



The « lowering mortality » paradigm... have we forgotten some ethical elements?

Maxine Dumas Pilon, MD, CCFP, FCFP
Mcgill Refresher course, December 3rd, 2019

Potential conflict of interest

◆ None

Objectives

Explore the paradigm of lowering mortality and our relationship to it

Decline the 4 bioethic principles in relationship with the paradigm

Lowering mortality,
that's what we all
want for ourselves,
right?

PASS &

SET &

KILL CANCER

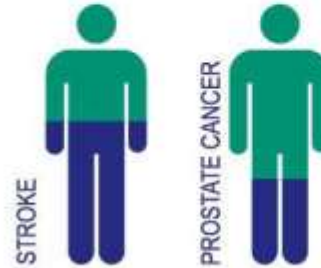
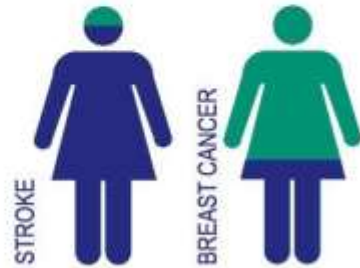
PROSTATE CANCER

KILLS A MAN
EVERY 18 MINUTES



STROKE KILLS

more women than breast cancer
and more men than prostate cancer



strokefoundation.org.au

Share because you care



Coronary heart disease kills more than twice as many women as breast cancer in the UK

1 IN 3 DEATHS IN WOMEN ARE FROM CARDIOVASCULAR DISEASE AND STROKE.



You can quit. CALL 1-800-QUIT-NOW.



[CDC.gov/quit](https://www.cdc.gov/quit)

Diabetes kills
more people than HIV
+ tuberculosis + malaria

IDF Diabetes Atlas 2015



Diabetes
kills

1 person every 8 seconds

ACT ON DIABETES. NOW.

world diabetes day
World Diabetes Day
November 14, 2012

For more information:
diabetich@idfnet.org

A poster for World Diabetes Day. The word 'kills' is written in large, bold, black letters, with a jagged, shattered effect at the bottom. Below it, the text '1 person every 8 seconds' is written in red, slanted letters. At the bottom, there is a call to action 'ACT ON DIABETES. NOW.' and the World Diabetes Day logo, which includes the text 'world diabetes day', 'World Diabetes Day', and 'November 14, 2012'. There are also logos for the WHO and IDF, and contact information for more information: 'diabetich@idfnet.org'.

High blood pressure kills

check it

An illustration of a nurse in a white uniform and cap checking a patient's blood pressure. The patient is sitting at a desk, and the nurse is using a stethoscope and a blood pressure cuff. The background is a light yellow color.

ALZHEIMER'S KILLS MORE PEOPLE EACH YEAR THAN **BREAST AND PROSTATE** CANCER COMBINED

82,435

In 2008 (the latest statistics available),
82,435 people died from Alzheimer's disease

(source: Alzheimer's Association Facts & Figures)



ALZHEIMER'S DISEASE

39,510

In 2012, an estimated 39,510
women will die from breast cancer

(source: American Cancer Society)



BREAST CANCER

28,170

In 2012, an estimated
28,170 men will die from
prostate cancer

(source: American Cancer Society)



PROSTATE CANCER

Let's take a minute...



WHAT DO YOU THINK OUR
PATIENTS THINK ABOUT
MORTALITY?



WHAT DO YOU THINK THEY ARE
FEELING ABOUT MORTALITY?

Lowering mortality,
that's what all
good doctors
should do, right?

POEMs Research Summaries

Your daily update for the latest Patient Oriented Evidence that Matters

Long-term mortality benefits with CABG for ischemic cardiomyopathy

Clinical question

Does coronary artery bypass grafting added to medical therapy decrease mortality in patients with coronary artery disease and systolic heart failure?

