

# History of Healthcare Intro

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1. Identify **several key people and events that have transformed medicine + HC**
  - Aboriginal: shaman (medicine man)
    - Has connection with spirit world, Mother Earth
    - Herbal medicine passed down through oral teachings
  - Henry E. Sigerist
    - to concentrate all efforts on prevention of disease
    - humanity would be better off if every individual were under the medical supervision of the state from the cradle to the grave
  - Tommy Douglas
    - Canadian father of medicare
2. Identify **various factors that may have hindered or fostered the development of medicine** and HC throughout Canadian history
  - Canada Health Act 1984: care is based on need, not ability to pay
    - 1) Universally available
    - 2) Reasonably accessible
    - 3) Medically comprehensive
    - 4) Portable between provinces
    - 5) Publicly administered

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## History of Health Care in Canada

*Division of responsibilities:*

### FEDERAL GOVERNMENT

Marine hospitals  
Quarantine management  
Care of Aboriginals

### PROVINCIAL GOVERNMENT

Hospitals & Asylums  
Charities, Charitable institutions  
public health

- Aboriginal Medicine
  - ◇ Shaman, 'medicine man'
  - ◇ Connection to the spirit world, Mother Earth
  - ◇ Focus on balance and harmony
  - ◇ Herbal medicines passed down generations
  - ◇ Oral teachings
- Medical Care in Early Canada
  - ◇ Civilian & military doctors
  - ◇ 18th, 19th C:
    - Wealthy: could afford physician care

- Less wealthy: care from religious + charitable orgs and family members
- ◇ Remedies shared by Aboriginals
- ◇ Physician care in patient's homes

- Nursing care

- ◇ 1600's: Hotel Dieu Hospital, Que. City -- first nurse training in N. America
- ◇ 1873: first nursing school at Mack's General & Marine Hospital in St. Catherines, ON
- ◇ 1881: Toronto General Hospital opens nursing school

#### Organizations to manage HC

- BNA Act 1867
- Board of Health est. 1832 (ON), 1833 (QC)
- Bureau of public health, 1909 Saskatchewan
- Department of Health – Alberta 1918, Manitoba 1928, NS 1931

#### Role of Volunteer Orgs

18th, early 19th C volunteer orgs. provided HC; raised funds \$\$\$\$

- The Order of St. John (later St. John Ambulance)
- The Canadian Red Cross
- Canadian Nat'l Institute for the Blind
- Victorian Order of Nurses (VON)
- Children's Aid Society
- YMCA, YWCA

#### Outbreaks

Rather common outbreaks:

cholera, diphtheria, typhoid fever, tuberculosis (TB) and influenza

#### How disease spread...?

- Quarantine to limit outbreaks
  - ◇ Ex: Typhoid Mary

#### Early 1900's HC in Canada

- Population Growth
- Disease and poverty
- Issues: STIs, child welfare
- Urban and Industrial Dev't

#### Hospital Development

- Canada's 1st hospital: est. by order of Augustinian nuns (from France)
- Hotel Dieu de Quebec (Quebec City 1639)
- Early hospitals were charitable institutions
- Rich avoided hospitals, instead wanted private home care
- 1880s: anesthesia, aseptic technique, improved surgical procedures

#### Cottage Hospital System

- Est. 1934 to serve 1500+ rural communities in Nfld. along 7000 mi. of coastline
- Travelling doctors + nurses
- Small 20-30- bed hospitals
- \$10 annual fee for a family

## Henry E. Sigerist

"Our students are still trained to be primarily interested in disease and not in health," he wrote. "Most people do not see a doctor unless they are sick. Russia is far from having reached its goal, but the idea to supervise man medically from the moment of conception to the moment of death and to concentrate all efforts on prevention of disease is undoubtedly very promising and impresses me as the beginning of a new era in medicine." - Hopkins Medical News, Winter 1999

### - State Control:

- Sigerist "shared with the architects of Soviet health policy under Stalin an outlook best described as medical totalitarianism. He really believed that humanity would be better off if every individual were under the medical supervision of the state from the cradle to the grave.... Sigerist's belief in the necessity for state control over all aspects of medicine ultimately made him an apologist for state control over most aspects of human life, as his Stalinist hosts were the first to appreciate." --Hutchinson in Worthington, 1999

- Global context of health
- Social activism
- Political and eco context of HC
- Ideology and politics
- Class struggle

## Medicare

- common term for a publicly funded health care system

## Canadian "Father of Medicare":

- Tommy Douglas
  - Saskatchewan first province to offer government funded medical insurance
  - Coverage extended to include physician's services

## Canada Health Act 1984:

- 1) Universally available
  - 2) Reasonably accessible
  - 3) Medically comprehensive
  - 4) Portable between provinces
  - 5) Publicly administered
- forbids user fees and extra billing
  - care is based on need, **not** ability to pay

## Canada Health Act

- 1984
- Outlines:
  - how HC is financed
  - how care is organized + delivered•
  - "single payer system" - also called "monopsonistic" (government paid)
  - The Right to Health Care?

## Libertarian vs. Egalitarian

### Libertarians

- believe you should be free to do as you choose with your own life and property, as long as you don't harm the person and property of others.
- advocate maximizing individual rights and minimizing the role of the state

### Egalitarianism

- individuals have a moral right to have their healthcare needs met
- autonomy/freedom cannot exist in a society that is not egalitarian
- freedom cannot exist without equality of condition; 'basic' HC needs

# Plagues, Epidemics & Societal Change

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## *Why study history of HC?*

- To recognize social, political, cultural inter-relationships
- Assist students in recognizing Canada's present HC system was the result of histories of medicine and disease over past 200 yrs.
- Encourage students to think critically about medical beliefs, knowledge, and practices (past and present)
- How the historical study of health care provides a window into society and its values

## Ergot Poisoning

- Kind of mold typically found growing on stale rye bread
- Exudes an alkaloid toxin that causes hallucination
- May be responsible for historical mass hallucinations in medieval Europe
  - Ex: witchcraft trials, werewolf trials

## **Bacterial infections**

- The Plague
- Leprosy
- Syphilis
- Typhus
- Cholera
- Typhoid
- Tuberculosis

## **Viral infections**

- \* Smallpox
- \* Measles
- \* Yellow fever
- \* Ebola
- \* Rabies
- \* Polio
- \* Influenza
- \* Dengue fever
- \* AIDS
- \* SARs

## Outbreaks

Rather common outbreaks:

cholera, diphtheria, typhoid fever, tuberculosis (TB) and influenza

How disease spread...?

- Quarantine to limit outbreaks
- Race, class and gender analysis
- Typhoid Mary
  - Didn't show symptoms but was isolated (bc she was an immigrant)
  - Was not married and had nobody to support her, which was why she continued to cook for people

## HIV-AIDS

- Called 'the gay plague'
- Gerry Falwell: God's retribution for homosexuality
- Blamed on: Haitians, intravenous drug users, hemophiliacs and heterosexuals
- "Fear, confusion and prejudice reigned as the disease eventually known as AIDS grew from a mystery to an epidemic." - CBC News

Ignorance = fear

- ❖ Prejudice delayed AIDS action in US
- ❖ Women seen not to be carriers in US at outset
- ❖ AIDS spread heterosexually in Africa (truckdrivers); lack of gender analysis (#cases in women increasing)

## *The social construction of disease*

- Medical concept of disease based on the social position of the sufferers (e.g. gays/AIDS)
- Syphilis: "the great pox" -- cause was seen as SIN (lesions appeared on the genitalia)
- Gonorrhea and incest
  - ◆ Young girls are getting gonorrhea (passed down from fathers)

## Malaria

- ▶ Kills over 655,000 EVERY YEAR
- ▶ 90% of all deaths: sub-saharan Africa
- ▶ A child dies of malaria every minute

## Severe Acute Respiratory Syndrome (SARS)

- Mysterious pneumonia like disease
- Worldwide pandemic
- WHO issues emergency global travel alert Mar 15th, 2003
- Infected over 8,000 people in 29 countries
- More than 700 died (44 Canadians died of SARS)
- Spread primarily via airborne droplets
- 20% who contracted SARS were health care workers

### The Plague or 'The Black Death'

- ▶ 1347-53 plague killed 25 million in Europe (more than 1/3 pop. of Europe)

### Bubonic, pneumonic, plague

- ▶ Caused by bacterial infection
- ▶ Transmitted to humans by fleas from infected rodents (e.g. the black rat)
- ▶ Great Plague of London (1665-6) killed 1/5 to 1/4 the pop. of entire city
  - ◆ sick incarcerated in their homes
  - ◆ doors marked with red 'X'
  - ◆ carts collected the dead at night

### What's a pandemic?

- ⇒ **Epidemics**: occurrence in a **community or region** of cases of an illness, specific health related behaviour, or other health related events clearly in excess of normal expectancy
- ⇒ **Pandemics**: epidemics that are **global** in scale

### Influenza

- ✧ Commonly referred to as 'the flu'
- ✧ Highly infectious viral disease
- ✧ Affects the respiratory tract
- ✧ Called influenza because it was thought some heavenly 'influence' must be at work in afflicting so many in such a short period of time

### 1918 Influenza - 'Spanish flu'

- ★ Called the Spanish flu because the images of death in Spain were not censored by the government

### 1918-19 pandemic

- 9 million people died from World War I hostilities.

- Spanish flu killed more than 20 million people
- Highest death toll of any pandemic in history

Mortality rate: USA and Canada

USA: 36,000 deaths per year from flu

Canada: about 2,000-8,000 deaths a year from flu

H1N1 'Swine Flu'

- strain of the influenza virus that usually only affected pigs in the past
- in spring 2009, it emerged in people in North America (first in Mexico)
- new strain of influenza
  - ◆ humans have little to no natural immunity to this virus so it can cause serious and widespread illness

"GlaxoSmithKline pulls swine flu vaccines in Canada"

- ▶ Drug company GlaxoSmithKline has told Canadian doctors to stop using one lot of its H1N1 vaccine until an investigation into a higher-than-expected number of severe allergic reactions is completed

"Ground zero"??

- ▶ Cluster of illnesses first reported in small Mexican town of La Gloria (industrial farming town)
  - 1,800 people (60% of town) affected
  - authorities deny industrial farming as cause of H1N1

*Advances in outbreak management*

- Emergency preparedness training
- Precautions taken for H1N1 (ex: handwashing reduces)
- Leprosy: earlier epidemics led to public health standards for water & waste management

Prions

- ★ "mis-folded" protein that acts as an infectious agent
- ★ Controversial (many believe that prion diseases are actually caused by an undetected virus)
- ★ Most common known diseases are:
  - ◆ BSE ("Mad Cow") bovine spongiform encephalopathy
  - ◆ CJD (Creutzfeldt Jacob Disease)

- ◆ No known treatments

### Anaphylaxis

- Severe (life-threatening) allergic reaction
- Prevalence has doubled over 10 years
- 1/8000th of a peanut can cause a reaction; normally 1/8 to 1 peanut in most reactions

Why are we seeing such an increased rate?

- 'hygiene hypothesis' – we have made the world too clean
- Early exposure vs. later exposure?

Israel-UK study showed where peanuts not introduced until age 4 (UK) had much higher incidence of peanut allergy than Israel where babies were exposed to it at 3 mths.

