Fifty Years as a Physiotherapist: A Rewarding Adventure.

By collecting our stories, we can learn how physiotherapy's (PT's) adaptation to the changing Canadian Health Care system, over the last 50 years, contributed substantially to the health care we enjoy today, while creating a profession with endless opportunities. Our strong commitment to evidence-based practice and patient-centered care, has made PT a rewarding career that continues to evolve in the capable hands of today's PTs. Our students can learn about the range of amazing opportunities available to them. During an interview for entry to the PT program, one of the questions asked was "What other things might a PT do besides treat patients?" This was to see if the applicant envisioned other activities such as writing charts and meeting with other members of the team. The applicant, having seen the announcement in the morning paper that Dr. Martha Piper (a PT) had just been appointed President of UBC, answered "the PT could be President of a University".

I wanted to be a PT when I learned that they can study and work in all areas of health care. With limited PT schools in Canada, most BC's PTs came from other Commonwealth countries. They enjoyed reciprocity and a preferential immigration status established to address Canada's need for PTs. The Canadian Arthritis and Rheumatism Society (C.A.R.S.) recruited many British PTs, to create access to physiotherapy services throughout BC.

The PT profession emerged in response to health care needs of soldiers and civilians injured in WWI (1914-1918) and WWII (1939-1945). My last student placement was at Shaughnessy Hospital, where veterans told me about the gassing, "shell shock" (PTSD), and terrible injuries they endured. PT also adapted to the changing health care problems of the time. As a child, I recall the polio epidemic in Edmonton. Everyone was terrified. I had friends and family members who became paralyzed, some died. Before long, we received the new Salk vaccine at school. Although Canada was said to be "polio free" in 1953, after effects were common. Even today, the late effects re-emerge as "post polio". During training, we treated many patients with spinal cord injuries, until the mandatory use of seat belts. PTs became very adept at muscle testing to assess all these patients.

Sept 1961: The PT School at UBC, opened in Sept 1961, the year before I went to the University of Alberta, Edmonton (U of A). I learned about the new UBC PT program when I met Jane Hudson during my first year of science at Victoria College (UVic) in 1961. I was already accepted at U of A for the coming September.

May 1962: Before heading to U of A, I worked as a physio aide in the PT Dept. at Gorge Road Hospital in Victoria. Fundamental changes were occurring in Canada's health care system. During 1962, Tommy Douglas introduced Universal Health Care in Saskatchewan. Initially, doctors went on strike. I learned about the benefits of universal health care from the British PTs.

Sept. 1962: The U. of A. program consisted of 2 years OT/PT combined and a 3rd year to qualify as either OT or PT. I developed a keen interest in anatomy, spending 9 hrs a week in the anatomy lab. In May 1962, I worked as a rehab assistant at St. Josephs Hospital in Victoria. An orthopedic surgeon encouraged me to attend many of his surgeries to learn about orthopedics. I assisted a final-year PT student from Winnipeg with treatment of two small boys who had been badly burned, learning from her outstanding example of compassion.

May 1963: The OT experience I had in my 1963 summer placement, at the 2000 bed Alberta Mental Hospital, helped me understand needs of individuals with mental health challenges and prepared me for the volunteer work I do today.

Oct 1964: In October of my final year, Jak and I were married. After graduation, in May 1965, we returned to Vancouver for Jak to complete Architecture at UBC.

Fall 1965: Back in BC, I accepted an invitation from Ruth Fortune, a wonderful mentor to so many, to join the VGH rotation process for new grads. New grads were assigned to a specialty ward for 3 months, with their own case load and a senior therapist as mentor.

Waiting for my first rotation, I was the sole therapist on Burns, Isolation, and Prison wards. Working with the patients on the Prison ward brought valuable insights about individuals living with social challenges. At Shaughnessy Hospital, I had observed an above knee amputation. While on Isolation, I was asked to watch the application of an “instant prosthesis” in the OR immediately after the amputation. I was instructed how to get the patient up, weightbearing on his newly amputated leg, within hours of the amputation; a first for BC.

Rotation through Orthopedics, Outpatients, and Neurosurgery: On Orthopedics, we went frequently into the OR to see the implantation of a new prostheses for rheumatoid arthritis, test the achieved range of movement following a shoulder manipulation under anaesthetic, or discuss the PT treatment while observing new surgical procedures. Two of us covered three, 20-bed wards. Many patients were on traction. We could give general bed exercise classes for 20 patients at once. The Sr. PT was Birthe Grosen, from Denmark, later whom I visited on two occasions, at her home in Copenhagen.