Bottom line

Coronary artery bypass grafting (CABG) plus medical therapy decreases mortality as compared with medical therapy alone in patients with ischemic cardiomyopathy. You would need to treat 14 patients with CABG to prevent one death. [\(LOE = 1b\)](#)

Reference

[Velazquez EJ, Lee KL, Jones RH, et al, for the STICHES Investigators. Coronary-artery bypass surgery in patients with ischemic cardiomyopathy. N Engl J Med 2016;374\(16\):1511-1520.](#)

Study design

Randomized controlled trial (nonblinded)

favorites

Su

Next article >>

β-blockers or angiotensin receptor inhibitors in non-ST elevation acute

urt

[García-Acuña J², González-Juanatey R².](#)

edra, Pontevedra, Spain. Electronic address:

RE



Santiago de Compostela, Santiago de Compostela, A

AUGHNESSY,

ls) and angiotensin receptor blockers (ARBs) have recommend their prescription in all patients after MI. ntemporary era of non-ST elevation MI (NSTEMI) l patients treated successfully with percutaneous

article.

ospital PCI. Two groups were formed based on ormed to control for differences in covariates: one The outcome variable was all-cause mortality at

left-sided
lity in such
tion to agents
also decrease
Spironolactone
etermine the

When adjusted by PS, ACEI/ARB use was duction [ARR] 4.0%) in the whole cohort (p=0.01). antly lower in patients prescribed ACEIs/ARBs, with ated successfully by PCI, the use of ACEIs/ARBs

CAN WE EVER LOWER MORTALITY?

Or is it always 100%?

Are all mortalities
equal?

CBC News

Free dental care promised by NDP leader for families making less than \$70,000

<https://www.cbc.ca/news/politics/ndp-dental-1.5287918>

Common questions about the effectiveness of Cannabidiol

<https://www.cbc.ca/news/health/cbd-treatment-q-and-a-1.5285944>

NDP leader Jagmeet Singh promises a medical school at the University of Prince Edward Island

<https://www.cbc.ca/news/canada/prince-edward-island/pei-ndp-leader-federal-medical-upei-1.5287908>

Broadview Hospital in Saskatchewan forced to close its emergency room due to staff shortage

<https://www.cbc.ca/news/canada/saskatoon/broadview-er-closure-1.5287775>

Victims of sexual assault in St. John's can now report what happened to a third-party without having to go directly to the police

<https://www.cbc.ca/news/canada/newfoundland-labrador/third-party-reporting-plan-sexual-assault-1.5287226>

CTV News

Advocates are calling for an improved suicide prevention plan to support youth in Canada

<https://www.ctvnews.ca/canada/youth-advocates-call-for-national-suicide-prevention-plan-1.4596569>

Global News

A report released by the Global Preparedness Monitoring Board shows the world is not prepared for a big pandemic

<https://globalnews.ca/news/5914803/world-not-prepared-pandemic/>

A drug commonly used to treat Parkinson's disease will not be available until July 2020

<https://globalnews.ca/news/5914875/when-life-gives-you-parkinsons-slave-pill/>

Blais réitère la promesse de 2600 nouvelles places dans les maisons des aînés

<https://www.journaldemontreal.com/2019/09/18/maisons-des-aines-2600-places-construites-dici-2022>

Le Journal de Québec

Les jeunes adeptes du vapotage aux États-Unis – Illustration

<https://www.journaldequebec.com/2019/09/19/des-e-cigarettes-a-saveur-de-trouble>

L'actualité

Une plaignante gagne sa cause dans l'élargissement de l'aide à mourir

<https://actualite.com/actualites/aide-medicale-a-mourir-une-malade-sacroche-a-la-decision-de-la-juge-baudouin/>

Ici Radio-Canada

L'anxiété chez les jeunes : Leur apprendre à composer avec leurs émotions

<https://ici.radio-canada.ca/premiere/emissions/penelope/segments/entrevue/133557/anxiete-jeunes-enfance-sante-mentale>

Diplomates à Cuba : Les attaques ne seraient pas acoustiques mais contre les moustiques

<https://ici.radio-canada.ca/nouvelle/1227963/diplomates-cuba-produits-chimiques-fumigation-zika-etude>

Purdue Pharma demande l'arrêt des poursuites à un tribunal fédéral américain

<https://ici.radio-canada.ca/nouvelle/1307224/pharma-opioides-oxycontin-poursuites-etats-unis>

Tim Horton's ne vendra plus de viandes « végétales » sauf en Ontario et en C.-B.