Legionnaires Disease:

- Outbreak at convention of Legion members in 1976 in Philadelphia
- Caused by previously unknown strain of bacteria they later called Legionella
- Outbreak in summer/fall 2012 in Quebec City
  - ◆ 180 infected, 13 have died in Quebec City area
- Belief it is being incubated in air conditioning units of tall buildings

# Social Determinants of Health

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## Early 1900s - Canada

- Leading cause of death: infectious diseases  
e.g. tuberculosis, pneumonia, influenza
- Average life expectancy: around 60 yrs.
- Vaccines & antibiotics saved lives later on
- Penicillin discovered in 1928 (1940s begins to be used as a treatment)
  - ◆ People started living longer

## Mortality & Morbidity

- mortality: death rate
- morbidity: illness, disease

## WHO Definition of Health

*"Health is the state of complete physical, mental and social well-being, not merely the absence of disease or infirmity."*

- broad appreciation of health; holistic
- encompasses mind/body

## WHO definition missing:

- environmental health
- occupational health
- spiritual health
- differences in gender and health

Our definitions of health, wellness, illness, disease, and disability evolve constantly depending upon:

- the delivery of health care -- methadone clinics
- the affordability of HC services -- stomach stapling
- social consciousness -- spousal abuse, homosexuality, HIV/AIDS
- medical science -- organ transplants

## Definitions of health & illness:

- "meanings and identities are constructed out of social interactions in specific social, political, economic and historical contexts"
- Cultural attitudes to illness (e.g. HIV/AIDS) vary

- Def'ns of health & illness are variable over time and place; they vary according to culture, social class, race, gender, ability/disability, sexual orientation

Illness as...

1. Choice
2. Carelessness or failure
3. Despair
4. Secondary gain
5. Message of the body
6. Communication
7. Metaphor
8. Statistical infrequency
9. Sexual politics
10. Uncertainty

WHO 1986:

Health encompasses "the ability to identify and to realize aspirations, to satisfy needs, and to change or cope with environment.

Health is therefore a resource for everyday life, not the objective of living. Health is a positive concept emphasizing **social and personal resources**, as well as physical capabilities."

### **Illness, disease, disability**

**Illness**: denotes the presence of disease; also how a person feels (even when there is no disease e.g. stress)

**Disease**: a disorder affecting a system or organ which can be mental, physical or genetic in origin e.g. schizophrenia is mental; usually diagnosed by a doctor

**Disability**: a physical or mental incapacity that differs from what is considered normal function

- Can result from an illness, an accident or be genetic in nature
- Can be physical, sensory (blindness), cognitive (Alzheimer's disease) or intellectual (Down's Syndrome)

Value judgements around health, illness

- Disease: socially & culturally mediated event
- Social evaluation of what is normal, proper, desirable

Diagnostic and Statistical Manual of Mental Disorders (DSM) –  
medicalizing normal behaviour?

- Doctors make diagnosis from complex mix of: socio-cultural, historical, eco, sci, medical, technological, clinical data
  - Make decisions in context of their own age, specialty, class, gender and ethnocultural circumstances
- Ex: obesity (in West: laziness; in some cultures: object of desire or wealth)

### **Lalonde Report (1974)**

A New Perspective on the Health of Canadians

- Marc Lalonde, Minister of Health
- Report said human biology, environment, lifestyle, health care organizations were all determinants of health

### **The Ottawa Charter for Health Promotion (1986)**

- ❖ Declared that health is “**created and lived by people within the settings of their everyday life; where they learn, work, play and love.**”
- ❖ Prerequisites for health: **peace, shelter, education, food, income, a stable ecosystem, sustainable resources, social justice, equity**

### **Epp Report (1986)**

Achieving Health for All: A Framework for Health Promotion

- Jake Epp, Canadian Health Minister
- Report identified reducing health inequities between income groups as an important gov't policy

British Research:

- ▶ Two 1992 reports: The Black Report; Health Divide
  - lowest employment groups more likely to suffer wide range of diseases and premature death from illness or injury at every stage of the life cycle
  - rich were healthier, poor were worse off

Health Canada: Taking Action on Population Health (1998)

- “There is **strong evidence indicating that factors outside the health care system significantly affect health.** These determinants of health include income and social status, social support networks, education, employment and working conditions, physical environments, social

environments, biology and genetic endowments, personal health practices and coping skills, healthy child development, health services, gender and culture.”

### Wellness

- Goes beyond having good health
- Is the way a person feels about their health and quality of life
- People with a disability or chronic illness may still feel they are well & enjoy quality of life
- Good health is relative!

### Materialist Approach

- Health is linked to the provision of basic material goods and services
- Depends on available, accessible, good quality nutritious food, clean water, employment, affordable housing etc.
- Income is central to health
- Social determinants of health:  
“the economic and social conditions that influence the health of individuals, communities and jurisdictions as a whole.” - Dennis Raphael, 2004

### *Key Determinants (Public Health Agency of Canada):*

- Income and Social Status
- Social Support Networks
- Education and Literacy
- Employment/Working Conditions
- Social Environments
- Physical Environments
- Personal Health Practices & Coping Skills
- Healthy Child Development
- Biology and Genetic Endowment
- Health Services
- Gender
- Culture

### *Key Determinants (WHO):*

- **Income and social status** - higher income and social status are linked to better health. The greater the gap between the richest and poorest people, the greater the differences in health.

- **Education** – low education levels are linked with poor health, more stress and lower self-confidence.
- **Physical environment** – safe water and clean air, healthy workplaces, safe houses, communities and roads all contribute to good health.
- **Employment and working conditions** – people in employment are healthier, particularly those who have more control over their working conditions
- **Social support networks** – greater support from families, friends and communities is linked to better health.
- **Culture** - customs and traditions, and the beliefs of the family and community all affect health.
- **Genetics** - inheritance plays a part in determining lifespan, healthiness and the likelihood of developing certain illnesses.
- **Personal behaviour and coping skills** – balanced eating, keeping active, smoking, drinking, and how we deal with life's stresses and challenges all affect health.
- **Health services** - access and use of services that prevent and treat disease influences health
- **Gender** - Men and women suffer from different types of diseases at different ages.

#### Engels: The Conditions of the Working Class in England (1845)

- Engels - a political economist
- Wrote about health conditions of workers in England in 1800s
  - terrible conditions
- Engels looked at one suburb in Manchester - showed death rate differed based on quality of the housing and the streets
- Engels said poverty, poor housing, clothing and diet and lack of sanitation led directly to infections and diseases amongst poor
  - stress of this life contributed to illness and injury

Poverty today...

- Research is showing us that children living in low income families are more likely to see greater incidence of illness, hospital stays, accidental injuries, mental health problems, lower school achievement and early drop out, family violence and child abuse etc.

Social exclusion:

☆ How health inequities are “a result of citizens experiencing systematic material, social, cultural, and political exclusion from mainstream society.” (Raphael, 2004:4)

# Body Parts: Organ Donation

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## Documentary: The Cruellest Cut – Pakistan's Kidney Mafia

- So many people in villages donated kidneys
- Do the wives (women) have a choice to donate or are they pressured by the husbands?
  
- Kidney, partial liver + lung, small bowel and pancreas transplants can be donated by living donors.
- Tissues that can be donated:
  - Corneas, heart valves, bone, skin, cardiovascular tissue (including arteries and veins), and soft musculoskeletal tissues like tendons and ligaments.
  
- The first successful kidney transplant was performed in 1958 between identical twin sisters at the Royal Victoria Hospital in Montreal.
- **Everyone is a potential organ and tissue donor, regardless of age**
  - oldest Canadian organ donor was over 90 yrs
  - oldest tissue donor was 102 ys
- First successful long term single lung transplant in the world performed in Canada (Toronto General Hospital) in 1983
- First long term successful double lung transplant in 1986

## Canadian values: Altruism?

- 2008: Canadian Blood Services
- Steering committee struck
  - Need steering committee for waiting list issues
- Kitchen Table Conversation Kit
  - Talk about organ donations with families

## Trillium Gift of Life Network

- more than 1,500 Ontarians on wait lists for life-saving organ transplants in Ontario
- only 17% of Ontarians had registered their consent as of March 31, 2010.

## Waiting List by Organ: Ontario, 2013

Liver: 203

Heart: 71  
Kidney: 1035  
Lung: 91  
Heart Lung: 3  
Pancreas: 19  
Kidney, Pancreas: 50  
TOTAL ON WAITING LIST: 1481

#### Organ Donation: Where does Canada rank?

- Canada ranks 11th place when compared to other countries with 14.8% actual organ donation per million people.
- Spain has the highest rate (34.3%), followed by Belgium (28.2%) and the USA (26.6%).
- Organ donation rates are impacted by e.g. helmet safety legislation

#### Tissue donation in Canada

- Corneas, heart valves, bone, skin, cardiovascular tissue (including arteries and veins), and soft musculoskeletal tissues like tendons and ligaments.
- importing approx. 90% of the tissue used in Canada
- demand for some tissues (ex: corneas) remains unmet
- barriers to donation: families not being aware of the opportunity; insufficient capacity in system to recover and process tissue

#### Canada:

- Driver licence consent

#### End Stage Renal Disease (ESRD)

- Big variation in transplant rates across Canada
- The renal transplantation rate (per million population) is only 27.4 in Saskatchewan compared with 51.8 in the Atlantic provinces
- Due to differences in rates of referral? Of acceptance for transplantation? Due to differences in availability of donors?

#### Why do people not donate?

- Families dispute/oppose
- Religious reasons
- Bodies "never make it out"
  - Once agree to donate 1 organ, fear that doctors may take more organs out

## REMEDIES (to increase organ donation rates)

1. increase voluntary donation
2. compel 'donation'
3. presumed consent
4. free market for transplants
5. live donations
6. brain dead donations

### 1. INCREASE VOLUNTARY DONATION

- Encourage more people to give organs
- Opt in option (must give explicit consent)
  - Sign your donor card & register

#### • CRITIQUE

- "first person consent" registries
  - legally binding decisions of registered donors
  - choice can only be revoked by that individual
- "intent" registries - document one's wish to donate, but ultimately the family decides
- "required request" laws (some US states) – doctors must ask family of deceased to donate organs

#### Prison 'donations'?

- "... according to the [USA] National Organ Donor Registry, 117,784 people are waiting for an organ in the U.S. Eighteen die each day while waiting. Almost 2 million people are incarcerated in prisons across the nation, and dozens are executed each year — a largely untapped population, some say, of potential donors."
- Is it ethical?

### 2. COMPEL DONATION

- mandated 'choice'
- Ex: UK : can say yes, no, or "ask my relative," but must indicate a choice; choice recorded in a national database.
- "You can't take it with you."

### 3. PRESUMED CONSENT

- Some countries mandate inclusion (you must opt out)
- Opt out system = presumed consent
- Must actively remove yourself from the registry if you disagree
- Ex: Austria & Germany

- Austria (opt out) has donation registration rate of 99 %
- Germany (requires donors to opt-in) has a rate of only 12 %

#### • RELIGION

In Britain, a proposal by the Labour government to adopt an opt-out system was opposed by Muslims who objected to organ removal on religious grounds.

- (Cdn. research has shown no religious restrictions)
- If a religion restricts the use of a body after death, **these restrictions may not include organ and tissue donation, if the donation could save another life**

#### 4. FREE MARKET

- a market allowing buying and selling of organs (living OR deceased donation)
  - people have 2 kidneys, need only one
- robust market could greatly increase supply
- 'harm principle'

#### • CRITIQUE

- Rich people buying their way to the front of the line
- Poor people selling their organs (kidney = \$30,000)
- Opens door to buying/selling of other body 'parts'
  - Ex: eggs, sperm, embryos, blood etc.
- Commercialization and commodification of life (feminist critique)
- Nothing intrinsically wrong in buying and selling
  - Ex: buying blood? Canada does not but Australia does
- Discounts potential risk to donor (death, injury, need of a 2nd kidney in future) etc.
- Cost to system for admin., registration
- Cost-benefit calculation (215 wait list deaths vs. IVF lives)
- Finite surgical resources –displacing others

#### 5. BRAIN DEAD OPTION

- Some patients declared "brain dead" but can be kept alive temporarily (heart beating)
- In US, approx. 12,000- 15,000 people fall into this category each year, but only half end up as donors
- Each such donor could supply an average of 3 organs (having another 1,000 donors could save 3,000 lives)

## Brain death: definition

- "Brain death is defined as the irreversible loss of the capacity for consciousness combined with the irreversible loss of all brainstem functions including the capacity to breathe. Brain death is equivalent to death of the individual, even though the heart continues to beat and spinal cord functions may persist."