My last rotation, Cardio-thoracic Surgery, was delayed because my father was a patient on the unit. I did my last rotation with exceptional PTs Hilary Scott and Heather Howard. We were the only PTs covering the many wards run by the cardiothoracic team. These included Cardiac ICU and Cardiothoracic Surgery Wards, Private rooms anywhere in the hospital with “special” (private) nursing care, 2 Coronary Care Units, 2 General Surgery Recovery Rooms, where all post op and most ICU patients were nursed, plus Intensive Care Nursery and Emergency. It was challenging timing treatments with pain medication with so many acutely ill patients. We were grateful to have the help of our enthusiastic students. After some time, Hilary and Heather left. Later, I was the Sr. PT until Dec 1970. My first child arrived 6 weeks early in Jan 1971.

Heather: When my first daughter and Heather’s son were toddlers, Heather and her husband Peter invited Jak and I to spend the weekend with them at Whistler. Heather and Peter went up a day ahead and went missing on the mountain, spurring a massive search.

Heather, Peter and his two friends were found days later, killed in an avalanche. Everyone was devastated. Heather graduated as top student in the first PT grad class at UBC and was an exceptional PT and close friend.

Part time- 1971: I was back to work casual part time, 3 months later. The shortage of therapists allowed those of us raising families to have very flexible work arrangements. I worked on a call basis for VGH, St Paul's, Burnaby General, Lion's Gate Hospitals and twice a week at Lion's Gate Hospital Evening Outpatient Clinic. I took a one day a week teaching/consulting job at the UBC Family Practice Unit advising FP Residents how to use physiotherapy. I particularly enjoyed jobs that included teaching.

PT shift from public to private: Health care delivery was changing quickly, as was physiotherapy practice. When I began working, most patients stayed in hospital until they were generally independent, at least past the acute stage, putting pressure on access to beds. Waiting lists grew. In response, governments fostered new extended care units to provide housing for elderly and long-term disabled individuals to address the backlog. Strategies were developed to get patients out of hospital faster including short stay for routine surgery and even Outpatient Surgery to avoid admission. Some patients, typically with strokes or head injuries, were assessed before it was possible to accurately determine their rehab potential.

PT practice changed. With early discharge, earlier stages of rehab were being done in a community setting, home care, or private practice. When rehab occurred in hospital, PT was covered by the health care system. When patients were discharged earlier, much of the outpatient costs were borne by patients. PTs developed methods of working with community resources or adding to their private practice facilities to take patients to full independence. An orthopedic surgeon asked if I would continue to treat two of his patients, who were recovering from multiple injuries from a gas explosion, making it possible for him to discharge them. I set up a limited home care, private practice to treat his patients, while working full time.

The increasing access to PT clinics attracted a broader range of patients seeking treatment. This drove the progression of: increase in number and type of patients accessing community treatment; increase size, number and variety of clinics; changing caseloads; additional skills being required; more continuing education; and a shift from referral to primary care practice. The case load changed, adapting to sports injuries, and other acute problems. It also accommodated to longer term care needed by those with neurological illnesses in clinics and in schools. The increasing range of clients stimulated important changes in physiotherapy. For a profession that once delivered services largely in hospitals, physiotherapy became a profession with Primary Care responsibilities. For reasons of cost and more comprehensive recovery goals, patients were encouraged take greater responsibility for monitored exercise programs. PTs provide initial assessment, hands on treatment, and education. They tailor exercise programs, monitor results and provide treatment progression. Today, some treatment progression is even made available online. With long surgical waiting lists followed by overnight surgery or even outpatient surgery, PTs are now doing more pre-op assessment, guiding patients through the waiting period, teaching them what to do immediately post op, and monitoring post op routines. With greater number of PTs working in private practice, treating a changing range of conditions and requiring different PT skills, PT curriculum has changed to keep pace. Continuing

education demands have grown rapidly. Practicing PTs responded; many added teaching to their skill set.

With the lengthening of hospital wait-lists, efforts were aimed at early discharge and outpatient surgery, shifting the focus of rehab into the post-discharge environment. This resulted in an increase in private practice for PTs. The increase in resources in private clinics attracted a wider range of patients. With the early discharge, there was a change to PT as primary care providers. The PT curriculum adapted to take on this responsibility and enhanced opportunities for taking and teaching clinical skills courses as well as opening new careers in research to build an evidence base for PT questions.

