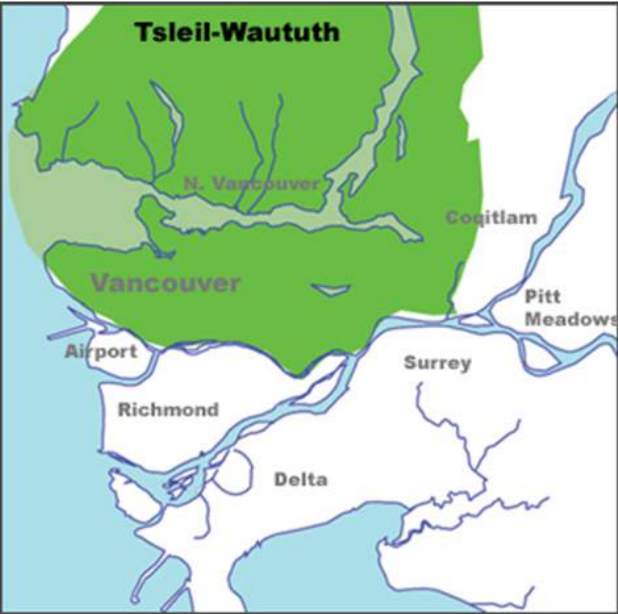
We would like to acknowledge that we are gathered today on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh peoples.

Source: www.johomaps.net/na/canada/bc/vancouver/firstnations/firstnations.html



Disability & Impairment ‘beyond the meat chart’

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Physical Medicine & Rehabilitation

VCH Family and Community Practice Rounds

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Disclosures

- Consultant: WorkSafe BC: Visiting Specialist Clinic,
- Consultant: Canada Life/Great West Life
- Consultant: Pacific Blue Cross
- Consultant: WCAT
- Consultant: ICBC

What is a physiatrist

- **What is a Physiatrist?**
- Physiatrists are physicians who specialize in physical medicine and rehabilitation (PM&R), a medical specialty that deals with the evaluation and treatment of patients whose functional abilities have been impaired.
- The disabilities and impairments may result from injuries or diseases such as stroke, neuromuscular disorders, musculoskeletal disorders, cardiopulmonary diseases, arthritis and others. The physiatrist can help to improve a person's functional capabilities by medical treatment and organizing and integrating a program of rehabilitation therapy such as physical, occupational, speech therapies, psychological, social nursing, prosthetic, orthotic, engineering and vocational services.

https://www.capmr.ca/about-capmr/what-is-a-physiatrist

Who am I?

- U of T 1982
- Rotating Internship
- GP one year
- PMR 4 years (U of T)
- MBA
- 12 years Moncton NB full service PMR including neurotrauma, EMG.
- One year Auckland NZ; Medical Director Spinal Cord Rehab Hospital
- 2001 onward: 17 years Division Head PM&R, PHC
- Section Head, PM&R, DofBC
- Member of CHEP, Liason Committee WSBC, Negotiations WSBC
- On Staff: SPH, MSJ, HFH, VGH, UBC, BBH, RH
- Areas of interest: all subspecialties including prosthetics/orthotics, polio, MS, lymphedema, etc

Objectives

- Provide a historical overview of the medical disability system
- Where are we now?
- Where are we going?
- What is the role of the family physician/nurse practitioner
- **By understanding the Disability/Insurance industry we can potentially reduce the 'burdens' associated with completing forms, etc.**

What is a “meat chart”

Definitions: WHO 1980

Impairment: any loss or abnormality of psychological, physiological or anatomical structure or function.

Disability: any restriction or lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being.

Handicap: a disadvantage for a given individual that limits or prevents the fulfillment of a role that is normal.

(As traditionally used, impairment refers to a problem with a structure or organ of the body; disability is a functional limitation with regards to a particular activity; and handicap refers to a disadvantage in filling a role in life relative to a peer group.)

What is an impairment rating?

- A medical impairment rating is completed by an <u>independent</u> professional in an appointment known as an **Impairment Rating Evaluation** (IRE). The rating gives a percentage number – between 0 and 100 – to the level of impairment, so the worker, employer and insurer can all understand how much the worker has been injured and how much the impairment will affect work. The results of the medical impairment rating determine ***how long a person might get benefits, how much compensation he might receive and whether he's expected to return to work***.

What is a Disability Rating?