## • CRITIQUE

- 'organ harvesting' = offensive
- laws against desecrating a body (even dead bodies)
- more or less 'living cadavers'?
- expanded biobanks potential (\$\$\$)

## How dead is dead?

- Death is a changing definition
- Is 'cessation of brain function' sufficient?
- Life support systems
- Karen Ann Quinlan – persistent vegetative state: considered 'brain dead'
  - o removed from respirator (life support) in 1976; lived after removal from life support for 9 yrs. (died 1985 of pneumonia)

## "Neomorts"

- newly dead
- fantastic storage and harvesting benefits of neomorts
- "Major organs have always been difficult to store. But a population of neomorts maintained with their body parts computerized and catalogued for compatibility would be a great improvement over the present system. Furthermore, a sizable population of neomorts could provide a steady supply of blood, since they could be drained periodically"

## Donation After Cardiac Death (DCD)

- Listed as 'non-living donors' on website
- "donor who has suffered devastating and irreversible brain injury and may be near death, but does not meet formal brain death criteria. In these cases, the family has decided to withdraw care. When the patient's heart stops beating, the organs are then recovered in the operating room. The surgeons involved in transplantation cannot be part of the end-of-life care or in the declaration of death. This type of donation does not cause or hasten

death." UC Davis Transplant Centre

### Cardiac death

- 4 provinces (B.C. ON, Quebec and N.S.) now retrieving organs for donation after cardiac death.
- Cardiac death is defined as the **irreversible absence of circulatory and respiratory function.**

## 6. LIVING DONATIONS

- 1st successful living donor transplant was a kidney transplant performed in Boston in 1954 between 23-year-old identical twins
- most common living donation is kidney: 231 Ontarians received a living kidney transplant in 2009; 45 received a living liver transplant
- 231 such transplants in Ontario in 2009
- Responsible for a significant portion of increase in organ donation for last 10 yrs.
- most often family members or close friends of the recipient (directed donation)
- other types of living donation: anonymous donation, list exchange and paired exchange.

### Domino transplants

- 2009 case
  - In all, 8 Canadian patients took part in the domino surgery - 4 kidney donors and 4 kidney transplant recipients.
  - Involved Canadian Blood Services' Living Donor Paired Exchange (LDPE) registry
- Argument:  
"This milestone not only means that four recipients received a transplant," says Dr. Sher. "It also means that four people have been removed from their local deceased donor kidney wait lists, and others who continue to wait on the list are one step closer to their own transplant". - Canadian Blood Services
- Advantages
- potential to reduce wait times (mths. rather than possibly years for deceased donation)
  - better health after transplant surgery (organ donated by a living donor is healthier at the time of the operation, leading to a better-functioning organ after

transplantation, and longer graft survival)  
sense of satisfaction for the donor who has helped to save or improve life of another.

### Ethical policy issues

- Is it truly voluntary?
  - o Ex: if you are siblings or parents, you feel compelled to donate
- What if you are an only child or unmarried?
- What if you have no close friends or family?
- Hidden payment?
- Separate waitlist systems
  - o unfair?

### Race, class, gender

- Poverty
- market for organs in 3rd world countries
- lessons to be learned from women as surrogates (some illiterate; consent?)
- online 'shopping' for organs (organ tourism)
- Canadian MP: forced donation from prison inmates (USA recently: reduced jail time)

### Aboriginals

- Aboriginal people have **more than twice the rate of end-stage renal (kidney) disease** compared with Caucasians, but their **likelihood of receiving a transplant is significantly lower** and they have a significantly higher overall wait time.

### Regenerative medicine

- emerging field –“re-grow” organs
- scientists + engineers will create organs from patient's own cells (stem cells)
  - o (or cells extracted from the failing organs)
- autografts: organs and/or tissues that are transplanted within the same person's body

### TVO:

- “The Market” – an investigation into international trade in organs

# Women & Medicine [Part 1]

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## Women and the health care system

- Women are the majority of HC receivers and HC providers in Canada
- Approx. 80% of paid HC workers are women
- Women provide most of the unpaid health care within the home

## Exclusion of women from medicine

»»→ Women were not always welcome in the medical field

### ▶ Dr. Emily Stowe

- 1st female physician in Canada
- 1865 applies but rejected from Toronto School of Medicine on grounds she was a woman
  - “The doors of the University are not open to women and I trust they never will be.” - University of Toronto vice-president, 1865
- Stowe went to US; graduates 1867 from New York Medical College for Women

### ▶ Jenny Kidd Trout (1841-1921)

- First licensed female physician in Canada
- Offered \$ to set up a women’s medical college
  - Majority of board and staff had to be women
- Women’s Medical College est. in Kingston; affiliated with Queen’s U.
  - Produced 34 female physicians in 10 years
  - merged with Toronto Women’s Medical College (became Ontario Medical College for Women)
  - Women not readmitted to Queen’s until 1943; Harvard until 1944

## CIHI study (2007)

- ⇒ 1959: women 6% of medical school graduates
- ⇒ 1970s: less than 25% med students were women
- ⇒ 1989: women 44% of med school grads
- ⇒ 2009: 50%+ of med students are now women (some schools even 70%)

👑 Women gaining ground in male-dominated profession

- 👑 By 2006, women made up more than a third of the physician workforce (33.3%)
- 👑 Overall, men still far outnumber women doctors
- 👑 Family physicians and specialists combined, there was a total of 41,379 men in 2006  
     compared to 20,646 women [44,961 vs. 24,306 in 2010]
- 👑 Women represented almost half (48.6 per cent) of the doctors under 40 years old in 2006.

### Women in Canadian Medicine

- ◇ Women are 34.0% of all physicians and 20.0% of all surgical specialists. 80% of all surgeons are men
- ◇ In 1940, women were just 4.1% of all MD degree recipients
- ◇ In 2007, women received 58.5% of all MD degrees earned
- ◇ 1997 was the first year more women received MD degrees than men, with women being 50.3% of all MD recipients

### Equality...?

- 1998: only 12% of physicians practicing surgical specialties were women
- 2008: number had only risen to 19.3 % (despite fact 50%+ med grads were women)
- On average, 53.6 % (ranging from 49% to 62%) of graduates entering specialties training are women: most choose non-surgical specialties

### % distribution physicians by specialty and sex

Specialty	Females %	Males %
Family medicine	49.7%	50.3%
Emergency medicine	20.7%	79.3%
Cardiology	16.2%	83.8%
Nuclear medicine	18.3%	81.7%
CV/T surgery	8.7%	91.3%
Neurosurgery	9.3%	90.7%
Orthopedic	7.8%	92.2%
Urology	5.8%	94.2%
<b>All specialists</b>	<b>30.0%</b>	<b>70.0%</b>

Medical scientists	0.0%	100.0%
<b>All physicians</b>	35.1%	64.9%

### "Female Doctors = Doctor Shortage"

- Cover story Maclean's magazine (Jan. 2, 2008)
- "Peter Coyte, a professor of health economics at the University of Toronto, predicts this influx of women will contribute to a crisis in health care. "It's going to have a profound impact on the gap between supply and demand," he cautions. "It will get worse before it gets better..." It's been proven repeatedly—female doctors "will not work the same hours or have the same lifespan of contributions to the medical system as males," says Dr. Brian Day, president of the Canadian Medical Association (CMA). Family duties are at least partly to blame. Day's own wife and his sister-in-law, both trained physicians, haven't practised since having kids 10 years ago." "A 2003 CMA survey, for example, found that women physicians put in an average of 48 hours per week, compared to 56 hours among male doctors. This eight-hour difference is nothing new; CMA data going back to 1982 show women physicians have always worked less. But with women now outnumbering men among those entering medicine, fewer hours worked means getting in to see a doctor will be even tougher for patients... Women take more days off, too. In 2006, female health care workers missed an average of 13.1 workdays, 6.7 more than men in the field..."

### Women paid less

- Even after adjusting for differences in workloads the incomes of the women were significantly lower than those of the men.
- "We believe that the differences were due to the double workload of women as professionals and family caregivers and the powerful socialization effects of medical education. As women overcome their minority status in the medical profession, differences between the sexes may become more apparent. Thus, the extent and effects of the progressive increase in the number of women in Canadian medicine should be assessed on an ongoing basis."

### Androcentrism

- Society is male-centered
- Man seen as 'the standard'
- represents the human norm e.g. mankind

- e.g. first moonwalk: "one small step for man, one giant step for mankind"
- but this is a 'false generic'
- reflects a hidden bias –against women

#### WOMEN IN ACADEMIC MEDICINE: USA

- 2007-2008: women were 34.0% of medical faculty
- 17.0% of full professors, 29.0% of associate professors, and 40.0% of assistant professors
- 2007-2008: women represented 12% of department chairs
- Only 11% of U.S. medical school deans were women

#### WOMEN OF COLOR IN MEDICINE: USA

- In 2006, of women whose race/ethnicity was known, 29.6% of women physicians were women of color
- In 2006, of physicians whose race/ethnicity was known, 14.8% of all physicians were women of color

#### *Patriarchy*

1. social org. in which the father is head of the family + ancestry and inheritance are traced in the male line
2. a society organized according to the principles of patriarchy

#### Science & Technology

- Theoretical approaches:
  - Structural functionalist
    - Sci. and technology emerge because society needs them
    - Sci. provides an assumed objective 'truth' that helps us make rational decisions
    - Therefore sci. & technology are functional for society
      - Ex: Organ donation
    - HOWEVER: actually based on what they want to research & what receives funds
  - Scientific Determinism
  - Conflict (e.g. Marxist)
  - Postmodern
  - Queer Theory
  - Feminist

#### Science & Technology

- Liberating or oppressing?

- Has technology made reproduction Better? Safer? More equal?
- What has been the impact on women? On Children?
  - o Ex: thalidomide

# Women & Medicine [Part 2]

November 14, 2013 08:44 PM

## *The Naughty Nurse*

- Women's HC skills & expertise often undermined by persistent sexist stereotypes
- Nurses not viewed as a skills-based profession
- Midwives credentials questioned (not allowed to work in hospitals); pushback from OMA on NP (OMA tried to limit the duties of Nurse Practitioners)
- 'Caring is just what women do'
  - Caring & motherly figure

## *The Witch*

- Burned at the stake
  - Women's knowledge of the medical uses of herbs were suspicious, people were scared that they were witches so they burnt the women
  - Ex: abortion herbs
- Women's medical knowledge derided by medical establishment
- Midwives pushed out when medicine was professionalized
- Nurses support 'Women's ways of knowing'
  - Skill based, empathetic
  - Using women's intuition not simply to machines
  - Machines show support, but "feelings" don't, which is why it was not supported
- Women's knowledge of botany was later used by 'professional' men and pharmaceutical co.

## *The Psycho*

- ▶ Mental woman
  - Women viewed as weak, delicate & gentle
  - Have very fragile mental states
- ▶ Having a nervous breakdown = bad mother
- ▶ Women were not considered good candidates for clinical trials because they are "too emotional" and have periods (which "throws off the science")

## *Mother's Little Helper*

- **MEDICALIZATION:** The process that defines a condition or activity as

a disease or an illness; treatment of the condition is then considered the responsibility of the medical profession

- Women complained about medicalizing them without looking deeply into their condition
- Belief was: women should be happy at home, make babies and throw cocktail parties.
  - In 1960's: Women had factory jobs (very rare chance to gain money on their own - not relying on husband). When men came back from war, jobs were taken away from them (since they were no longer needed) & the women were unhappy
- Valium, was previously known for "anaesthetising a generation of British housewives' in the 1960s and 70s." ('Mother's little helper' returns...)

