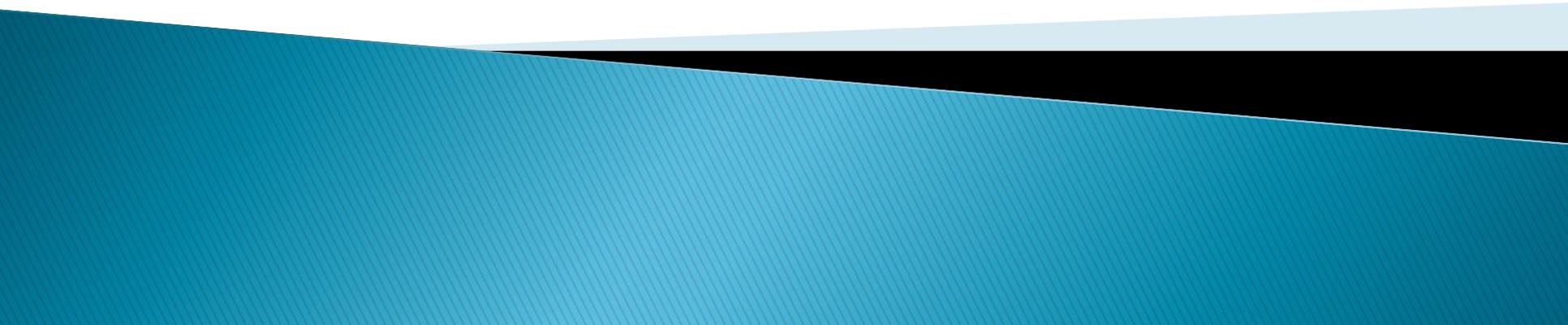


Vitamin D and Cancer, COVID-19; Diet and Alzheimer's Disease

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11.8.2023

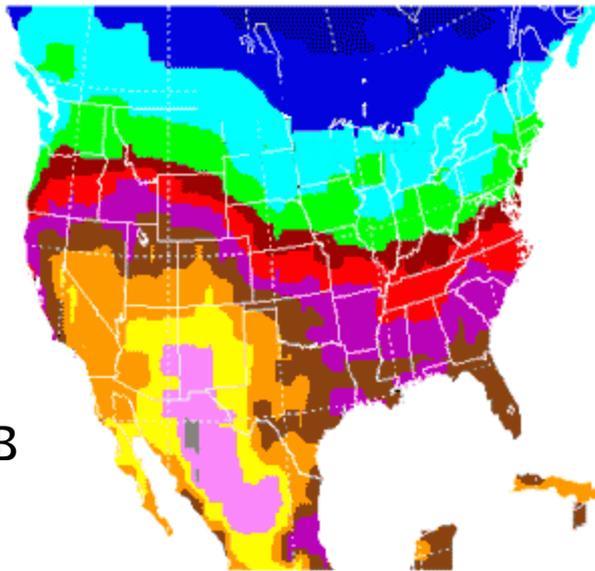


Advances in Understanding Vitamin D's Effects After 2000

- ▶ **And how these advances led Big Pharma to use the Disinformation Playbook to discourage interest in vitamin D**
- ▶ **Until ca. 2000:**
 - Vitamin D known for calcium absorption & bone health.
- ▶ **In the early 2000s, several important advances were made regarding vitamin D's effects:**
 - Cancer risk in 2002
 - Influenza risk in 2006
 - Pregnancy risks in 2007
 - Cardiovascular disease risk in 2008