<https://ici.radio-canada.ca/nouvelle/1306885/restauration-beyond-meat-proteine>

Autochtones : Iniquité de plus en plus prononcée en matière de santé

<https://ici.radio-canada.ca/nouvelle/1305257/sante-premieres-nations-autochtones-ecart-manitoba>

Newfoundland and Labrador health minister meets with medical associations to discuss shortage of family physicians in the province

<https://www.cbc.ca/news/canada/newfoundland-labrador/nps-health-care-system-john-haggie-1.5288126>

Medical community trying to figure out what's behind the surge in popularity of vaping

<https://www.cbc.ca/news/health/the-science-behind-why-vaping-is-becoming-so-popular-in-canada-1.5290520>

Conservative Party promises \$1.5 billion for medical imaging equipment purchases across Canada

<https://www.cbc.ca/news/politics/conservatives-ct-mri-machines-1.5290997>

Nova Scotia health authority warns of continuing issues in health care system

<https://www.cbc.ca/news/canada/nova-scotia/health-care-long-term-home-care-support-hospital-ambulance-1.5290048>

Health PEI launches website, in aid of e-mental health and telehealth care

<https://www.cbc.ca/news/canada/prince-edward-island/pei-mental-health-help-support-website-1.5290089>

New Brunswick physician believes delivery methods for addictions outreach programs need updating to meet new demands

<https://www.cbc.ca/news/canada/new-brunswick/heather-logan-addictions-mental-crystal-meth-opioids-1.5268400>

CTV News

Public Health Ontario reports almost 1,500 deaths from opioid overdoses in the province in 2018

<https://kitchener.ctvnews.ca/nearly-1-500-died-from-opioid-overdoses-last-year-in-ontario-1.4600840>

Centers for Disease Control and Prevention confirm more than 500 cases of vaping-related illness in the U.S. but still don't know the cause

<https://www.ctvnews.ca/health/u-s-vaping-illness-count-tops-500-but-cause-remains-unknown-1.4601120>

Polypill decreases MACE in developing countries (PolyIran)

Clinical question

Can a polypill (combined fixed doses of aspirin, hydrochlorothiazide, atorvastatin, and enalapril or valsartan) prevent major adverse cardiovascular events in people living in rural Iran?

Bottom line

In this study, the use of a polypill was effective in decreasing the rate of major adverse cardiovascular events (MACE). The study took place in rural Iran and the results may apply to residents living in low- or moderate-income countries. As we have seen this past year from many trials, low-dose aspirin does not prevent MACE in developed countries. (LOE = 2b)

Reference

[Roshandel G, Khoshnia M, Poustchi H, et al. Effectiveness of polypill for primary and secondary prevention of cardiovascular diseases \(PolyIran\): a pragmatic, cluster-randomised trial. Lancet 2019;394\(10199\):672-683.](#)

Study design

Randomized controlled trial (single-blinded)

Funding

Industry + govt

Let's take a minute...



WHAT DO YOU
THINK?



HOW DO YOU FEEL?

This is an ethics talk...

So... let's do a bit of ethics!

A touch of theory?

A thin, light-colored vertical line is positioned to the right of the text, extending from the top of the text area down to the bottom of the text area.

The main ethics theories

Virtue theories

Deontological
theories

Teleological
theories

Consequentialist
theories

Caring and
human
relationship
ethic theories

Justice theories

The four principles of bioethics

Beauchamps and Childrest

Autonomy,
Justice,
Beneficence, and
Non-Maleficence

Autonomy,
Beneficence, Non-
Maleficence

Interested in Individual ethics, continue...

And Justice

Interested in Social Justice, go to slide: 43...

What could be the Autonomy ethical dilemma around the lowering mortality paradigm?