- **What is a disability rating?**
  - A disability rating is based on the severity of the disability. This is expressed as a rating or as a percentage, representing how much a disability decreases one's overall health and ability to function.
  - It is used to determine a disability compensation rate.
  - It can be used to determine functional capacity; residual capacity; work capacity

Veteran's Affairs Canada

- The Table of Disabilities is the instrument used by Veterans Affairs Canada to assess the degree of medical impairment caused by an entitled disability.
- The Table of Disabilities has been revised using the concept of medical impairment, based on "a per condition" methodology.
- The relative importance of that body part/body system has been a consideration in the development of criteria to assess the medical impairment resulting from the entitled disability.
- The Disability Assessment will be established based on the medical impairment rating, in conjunction with "quality of life" indicators, which assess the impact of the medical impairment on the individual's lifestyle.

Veteran’s Affairs Definitions

- **"Activities of daily living" (ADL):** are defined as a set of activities necessary for normal self-care including personal hygiene, feeding, dressing, movement in bed, bowel and bladder control, transfers and locomotion activities performed in the home and/or community.
- **"Independant activities of daily living" (IADL):** are defined as usual and customary activities in a domestic and/or work environment which enables self-sufficiency. Such activities include shopping, meal preparation, housework, using forms of private or public transportation and gardening.
- **"Medical Impairment":** is the physical loss of, or disturbance to, any body part or body system, and the resultant loss of function.
- **"Loss of Function":** is the disturbance of or deviation of in, the normal functioning of a particular body system, measured by comparing an individual's performance efficiency with that of a normal, healthy person of the same age and sex, in a set of defined vital functions.
- **"Other impairment":** is the physical loss of, or disturbance to, any body part or body system, including discomfort, pain, prognosis, and other, less tangible consequences.
- **"Medical Impairment Rating":** is a measure of the degree of impairment due to an entitled condition or bracketed entitled conditions which reflects the severity of the medical condition and/or the degree to which it decreases an individual's ability to perform normal everyday activities, as measured by criteria in the specific Medical Impairment chapters in this Table of Disabilities.
- **"Quality of Life" (QOL):** is the ability to perform activities of independent living, to participate and maintain appropriate and customary personal relationships.

Veteran’s Affairs More Definitions

- Impairment consists of the following two components:
  - the physical loss of, or alteration to, any body part or system, **and**
  - the functional loss to which the physical loss or alteration may give rise.
- The Medical Impairment Rating Chapters are divided using major groups of vital function or organs which are referred to as body systems for the purposes of this Table of Disabilities. Each chapter includes an introductory section which describes the disabilities assessed within that chapter in addition to specific instructions on how an entitled individual condition or bracketed conditions will be assessed.
- For the purposes of assessing disability, Medical Impairment represents the alteration of an individual's health status resulting from the entitled condition or bracketed conditions. Medical Impairment is rated in accordance with the *relative* importance of the affected body part or body system.

And VA More Definitions

- The QOL chapter rates the effects of the entitled disability(ies) on the following components:
- **The ability to participate in activities of independent living;**
- **The ability to take part in recreational and community activities;**
- **The ability to initiate and take part in personal relationships.**
- The QOL chapter measures the disadvantage caused by the entitled condition or bracketed entitled conditions, by comparing the existing quality of life with what might have been expected in the absence of the entitled condition or bracketed entitled conditions.
- Where possible, the usual or accustomed activities that the Member/ Veteran/Client was engaged in prior to the disability or worsening of the disability should be a major consideration in determining the QOL effects from the entitled condition or bracketed entitled conditions. Additionally, in establishing the QOL effect, it must be established that the inability to perform or to modify usual QOL activities is directly due to the entitled condition or bracketed entitled conditions and not other variables or characteristics such as non-entitled condition(s), lack of skill, motivation, choice, availability or access to recreational activities, employment, etc.