The Marketization of Depression:

- Medical industry creating illnesses that may not be true
- Women have 2 lives: one at work, one at home
- Women are prescribed for depression way more than men
  - Women have 2x psychotropic drugs in Europe & N.A. as men

*The Baby Mama*

- ❖ Women's reproductive capacity: control, commercialization, commodification of life
  - Women are baby-making machines
  - Buying & selling eggs → commercialization & commodification of life
  - When women go to sperm bank, obtain sperm & give birth to child: did not think about the kid
  - Children of insemination are coming up with questions: Who is their father? What about their feelings? Who are their half-siblings?
- ❖ "Gestational Carriers"
  - Just a "woman holding onto your baby for 9 months"
  - Implies vehicle & negating women character, de-womanizing
- ❖ No follow-up of surrogates
  - Given drugs to over ovulate and the IVF
  - No follow-up to see negative consequence for the women
  - Offspring not accounted for
- ❖ Reproductive Tourism
  - Exploitation of women in foreign countries

## Harm: Medical Risks

- **"Study finds ovarian stimulation for IVF may increase risk of ovarian malignancies later in life"**
- Women whose ovaries are stimulated into producing extra eggs for in vitro fertilization (IVF) may have an increased risk of ovarian malignancies later in life, according to a new study...
- The Netherlands Cancer Institute [N=25,152] have found that the long-term risk for ovarian malignancies – including ovarian cancer and borderline ovarian tumours – is twice as high among women who undergo stimulation for IVF compared with subfertile women not treated with IVF."

## Surrogacy

- ★ 2001 - Oldest surrogate mother
  - Woman (61) gave birth to her triplet granddaughters
  - If this happened in Canada: considered a malpractice bc risk was high (dangerous for grandmother & grandchildren - even if using "younger eggs")
- ★ One Sperm Donor, 150 Offspring...

"Cynthia Daily and her partner used a sperm donor to conceive a baby seven years ago, and they hoped that one day their son would get to know some of his half siblings — an extended family of sorts for modern times.
- ★ Today there are 150 children, all conceived with sperm from one donor, in this group of half siblings, and more are on the way...."

## Forced abortions?

- Couple in B.C. contracted with Surrogate but wanted her to abort when tests showed possibility of Down's baby
- Surrogate refused to abort
- Contract said parents would have no financial or parental responsibility for raising child if surrogate did not abort
- "The baby that's being carried is their baby. It's usually their genetic offspring," she said. "Why should the intended parents be forced to raise a child they didn't want? It's not fair."
- Treating children as products = not good

## The Baby Market

- ★ Multi-billion dollar market for babies in the U.S.A.
- ★ US: \$2.7 billion on fertility treatments in 2002
- ★ Canadian Costs: IVF Canada

- ✱ Canadian infertility rate: 7-8.5%

### Egg and Sperm Donation

- ⇒ Egg donation: \$2,500 up to \$60,000; the sky is the limit
- ⇒ Sperm donation: \$200 to \$300

### *The Bad (Promiscuous) Girl*

- ✧ Medicine passes judgment on women based on ideals at the time
- ✧ Magdalene Laundries:
  - a woman is raped by her cousin at a wedding
  - was kicked out by her family into the Laundries "Fallen" where "fallen women" were made to work with little food
  - Lost right to childhood, education
- ✧ Comfort women
  - Japanese women sent to service men during the war (gov't sanctioned prostitution for the "needs" of soldiers)
- ✧ Birth control for married women only

### 'Not a proper gov't activity'

- US President Dwight Eisenhower states in a press conference that birth control "is not a proper political or government activity or function or responsibility" and adds emphatically that it is "not our business."

### *The Nun*

- ✱ "... any use whatsoever of matrimony exercised in such a way that the act is deliberately frustrated in its natural power to generate life is an offence against the law of God and of nature, and those who indulge in such are branded with the guilt of a grave sin."
- ✱ The encyclical *Humanae Vitae* (1968) decreed all forms of artificial contraception were immoral. Catholics are obliged not to use artificial contraception
- ✱ Birth control illegal in Ireland until 1980

### *The Doctor*

- Peggy at the gynecologist
- Control
- Medical model, Positivism (Clarke Ch.8)
  - Based on scientific control
- Medicalization of women's lives (menopause, birth etc.)
- Race discrimination

## The Pill:

- ◆ Physicians as gatekeepers
- ◆ 1892 Canadian Criminal Code made contraceptives illegal
- ◆ The Pill - illegal in Canada until 1969
- ◆ Was originally prescribed for menstrual pain
- ◆ Upper class women got it under the table
- ◆ Single women did not have access (originally only for married women)
  
- ◆ Today: pharmacists' control – do not have to sell contraceptives, morning after pill etc. if it is against their beliefs (ex: 1 pharmacy towns)
- ◆ Religious hospitals
  - Court case: morning after pill and PGH (same doctor said to go to public hospital and he saw her there and gave her the pill)

## Race, class, gender

- ◇ Low income and coloured women could not afford the pill
- ◇ opportunity only for middle class white women
- ◇ the Pill was tested on poor women in Puerto Rico, Haiti, Mexico City (could not afford it for themselves)
- ◇ Today prescription costs: one year of pill: \$200+

## Tuskegee: exploitation of vulnerable subjects

- 1932-72 in Tuskegee, Alabama
- US Public Health Service's longitudinal study of the history of untreated syphilis
  - Continued to let illiterate men live with syphilis to see how they died
  - Could have been cured with antibiotics
- Men suffered, 75% died of the disease; infected their wives and children
- Prompted changes to medical research guidelines

## Eugenics – is it justifiable to screen embryos to negate diseases?

- Screening for the sex of the embryos
- Politicians don't want to insert themselves into these ethic conversations
- It takes an understanding of the science coupled with the social standards of today's society

- Scientists may perceive it as altruistic and good for humanity
- Some clients may screening out the gay gene or transgender
- Some clinics may cater to certain cultural groups – China wants more boys (so get rid of all the girls)

### Abortion

- Illegal until 1969 – then only ‘medically necessary’
- Therapeutic Abortion Committee req’d
- Needed 3 docs (to have a meeting to make sure the woman really needed the abortion)
- Many hospitals didn’t have enough docs
- Must be in accredited or approved hospitals – but no legal requirement to ensure this would occur
- 1988 Morgentaler Supreme Court decision
- Some Mexican states forbid abortion for rape victims; girls of 10, 11 yrs giving birth – Human Rights Watch
- Abortion is forbidden in 18 out of 31 Mexican state constitutions

### No abortion in PEI

- Gov’t: pays if done in hospital
- Not paid for if done in private clinic (unlike other provinces)
  - Costs \$650-\$800
- Hospital abortions from PEI require 2 doctors’ involvement
  - Possible “procedural barriers”?
    - Barriers: history of PEI, afraid of setting a clinic up, may be bombed or picketed

### Dalcon Shield

- ❖ Copper IUD given to 2.5 m women worldwide 1971-75
  - 14,000 law suits in US by 1985
  - 1985 class action suit (2,000 women)
- ❖ Evidence in law suit showed manufacturer had knowingly sold them despite evidence copper in them could cause damage
  - Company cared more about the money than the health of women and reproductions
- ❖ Wicking issues with the string cord attached

### Theoretical approaches

- \* Conflict/Marxist
- \* Sci. & tech. benefit only the few
- \* A response to capitalist needs for increased efficiency or profit

- \* Dalcon Shield, \$2.375 billion in law suits
- \* Silicone breast implants
  - Breast implant leakage: was told by doctors that it wasn't true and they were lying
  - Actually defected and had to have surgery to remove them
- \* Octomom
  - Doctor lost license

### *The Mad Scientist*

- belief in scientific & technological determinism
- Science waiting to be discovered, Science is determined by the funds sanctioned by companies or government (More about money, scientist interests?)
- Women's infertility wasn't looked at for a long time
  - Men sexual dysfunction: Viagra
  - Now looking for Women's Viagra
- Women referred to menstrual waste – disgusting
  - Instead, for males, their production of sperm is seen as powerful and good

### Louise Brown (1978)

- "Meet Louise Brown, the world's first test-tube arrival"
  - **Not** born in a test tube
    - Conceived through IVF, born from her Mother!

### Robert K. Merton (1910-2003)

- Functionalist; Columbia U. sociologist
- Founded the sub-discipline Sociology of Science
- Sci & tech 'advances' may be dysfunctional for society
  - Cell phone and computers: increased bullying, suicide, graphic images, pornography

### 'Thalidomide babies'

- ⇒ Drug given to pregnant women for morning sickness (Europe, Canada, Australia, Japan)
- ⇒ Approx. 12,000 -14,000 children born with deformities (approx. 20,000 effected)
- ⇒ New research suggesting effects can be passed through generations: of 380 children born to thalidomide victims, 11 have suffered congenital limb defects, a rate 5 times higher than in the general population.

## Frances Kelsey

- called the midwife to modern pharmaceutical regulation
- withheld approval pending more research
- drug's teratogenic effects; drug withdrawn the world over
- resulted in better drug testing and clinical trials regs
- Canada - last country to stop sales of the drug, in early 1962

## Feminism

- ◇ Women's gendered roles in society influence their health (e.g. caregiver role, lower incomes)
- ◇ Gender stereotypes – negatively affect health
  - Docs more likely to say women's physical symptoms are psychological in nature
    - Ex: Doctors discuss how insomnia is natural for women above the age 50
- ◇ Overmedicalization of normal aspects of women's and men's lives
  - Pregnancy + birth, menopause for women; hair loss, erectile dysfunction for men

## Paternalism in medicine

- Belief that physician knows best
- Control by (mainly male) medical establishment
  
- Role of consumer movement
- Women's movement
- Informed consent
- Breast cancer clinical guidelines

# Pathology

November 14, 2013 09:05 PM

- ✿ Pathology: link between medicine and science
- ✿ 1st Generation Cancer patients: suffered breast cancer in silence
- ✿ 2nd Generation Cancer patients: demanded more information about cancer, treatments... etc & more social support
- ✿ Not just a cancer → now commercialization: how much money can you make by promoting cancer research?
  - IRONIC: T-Fal has a pink pan that has proceeds that go to cancer research... but using the pans will cause cancer-inducing fumes to emit; Cancer-causing ingredients in makeup
- ✿ Breast Cancer: **Rethink Pink?**
  - Scare Tactics
  - "Pink Washing"
    - Public being manipulated into buying **PINK** to "support breast cancer research"
  - Cultural influences
  - Third Wave feminism: the Booby Ball
    - Sexy campaign for breast cancer
      - Not respectful/useful

"Medicine is not a science; rather, it is an applied technology or an act that makes extensive use of science."