**Can a person make any informed consent in the context of today's medical complexity?
co-morbidities?**



Can a person express their autonomy in the context of dementia?

A stack of five smooth, rounded stones is balanced on a beach. The stones are arranged in a vertical column, with the largest stone at the base and the smallest at the top. The background is a soft-focus sunset over the ocean, with the sun low on the horizon, creating a warm, golden glow. The foreground is filled with many other smooth, rounded stones of various sizes, some in focus and some blurred.

What about Beneficence and
Non-Maleficence?

Helping our patient
live longer? FOR
SURE!!!

ISN'T THAT THE GOAL
OF MEDICINE?
PROTECT LIFE?

70 years old
woman

COPD
Osteoporosis
Osteoarthritis
Diabetes
HTN





19 doses
of 16 medications

16 possible
significant
interactions
between the
medication or the
diseases

Borrowed with the permission of D. Mangin



**Quality of
life?**

Safety?

What about Loneliness?

30% of people over 80 are in residential homes

44% of seniors in residential home are depressed

50% of people over 80 feel lonely

Man over age 80 have the highest suicide rate of all age group

A portrait of Ezekiel J. Emanuel, an older man with glasses, smiling, wearing a light blue button-down shirt. The background is a dark, neutral color.

Why I Hope to Die at 75

An argument that society and families—and you—will be better off if nature takes its course swiftly and promptly

