, USA)
Postgraduate Models (Charlton, Aust)

CHIROPRACTIC HISTORY

Keynote address: Vicki Palmer Miller (USA)
Manipulation in Antiquity (Christodoularis, Greece)
In Search of DD (Gibbons, USA)
Early History - A Videotape (Palmer Miller, USA)
B.J. Palmer Recollections (Bolton, Aust)
The Legitimation of Chiropractic (Campbell, Aust)
Aust. CA History (Sweaney, Aust)
Kjellberg and Chiropractic in Queensland, Australia (Rock, Aust)
New Zealand Chiropractic History (Reader, Aust)
Alchemy in Chiropractic (Gibbons, USA)
Conclusions (Wardwell, USA)

CHIROPRACTIC RESEARCH

Posture

Active and Passive Sitting (Kjersem, Nor)
Bed Design (Roberts, Aust)
Postural Advice and Prevention (Jochumsen, Den)
Scoliosis Screening (Ames, Aust)
Farming Injuries (Parton, Aust)
Posture During Pregnancy (Polus, Aust)

Objective Measurements

Papers by Christian, (Aust), Stillwagon, (USA), Jenness (USA) and Reynolds (Aust)

X-ray Line-Drawing Analysis

Literature Review (Molyneux, Aust)
Validation (Phillips, USA)
Lumbosacral Disc Shape (Joseph, Aust)
Cervical Spine Measurements (Hinwood, Aust)
Errors (Charlton, Aust)
Measuring Dynamics (Whitehead, NZ)

Sacro-occipital Technique

Various papers

Motion Palpation

Various papers

Applied Kinesiology

Basic Concepts (Goodheart, USA)
Summary of Research (Rosen, USA)
Examination and Reliability (Phillips, USA)

Activator Technique

Overview (Fuhr (USA)
Summary of Research (Smith, USA)
Various other papers

WORLD OVERVIEW

Throughout the 2-day World Overview session there were presentations and comment from the following international panel of experts (DCs unless indicated otherwise): **Dr. Lee Arnold,** former President, National College; **Dr. Gary Auerbach,** ICA Board member; **Dr. Donald Baldwin,** President, Iowa Chiropractic Society; **Mr. Max Birrell,** ACCE member; **Dr. Stanley Bolton,** private practice, Sydney; **Dr. Rodney Bonello,** President, Sydney College of Chiropractic; **Dr. Jeffrey Bowman,** Aust CA Executive; **Dr. Paul Carey,** Past President, Canadian Chiropractic Association; **Dr. Donald Cassata,** Ph.D, President, Northwestern Chiropractic College; **Mr. David Chapman-Smith,** Toronto attorney; **Dr. Keith Charlton,** prominent Australian researcher; **Dr. Arne Christensen,** Principal, Anglo-European Chiropractic College; **Dr. Ian Coulter,** Ph.D., President, Canadian Memorial Chiropractic College; **Dr. Neil Davies,** private practice, South Australia; **Dr. James Evans,** private practice, Victoria; **Dr. Leonard Faye,** President, Chiropractic History Association; **Mr. Russell Gibbons,** Pittsburgh, journalist; **Dr. Ross Gilmore,** Aust CA Executive; **Dr. Kazu Takeyachi,** President, Japanese Chiropractic Association; **Dr. Donald Kern,** President, Palmer College of Chiropractic; **Dr. Andries Kleynhans,** President, Phillip School of Chiropractic,Melbourne; **Dr. Dean Lines,** Lecturer, Phillip School of Chiropractic; **Dr. Kenneth Luedtke,** President, American Chiropractic Association; **Dr. Andre Menash,** private practice, Australia; **Dr. Wayne Minter,** private practice, Australia; **Dr. Hans Mueller,** chiropractic radiology, Australia; **Dr. Niels Nilsson,** DC, MD, Dean, Anglo-European Chiropractic College; **Mr. Arthur O'Neill,** Australian sociology Ph.D candidate studying chiropractic; **Dr. Donald Ross,** Past-Chairman, Federation of Chiropractic Licensing Boards, U.S.A.; **Dr. Ronald Sim,** President, New Zealand Chiropractors Association; **Dr. John Sweaney,** Past-president and Executive Director, Australian Chiropractors' Association; **Dr. Herbert Vear,** former President, CMCC and Western States Chiropractic College, **Dr. Bruce Walker,** private practice, Australia; **Prof. Walter Wardwell,** Ph.D., Professor or Sociology, Connecticut.