Evidence That Solar Ultraviolet-B Exposure Reduces Cancer Deaths

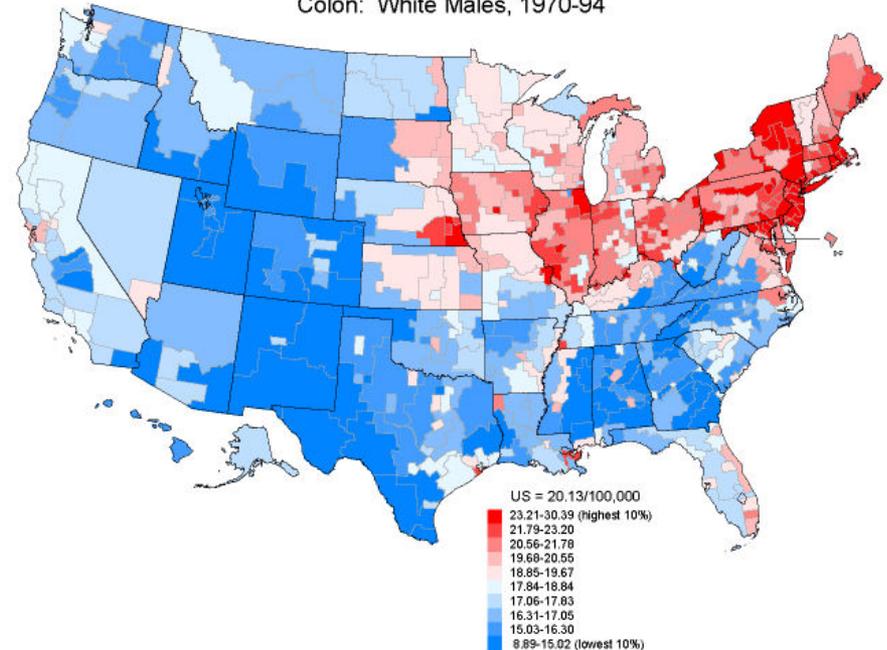
DNA SPECTRAL EXPOSURE (kJ/m²) FOR JULY 1992



Solar UVB



Cancer Mortality Rates by State Economic Area (Age-adjusted 1970 US Population)
Colon: White Males, 1970-94



Grant, *Cancer*, 2002.

Grant and Garland, *Anticancer Research*, 2006

John Cannell Linked Influenza to Low Solar UVB and Vitamin D in 2006 by Referring to This Figure by Hope-Simpson in 1981

Season and the epidemiology of influenza

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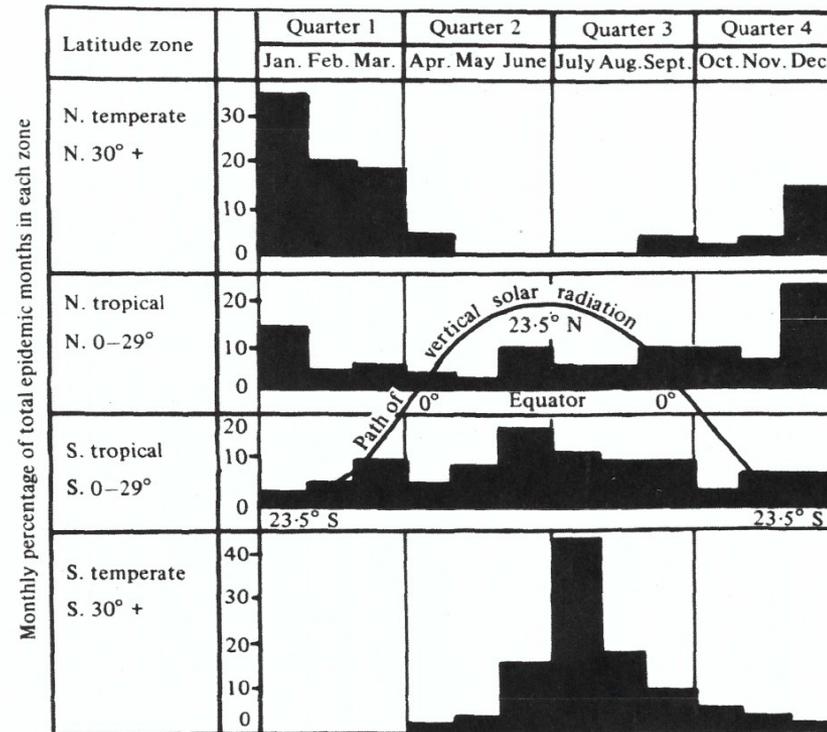


Fig. 2. The seasonal and latitudinal distribution of outbreaks of type A influenza in the world, 1964-75, summarized from the Weekly Epidemiological Record of the World Health Organization into major zones. The diagrams show for each calendar month the percentage of each zone's total outbreaks. In both north and south temperate zones the epidemics are distributed around the local midwinter, whereas the tropical zones show a transition, each approximating towards the distribution of its own temperate zone. The curve indicates the 'midsummer' path taken annually by vertical solar radiation. The 'epidemic path' seems to parallel it, but to lag six months behind it.