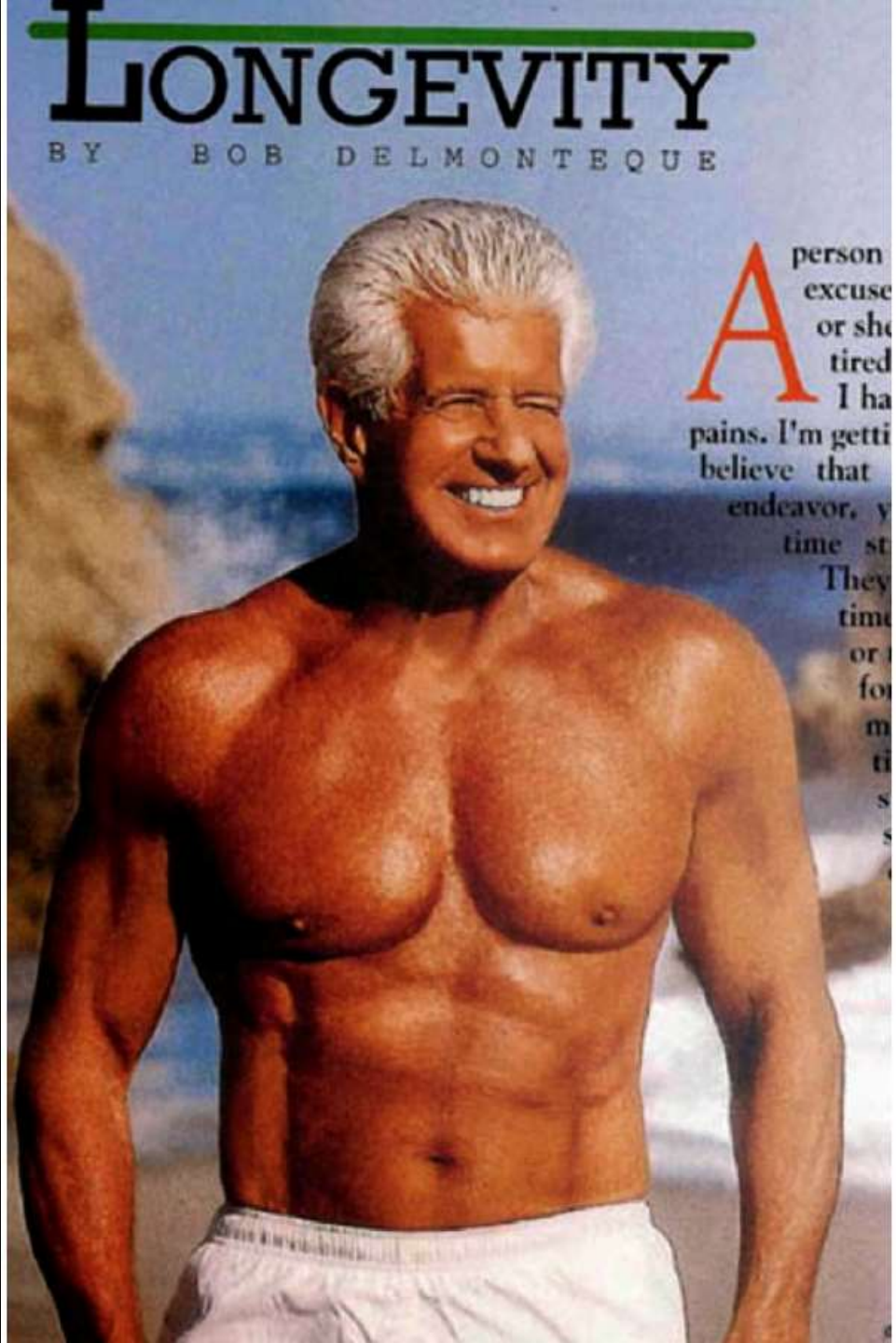
Jake

*Ezekiel J. Emanuel, oncologist and bioethicist,
The Atlantic, October 2014*

Dying is a loss....
Living too long is
also a loss...

*The American
immortal...*

in his fantasy...



*We want to
believe in
compression
of morbidity*

Crimmins, E.M., & Beltrán-Sánchez, H. (2010). Mortality and morbidity trends: is there compression of morbidity? *Journal of Gerontology: Social Sciences*, 66B(1), 75–86. doi:10.1093/geronb/gbq088. Advance Access published on December 6, 2010.

Mortality and Morbidity Trends: Is There Compression of Morbidity?

Eileen M. Crimmins and Hiram Beltrán-Sánchez

Davis School of Gerontology, University of Southern California, Los Angeles.

Objective. This paper reviews trends in mortality and morbidity to evaluate whether there has been a compression of morbidity.

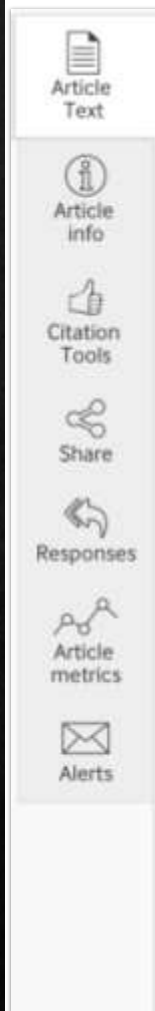
Methods. Review of recent research and analysis of recent data for the United States relating mortality change to the length of life without 1 of 4 major diseases or loss of mobility functioning.

Results. Mortality declines have slowed down in the United States in recent years, especially for women. The prevalence of disease has increased. Age-specific prevalence of a number of risk factors representing physiological status has stayed relatively constant; where risks decline, increased usage of effective drugs is responsible. Mobility functioning has deteriorated. Length of life with disease and mobility functioning loss has increased between 1998 and 2008.

Discussion. Empirical findings do not support recent compression of morbidity when morbidity is defined as major disease and mobility functioning loss.

Key Words: Compression of morbidity—mortality trends—morbidity trends.

Yet, it's a
fantasy...



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Theory and methods

Measuring the health burden of chronic disease and injury using health adjusted life expectancy and the Health Utilities Index **FREE**

D G Manuel^{1, 2}, S E Schultz¹, J A Kopec^{1, 2, 3}

[Author affiliations +](#)

Abstract

Objectives: To estimate the burden of illness from chronic disease and injury using a population based health survey, which contains both measures of chronic disease and a utility based health related quality of life (HRQOL) measure.


Design: An adapted Sullivan method was used to calculate cause deleted health adjusted life expectancies for chronic conditions.

Setting: Ontario, Canada, 1996/97.