Return to University: By the 70s, lifelong learning was an expectation and continuing education opportunities were growing. UBCs PT entry level became a BSc. PTs with diplomas could study for a Bachelor of Rehabilitation (BSR). Between working and studying part time from 1978 to 1982, I earned a BSR. I thoroughly enjoyed being back at university. I became reacquainted with many PTs that I met during my career. I met Lesley Bainbridge, who became a good friend, an inspiration, and role model for me over the next decades, to whom I am very grateful.

I returned to get an MSc (with Dr. Bernie Bressler) and a PhD (with Dr. Wayne Vogl), both in Anatomy. Next, I completed 4 years of post doctoral training in the pathology Dept at Brown University in Rhode Island with Dr. Kim Boekelheide and, the UBC Pulmonary and Cardiac Research labs with Dr. James Hogg (Order of Canada) and Dr. Bruce McManus (Order of Canada) at St Paul's hospital. During my post doc at Brown University, I taught gross anatomy to medical students. While doing my graduate studies and post docs I taught histology and gross and neuroanatomy courses to PTs, OTs, medical, dentistry, and graduate students.

Faculty Position at UBC, 1996: I accepted a faculty position in Rehab Sciences and an Associate appointment with the School of Audiology and Speech Sciences. I taught a range of courses in Medicine, OT, PT and graduate programs, focusing on online and lab-based gross and neuroanatomy but also pathology and graduate courses. I supervised graduate students in MSc and PhD programs. In my faculty appointment, my main responsibilities were research and teaching.

RESEARCH: My faculty research program involved three areas of inquiry. I studied the basic science of neurons and motor proteins, the anatomical impingement mechanisms and clinical presentation of Thoracic Outlet Syndrome (TOS), and strategies of teaching and learning. For the TOS work, I obtained funding to establish a research clinic at Kelowna General Hospital, collaborating with thoracic surgeon, Dr. Bill Nelems. We were guest lab instructors in an anatomy course for MIT PhD-Biomedical Engineering students and MD/PhD students at Harvard and for medical students at Brown University. We evaluated the anatomical variations in the thoracic outlets of 250 cadavers (500 shoulders) comparing the anomalies with mechanisms of brachial plexus impingement encountered at surgery during first rib resections in Dr. Nelem's TOS patients. We assessed their post op standardized outcomes, including neural tension, at our TOS Clinic at the Kelowna General Hospital. I was invited to present our results at the European Association of Cardio -Thoracic Surgery International Conference in Copenhagen and the Polytechnic University of Hong Kong. The data were also presented at 14th WCPT International Physiotherapy Congress in Barcelona, Spain and a number of universities in the USA and Canada.

TEACHING: Teaching was the main motivation for my returning to university and continue to qualify for a faculty position. Two family members were dealing with critical health issues during the early part of my faculty career, and I eventually decided to focus on teaching. Guest instructors have so often told me that they enjoy teaching the PT students; that they are caring, dedicated and hard working. That is so true.

Another change in health care was the emphasis on teaching and learning. Faculty were being evaluated carefully for their efforts to enhance student learning. Once on faculty, I completed a certificate in Teaching and Learning in Higher Education, conferred by UBC President, Dr. Martha Piper, and workshops in facilitation and facilitator training. I joined TAG, the UBC Instructional Skills Workshop Team, teaching skill development for faculty. I was asked to facilitate sessions at the Universitas 21, Teaching and Learning Forum of Global Education Leaders (University presidents and VPs) at UBC.

Teaching was the most rewarding area of my faculty appointment. As the Coordinator of Instructional Support and the Basic Science Stream Coordinator, I reviewed our prerequisites, monitored basic science in the curriculum, provided workshops on teaching strategies, and helped with online teaching tools. Dr. Karen Gardiner (Dentistry) (PI), Dr. Susan Nesbit (Engineering) and I were asked by Teaching and Academic Growth (TAG) to let them assume the cross-disciplinary formative peer review process and its website, we developed on our TLEF grant, to a campus wide initiative, retaining us as advisors.

An unexpected opportunity was to join the TAG Instructional skills workshop team to give workshops to faculty on teaching skills. This was a particularly collaborative group and helped me develop many teaching insights. I attended retreats with the group and was able to learn a great deal about teaching and become more confident and informed in my teaching while helping others. Recently I helped revise a part of the course manual working with two colleagues located in Dubai.