Vitamin D Reduces Adverse Pregnancy and Birth Outcomes

- ▶ A study found that 20 ng/mL (50 nmol/L) lower 25(OH)D concentration in early pregnancy doubled the risk of preeclampsia.

Source: Bodnar LM et al. J Clin Endocrinol Metab. 2007

A Major Review was Published in 2007 by Michael Holick

- ▶ Brain, prostate, breast, and colon tissues, among others, as well as immune cells respond to the hormonal metabolite of vitamin D, 1,25-dihydroxyvitamin D, through controlling gene expression.
- ▶ This review has 19,545 Google Scholar citations.

Source: Holick MF. Vitamin D deficiency.
N Engl J Med. 357(3):266-81

Cardiovascular Disease Incidence Over 5.4 years vs. Serum 25(OH)D

- ▶ An observational study from the Framingham Offspring Study found:
 - Participants with 25(OH)D <15 ng/mL had a 62% increased risk of incident cardiovascular events compared with those with 25(OH)D ≥15 ng/mL.

Source: Wang T et al. Circulation, 2008

How Did Big Pharma Respond?

- ▶ First, appointed a committee in 2009 to review vitamin D recommendations, reported in 2011:
 - RDAs of 600 IU/d (for ages 1–70 yr and 800 IU/d for ages 71 yr and older)
 - A serum 25(OH)D level of at least 20 ng/mL (50 nmol/L)

Source:

The 2011 Dietary Reference Intakes for Calcium and Vitamin D: what dietetics practitioners need to know. Ross AC, Manson JE, et al. *J Am Diet Assoc.* 2011 Apr;111(4):524–7.

Near That Time, Michael Holick Published Endocrine Society Guidelines in 2011

- ▶ All adults who are vitamin D deficient:
 - Achieve a blood level of 25(OH)D above 30 ng/mL (75 nmol/L)
 - Maintenance therapy: 1500–2000 IU/d

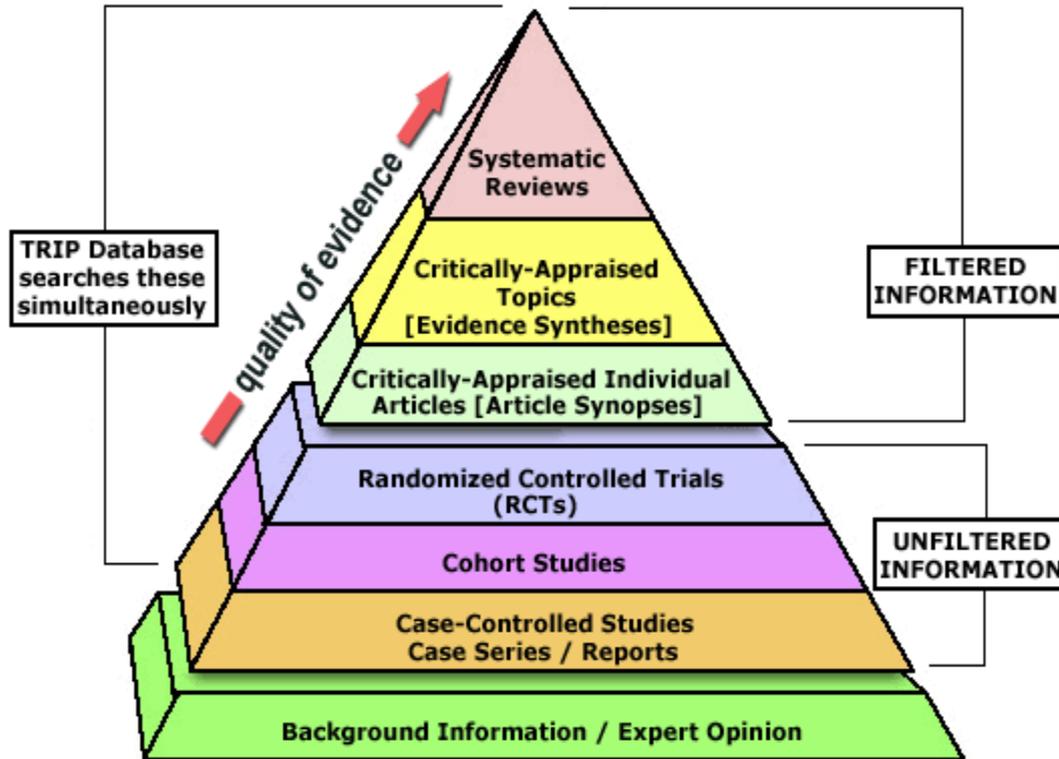
- ▶ *Source:*
 - Holick MF Endocrine Society.
 - An Endocrine Society clinical practice guideline.
 - *J Clin Endocrinol Metab.* 2011 Jul