Factors Influencing the Advancement of Chiropractic
Keynote Speaker: Prof. Walter Wardwell (USA)

Factors influencing Education
Keynote Speaker: Dr. Herbert Vear (Can)

Interprofessional Relations
Keynote Speaker: Dr. Andries Kleynhans (Aust)

Strategies for Future Development
Keynote Speaker: Prof. Walter Wardwell

countries other than the United States this generally means a university. Even in the U.S., where health science education in a private college is seen by society as legitimate, there must be close links with other colleges and universities.

The Elderly – Cassata

8. There was analysis of many specific areas of chiropractic practice. Dr. Donald Cassata, President of Northwestern Chiropractic College, Minneapolis, who holds a doctorate in health care psychology from the University of Minnesota, produced thought-provoking statistics on the growing population of the elderly worldwide.

• In the U.S. today 12% of the population (30 million) is over age 65. By the year 2030 approximately 25% (65 million) will be in that category.

• Only 5% of those over age 65 are institutionalized (22% over age 85).

• 70% of those over age 65 report "joint pain during the last year".

(Chairman of the session, Mr. Max Birrell of Australia, reported the Australian statistic that 40% of the population would be over age 60 by the year 2000).

Cassata commented on the challenge and opportunity the elderly represented for the chiropractic profession. At his college, Northwestern, research emphasis is being given to the needs of the elderly. An annual 'Older American Month' with free visits to college clinics was commenced as a new public service this year, and resulted in over 1000 visits. Cassata, as a health care psychologist, listed these recognized essentials of management for the elderly:

a) Compassion/humanism (the elderly report current medical treatment as very dehumanizing).

b) Continuity of care (professionals must be prepared to get into homes and nursing homes).

c) Supporting the family and home (mobilizing resources to keep the elderly either in their homes or those of next-of-kin).

d) Prevention and maintenance ("forestalling disability")

e) Intelligent treatment, using the principle of minimum interference. ("Polypharmacy is seen by the elderly as a major problem").

f) Teamwork (inter-disciplinary cooperation – including home nurses, social workers and clergy).

Hospitals – Davies

9. Dr. Neil Davies, a chiropractor in private practice in Adelaide, South Australia, spoke on chiropractic training and practice in a hospital environment. Davies, a visiting lecturer at the Phillip School of Chiropractic, Melbourne, travelled to

Canada and the United States during 1988 to inspect hospitals with established chiropractic programs, and coordinates a training and treatment program at his local hospital. He made two basic points:

a) Worldwide there is a movement away from hospital-based care towards services in the community as in traditional chiropractic practice. Most chiropractors will not wish to become involved in a hospital environment on any formal basis. That is correct, and they should feel no pressure to do so.

b) On the other hand certain hospital rights offer great benefits to both patients and the profession. Desirable rights include:

• Undergraduate clinical hours and internship/ praeceptorship, giving wider exposure to disease states and added depth to clinical training. Davies supervises two internships presently at his hospital.

• Publicly-funded chiropractic outpatient clinics. (An Australian government inquiry has recently recommended such hospital-based chiropractic services.[2])

• Right to treat chiropractic patients hospitalized for other causes.

• Participation in public health programs – often coordinated from a regional hospital.

• Postgraduate study and awards. In fields relevant to chiropractic but deserving an inter-disciplinary basis – such as gerontology, neurology, orthopaedics, and pediatrics.

(For a new text on chiropractic services in the hospital setting see 'Hospital Privileges Protocol' by Krantz.[3])

Legislation – Leudtke

10. On the World Overview program a panel of experts looked closely at the impact of legislative and financial issues on the present and future growth of chiropractic and drew the conclusion that they were now even more fundamentally important than further advances in education and research. Dr. Kenneth Luedtke, President, American Chiropractic Association, spoke of his home state of Wisconsin. During the past five years altered market conditions, through the growth of prepaid health care plans (health maintenance organizations (HMOs) and preferred provider organizations (PPOs)), had made severe inroads into chiropractic practice. The new plans and health centres, controlled in practice by the medical profession, had provided physical therapy services but excluded the chiropractic profession. No matter how educated, professional and well-researched chiropractors were, they were simply losing their market.