And Even More VA Definitions

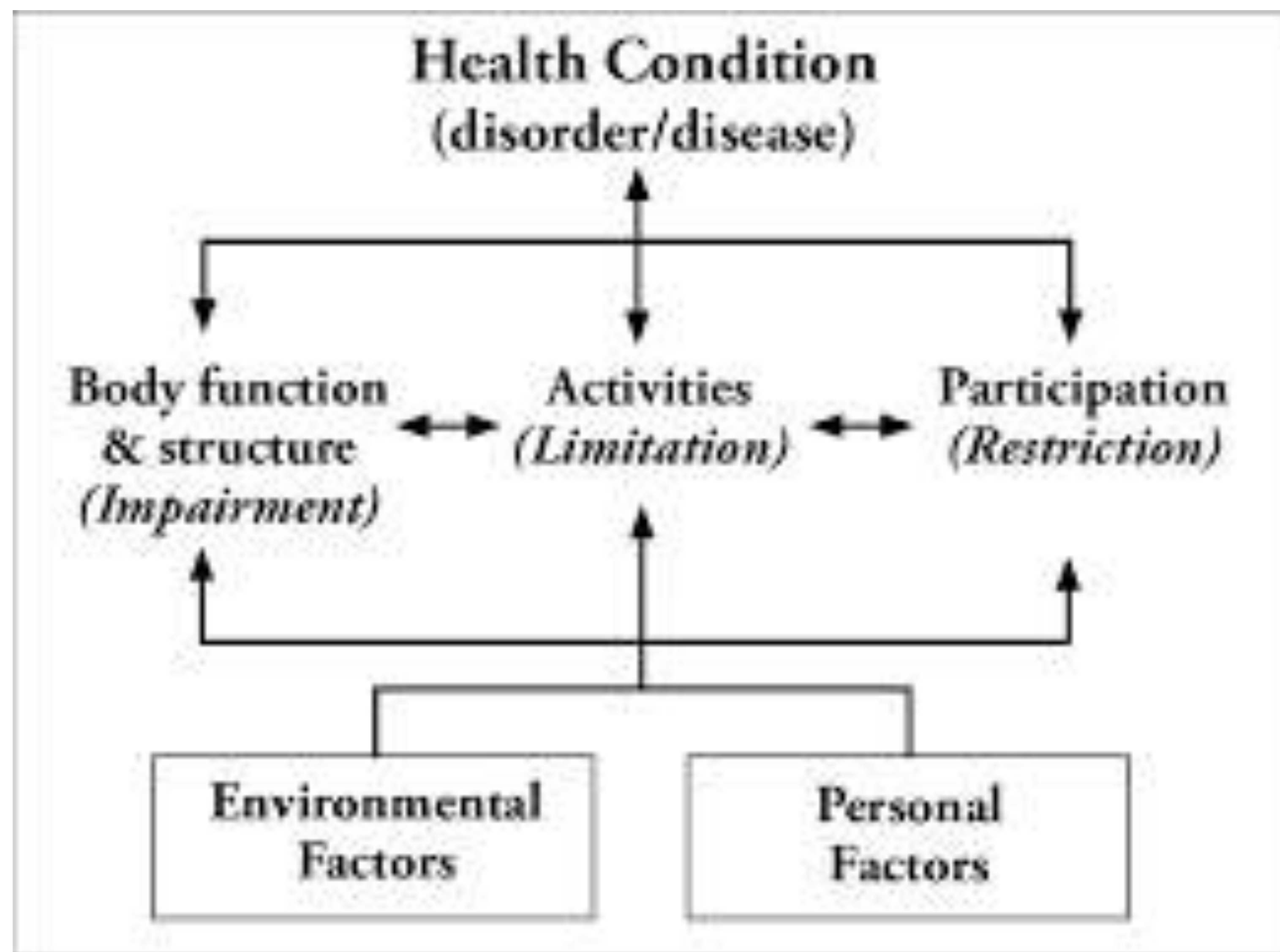
- **“Quality of Life level":** is a measure of the effects of the entitled condition(s) by comparing the existing Quality of Life with what might have been expected in the absence of the entitled condition(s), on a level of 1 to 3, as measured by criteria in the Quality of Life chapter in this Table of Disabilities.
- **"Quality of Life rating":** is the result of applying the Quality of Life level and the Medical Impairment rating to the Quality of Life Conversion Table. The Quality of Life rating is then added to the Medical Impairment rating to determine the Disability Assessment.
- **"Disability Assessment":** is the sum of the Medical Impairment rating and the Quality of Life rating.
- **"Bracketed Conditions":** are entitled conditions which affect the same body area or result in a similar loss of function and cannot be separated for medical assessment purposes, that are grouped or "bracketed" together to arrive at the Disability Assessment.
- **"Rate of Pension":** is the amount of pension payable, expressed in percentage, and converted to a lump sum payment or a monthly rate in dollars in accordance with the Schedules of the *Pension Act*.
- **"Extent of Disability (Disability Award)":** is the amount of benefits payable expressed in percentage and paid in dollars in accordance with schedule 3 of the *Veterans Well-being Act*.