Subjects: The 1996/97 Ontario Health Survey (n=35 527) was used to estimate the prevalence of chronic conditions. A cause deleted approach was used to estimate the impact of these conditions on the Health Utilities Index (HUI). Cause deleted probabilities of dying were derived with the cause eliminated life table technique and death data from vital statistics for Ontario 1996/97 (n=156 610).

Results: Eliminating cardiovascular disease and cancer will cause an "expansion of morbidity", while eliminating mental conditions and musculoskeletal disorders will result in a "contraction of morbidity". The HUI score varies depending on chronic condition, age, and sex—most of which were assumed not to vary in previous summary measures of population health.

Conclusions: Health adjusted life expectancy estimated for chronic conditions using a utility based measure of health related quality of life from population health surveys addresses several limitations of previous studies that estimate the burden of disease using either a categorical measure of disability or expert opinion and related epidemiological evidence.



« Over the past 50 years,
health care hasn't
slowed the aging process
so much as it has
slowed the dying
process »

E. Crimmins

Living longer but
most likely to be
incapacitated...

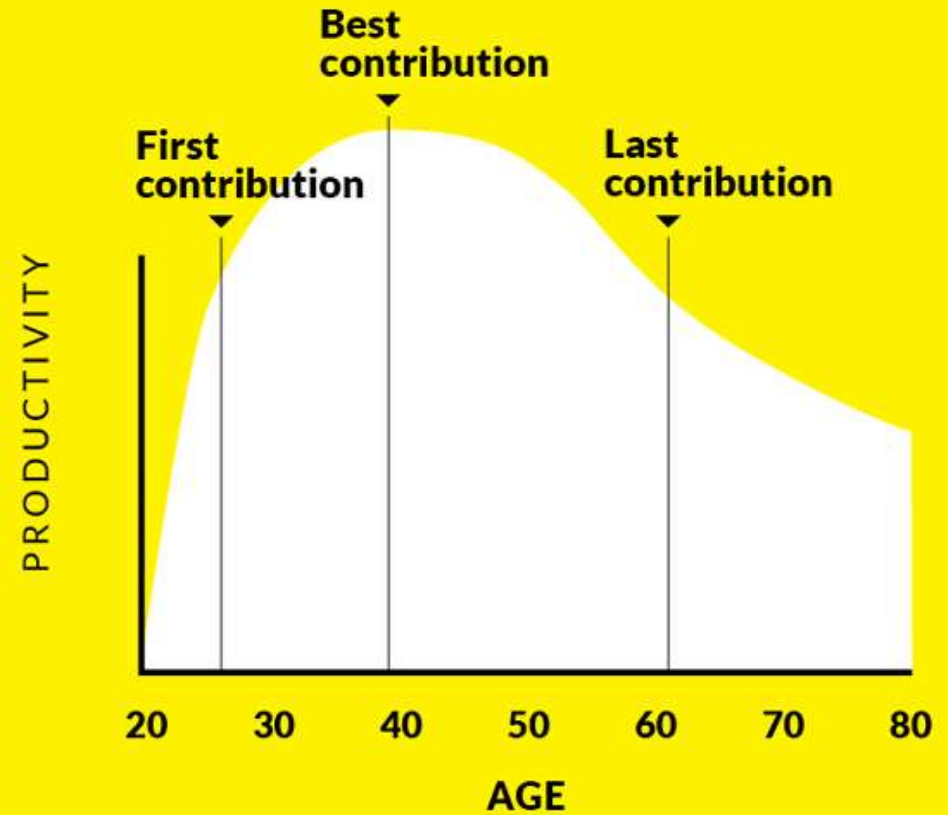
- ◇ Stroke
- ◇ Dementia

1 in 3

seniors dies with Alzheimer's or
another dementia.

Loss of
creativity,
productivity for
the vast majority

PRODUCTIVITY OF PEOPLE WITH HIGH CREATIVE POTENTIAL



Which legacy and memories does the American Immortal leaves?

Are we
depriving
our patients
of nice
deaths?