Luedtke reported, however, that effective government relations had resulted in new legislation in Wisconsin during 1988 requiring these new delivery plans to incorporate all health care services recognized by the laws of Wisconsin – including chiropractic.

11. The meeting was presented with graphic examples of third party financial impact on the growth of chiropractic services. One related to the U.S. Medicare program, pursuant to which the U.S. government covers chiropractic services to the elderly for treatment by adjustment, but not diagnostic services and other treatment or management. In a country where licensing laws and private insurance plans have long recognized full diagnostic responsibilities (including radiology and laboratory services) for chiropractic and a wide range of adjunctive treatments, the following 1986 memorandum from the U.S. Department of Health and Human Services says a lot:

"The Department should vigorously oppose any movement to expand the coverage of chiropractic services to include an initial diagnostic visit, x-ray, laboratory services or adjunctive therapy. In the absence of effective utilization controls, the cost of these proposals would more than double the cost of chiropractic care under the Medicare benefit in the next several years (from $93.6 million in 1984 to more than $260 million in 1987).

The Department should consider submitting a legislative proposal to Congress which would:

• .... is limit Medicare coverage of chiropractic services to manual manipulation of the spine to correct a subluxation demonstrated by x-ray to exist.

• *Cap the number of services for which a patient could receive payment at 12 per year.* All covered services over 12 visits would be automatically denied. ($23.9 million savings in 1987)".[4]

The context of this memo is a U.S. federal government plan for the elderly. Many have a changed quality of life because of chiropractic care that keeps them mobile and independent, but this often requires significantly more than 12 visits a year. Imagine limiting some other form of rehabilitative treatment to once a month?

The elderly are often those least able to meet the cost of chiropractic diagnostic services. Furthermore they can obtain imaging and laboratory diagnosis without charge from competing professionals in the health care system. Here is one example of how financial and legislative measures shape public use of chiropractic services and are of fundamental importance to the future of the profession.

Malpractice – Carey

12. Dr. Paul Carey of Stratford, Ontario, President of the Canadian Chiropractic Protective Association (CCPA), spoke of three years experience with the CCPA which is a fund established in 1986 by the CCA to provide in-house malpractice protection for the CCA's 3000 members.

Analysis of claims records confirms what is being shown by research of medical claims in the United States[5] – *the single most important factor in the area of malpractice claims is the quality of the relationship between practitioner and patient.* Patients, even after significant injury, tend not to take legal action against caring health professionals. If a chiropractor fails to talk to a patient and his/her family following an untoward incident it is this breakdown in communication that will precipitate legal action.

Sports Chiropractic – Patterson

13. Dr. Noel Patterson of Perth, Western Australia, Vice-President of FICS (Federation Internationale de Chiropratique Sportive) announced that the era in which chiropractors were forced to treat athletes outside the Olympic Village were over – the profession had 7 chiropractors in Seoul, all properly affiliated with their national Olympic teams.

FICS, established at a meeting in London, England in September 1987, is modelled upon the equivalent medical organization FIMS, and has now applied to the International Olympic Committee for formal recognition. It has delegates from 40 countries. President is Dr. Stephen Press of Inglewood, New Jersey. FICS' first priority is to establish formal postgraduate requirements that must have been met by any chiropractor worldwide wishing to represent the profession at international sports meetings. Such control of standards, explained Patterson, was vital if sports chiropractic was to succeed in a sophisticated and competitive modern sports world.

(Enquiries concerning FICS should be directed to the delegate in your country – names of delegates can be obtained from

Florida WCB Study – Part 2

Part 2 of the Foundation for Chiropractic Education and Research's study of Florida WCB records is out (for comment on Part 1 see TCR (May 1988) Vol. 2 No. 4). This represents new, reliable research confirming earlier studies showing that chiropractic management of work-related back injuries is highly cost-effective compared with medical management.

The main population in the study was back injury claimants for the Florida WCB fiscal year July 1, 1985 to June 30, 1986 who had:

- Compensable injuries – temporary total disability and time off work in excess of 7 days.
- Cases closed (i.e. resolved) by April 30, 1987. But with:
- Surgical cases excluded – to allow valid comparison of chiropractic and medical management.