The social construction of scientific & medical knowledge

- "The Egg and the Sperm: How Science has Constructed A Romance Based on Stereotypical Male-Female Roles"

Pathology

1. (Medicine) the branch of medicine concerned with the **cause, origin, and nature of disease**, including the changes occurring as a result of disease
2. (Medicine) the manifestations of disease, esp. changes occurring in tissues or organs
3. any variant or deviant condition from normal

Historical evolution of causes of disease:

- pathology used to predict outcomes (prognosis), justify decisions and prove the reasonableness of a diagnosis or explanation

Historical evolution of concepts of disease:

- *Pathology*: Greek words for 'suffering' and 'theory about' (therefore, *the study of suffering*)
  - (1) Used to explain suffering
  - (2) Identify/label the ailment
    - \* Defines normal & abnormal
      - Ex of abnormal (in the past): transgender, left-handed people
    - \* Factors: culture, religion, economics, race, class, gender and other social and biological factors
- Today's definition of *Pathology*: relevant knowledge of diseases
  - Rooted in:
    - Structure
    - Function
    - Hereditary

## DEFINING MENTAL ILLNESS

- Wandering womb (5th -20th C)
  - Related to hysteria
    - Women deemed to be fragile
      - Prone to: vulnerability, irrationality, hysteria
- Nymphomania (1837–1901)
  - "Irresistible sexual urge"
  - Exclusively female mental illness
  - Diagnosed if:
    - Victim of sexual assault
    - Gave birth to illegitimate children
    - Abused themselves (ie: masturbated)
    - Deem to be promiscuous
  - Doctors would do pelvic exam
    - If woman had an enlarged clitoris
      - Treatment:
        - ◆ Induced vomiting
        - ◆ Leaches
        - ◆ Restricted diet
        - ◆ Cold showers
        - ◆ Water to head or breasts

- There were conditions in the past that were not considered illnesses, but are now official in books such as:
  - Sex addiction
  - Sleep apnea
  - Fetal alcohol syndrome
  - Chronic fatigue
- ADD, ADHD:
  - One of the biggest areas where children are prescribed drugs, difficult to diagnose
  - Some patients WANT children to diagnosed with ADD bc drugs prescribed for ADD ramp up the child's system: want kids to do well on tests (drugs help kids focus better)

### Medical epistemology

- The study of how we know what [we think] we know
- The philosophy of medical knowledge
- Disease concepts are "built" from observations of many individuals' suffering of a similar nature
- Health professional will take into account the patient, the illness, the cause –but the diagnosis is also influenced by the observer (the doctor)

### Historical Overview of pathology

#### 1. Spiritualistic causes

- Remote powers send a disease to test or punish the people
  - Ex: Bible
  - Moral, spiritual, teaching functions
    - Meant to "teach you a lesson"
- Diseases have moral, spiritual and even pedagogic functions
  - People "deserve" their diseases
    - Homosexuals & AIDS
    - Obese people & diabetes
    - Smokers & lung cancer
    - People with eating disorders & lack of self-control
    - People who abuse drugs/alcohol & lack of willpower
- Disease construed as punishment

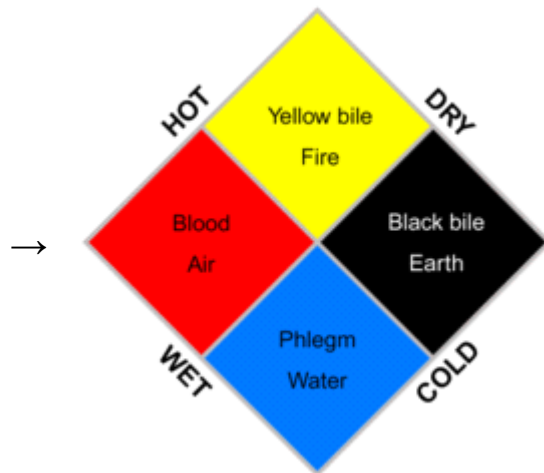
#### Epilepsy

- Thought person possessed by demons or touched by gods

- Later said to be obstruction of phlegm in the brain!  
"Teacher, I brought you my son, who is possessed by a spirit that has robbed him of speech. Whenever it seizes him, it throws him to the ground. He foams at the mouth, gnashes his teeth, and becomes rigid. I asked your disciples to drive the spirit out, but they could not."

## 2. Bedside descriptions

- Disease sometimes seen as a natural imbalance
- Belief that the body had 4 humours:



- Blood
  - Black bile
  - Yellow bile
  - Phlegm
- Nosology: an established form of pathology; disease = patterns of suffering

## Uroscopy

- diagnosis using sight, smell and taste
- Uroscopy flask: physician would look at flask filled with urine and examine:
  - Colour, odour, cloudiness, sweetness & other chemical properties
  - Diabetes: made urine sweet
  - Jaundice: made urine a brown tint
  - Kidney disease: made urine red or foamy

## Pathology moves to the morgue

- ✧ Disease seen as altered anatomy
- Dissections became popular, medical students dug up graves to obtain bodies & perform dissections

- ✧ 1500s, 1600s, 1700s – books published on abnormal anatomy
- ✧ Some see Giovanni Battista Morgagni as the founder of pathology for his emphasis on autopsies

### 3. The laboratory

- Holistic study of suffering moved to a lab-based inquiry of 'what is wrong?'
  - Diagnosis: by listening to chest walls & breathing movements
  - Not about how patient feels, just want to get the diagnosis
    - Relying too much on technology, not listening to patients
      - ◆ "Rise of Numerical Medicine"
        - Focuses on what is "normal"
- Disease = damaged organs
  - But now, it can be a silent disease
    - Ex: silent cancer
- Every hospital now needed a lab

### Germ Theory & Bacteriology

- Disease = invasion by living organisms
- The Germ Theory (the late 1800s) shifted the cause of disease away from internal organs to external invaders
  - Drugs to kill invading organisms, vaccines to provide immunity
- Spawned the new science of bacteriology and the rise of laboratory medicine
- Diseases were caused by germs (late 1800s)
- Led to search for vaccines to provide immunity and drugs to kill the invading organisms

### Today: Genetics

- ✧ Disease= genetics, hereditary
- ✧ Genetics became popular
- ✧ Eugenics Movement (race, class, gender, political philosophy)
  - Screening out "simple minded people", people with Downs Syndrome
  - Women are sterilized & not allowed to reproduce if they have a disease
- ✧ Diseases with a genetic connection: Tay-Sachs, sickle-cell anemia, MS, cystic fibrosis
- ✧ Personalized medicine

- Not everyone is the same
- ✧ Coalition for Genetic Fairness

### 3 perspectives on the cause of disease:

1. The organismic theory (the medical model) of disease:
  - the individual theory of disease
  - diseases are bad; the patient is the target of the disease
    - ⇒ If the patient is not fighting (attacking, zapping, getting rid of) the disease, they are not "warrior" enough (but maybe it's just bc their body is not responding to the treatment
      - What happens if the patient has tried ALL of the treatments and none of them work?
  - little done to explain the causes
2. Ontological theory
  - Disease is "what the patient has"
  - The cause comes from outside the patient
  - The disease is a separate being or entity; it exists separate from the patient
  - *Diseases vary* from each other
3. Physiological theory
  - Disease is "who or what the patient is"
  - Causes come from inside the patient
  - Diseases do not exist separate from patients
  - *Patients vary* (HPV)

External causes: diseases caused by viruses and bacteria

- problem: racism – cholera in early Canada, diseases of poverty

Internal causes: diseases caused by genetic or autoimmune disorders

- Problem: blame the victim (indiv. behaviour)
  - e.g. "Jewish diseases"

Social construction

- Science can be wrong! (very wrong)
  - e.g. phrenology: looked at the shape of the head
    - ⇒ "People of this race have this certain type of head shape"
  - Physicians have too much power in making diagnosis
  - Some want a more holistic view and turn to alternative and complementary medicine/therapies

Disease vs. Illness

- ❖ Illness ≠ disease
- ❖ *Illness*: individual suffering
- ❖ *Disease*: pertains to ideas about the illness; the theory constructed to explain the illness, what causes it, its target

"As long as a particular disease is treated as an evil, invincible predator, not just a disease, most people with cancer will indeed be demoralized by learning what disease they have." -- *Illness as Metaphor* (1978) Susan Sontag

- ✿ Breast Cancer is the most common cancer among Canadian women with 23 200 women being diagnosed in 2010. Deaths from the disease are approximately 5300.

How has the 'study of suffering' evolved with breast cancer?

- Message: Scare Tactics
  - Genetic knowledge of the disease led many to believe if you have "THE GENE", it's practically a death sentence!
  - However, 5-10% approx. of breast cancers are attributable to inherited gene mutations
- Message: Pink Washing
  - Pink Washing: the use of pink ribbon branding for marketing purposes
    - ◆ Breast cancer has become a brand name with a pink logo!

PUBLIC PERCEPTION?

- Does the commercial explosion of pink products affect the public's perception of health in Canada?
  - Yes it does. People are more likely to buy a product if it is pink and "supports breast cancer by donating funds to cancer research".
- Message: "Breast Cancer is Sexy"
  - "Rethink" Breast Cancer – Brings new awareness to Canada (Your Man Reminder)
  - "Dress For the Cause"
  - BOTH of these campaigns do not accurately deliver information about the cause, origin and nature' of the disease. Not helpful for people with breast cancer.

Drawbacks of Breast Cancer Awareness

- Increased number of requests for prophylactic mastectomy when less radical and equally effective measures are available
- Increased demand for breast cancer screening despite a consensus about its effectiveness
- Promotes hope for a cure - limited view
- Transforms political action into consumption (as people *buy* for the cure instead of *fight* for the cure!)
- Treatment is still the same: surgery, radiation and chemotherapy
- Prophylactic radical mastectomies is the new form of prevention – shouldn't we expect something more?

#### Economic Ties to Thinking Pink

- National Breast Cancer Awareness Month – Astra Zeneca
- The Canadian Breast Cancer Foundation is the biggest recipient of cause related marketing in Canada yet they only spend a small amount on causes of breast cancer. The biggest receiver of their money is the Canadian Breast Cancer Research Alliance which allocates only 17.7% of its budget to prevention and risk factors combined

# History of Canadian Health Care & Health Reform

December 4, 2013 07:31 PM

## Political culture

- Canadian healthcare system is more egalitarian
  - covers everyone 'equally'
- USA is more libertarian – best health care you can afford (although coverage for very poor and the very old)
  - 45 million in USA had no health coverage before “Obama Care”

## Canada Health Act 1984:

- five principles
  - 1) Universally available
  - 2) Reasonably accessible
  - 3) Medically comprehensive
  - 4) Portable between provinces
  - 5) Publicly administered
- forbids user fees and extra billing
- care based *on need* not ability to pay

## Financing of health care

- ▶ Approx. 70% of HC in Canada is publicly funded
  - Ex: OHIP
- ▶ 30% private funding (private insurance + out of pocket)
  - Ex: dental care, vision, LTC, home care, prescription drugs (not including poor or elderly which is paid by gov't)
- ▶ Private insurance not allowed to cover what is covered under Canada Health Act

## A monopsony

- A single-payer health system is an example of a monopsony
- The government is the only "buyer" of health care services
- Canada spends 11.2% of GDP on HC; US spends 17.9% but doesn't cover all citizens
  - Australia 9%, France 11.6%, Sweden 9.4% World Bank, 2011 figures
- 1970's: Federal government stopped its 50/50 healthcare funding split with the provinces
  - Was a control mechanism – kept provinces in line with Canada Health Act

## Single-tier vs. multi-tier systems

- debate: public vs. private roles in HC
- key distinction: financing vs. delivery

- HC delivered by a mix of public + private
  - Ex: private labs provide ultrasounds that are paid for by billing OHIP
    - OHIP can be provided through **public & private**
      - Just because it is a private lab does not mean it is private, could be publicly funded
  - Ex: Premier McGuinty criticized for allowing P3s (Public Private Partnerships)
    - P3 = where the private sector finances, builds, & owns the hospital building (and are responsible for the kitchen, laundry, infection control... etc)
      - Private hospitals can make their own rules

#### Chaoulli decision

- 2005
- Lawsuit brought by Quebec doctor (Dr. Chaoulli) on behalf of his patient
  - Long wait for hip replacement infringed on patient's right to "security of the person"
- Supreme Court ruled 4-3: long waiting lists imperiled patient's rights to "security of the person"
- Many said this decision opened door to private delivery and financing of HC

#### Private Clinics

- Private Copeman Clinics – Vancouver (opened Nov. 05), Toronto
- Membership fee \$3,900 + \$2,900 annual fee
- Members pay for non-insured services (not illegal), but also bill the provincial health plan for services covered by government
- Issue: pay for timely access to doctors, nurses, sports therapists etc.
  - queue jumping
- Ontario said charging membership fee was illegal under the Canada Health Act