Final Veterans slide

- **Medical Stability": ** For pension/award/compensation purposes, an entitled disability is considered to be medically stabilized when it is unlikely to change substantially in the next 12 months, with or without medical treatment. Over time there may be some change, however, no further recovery is anticipated. When the prognosis is for early improvement, as after remedial surgery, the Department will determine when the condition is considered to be stabilized for assessment purposes.
- **"Regular":** Recurring at fixed intervals.
- **"Majority":** For pension/award/compensation purposes majority is a number greater than half or 50% of the total number of criteria listed at an impairment level. If only two criteria are present at a particular level both criteria must be met.
- **"Dominant Hand":** For pension/award/compensation purposes dominant hand is the hand that the Member/Veteran/Client normally writes with.

ICF: International Classification of Function (2001)

The **International Classification of Functioning, Disability and Health (ICF)** is a framework for describing and organising information on functioning and ability. It recognises the role of environmental factors in the creation of disability, as well as the relevance of associated health conditions and their effects.



Health Condition
(disorder/disease)
Body function
& structure
(Impairment)
Activities
(Limitation)
Participation
(Restriction)
Environmental
Factors
Personal
Factors

German Guilds and onward

- Over a thousand years ago, the basic structure of modern workers' compensation theory were firmly settled in primitive Germanic law.
- Basically,' the master was liable for the *wergeld* of the workman, should he lose his life while actively serving the master, and also for an appropriate sum of money for a work-related injury.
- Consisted of "a more 'modern' social principle for taking care of injured workmen than existed in the United States until the twentieth century."
- According to Wigmore, it probably stemmed from a combination of Norse mythology and the Frisian chronicles.

- In Germany, Chancellor Otto Von Bismarck introduced a compulsory state-run accident compensation system between 1884 and 1886. This initial system was financed by workers and employers.

USA

- In the United States, between 1908 and 1915, several states enacted compensation legislation.
- The State of Washington enacted an exclusive mandatory system based on collective liability.
- As compensation was given state jurisdiction, the US developed a mixed bag of WCBs, mandatory insurance, self-insurance and combinations.

Canada: The Meredith Principles

- In 1913, Sir William Meredith tabled a report in the Ontario Legislature, establishing what would become known as the Meredith Principles. Like all workers compensation systems in Canada, the Meredith Principles are the foundation of the WSCC's.
- The Meredith Principles are a historic compromise in which employers fund the compensation system and share the liability for injured workers. In return, injured workers receive benefits while they recover, and cannot sue their employers.

The Meredith Principles are based on

- **NO FAULT COMPENSATION**: workers are paid benefits regardless of how the injury occurred. The worker and employer waive the right to sue. There is no argument over responsibility or liability for an injury.
- **SECURITY OF BENEFITS:** a fund is established to guarantee funds exist to pay benefits to workers.
- **COLLECTIVE LIABILITY:** all employers share liability for workplace injury insurance. The total cost of the compensation system is shared by all employers. All employers contribute to a common fund. Financial liability becomes their collective responsibility.
- **INDEPENDENT ADMINISTRATION:** the organizations who administer workers' compensation insurance are separate from government.
- **EXCLUSIVE JURISDICTION:** only workers' compensation organizations can provide workers' compensation insurance. All compensation claims are made directly to the compensation board. The board is the decision-maker and final authority for all claims

More on the Meredith Principles

- The workers’ compensation system is a historic compromise in which employers fund the system and compensate injured workers. In return, workers surrender their right to sue.
- Today, when workers are injured, they receive treatments and benefits while they return to health and work.
- And employers are protected by a shared liability insurance model, with protection from lawsuits.”
- It’s a stark contrast to what workers faced in the early 1900s when crowded factories and unsafe working conditions were common.
- When workers were injured, great economic strain was placed on families, who were often left impoverished if the main breadwinners were injured and unable to work.
- Injuries also impacted employers who were faced with the risks and uncertainty of litigation.

Back to the Meat Chart

- Standardized means of compensating injured workers based on an anatomic model
- 0-100%
- Universally accepted
- Limitations is that it only focused on loss of body part not function
- Doesn’t always translate into loss of function

What about British Columbia?

- The passage of B.C.'s Workmen's Compensation Act came in 1902 but it did not come into force until 1917, when the Workmen's Compensation Board was created.