Second, The NIH Funded a Major Vitamin D & Omega-3 Randomized Controlled Trial (RCT)

- ▶ The Vitamin D and Omega-3 Trial (VITAL)
 - Enrolled 25,000 participants between 2011 and 2014;
 - Give 2000 IU/day vitamin D₃ (*too low*) or placebo
 - Mean baseline 25(OH)D was 31 ng/mL (*too high*)
- ▶ During a median follow up of 5.3 years:
 - No significant difference in cancer incidence between vitamin D or placebo arms
- ▶ Secondary findings (*kept hidden*)
 - Cancer incidence 25% lower for BMI <25 kg/m² and Blacks
 - Cancer mortality rates 25% lower

Source: Manson JE, et al., Vitamin D Supplements and Prevention of Cancer and Cardiovascular Disease. *New Engl J Med*. 2019 Jan.

Tyranny of the Evidence Pyramid



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Ecological studies omitted

There are major problems with clinical trials for nutrients.

For vitamin D, trials based on vitamin D dose, not 25(OH)D concentration, participants have high baseline 25(OH)D, and are given small vitamin D doses.

Vitamin D Acceptance Delayed by Big Pharma

The Disinformation Playbook

The Disinformation Playbook applied to vitamin D:

1 The Fake

Poorly designed vitamin D RCTs

2 The Blitz

Hit piece on Michael Holick published in the NY Times in 2018

3 The Diversion

Poor interpretations of observational studies re vitamin D

4 The Screen

Fund universities to study drugs, ignore vitamin D

5 The Fix

Revolving door between Big Pharma and the CDC, FDA and NIH

Source: Orthomolecular Medicine News Service, Oct 1, 2018
Commentary by William B. Grant, Ph.D.

Disinformation and Ivermectin

- ▶ I started watching FLCCC webinars in early 2021 after learning about them on Twitter
 - ▶ I emailed Pierre Kory in March 2021 and told him that what Big Pharma was doing regarding Ivermectin was very similar to what they had been doing regarding vitamin D for the past two decades.
- 

Vitamin D Supplementation Could Reduce Risk of Influenza & COVID-19 Infections and Deaths

- ▶ I published a hypothesis paper in April 2020 based on evidence that vitamin D reduced risk of respiratory tract infections.
- ▶ Recommended that people at risk of influenza and/or COVID-19:
 - Consider taking 10,000 IU/d of vitamin D₃ to rapidly raise 25(OH)D concentrations, followed by 5000 IU/d.
 - The goal should be to raise 25(OH)D concentrations above 40–60 ng/mL (100–150 nmol/L).
 - For treatment of people who become infected with COVID-19, higher vitamin D₃ doses might be useful.