#### Private parallel system

##### Cons:

- ❖ Will drain health professionals from the public system
  - All really good doctors will go to private sector to work (and make more \$)
- ❖ Will only do the easy stuff not the costly and complicated stuff
- ❖ When things go wrong, cases will be shipped back to the public system
- ❖ Private clinics -- no interest/incentive to work cooperatively across continuum of care
  - Only want to make \$
- ❖ No evaluation of private care
- ❖ Private clinics can refuse patients
  - Only want rich clients

- They don't HAVE to take all patients
- ❖ No service to Northern, rural, & remote areas
  - Because it does not make \$
- ❖ No incentive to promote health promotion/disease prevention initiatives
- ❖ Not proved to be more efficient or cheaper
  - Some research shows that countries with 2-tier health care such as Britain and New Zealand have longer wait times than Canada
- ❖ USA spends 25 cents of every health dollar on administration costs; Canada: average 2 cents per dollar in administration costs
- ❖ Harvard researchers (1999): total admin costs per capita (USA) \$1,059, CAN \$307
- ❖ "The evidence is overwhelming and clear. The two-tiering of health care represents going backward in time to when good health care depended on the size of one's wallet." - Roy Romanow

#### Economic and social conditions

- interest in economic & social conditions that make people ill and how eco/soc policies can improve health
- SDOH (social determinants of health)– this approach was not new

## Health Promotion and Disease Prevention

### Health Promotion

- "Combines educational, organizational, policy, financial, and environmental supports to help people change negative health behaviours"
- Ex: ParticipACTION campaign
- Ex in Scotland: Give It Up For Baby
  - Gov't pays pregnant women 12.50 British pounds weekly (\$19.56 CDN) to quit smoking
  - Kind of sexist & racist

### Prevention

- vaccinations, safe sex, exercise, bike helmets, non-smoking programs, PAP tests etc.
- 2/3 of Cdn. deaths are a result of cardiovascular disease -CVD, cancer, type 2 diabetes, respiratory diseases
- All of these share common preventable factors: physical inactivity, unhealthy diet, tobacco use

### *Focus on Prevention*

- Approx. 70% of HC costs arise from treating chronic diseases
  - Ex: heart disease

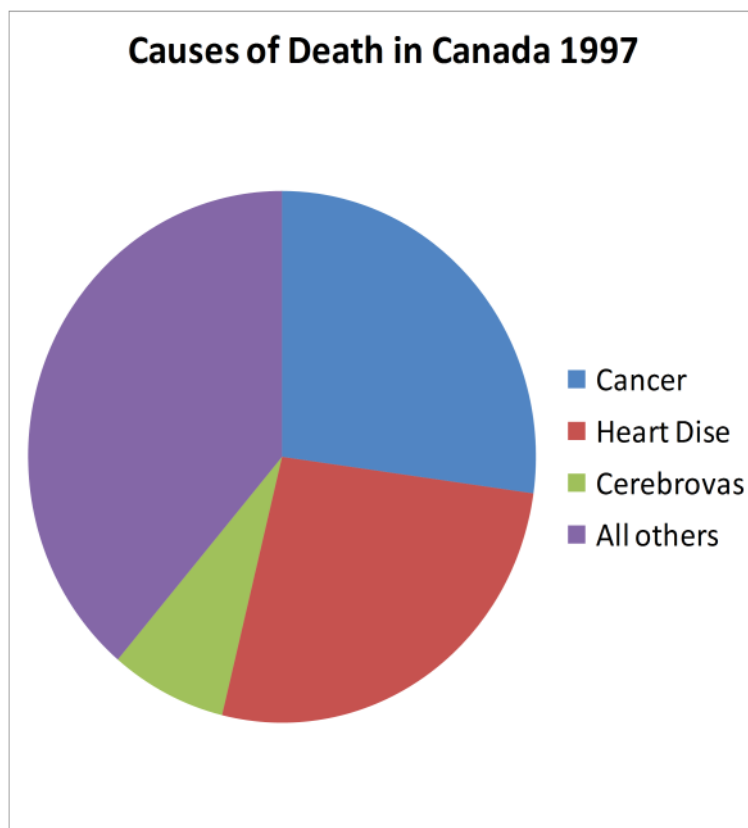
- These diseases can be prevented by addressing 3 factors:
  - Overeating
  - Lack of exercise
  - Smoking

### Levels of Prevention

1. Primary: stop problems before they start
  - a. Ex: sex education
2. Secondary: early intervention to reduce symptoms or halt the progression
  - a. Ex: smoking cessation program
3. Tertiary: treatment or rehab after a person is sick to limit effects of the disease
  - a. Ex: coronary by-pass surgery

### Where should money be spent on healthcare?

- Common sense: Put money into primary and secondary prevention (upstream thinking)
  - Prevent problems before they happen (saves money)
- Reality: HC system spends money on research and tertiary prevention – “after-the-fact-treatment”



### Leading causes of death: Canada

Cause of death:	% of deaths:
1.Cancer	30%
2.Heart disease	22%

3. Stroke	6%
4. Chronic lower respiratory diseases	
5. Accidents	
6. Diabetes	
7. Alzheimer's disease	
8. Influenza & pneumonia	
9. Kidney disease	
10. Suicide	

- ▶ Cancer and heart disease, 2 leading causes of death for Canadians, were responsible for just over one-half (51%) of the 235,217 deaths in Canada in 2007.
- ▶ These 10 leading causes accounted for 77% of all deaths in 2007, down from 80% in 2000.

### Cancer

- ◆ The proportion of deaths due to cancer reached its highest level for individuals aged 55 to 64, where it accounted for **almost half (48%)** of deaths.

### Health Belief Model (HBM)

- ◆ Belief factors affecting behaviour change:
  - (1) Perceived seriousness of health problem
  - (2) Perceived susceptibility
  - (3) Cues to action
    - i. Ex: mass media campaign
  - (4) Demographic variables
    - i. Ex: age
  - (5) Sociopsychological variables
    - i. Ex: social pressure
  - (6) Structural variables
    - i. Ex: knowledge about the disease

Do the benefits outweigh the costs? Will the action actually work?

### Social Marketing

- ✧ Promotes positive social change
- ✧ Uses marketing techniques to make message more effective
- ✧ Persuade a target audience to act in a more healthy fashion
  - Ex: No drinking and driving
- ✧ Requires knowledge of attitudes, behaviours of target audience
- ✧ May involve special promotions, direct marketing, PR, special events... etc

## Examples of Social Marketing:

- Stupid.ca
  - Canadian – Ontario Ministry of Health and Long Term Care
- Teenage Kicks
  - NHS campaign in Britain on teen pregnancy
  - Video of girl giving birth to baby on a soccer field at school, big crowd surrounding her and recording the event
- The Fun Theory
  - If stairs are made into a giant piano, people would take the stairs instead of the elevator

## Evidence based practice

- “Not everything that counts can be measured. Not everything that can be measured counts.” - Albert Einstein

## Why the focus on EBP?

1. More people doing more research
2. Specialized researchers
  - ◇ (testing theories etc.)
3. Need to decrease time lag when new knowledge applied to practice
4. Pressure on funding dollars – accountability -- what works!
  - ◇ (report cards, accountability etc.)

## Rose diagram

- The **N. rose diagram** or polar area diagram (today called a circular histogram) a form of pie chart -first used by Nightingale to record deaths of soldiers in Crimean
- Seasonal sources of patient deaths (showed most deaths from disease not war)
- Nightingale elected first female member of the Royal Statistical Society (1859)
  - ◇ Honorary member of the American Statistical Association

## Group practice

- Move towards group practice
  - ◇ Community Health Centre (CHC) model

## Current Issues

- ◆ Mental Health
- ◆ Aging population
- ◆ Health Human Resources
- ◆ Home Care, Continuing care
- ◆ Drug coverage
- ◆ Wait times

- ◆ Aboriginal health
- ◆ Electronic health
  - ◇ Problems with: confidentiality, ethics etc.

#### Aging population

- Will it bankrupt us?
- Difficulty with ethics – we no longer have shared views of what is morally right and wrong (euthanasia, physician assisted suicide)
- Law, politics and religion sometimes overlap

#### Projected nursing shortages

- "Despite improvements, nurse shortage still predicted, numbers show"
- "The projected shortage is 78,000 RNs by 2011 and 113,000 by 2016. We haven't seen a huge increase in the supply of RNs, we haven't seen a major change in the number of internationally-educated RNs; we have seen a slight increase in the number of new graduates. We're still feeling that the shortage is going to happen if the numbers don't change." - Lisa Little, Canadian Nurses Association

#### Nurse Practitioners numbers up

- ★ "...CIHI report finds that the number of nurse practitioners almost doubled between 2003 and 2006, increasing to 1,300 from 725. A nurse practitioner is a registered nurse with additional education in health assessment, diagnosis and management of illnesses and injuries, including prescribing drugs."

#### Physician Assistants

- ★ "Nurses oppose the Ontario government's physician assistant role citing inadequate education, concerns over patient safety and unnecessary costs"

Nurse RN Ontario	Physician Assistant
4 yr. BsCN degree	2 yrs undergrad in any discipline Ex: journalism, art history
Regulated health prof	Not account. to regulatory body
Skills monitored; College of Nurses	Pay twice (doc & PA)
Pay once	Only work under direct supervision of assigned physician
Work independently & with HC teams	PA base salaries ranging from \$75, 000 and \$86, 700 per annum

RN with 5 yrs experience: \$64, 623	
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### Wait times

- \* Progress IS happening some argue:
- \* CIHI study found 9 to 14% annual increases in number of MRIs and CT scans
- \* # of angioplasties and by-pass operations jumped 51% b/n 1998-2003 (5-year period)
- \* 2005 Survey: Of 2.1 million adults who had an MRI, CT scan or angiography in the previous year, approx. half waited 3 weeks or less; 90% got the service within 4 months

### The Alberta Hip and Knee Replacement Project

- dramatically decreased wait times by:
  - procedural specialization
  - streamlined information flows
  - economies of scale
- Average time from consultation with a family doc to actual surgery fell from 82 weeks to 11 weeks
- Public system improvement

### How to define wait time?

- We don't collect enough information!
  - It is hard to tell when to start 'measuring the time'
- Is it from when you first see your GP to when you get to have the operation?
- Does it include wait to see the specialist?
- What if you ask for a second opinion (or third) – should this be part of wait list time?
- Is it when you are put on the surgery wait list?

# Pediatrics

December 4, 2013 07:26 PM

## Childhood:

- Workhouse Act - no able-bodied person could receive money or other help from the Poor Law authorities except in a workhouse.
  - Conditions were purposefully made harsh to discourage people from claiming
- Upper class girls were lucky if they had a brother
  - Tutor could teach the girl as well
- Wet nurse = women who breastfed the wealthy kids
  - Having a wet nurse is only for the wealthy
  - "milk siblings" = children drinking the same milk from the same wet nurse
  
- Matchstick Girls Strike (UK) 1888
  - Girls made wooden matches in a factory, but also worked at home
    - Dipped matches into yellow phosphorus (dangerous chemical, causes phosyjaw)
  - In 1908, the British House of Commons passed an Act prohibiting the use of yellow phosphorus in matches after December 31, 1910. This was the United Kingdom's implementation of the 1906 Berne Convention on the prohibition of white phosphorus in matches.
  