(1913, Sir William Meredith tabled a report in the Ontario Legislature)

Organ-Based Classification Systems

- Rather than focusing on *whole body rating systems* which are used to compensate injured parties, what are some of systems you may be more familiar with
- Typically used to classify and rate severity of disease
- Can be used to determine severity for disease management strategies but is also used selectively in the insurance industry

Organ Specific Classifications: Cardiac

- The New York Heart Association (NYHA) Functional Classification originated in 1902 when no measurements of cardiac function were possible.
- NYHA provides a common language for physicians to communicate.
- Despite difficulties in applying it, such as the challenge of consistently classifying patients in Class II or III, functional capacity is such a powerful determinant of outcome it remains arguably the most important prognostic marker in routine clinical use in heart failure today.

NYHA Classification

NYHA Class	Symptoms
I	No limitation of physical activity. Ordinary physical activity does not cause undue fatigue, palpitation, dyspnea (shortness of breath).
II	Slight limitation of physical activity. Comfortable at rest. Ordinary physical activity results in fatigue, palpitation, dyspnea (shortness of breath).
III	Marked limitation of physical activity. Comfortable at rest. Less than ordinary activity causes fatigue, palpitation, or dyspnea.
IV	Unable to carry on any physical activity without discomfort. Symptoms of heart failure at rest. If any physical activity is undertaken, discomfort increases.

CCS

- Another frequently used functional classification of cardiovascular disease is the Canadian Cardiovascular Society Grading system is a simple way of classifying the extent of heart failure or ischemia.
- It places patients in one of four categories based on how much they are limited during physical activity; the limitations/symptoms are in regard to normal breathing and varying degrees in shortness of breath and/or angina.

CCS grading of Angina pectoris		
Class	Description of Angina severity	
0	Asymptomatic Angina	Mild myocardial ischemia with no symptoms.
(Class 0 is not an official part of the CCS functional classification of angina pectoris, however it has been mentioned in several sources, referring to myocardial ischemia without symptoms.)		
I	Angina only with strenuous exertion	Presence of angina during strenuous, rapid, or prolonged ordinary activity (walking or climbing the stairs).
II	Angina with moderate exertion	Slight limitation of ordinary activities when they are performed rapidly, after meals, in cold, in wind, under emotional stress, during the first few hours after waking up, but also walking uphill, climbing more than one flight of ordinary stairs at a normal pace and in normal conditions.
III	Angina with mild exertion	Having difficulties walking one or two blocks or climbing one flight of stairs at normal pace and conditions.
IV	Angina at rest	No exertion needed to trigger angina.

Respirology: Global Initiative for COLD Staging

Table 1. GOLD Staging

GOLD Stage	COPD Severity	FEV_1/ FVC Ratio	FEV_1 Range[a]
I	Mild	<0.70	≥80% of normal
II	Moderate	<0.70	50%–79% of normal
III	Severe	<0.70	30%–49% of normal
IV	Very severe	<0.70	<30% of normal or <50% of normal with chronic respiratory failure present

COPD=chronic obstructive pulmonary disease; FEV_1=forced expiratory volume in 1 s; FVC=forced vital capacity; GOLD=Global initiative for chronic Obstructive Lung Disease

[a]As recorded in electronic health records, which did not specify pre- or post-bronchodilator.

Pediatrics

- Functional Classification Systems examples
- The Gross Motor Function Classification System (GMFCS) is a 5 level classification system that describes the gross motor function of children and youth with cerebral palsy (aged 6-12 yearsand 12-18 years) on the basis of their self-initiated movement with particular emphasis on sitting, walking, and wheeled mobility. Distinctions between levels are based on functional abilities, the need for assistive technology, including hand-held mobility devices (walkers, crutches, or canes) or wheeled mobility, and to a much lesser extent, quality of movement.
- The Manual Ability Classification System (MACS) describes how children with cerebral palsy (aged 4-18) use their hands to handle objects in daily activities. MACS describes five levels. The levels are based on the children's self-initiated ability to handle objects and their need for assistance or adaptation to perform manual activities in everyday life. Reference: Eliasson AC, Krumlinde Sundholm L, Rösblad B, Beckung E, Arner M, Öhrvall AM , Rosenbaum P. The Manual Ability Classification System (MACS) for children with cerebral palsy: scale development and evidence of validity and reliability. Dev Med Child Neur 2006. 48:549-554
- The Communication Function Classification System (CFCS) is a tool used to classify the everyday communication of an individual with cerebral palsy. The CFCS consists of 5 descriptive levels for everyday communication performance. Reference: Hidecker, M. J., Paneth, N., Rosenbaum, P. L., Kent, R. D., Lillie, J., Eulenberg, J. B., Taylor, K. (2011). Developing and validating the Communication Function Classification System for individuals with cerebral palsy. Developmental Medicine and Child Neurology, 53, 704-710.