Life is pleasant death is peaceful
it's the transition that troublesome

Isaac Asimov



« Pneumonia may well be called the friend of the aged. Taken off by it in an acute, short, not often painful illness, the old man escapes those 'cold gradations of decay'. »

Sir William Osler

« Instead of saving
more young people,
we extend old age »

*Emmanuel gives
us...*

*An intro to the
justice principle*

Justice Theories



On which justice
theory is our
health care system
based?

Distributive...

- ◆ To each person an equal share
- ◆ To each person according to need
- ◆ To each person according to effort
- ◆ To each person according to contribution
- ◆ To each person according to merit

But....

Are we answering the
needs of the most in
need?

ROAD TRAFFIC ACCIDENT

According to the WHO,
road traffic injuries
caused an estimated **1.25
million deaths worldwide**
in the year 2010.

**1 person is killed every
25 seconds.**



OSOITA

PHYSIOTHERAPY & WELLNESS CENTRE

Unlucky or
careless people
driving?

A person is sitting on a bench in a park, looking away. The background is a blurred park scene with trees and a path. The person is in silhouette, and the overall tone is somber.

ST

People living with mental
illness?

**SUICIDE KILLS ONE PERSON
EVERY 40 SECONDS, SAYS WHO**

Biais réitère la promesse de 2600 nouvelles places dans les maisons des aînés

<https://www.journaldemontreal.com/2019/09/18/maisons-des-aines-2600-places-construites-dici-2022>

Le Journal de Québec

Les jeunes adeptes du vapotage aux États-Unis – Illustration

<https://www.journaldequebec.com/2019/09/19/des-e-cigarettes-a-saveur-de-trouble>

L'actualité

Une plaignante gagne sa cause dans l'élargissement de l'aide à mourir

<https://actualite.com/actualites/aide-medicale-a-mourir-une-malade-sacroche-a-la-decision-de-la-juge-baudouin/>

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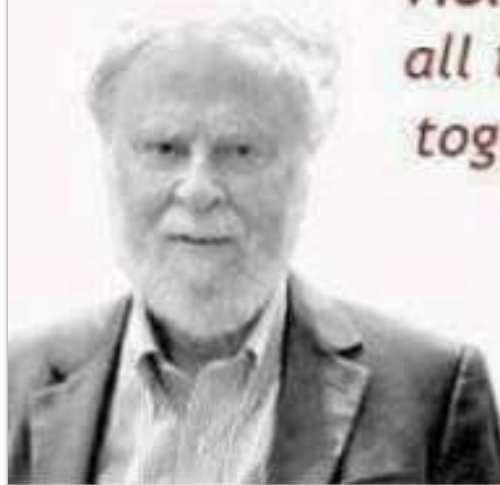
<https://ici.radio-canada.ca/nouvelle/1306885/restauration-beyond-meat-proteine>

Autochtones : Iniquité de plus en plus prononcée en matière de santé

<https://ici.radio-canada.ca/nouvelle/1305257/sante-premieres-nations-autochtones-ecart-manitoba>

People living with Poverty?

“Poverty kills far more people than all the wars in history, more people than all the murderers in history, more than all the suicides in history, not only does *structural violence* kill more people than all the behavioral violence put together, structural violence is also the main cause of behavioral violence”



~Dr. James Gilligan, Former Director:
Center for the Study of Violence, Harvard Medical School
Author of "Violence, our Deadly Epidemic and It's Causes"

Should we
redefine the
concept of
Vulnerability?

Maybe our frail elderly are in fact strong survivors...

...while our patients who died before the others were the vulnerable ones...

Rawl's theory of Justice



Justice as Fairness

*Could we apply it to our
health care system?*

The Veil of
ignorance
exercice...

Questions?
Comments?



Thank you for
your attention!

Deontological code

- ◇ Article 3:
- ◇ 'le médecin a le devoir primordial de protéger et de promouvoir la santé et le bien-être des individus qu'il sert, tant sur le plan individuel que collectif»
- ◇ Article 50:
- ◇ » Le médecine ne doit fournir un soin ou émettre une ordonnance que si ceux-ci sont médicalement nécessaires »