Average period of disability for chiropractic patients (39 days) was 48.7% shorter than medical patients (58 days). Average cost of chiropractic services ($1,003) was 55.3% less than medical services ($1,558).

The full report can be obtained from FCER, 1701 Clarendon Blvd., Arlington VA 22209, Tel: (703) 276-7445. Cost – US$10.00

Stephen Press, D.C., President, International Federation of Sports Chiropractic, 291 South Can Brunt Street, Inglewood, NJ, 07631 U.S.A. Tel: 201-569-1444, Fax: 201-569-1445).

World Federation of Chiropractic

14. A World Federation of Chiropractic, representing national associations of chiropractic worldwide, was formally established during the Congress at a meeting attended by representatives of 26 countries.

The first formal steps towards creation of a world federation were taken at a World Chiropractic Presidents' Summit in London, England in September 1987, and during the past year a working party appointed at that time consulted with chiropractors in 49 countries then prepared the draft constitution voted in at Sydney.

All other major health care professions have such a federation. The WFC will represent the chiropractic profession in the international health care world, including at the World Health Organization. It will also serve as a forum for discussion of common professional issues, will develop a central data base and library, and will assist in the establishment of appropriate chiropractic legislation worldwide.

The Federation's activities will be controlled by a Council comprised of 11 chiropractic leaders elected on a regional basis – regions, similar to those established by the WHO, are Africa, Asia, Eastern Mediterranean, Europe, Latin America, North America and the Pacific. The secretariat of the WFC is to be established in Toronto in conjunction with the offices of the Canadian Chiropractic Association and with Mr. David Chapman-Smith, attorney, as chief executive officer.

The Sydney decision to establish the WFC must now be ratified by each national association. Primary figures behind formation of the new organization have been Dr. Shelby Elliott (ACA) and Dr. Gary Auerbach (ICA) who have represented chiropractic at WHO meetings in Geneva during recent years, and Dr. Miriam Minty (Australian Chiropractors' Association) and Dr. Paul Carey (Canadian Chiropractic Association). During the past year the activities of the working party developing a constitution were equally supported and funded by the ACA, Aust CA, CCA, ICA, and the European Chiropractors' Union.

(The full and voting members of the Federation are national associations. A number of other categories of membership for chiropractic organizations and individual DCs are being established. Anyone interested in the Federation, and requiring further information, should write to: The Executive Secretary, World Federation of Chiropractic, P.O. Box 244, Station "S", Toronto Ontario M5M 4L7).

C. Symposium

15. The two day interdisciplinary scientific program at the University of New South Wales introduced much recent chiropractic and medical research, most as yet unpublished. Details of the program appear in Table 2 (pg. 6). An auditorium for 900 was seated to capacity with 30 MDs (mostly orthopaedic surgeons and general practitioners) joining the Congress delegates and a variety of other professionals.

Opening Address

In opening the program Sir George Bedbrook, MB BS MS FRACS FRCS DPRM, a leading Australian spinal surgeon, predicted that spinal pain would be "one of the major issues of the future" in health care. Echoing the published comments of other leading medical specialists in the United States[6] and Europe[7] he observed:

- "The model I learnt at medical school, that pathology causes physical disability, must be changed." A more common cause of disability is poor diagnosis. There must be early diagnosis and treatment – "so often I have seen the opposite".
- "We must look more closely at neuro-anatomy and the articular facets and ask where the pain is coming from".
- Rest can be catabolic (destructive) while movement is frequently anabolic (healing), and "there must be earliest possible restoration of function and activity".

Bedbrook, following spinal specialists worldwide, endorsed the three stages in the natural history of spinal degeneration described by Kirkaldy-Willis,[8] a leading Canadian researcher who is a past president of the International Society for the Study of the Lumbar Spine, namely:

i) **Dysfunction.** Minor pathology resulting in abnormal function of the posterior joints and discs ('the three joint complex'). Pathological changes are small, and frequently missed on medical examination. 90% of all low back patients at Kirkaldy-Willis' hospital pain clinic are in this phase of degeneration.

ii) **Instability.** The next stage in the disease process, where progressive degeneration due to repeated trauma produces laxity in the joint.

iii) **Stabilization.** The third and final stage, where fibrosis, formation of osteophytes, etc. greatly restricts movement.