American Occupational and Health Association

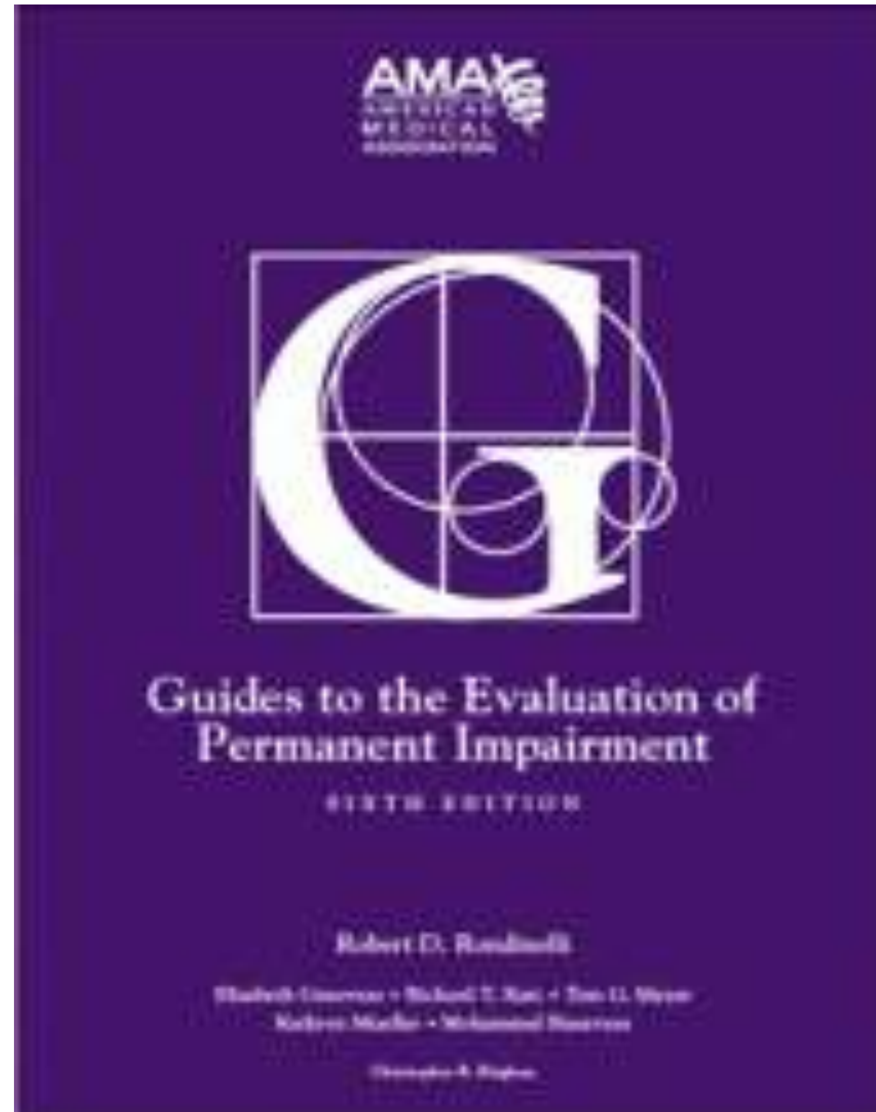
- **Risk tolerance** is the amount of risk that an investor (worker) is comfortable taking or the degree of uncertainty that an investor is able to handle. Risk tolerance often varies with age, income, and financial goals. It can be determined by many methods, including questionnaires designed to reveal the level at which an investor can invest but still be able to sleep at night.
- **Risk capacity**, unlike tolerance, is the amount of risk that the investor (worker) **"must"** take in order to reach financial goals. The rate of return necessary to reach these goals can be estimated by examining time frames and income requirements. Then the rate of return information can be used to help the investor decide upon the types of investments to engage in and the level of risk to take on.