  - "Girls are used to carry boxes on their heads until the hair is rubbed off and the young heads are bald at fifteen years of age? Country clergymen with shares in Bryant & May's draw down on your knee your fifteen year old daughter; pass your hand tenderly over the silky clustering curls, rejoice in the dainty beauty of the thick, shiny tresses."- Annie Besant

## The Little Match Stick Girl

- Children's fairy tale by Hans Christian Andersen
- "Her little hands were almost numbed with cold. Oh! a match might afford her a world of comfort, if she only dared take a single one out of the bundle, draw it against the wall, and warm her fingers by it. She drew one out. "

## Radium Girls

- The Radium Girls were female factory workers who contracted radiation poisoning from painting watch dials with glow in dark

paint at a US factory in NJ @1917

→ told the paint was harmless

→ ingested deadly amounts of radium by licking their paint-brushes to sharpen them; some also painted their fingernails with it

- 5 women filed court case that established the right of individual workers who contract occupational diseases to sue their employers

### Economic and social conditions

- interested in eco. & social conditions that make people ill and how eco/soc policies can improve health
- SDOH – this approach was not new

### The Conditions of the Working Class in England (1845)

✧ Engels - a political economist

✧ wrote about health conditions of workers in England in 1800s  
→ terrible conditions

✧ Engels looked at one suburb in Manchester - showed death rate differed based on quality of the housing and the streets

✧ 'Children of the Revolution'

### Wetnurses

✧ Children fed by other pregnant women

✧ Wetnurse = women who breastfed the wealthy kids

→ Having a wet nurse is only for the wealthy, poor people became wenurses (considered a good job)

→ "milk siblings" = children drinking the same milk from the same wet nurse

### 'Butterbox Babies'

● 1930's Canada (1928-1945)

● Unwed mothers are sent to the Ideal Maternity Home in East Chester, Nova Scotia

● "Unadoptable" babies were starved to death or buried in butterboxes

● Ideal Maternity Home also the source of selling babies to Jewish families in the US

● Nobody wanted to deal with the unwed mothers, the gov't turned a blind eye for a while, so the Ideal Maternity Home seemed like the only option

### Poverty today...

- Research is showing us that children living in low income families are more likely to see greater incidence of **illness, hospital stays,**

accidental injuries, mental health problems, lower school achievement and early drop out, family violence and child abuse... etc.

#### Apple's outsourcing of jobs to China

- Foxconn factory, Shenzhen, China: 34,000 workers;
- 13 year old workers
- More than 20 cafeterias
- Mostly female workers

#### Child mortality

- ⇒ Child mortality pressured creation of pediatrics
  - Pediatrics: created 19th C
- ⇒ Disease prevention in children – one of 1st welfare initiatives

#### Eugenics

- ⇒ Margaret Sanger, 1879-1966
- ⇒ Nurse in NYC
- ⇒ Birth control advocate (back then it was illegal)
  - Saw families give birth, already had 12-13 children and did not want any more
- ⇒ Also supported eugenics, SDOH

#### Dionne quint

- ⇒ Very popular quintuplets (girls)
- ⇒ First quintuplets that survived infancy
- ⇒ Lots of money made (through merchandise... etc), but unknown whether the money was given to the parents
- ⇒ Born in a poor family, gov't removed quint from home
- ⇒ "stop exploiting the kids"
  - Ex: Jon & Kate + 8
  - Shouldn't expose children at such a young age for money

#### Let's Look at Maternal Health

- Each year, more than 4 million babies die within four weeks of birth; 500,000 women worldwide die from complications in childbirth.
- Women in developing countries are also 300 X more likely to die in childbirth or from pregnancy related complications than those in a developed, industrialised country.
- In Niger, a woman has a 1 in 7 chance of dying from childbirth; in Ireland, she has a 1 in 47,600 chance.

#### Headline: Poverty 2005

- Poverty is the single greatest threat to the well-being of children in

the UK.

- More than one in four children lives in poverty.
- But the starkest deprivation is found in tiny, almost hidden pockets: there are some wards in the UK where over 90% of children live in poverty.
  
- ❖ Children living in Canada's poorest neighbourhoods gained more weight over an 8-year period than those living in more middle-income areas
  - Bc low-income = not able to afford healthy food (junk food is unhealthy but cheap)
- ❖ Obesity in childhood persists into adulthood and may be linked to poor long-term health outcomes.
- ❖ 59% of adult Canadians are either overweight or obese
- ❖ In Canada over 26% of children and youth (1.6 million children) are considered overweight or obese.
- ❖ 1 in 4 adults and 1 in 11 kids in Canada now obese
- ❖ Latest Canadian Community Health Survey shows kids who watch more than 2 hours of screen time (TV, computer, video games) per day have double the incidence of over-weight and obesity when compared to children who watch less < 1 hour per day.

Connor McCreaddie

- "Connor McCreaddie, 8, weighs 218 pounds and could be taken into protective custody if mom Nicola, left, doesn't improve his diet."
  - His mother is suffering depression, single mom, living on welfare
  - Discriminating on class - just because she is poor does not mean she can't take care of her child

Role of the private sector

- Elinder: obesity, hunger, and the damaging role of agricultural subsidies
  - Junk food advertising contributes to obesity
- Food brands sold in Canada are much saltier
- These are not individual choices
- "NO BAD FOODS, ONLY BAD DIETS" ?

Unhealthy kids' advertising

- New research shows 95% of ads shown on kids TV (Teletoon, YT) were for unhealthy food
- "We're not buying it"
  - Ads were geared to children 2 – 11 yrs.

- Food industry defined these as healthy: Froot Loops, Reese's Puffs, Kool-Aid singles
- More parents are now educated about this and will not be fooled into buying unhealthy foods for their children

Counter argument: "NO BAD FOODS, ONLY BAD DIETS"

# Florence Nightingale

December 11, 2013 09:07 PM

## FLORENCE NIGHTINGALE: RACE, CLASS, GENDER ANALYSIS

- Nightingale is known as the founder of modern nursing
- She said that the nurse's role was **not just in the care of the sick** but also in the **socio-political arena** where we should be ensuring healthy environments for all

### 1820-1910: class analysis

- Born in 1820 in Florence, Italy into a wealthy English family
  - well off, well connected family; wealth came from lead mining
- Died when she was 90
  
- At 17 yrs. while in the garden, **believed she had a calling from God into His service**
- Florence heard the voice of God calling her to do his work, but at this time, no idea what that work would be
- She developed an interest in social questions of the day
- She made visits to the homes of the sick in the local villages and began to investigate hospitals and nursing

### Health reform advocate

- particularly concerned with the appalling conditions of medical care for the poor and indigent.
- In December 1844, in response to a pauper's death in a workhouse infirmary in London that became a public scandal, she became the leading advocate for improved medical care in the infirmaries.

### Reform of the Poor Laws

- ❖ She engages the support of Charles Villiers, then president of the Poor Law Board.
- ❖ Led to her **active role in the reform of the Poor Laws**, extending far beyond the provision of medical care.

### Inappropriate for 'a lady'

- ❖ parents refused to allow her to become a nurse
  - inappropriate for a lady of her rank to do physical work
- ❖ Not suitable profession for a well-educated woman
  - nursing was a career with a poor reputation; filled mostly by **poorer women, "hangers-on"** who followed the armies; **untrained, unskilled**
  - nurses had reputation for drunkenness; were poorly paid
  - nurses were equally likely to function as cooks and cleaners

### Early education & training

- ⇒ 1845: announces decision to enter nursing; evokes intense anger and distress from her family, particularly her mother.
- ⇒ Toured Europe with some family friends; Italy, Egypt and Greece, returning in

- July 1850 through Germany
- ⇒ Visited Pastor Theodor Fliedner's hospital and school for deaconesses at Kaiserswerth, near Dusseldorf.
- ⇒ At age 24 yrs. (1851) refuses Milnes; goes back to Kaiserworth for 3 months to learn nursing from the Institution of Deaconesses

#### Care of Sick Gentlewomen

- On August 12, 1853, Nightingale began work as **superintendent** at the **Institute for the Care of Sick Gentlewomen** in London
- Stays for 14 months
- Father had given her a comfortable income of £500 annually (roughly \$50,000 in present terms) which enables her to pursue her nursing career

#### Introduce female nurses to war

- March 1854 Britain, France, Turkey declared war on Russia
- The Times newspaper criticized British medical facilities for the wounded; unlike the British, French, Russian and Ukrainian women were allowed to nurse in war
- Sidney Herbert, Minister at War, knew Florence socially and through her work at Harley Street, appointed her to oversee **introduction of female nurses into the military hospitals in Turkey**.
- Initially doctors didn't want the nurses there; did not ask for their help, but within 10 days fresh casualties arrived from battle and the nurses became fully engaged.
- During her first winter 4,077 soldiers died there; 10x more soldiers died from illnesses such as typhus, typhoid, cholera and dysentery than from battle wounds

#### Fatal hospital conditions

- Conditions at the hospital were so fatal to the patients because of overcrowding and the hospital's defective sewers and lack of ventilation
- A sanitary commission had to be sent out by the British government almost 6 mths. After Nightingale had arrived
  - Flushed out the sewers and improved ventilation; death rates were sharply reduced.

She did many wonderful things for the soldiers: **wrote home on their behalf; acted as a banker, sending the men's wages home to their families; introduced reading rooms to the hospital.**

#### The Lady of the Lamp

- introduction of female nurses to the military hospitals was an outstanding success
- to show the nation's gratitude for Florence Nightingale's hard work a public subscription was organised in November 1855
- \$ collected (equiv. of \$2 million) was to enable Nightingale to continue her reform of nursing in the civil hospitals of Britain
- was famous upon her return home (2nd only to Queen Victoria)
- was stricken by a fever (possible psychosomatic origin), in part a delayed response to the stress of her work in the war and her bout with Crimean fever.
- barred her mother + sister from her room and rarely left it; **suggestion of PTSD & bipolar disorder**

## Royal Commission

- Invitation from Queen Victoria to play a central role in the establishment of the Royal Commission on the Health of the Army
- As a woman, Nightingale could not be appointed to the Royal Commission, but she wrote the Commission's 1,000-plus page report that included detailed statistical reports, and she was instrumental in the implementation of its recommendations.
- The report led to a major overhaul of army military care, and to the establishment of an Army Medical School and of a comprehensive system of army medical records.

## Contribution to statistics

- ◆ Florence Nightingale had exhibited a gift for mathematics from an early age and excelled in the subject under the tutorship of her father.
- ◆ She had a special interest in **statistics**, a field in which her father was an expert, and was a pioneer in the nascent field of epidemiology.
- ◆ She made extensive use of **statistical analysis** in the compilation, analysis and presentation of statistics on medical care and public health.

## Statistical Analysis

- During the Crimean War, Nightingale invented a diagram she called the coxcomb or polar area chart
  - Equivalent to a modern circular histogram or rose diagram
  - Used it to illustrate seasonal sources of patient mortality in the military field hospital she managed.

## Information graphics

- ⇒ Made extensive use of her statistical diagrams to present reports on the nature and magnitude of the conditions of medical care in the Crimean War to Members of Parliament and civil servants (who would have been unlikely to read or understand traditional statistical reports.)
- ⇒ As such, she was a **pioneer** in the visual presentation of information, also called **Information Graphics**

## The Statistical Society

- ◆ In her later life Nightingale made a comprehensive statistical study of sanitation in Indian rural life
  - Was the leading figure in the introduction of improved medical care and public health service in India.
- ◆ For her contribution to Army statistics and comparative hospital statistics in 1860 Florence Nightingale became the first woman to be elected a fellow of the Statistical Society

## Hospital planning

- Florence Nightingale's writings on hospital planning and organization had a profound effect in England and across the world.