(For a fuller report on Kirkaldy-Willis' work, and his successful management of chronic low-back pain patients with combined medical and chiropractic treatment, see The Chiropractic Report (January 1987) Vol. 1 No. 2).

Anatomy

16. The research presentations commenced with anatomy papers. A dominant theme emerging from these was the continuing central importance of plain film x-ray in the diagnosis and sound chiropractic management of spinal problems.

a) Professor John Duckworth MD, (for full qualifications of all speakers – see Table 2), formerly Professor of Anatomy at the University of Toronto, now at the Canadian Memorial Chiropractic College, presented abnormalities of the lumbosacral complex that required x-ray visualization for rational management – abnormalities such as unilateral sacralization of the 5th lumbar vertebra, with associated disc deterioration and osteophytic degeneration.

b) Dr. Kevin Singer, Ph.D. who works with Dr. Lynton Giles DC at the University of Western Australia, produced fine images showing change of orientation of the facts at the thoracolumbar junction. His research revealed:

• 30% of spines feature a sudden change of orientation at one vertebral level.

• 70% present gradual change of orientation over several levels.

• Change commences as high as T9-T10, and goes as low as L1-L2.

• There is a high degree of tropism at the level(s) of change of orientation.

• Rotation injuries tend to be located at the first thoracolumbar joint showing sagittal orientation. Flexion injuries, by contrast, are not localized.

These findings are of clear relevance to both x-ray line analysis and use of informed specific adjusting techniques.

17. Dr. Gregory Kramer DC who has his science doctorate in neuroanatomy, spoke on the transforaminal ligament (TFL), first described in 1969. With respect to his research, funded by the National College of Chiropractic and Georgia State University:

• On dissection of 35 spines the TFL was found at one or more levels in 73%, on both sides in 13%. On rare occasions two TFLs were found at the same foramina. Presence was most common at L5-S1.

• TFLs are thought to be composed of fascia. As his clear CT and MR images reveal, they can be either broad and flat or rod-like. At the foramen they trap the spinal vessels above, and the anterior primary division of the nerve root below. Clinical significance is not yet determined, and is the aim of continuing research. It is postulated that these ligaments may have a guillotine and/or pressure effect on adjacent tissues.

18. Dr. Lynton Giles DC, produced latest findings in his long-standing work in intra-articular synovial folds (IASFs). Excellent pictures from gross anatomy and histological studies showed that IASFs contained:

• Vascular structures.

• Nerve cells (related to vascularization and independent) i.e. a source of pain.

•Elastic cells i.e. capacity to retract.

Clinical relevance postulated was that spinal adjustment could free IASFs, removing intrusions causing degeneration and pain at the posterior facets. Normal body movements, such as forward flexion, were apparently insufficient to release IASFs. However skilled adjustment could achieve this through the correct blend of force, flexion, and rotation.

Biomechanics

19. Dr. Harry Farfan MD, an orthopaedic surgeon from Montreal who has made a major contribution to the literature on the biomechanics of the lumbar spine during the past 20 years, suggested:

• Human structures, such as buildings, are designed for minimum alteration of structure (deflection). The human body however is designed for minimum stress, which involves very different mechanical principles.

• His research has been based on the hypothesis, now a proven theory, that the spine works normally when under least stress. To prove this theory he has measured various indicators – muscle activity as recorded by EMG, disc pressure, abdominal pressure, and range of motion.

• He has also measured the optimum capacity of various load-bearing tissues (discs, ligaments, and muscles) and their comparative role in spinal movements. Experiments with world class competitive weightlifters showed that the body, even in 'capacity' lifts, only works to 65% of its true biomechanical potential – more likely an innate intelligent margin for error than inefficiency.

20. On the basis of his research in the late 1960s[9,10,11] Farfan concluded that much back pain arose from:

• Mechanical origins

• Compressive injuries causing progressive internal disc disruption. Herniation should properly be viewed as the end point of this process, rather than a sudden result of an abnormal force such as lifting too great a load – *or receiving an inappropriate manipulation.*

In Sydney two prominent researchers agreed with him.

a) Nicolai Bogduk MD, an internationally prominent researcher from Australia who was awarded the 1987 Volvo Award in Basic Sciences for research on the causes of low-back pain, reported these experimental findings:

• A healthy disc will not herniate even if you drill a hole in the annulus then subject it to major compressive and torsional forces.