AMA Guidelines

- **The AMA Guides to the Evaluation of Work Ability and Return to Work**

Talmage JB, Melhorn JM, & Hyman MH. The AMA Guides to the Evaluation of Work Ability and Return to Work, Second Edition. American Medical Association, 2011

AMA Guides to the Evaluation of Permanent Impairment, Sixth Edition



THE CLASSIC: Disability Evaluation: Principles of Treatment of Compensable Injuries (1963)

In 1936 the first edition of the book by McBride, entitled *Disability Evaluation*, was published by J.B. Lippincott. This volume underwent six editions, the last being in 1963. It presented the first attempt by an orthopedic surgeon systematically to evaluate human functional disability. It grappled with anatomic and physiologic tissue damage, restrictions on working conditions, and psychological issues. It even attempted to assess functional deficiencies involving co- ordination, strength, endurance, etc. The book proposed a rating system that tried to separate disabling functional deficiencies from disabling physical impairments.

Where are we going?

- In the 1960's, having a MI qualified you for total and permanent disability in Canada.
- Up to the 1980's, treatment of back pain was bedrest.
- Improvements in medical care has reduced morbidity, mortality.
- Understanding of disease pathogenesis, evidence-based care, etc
- Reduction in impairment, disability and handicap through improvements in medical, health care and accessibility
- Increasing multiple medical co-morbidities with an aging population

Stressors on the System

- Less physically demanding occupations
- More mechanization, measurement, robotics, AI
- More sedentary and office desk-based work
- Less work permanency
- More cognitive demands
- Increasingly short timelines
- Increasing demands for multi-tasking
- Less job attachment and permanence

Impact on the individual

- More mental health stressors
- More repetitive type injuries
- Social network less robust
- Breakdown in family and community network

We are seeing an increase in disability claims, but not necessarily in severity, due to the changing nature of work and their impact on the individual

Mental Health

- Employees can apply to receive **WorkSafeBC** benefits if a workplace injury or occupational disease causes them to be absent from work, or for **mental disorders** if the disorder is caused by the workplace, including bullying or harassment.

https://www2.gov.bc.ca/gov/content/careers-myhr/all-employees/leave-time-off/sick-leave/worksafebc-claims

ICBC

- https://www.icbc.com/partners/health-services/Pages/Physicians.aspx

What is the role of the family physician, nurse practitioner?

- Changing/evolving stressors
- Virtual care changes the dynamics
- More complex compensation models
- Longitudinal versus episodic care
- Other players: PT/OT/Chiropractors, etc.
- Relationship with consultants
- What about IME and FCE evaluations?

Can the physiatrist help you or muddy the waters?

- MD’s typically advocate for our patients
- Contract law: what are the terms (we don’t know)
- What are the incentives and disincentives regarding returning to ‘pre-illness’ activities.
- Too often we are caught between advocating for our patients, yet we feel caught between an insurer, employer, union and others.
- A different talk/topic: Disability Management
- Can a physiatrist be an asset or liability when trying to sort out these issues?

It is important to focus on three things

- What are the subjective limitations (self-reported)
- What are the objective limitations (objective)
- What are the restrictions

(A limitation refers to an activity that you cannot perform due to a lack of physical or psychological capacity)

(A restriction is typically associated with harm if attempting to perform the specific activity and/or the patient is unable to perform for physiological reasons)

So, what do you do when you can’t cope anymore with forms, more forms and even more forms?

A.K.A….

When the medical disability business is driving you crazy,

there is always prayer!

- Saint Giles is the patron saint of cripples and is also invoked as a saint for childhood fears, convulsions, depression, particularly in Normandy, for example in Eure Iville, Saint-Germain-Village or Bernay or in Calvados, Gilles Touques. In medieval art, he is depicted with his symbol, the hind.[8] His emblem is also an arrow. Giles is one of the Fourteen Holy Helpers, and the only non-martyr, initially invoked as protection against the Black Death. His feast day is 1 September.
- https://en.wikipedia.org/wiki/Saint_Giles

PHYSIATRY RESOURCES FOR YOU

- There are many physiatrists in the Lower Mainland and Victoria, less elsewhere in the province
- Some are very specialized in their practice, others less so
- RACE Line: if looking for direction (PHC physiatry)
- Outpatient clinic referrals
- WSBC: Medical Advisors
- We need additional models to support primary longitudinal care …virtual health?

Questions?