## Nightingale Training School

- Nightingale had £45,000 (\$2 m today) from the **Nightingale Fund** to set up the **Nightingale Training School** at St. Thomas Hospital in 1860
- One year nursing training

- Now called the Florence Nightingale School of Nursing and Midwifery, part of King's College, London
- First Nightingale trained nurses began work in May 1865 at the Liverpool Workhouse Infirmary

#### Impact on Nursing

- influenced the nature of modern HC
- her writings continue to be a resource for nurses, health managers and planners
- **she was not just being a nurse, she was thinking about the function of nursing**
- greatest achievement was to raise nursing to the level of a respectable profession for women
- she believed nursing was a profession on its own

#### Environmental model

- Her approach wd be deemed holistic
- **Care for physical and mental**
- Concern for patient's needs and their environment to aid recovery

#### Race, Class Gender:

##### Mary Seacold

- Crimean heroine 'Mother Seacole'
- Widow in late 40 yrs.; Sailed to Crimean to help British
- **Was a "doctress" or herbalist and hotel keeper**
- Made her own way to the war (contrast: Nightingale)
- Set up general store, canteen, unofficial surgery called The British Hotel on road to front lines
- Served Br., Fr., Turkish soldiers; also treated non-soldiers (eg. Road builders)
- Bankrupt after the war; Crimean vets org. benefit concerts; died in London 1881, largely forgotten
- Rediscovered as great Victorian woman in her own right

# Surgery

December 4, 2013 07:57 PM

## “Work of the Hand: History of Surgery”

### From butchery to brilliance

- Trephination: drill hole into head to relieve pressure, eliminate evil spirits!
- Also dealt with: Headaches, seizures or loss of consciousness
  - o Seizure = epilepsy, but back then there was no knowledge of epilepsy
    - Thought to be possessed by demons ∴ drill holes!

### « The Renaissance nose job »

- Early surgery
- Noses were lost during the war
- Untreated syphilis → lost nose → rhinoplasty
  - o Take skin from forehead to create new nose

### Face transplant

- First successful partial face transplant performed in France in 2006
- Got bitten by a dog
- Ethics of using a donor's face
  - o Body parts don't look like you, your face does

### Blood & guts

- Fixing faces: Negative reaction to disfigured faces instead of feeling sympathetic
- Surgeons were trained as barbers (barber surgeons)
- 'early surgery was called 'optimistic butchery'
- Surgeon is 'the harbinger of death'

### Surgeons today:

- Top of the pyramid of hospital
- Have to work good under pressure

### Brain surgery:

- Patient chatting away happily (fully awake) while they do the procedure (cut open her skull), patient needs to be awake to be monitored

### 4 necessary prereq. for having surgery:

1. Understanding anatomy

- Looked at & studied cadavers/dead people dug up from graves
- Vesalius wrote books with pictures to locate body parts
  - Ex: heart, liver
- 2. Managing blood loss
  - Way to stop blood flow to prevent losing the patient
  - Pare invented the ligature
    - Tie off blood vessels
- 3. Discovery of pain relief (anesthesia)
  - Dr. John Snow – perfected use of chloroform, but tested it on his daughter! (1847)
    - Chloroform earlier form of anesthetic
  - Important so patient doesn't pass out and die , prevent pain
  - Used to use alcohol as an anesthetic
  - Ether used on pregnant women
    - But not good for baby, so stopped
  - Acupuncture is now commonly used
- 4. Battling infection
  - Childbed fever - women dying 'in childbed' of septicemia (blood poisoning)
  - More mothers dying in doctor's care in hospitals than those of midwives or births at home
  - Dr. Ignaz Semmelweis – the “father of infection control”
    - “death on their hands” = (literally) dirty hands
    - Doctors don't take time to wash their hands bc they are too busy

#### IGNAZ SEMMELWEIS

- ◆ 1818–1865
- ◆ "the saviour of mothers" bc it was later proven that having clean hands can save lives
- ◆ died from septicemia
  - in public insane asylum at the age of 47
    - Nobody was listening to him!

#### The doctor's plague

- 1600s to 1800s
- “Doctors are gentlemen, and gentlemen's hands are clean.”
  - Dr. Charles Meigs, Obstetrician & teacher
- Louis Pasteur – bacteria
- Joseph Lister: introduced carbolic acid
  - To sterilize instruments and wounds – (at the time) was also used in cleaning sewers
  - Tested it on a young boy

→ Cost of young and vulnerable

### The lobotomist

- ◇ Walter Freeman and lobotomies
  - performed 3,500 himself
- ◇ Transorbital lobotomy: hammered an ice pick through the eye socket
- ◇ 1945: 150 were performed; 1949 over 5,000
- ◇ Patients: depressed housewives, hyperactive children (even on a 4 yr. old)
- ◇ Today: Deep Brain Stimulation for Parkinsons Disease

### Circumcision

- Along with trephination, circumcision is said to be one of the oldest elective surgeries
- Practised by the ancient Egyptians
- Controversy today: ethics of male circumcision and female circumcision (female genital mutilation (FGM), also called ritual cutting)
  - Females in Somalia undergo female circumcision
    - Illegal in Canada
  - Hyman reattachment surgeries in Toronto: cultural issues

"What multiculturalism does not say is whether all of the beliefs and practices of all cultural groups must be equally respected. It is one thing to require that cultural, religious, and ethnic groups be treated as equals; that conforms to the principle of justice as equality. It is quite another thing to say that any cultural practice whatever of any group is to be tolerated and respected equally" - Macklan

### Complications

- "Acute complications of FGM are: **hemorrhage, infections, bleeding of adjacent organs, and excruciating pain**. Long-term complications include **severe scarring, chronic infections, urologic and obstetric complications**, and **psychological and social problems**. FGM has serious consequences for sexuality and how it is experienced. There is a multiplicity of complications during childbirth including expulsion disturbances, formation of fistulae, ruptures and incontinence." - World Medical Association

### Dr. James Barry

- Pioneering army Surgeon
- 1st female British surgeon
- Spent her life disguised as a man

- 40 yrs. as an army surgeon for Great Britain; promoted to an Inspector General of Hospitals in South Africa and what are now the BVI's

### Critique

- Focus on evidence based practice has revealed issues
- Caesarian rates – amongst highest in world
  - Lower risk, less pain but more costly
- Mastectomy rates higher in rural areas
- IVF surgical practices – no clinical trials – ethics: 'Octomom'
- High rates of appendectomies
  - Don't need appendix, but removing it for no reason

### Midwifery

- o Little known of history of midwives or childbirth
- o Received knowledge was role of obstetrics "in which physicians armed with scientific knowledge and new technologies were portrayed as champions of women's health overcoming the dark forces of superstition and ignorance." *Reconceiving Midwifery in Canada*, Ivy Bourgeault

### The story of the demise

"...for the most part the history of midwifery in Canada is the story of the demise of the midwife - however configured – or at best of the lack of her official recognition and the rise of medicalized childbirth."

### Reconceiving Midwifery

### The birth house

- Decline of midwifery in ON 1789-1900
- Allopathic medicine's drive to control childbirth and eliminate midwives as competition
- Regulated in 1994
- 565 midwives; 400 students
- 1 in 4 midwife births are home births
  - non-hospital births tripled 1991 – 2007
- But still just under 2% of all births

### Midwife education

- Offered at a number of universities
- Program is 4 years except in Quebec (4.5)

### Freezing embryos:

- For people desperate for children
- Unethical, no consideration for development of kids



# Psychiatry

December 4, 2013 07:57 PM

## The History of Madness in Canada

- 'Normal' behaviour is socially and culturally determined
- Behaviour can be criminal, sinful or sick
  - o Homosexuality has been all 3
  - o However, being lesbian was never a crime
- Psychiatric diagnoses have been socially constructed
  - o Ex: hysteria
- People are afraid of losing their jobs if they admit they have a mental illness

## War and mental illness

- War neurosis, combat stress, Gulf War Syndrome, PTSD
- Shell shock victims treated harshly
  - o Some seen as deserters
  - o Little sympathy was shown
  - o A sign of weakness
  - o Victims endured more trauma with treatments like solitary confinement or electric shock therapy
    - Hypnosis shows some improvement

## 'war neuroses'

- solitary confinement
- disciplinary treatment
- electric shock treatment
- shaming and physical re-education
- emotional deprivation

## Arthur Hurst: Seale Hayne

- Army major
- Medic
- 'Heroic' treatment
- Reconstruction of the battlefields of Flanders to relive their experiences
  - o Take men to do farm work (have them do something useful)
  - o Help men relive their war experiences in a lovely, safe way
  - o "occupational therapy" – still used today

## PRE-ASYLUM ERA (400 – 1300)

- Lack of institutions
- Taken care at home or abandoned by family

## DEFINING MENTAL ILLNESS

- Evil and demonic possessions – “Disease of the soul”
- Witchcraft
- Anger of God

## TREATMENT

### ▷ PRE-ASYLUM:

- Abandonment and confinement
- Exorcisms – burning and exaggerated fasting
- Trepanning/trephination

## ASYLUM ERA (1300-1940)

- Asylum
- Prison: Goal, Bridewell
- Would lock people up into a madhouse/workhouse
  - Belief was: no job = lazy = sent to workhouse = work to get food
- Lots of people lumped into the "insane" category: homeless, prostitutes
- Asylum reform in 1700s

## DEFINING MENTAL ILLNESS

- Phrenology (1808): Personality traits located in distinct areas of the brain
- Classifications:
  - Personality disorders
  - Somatization disorders
  - Delusions & hallucinations

## Thomas Sydenham (1624-1689)

- added *etiology* (the study of causation or origination) and *pathogenesis* as defining criteria
- *Pathogenesis*: the origin, development, and resultant effects of a disease

## ASYLUM:

- Wondering womb (5th C – 20th C)
- Nymphomania (1837–1901) – “Irresistible sexual urge”
- Imbalance of the four humors of the body (400BC-19th C): Yellow bile, black bile, blood, and phlegm
- 4 classifications:
  - Mania
  - Melancholia

- Phobia
- Transvestism

## TREATMENT

### ▷ ASYLUM:

- Induced purging
- Blood-letting
- Blistering
- Cold and hot baths
- Opium

## EVALUATION

### PRE-ASYLUM:

- Outcasts
- No protective law
- Charity/donations
- Torturous treatments

### ASYLUM:

- Confinement and forced detainment
- Forced labour and imprisonment
- Prohibition of begging and homelessness
- Variety of treatment

## DE-INSTITUTIONALIZATION ERA (1940 -Present)

- ⇒ Hospital (acute)
- ⇒ Community health centre/clinic
- ⇒ Tele-health
  - Telephone service

## DEFINING MENTAL ILLNESS

- ⇒ Changes in mood, thinking and behaviour, resulting in distress and impaired functioning.
- ⇒ Multi-faceted: Biological, environmental, and psychosocial factors.

## TREATMENT

### ▷ DE-INSTITUTIONALIZATION:

- Insulin-induced coma
- Lobotomies
- ECT (Electroconvulsive therapy)
- Pharmacology
- Behavioural therapy
- Hypnosis
- Counselling

## POLITICS

### DE-INSTITUTIONALIZATION :

- The Mental Health Act (1983 – Present)
- Definition of mental health
- Professional roles and codes of practice
- Treatment orders
- Children, incompetent and criminals

### Gender analysis: 'the baby blues'

- ◆ People would often just say it is the 'baby blues' and it is not that serious (when there is a possibility that it is)
- ◆ Post-partum depression: 3 types
  - (1) baby blues:
    - 50-80%
    - 1-3 days
  - (2) postpartum depression:
    - 3% to 20% delivery
    - occurs 6 months post-birth, may last up to several months or even a year
    - people were quick to diagnose
      - often judgemental: "just a bad mother, don't know how to be a mother"
  - (3) postpartum psychosis:
    - quite rare but very serious
    - 1 in 1000 births
    - would drown kids in bathtub or commit suicide

### Race analysis

- Studies of insane asylum inmates reveals some racial and social groups over-represented

### Sexual orientation

- Homosexuality "a sickness"
- The Diagnostic and Statistical Manual of Mental Disorders (DSM) published by the American Psychiatric Association
  - Was in the DSM until 1974
  - Removed due to gay activism
  - Voted off the DSM – "cured"?

### Ongoing questions:

- Disease from within or from the outside?
  - Ex: stress from modern life
- Disease of the individual or of the group?

- ADD or asthma
  - Some parents want ADD in the DSM (in order to be covered by insurance)
- Create conditions to give drugs?
- The study of psychiatry reveals about society and about medicine