• CT scans now enable researchers to see the inside of discs far better than a few years ago. What is seen is growing internal disc disruption over time, with nuclear material flowing into radial tears or fissures that penetrate the annulus progressively.

It is now known that the outer third of the annulus is well innervated. Disc pain commences when the pathology of internal disruption reaches that outer third.

• Frank herniation, when fissures reach the exterior of the annulus, may or may not produce pain. About 40% of adults over age 45 are living happily with asymptomatic herniations.

b) Professor Bill Hutton, Head of Mechanical Engineering at the South Australia Institute of Technology, spoke of his recent experiments subjecting discs (how fresh – "very fresh – a few hours") to varied forces.

In one experiment apparently healthy discs resisted major compressive forces. (He estimates the compressive strength of a disc in a typical young man to be about one ton). However continuous forward bending under moderate loads finally caused prolapse through fatigue. "Continuous bending into flexion for 24 hours supporting the weight of an average TV set was enough".

21. Dr. Allan Breen DC, explained his current research, funded by AECC and the University of Southampton, which involves "seeing what we feel with our fingers more clearly than ever before" – visualizing precise movement between lumbar vertebrae using digital videofluoroscopy. His highly technical research presents no conclusions of clinical value as yet, but is indicating that normal motion may be much more variable than anyone yet suspects.

22. Dr. Terry Yochum DC of Denver, Colorado revisited the controversial area of spondylolysis/spondylolisthesis and noted:

• Lesions generally occur at an early developmental age in children, but are stable by age 10.

• There is no evidence that trauma induces slippage when there is pre-existing spondylo.

• Where an athlete has spondylo – and studies show many top athletes do, more than twice the incidence in the general population – look past it for the real cause of the low-back

pain reported. Do not see a picture of spondylo and automatically view this as the problem, and grounds for counselling against continuing participation in sport. Do not create "spondylo-athletic invalids".

Imaging

23. Dr. Yochum and Dr. Lindsay Rowe DC of Newcastle, New South Wales, Australia, joint authors of 'Essentials of Skeletal Radiology'[12] summarized the "technology explosion in imaging in the last 10 years".

• **Plain Film.** Notwithstanding the new technology, "remains the most valuable, available and cost- effective form of imaging – remains the blueprint" (Rowe). Important information on structure, pathology and biomechanics.

• **Myelogram.** Still valuable for central stenosis and cauda equina syndrome, otherwise replaced by:

• **CT scan.** Computer assisted tomography, giving beautiful pictures, but this can produce unwarranted focus on abnormalities unrelated to symptoms presented. (See Bodguk, para 24). Axial sections only.

• **MRI.** Axial and sagittal views possible. Magnetic resonance imaging, unlike plain x-ray and CT scanning, images *atoms* not *anatomy*. Accordingly the pictures are less clear, and one must read what is seen with an appreciation of the importance of density. Unique capacity to visualize soft tissue abnormalities – such as synovial cysts and epidural hematoma. (The latter may cause pain mimicking disc herniation. This probably explains why no herniation is sometimes found on surgery. The incision masks the presence of a hematoma. There is spontaneous remission after about eight weeks if left unattended. Rowe has seen 6 cases during the past year).

• **Discography.** Involves injection of contrast dye into the disc. Unpleasant, painful, and with CT scans and MRI now available gives nothing special and should be avoided.

24. Bogduk MD gave an intentionally provocative address critical of the overuse of CT scans and MRI – formerly known as NMR for 'nuclear magnetic resonance', but suggested by Bogduk to mean "no more radiologists"! Points:

a) "My medical school training was that the ruptured disc causes all back pain", giving mechanical and chemical irritation of the root, ventral root, dural sheath, and vascular tissues. "This is generally nonsense. When roots are irritated it doesn't cause back pain – it causes leg pain". Back pain arises from other somatic sources. The approach to differential diagnosis is to consider:

• The tissues with innervation (these might hurt).

• The presence of pathology in these tissues (why they hurt).

b) The current literature, published and awaiting publication, points to "three major sources of back pain – the disc, the dura, and the facets".