My faculty appointment included designing a neuroanatomy component for a prerequisite course, Introduction to Neurolinguistics, Audi 402 at UBC for students applying to the School of Audiology and Speech Sciences. Course Director, Dr. Jeff Small and I soon realized that requiring local attendance for the course limited the number potential applicants to the program. I took workshops on course design and on teaching in the online environment. The Audi 402 credit value was doubled, and I transitioned the course to a fully online environment, to increase access. UBC choose my course as one of 3 used to pilot their transition to Black Board Connect, the online learning system. Students could access the prerequisite course worldwide. One student completed his exams while volunteering at the Para Olympics.

Health care was being increasingly focused on continuing education of academic subjects and skill development. Many of us offered workshops that had a strong academic base to support the skills being acquired by PTs. I offered workshops in Calgary and UBC to tie the new findings in neuro anatomy with the clinical skill development. I gave an invited keynote address entitled, “Neuroplasticity, Understanding How It Works Will Change the Way We Practice”. At the Pacific Coast Brain Injury Conference, in 2004.

Students’ Honored: A highlight in my teaching assignments, was leading my systematic review groups, all exceptionally hard working and dedicated. I was particularly impressed with the group who conducted a tenacious review on the difficult but important area of exercise and

mental health. They (BH, EH, AM, MR and RR) did such an excellent job that they earned both the Anne Whitmore Award Memorial Prize and an award from the Physiotherapy Foundation of Canada in 2009.

To explore the potential for cross-culture course delivery, Dr. Elizabeth Dean (PI) asked me to help set up and teach a videoconference course with Dr. Alice Jones (Polytechnic University of Hong Kong). We taught a combined course for same level UBC and Polytechnic University of Hong Kong, PT students delivered by videoconference. Students discovered interesting cultural differences in expectations from their patients in the delivery of PT services.

Instructional Support for Developing PT Programs: At the World Congress of Physical Therapists in Barcelona, I noticed that Physiotherapy is extensive enough to reach across the globe, yet small enough that many distant groups know one another. I felt developed programs should be able to help emerging programs through online support. I developed an online course studying Learning Styles, with invited faculty from PT programs in each of Canada, Brazil, Greece, Nigeria, India and North Korea, recruited by Elizabeth. Faculty completed the online lessons demonstrating its feasibility. Elizabeth, Lesley Bainbridge, Alice Jones (Polytechnic University of HK) and I held a 2 hour workshop "*Cross cultural E-Learning in Entry Level Physical Therapy Education: Maximizing Expertise and Resources Globally*" at the beginning of the International Congress for World Confederation of Physical Therapy in Vancouver, 2007. We invited Congress attendees who were interested in giving or receiving support for their programs and in brainstorming ways to support developing programs.

Summative Peer Review: Dr. Tony Kinkaid asked me to teach his online course in Histology in the Doctor of Physiotherapy program at Creighton University in Omaha, Nebraska. I did a summative teaching review comparing Dr. Kinkaid's, online and face-to-face teaching of the same lesson. Dr. Gail Jensen PT, PhD, Dean of Graduate School, and Vice Provost for Learning and Assessment credited the review for her inspiration to adopt the process for a university wide teaching review program at Creighton.

Teaching Honors: A highlight for me was being nominated by my students and colleagues and being presented with the Killam Teaching Prize (along with $5000) at convocation in 2009.

I shared a parallel career with my friend Dr. Donna Ford who earned the same PT, MSc and PhD (Anatomy) credentials, was U of A grad, and taught anatomy. Donna Ford helped me design an advanced gross anatomy course for Thompson Rivers University to address a need for an online advanced gross anatomy course as a prerequisite for OT applicants and other potential health care students. It was a real treat to work together until her declining health required that I complete it alone. To honor their passing, a small number of UBC faculty and staff, UBC flew the flag at half mast, Donna was included in that honor.

Retirement: Friends often ask, "What are you doing now that you are retired?", often expecting a list of places I have travelled to or some exciting new hobby. I am not quite there yet. About 10 years ago, when the new Greta and Robert H.N. HO Psychiatry & Education Centre (HOpe Centre) opened at Lion's Gate Hospital, friends and I initiated a Family Advisory Committee for Mental Health and Addictions on the North Shore. I learned the impact of the "new generation" mental health medications being introduced while I was doing that OT placement at the Alberta Mental Hospital during my training. I have joined an

advisory committee for the RCMP community mental health program. I am involved with volunteer work to support mental illness and will continue for a while still.

The profession of physiotherapy has endless opportunities. It is rewarding at every turn and our new therapists can choose so many activities that they can pursue – OR, THEY CAN BE PRESIDENT OF THE UNIVERSITY!