"Millions of research dollars and hundreds of published papers deal with 5% of the problem" – serious but uncommon causes. "The *major causes have been poorly researched.*"

c) "CT scanning for low back pain is usually an irrelevancy". Radiologists look for pictures of *abnormality* but "we are talking pain not pictures". Abnormality is ever-present, and usually asymptomatic.

• Three published papers show that 29%, 39% and 51% of adults over age 45 without back pain have disc herniations evident on CT scan. These figures show:

i) A high incidence of benign herniation.

ii) Major disagreement by observing radiologists.

• There are no normal studies – "where are they" – showing that abnormal anatomy causes or predisposes a person to pain.

• CT scanning for patients with low back pain should generally be discouraged. Its one useful role is imaging internal disc disruption, thereby documenting or excluding that pathology as a source of pain.

25. Anne Oesterich DC, presenting clinical research from the Anglo-European College of Chiropractic, reported on a study to be published in the ECU Journal in which stress x-rays in lateral flexion were taken to see whether there was any

SYMPOSIUM ON SPINE AND LOW-BACK PAIN (Table 2)

SATURDAY

Opening Address:
Sir George Bedbrook, MB, BS, MS, FRACS, FRCS, DPRM, Royal Perth Rehabilitation Hospital, Western Australia.

Anatomy

The Normal and Abnormal Anatomy of the Lumbar Spine in Relation to Low-Back Pain: Prof. John Duckworth, MB, Ch.B, MD Professor of Anatomy, University of Toronto and Canadian Memorial Chiropractic College.

The Transforaminal Ligament at the L5/S1 Intervertebral Foramen: Gregory D. Cramer, DC, Ph.D, National College of Chiropractic, Chicago, Illinois.

Zygapophyseal Joint Morphology at the Thoracolumbar Junction: Kevin P. Singer, PT, Ph.D, University of Western Australia, Perth.

The Uncinate Spur in the Lumbar Spine: Lindsay Rowe, DC, DACBR, Chiropractic radiologist, Newcastle, New South Wales.

Lower Lumbar Zygapophyseal Joints and Low Back Pain: Lynton Giles, DC, Ph.D, University of Western Australia, Perth.

Biomechanics

The Mechanics of the Lumbar Intervertebral Joint: Professor William Hutton, M.Sc., D.Sc., Head, Department of Engineering, South Australian Institute of Technology.

The Biomechanics of the Lumbar Spine in Health and Disease: Harry Farfan, B.Sc., MD, DM, FRCS(C), Orthopaedic surgeon, St. Mary's Memorial Hospital, Montreal, Canada.

Leg Length Inequality and its Effect on the Lumbar Spine: Dr. Lynton Giles.

An Update on Spondylolisthesis and the Athlete: Terry R. Yochum,DC, DACBR, Chiropractic radiologist, Denver, Colorado.

Estimating Incremental Movement between Lumbar Segments: Alan Breen, DC, M.Sc, Director of Research, Anglo-European College of Chiropractic, Bournemouth, England.

LOW BACK PAIN

The Neurology of Low Back Pain: Nikolai Bogduk, MB. BS, B.Sc.Med., Ph.D., Dip.Anat., Senior lecturer, Faculty of Medicine, University of Newcastle, New South Wales.

Rheumatological Causes of Low Back Pain: George Littlejohn, MB. BS, FRACS, Rheumatologist, Department of Medicine, Monash University, Melbourne, Victoria.

Physician Selection in Low-Back Pain Patients: Reed Phillips, DC, DACBR, Ph.D, Research Faculty, Los Angeles College of Chiropractic, Whittier, California.

SUNDAY

Imaging

Advanced Diagnostic Imaging of the Lumbar Spine: Dr. Terry Yochum.
The Role of Imaging in the Spine — A Case Study: Dr. Lindsay Rowe.
Comparative Measurements of Anatomical Structures from Computerized Tomographic and Magnetic Resonance Imaging Scans: Application to the Spine: Dr. Gregory Cramer.
A Roentgenological Study of the Lumbar Spine in lateral Flexion in Patients with Low Back Pain: Anne Oestreich, DC, Research Faculty, Anglo-European College of Chiropractic, Bournemouth, England.
Images of Low Back Pain: Dr. Nikolai Bogduk.

Clinical

The Trouble with Pain Syndromes: Dr. Harry Farfan .
A Rationale of Treatment in Back Pain: Sir George Bedbrook.
Radiofrequency Denervation of the Zygapophyseal Joint Nerve Supply: D. Vivian, MB, MS, FRACS, Brighton, Victoria.
A Controlled Clinical Trial on the Effect of Chiropractic Treatment Compared with Medical Treatment for Low-Back Pain and for Sciatica: Ole Jochumsen, DC, private practice, Denmark.
Chronic and Acute Effects of Pneumatic Lumbar Support on Muscle Strength, Flexibility and Functional Impairment Index: John Stump, DC, private practice, Fairhope, Alabama.
Early Intervention Rehabilitation in Back Pain: W. Ryan, MB, BS, DPRM, Brisbane, Queensland.
Surgery in Low-Back Pain - A Neurosurgical Perspective: R.J. Vaughan, MB, BS, FRACS, Neurosurgeon, Sir Charles Gairdner Hospital, Perth, Western Australia.

Summary and Conclusions
Sir George Bedbrook.

correlation between abnormal segmental mechanics and chronic low-back pain. Points are:

• A study by Cassidy[12] involving 69 asymptomatic subjects was used as a control. Cassidy found 37% had Type III spinal mechanics on this classification: Type I (normal); Type II (reversal of spinous processes on lateral bending – rotation to convexity); Type III (reversal of both spinous processes and wedging – disc space opening to concavity).

• Oesterich et al looked at a population of 28 low back pain patients. Patients with evidence of degeneration on plain x-ray were excluded. Vertebral body angles were measured from x-rays taken on left and right lateral bending.

• *All subjects proved to have Type III mechanics, many at more than one level.* The single most common level was L4/L5. This was taken as preliminary proof of the hypothesis that chronic low-back pain may be linked to abnormal spinal mechanics and facet inflammation. Subjective motion palpation findings were given objective confirmation.

D. Conclusion

26. Last year there was a similar interdisciplinary research symposium convened by the chiropractic profession in London, England (for details see The Chiropractic Report (November 1987) Vol. 2 No. 1). It is now planned to publish the proceedings of the London and Sydney conferences in one volume and this Report will advise when that work has been completed.

Such occasions add significantly to the maturity of both the chiropractic and medical professions. All present are humbled by how little they know, are sobered by how much they need each other, but are enthused by the spirit of cooperation and enquiry. Approaching similar opportunities include:

• March 31-April 1, 1989: International Conference on Spinal Manipulation, Washington, DC. Enquiries to Dr. Steve Wolk, Foundation for Chiropractic Education and Research, 1701 Clarendon Blvd., Arlington, VA 22209, Tel: (703) 276-7445.

• December 1-3, 1988: ABS Fall Symposium, San Francisco, Enquiries to American Back Society, St. Joseph's Professional Center, 2647 East 14th Street, Suite 401, Oakland, CA 94601, Tel: (415)536-9929.

• April 13-15, 1989: ABS Spring Symposium, Boston. Enquiries as above.

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12 Yochum T, Rowe L (1987) 'Essentials of Skeletal Radiology', Williams & Wilkins, Baltimore.

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Professional Notes: *continued from page 1.*

heard 21 other applications for accrediting agency status from other professions.

• As reported by Dr. Maylon Drake, President, CCE, at the recent International Chiropractic Congress in Sydney, Secretary Bennett followed the advice of the Advisory Committee on all other 21 applications, some of which were approved and some not. The Committee found 13 government requirements missing in SCASA's application and recommended that SCASA not receive status. In this sole case Bennett went against the Committee's advice.

• Both the ACA and ICA are currently investigating the facts with a view to considering appropriate legal and/or political action.

• Currently legislation in 28 U.S. states requires that chiropractors graduate from a chiropractic college "accredited by CCE", whereas 22 states require a college recognized by "an accrediting agency recognized by the U.S. Department of Health Education and Welfare".

Either way, however, effective power of recognition of any chiropractic graduate wishing to practice in the United States remains vested in each state licensing board. If a chiropractor is educated at a college recognized by an official accrediting agency this *allows* the state board to grant licensure – it does not *compel* the board to do so.

The straight chiropractic movement has achieved a considerable political victory – the question to be asked by all chiropractors is "a victory for whom?"