Source: Grant WB, Lahore H, McDonnell SL, Baggerly CA, French CB, Aliano JA, Bhattoa HP. *Nutrients* 2 April 2020, 12, 988

Big Pharma's Role in Blocking Information: Vitamin D and COVID-19

- ▶ Mass media were effectively blocked from presenting information regarding vitamin D and prevention or treatment of COVID-19 (or any other adverse health outcomes).
 - ▶ Social media had some restrictions on mentioning vitamin D and COVID-19.
 - ▶ Physicians were discouraged from recommending vitamin D.
- 

Vitamin D Effective in Reducing COVID-19 Incidence and Adverse Outcomes

- ▶ A website posts Vitamin D for COVID-19 studies: currently 116 treatment studies and 186 sufficiency studies.
- ▶ Treatment studies found:
 - Cases reduced by 15%
 - Mortality reduced by 36%
 - ICU admission reduced by 47%

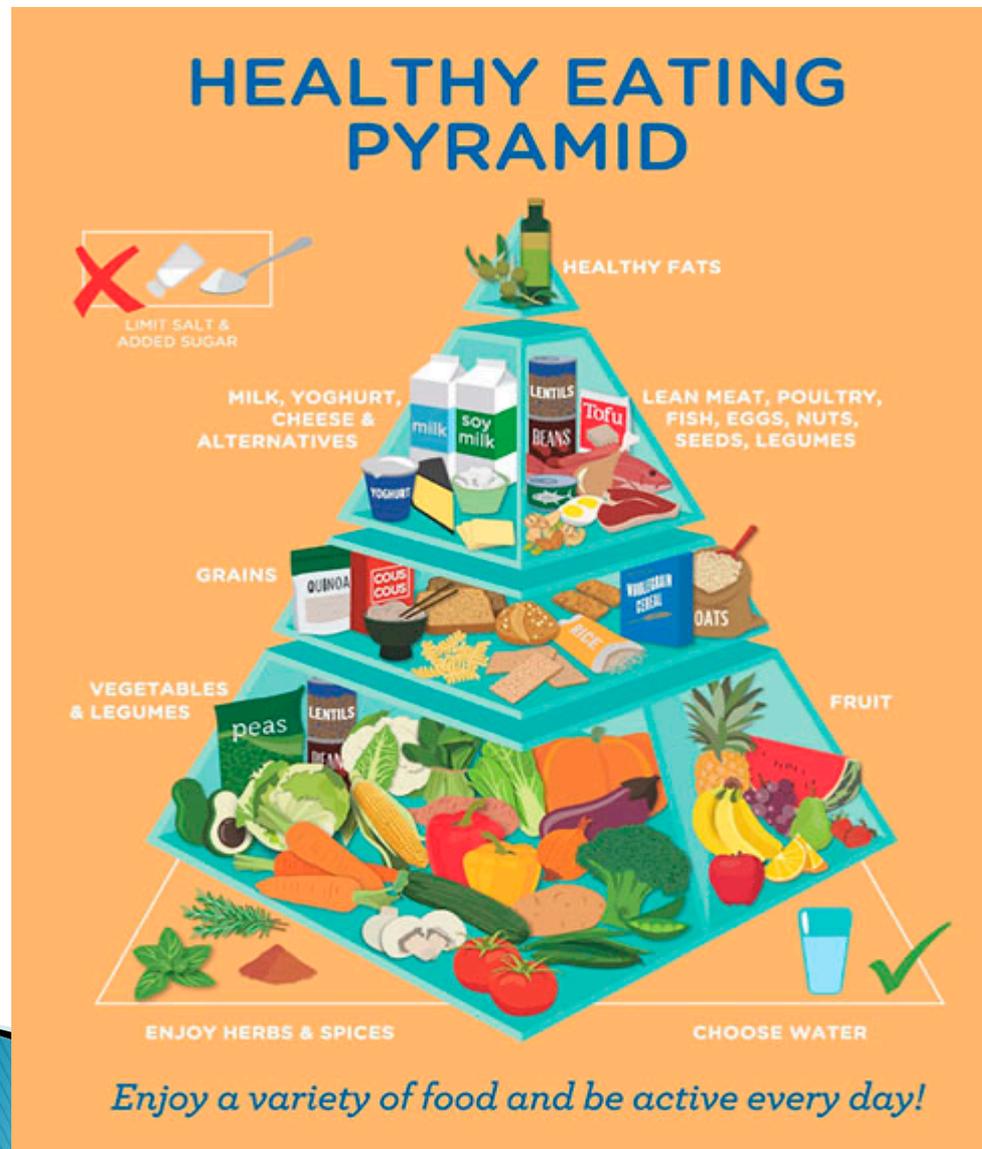
Source: <https://c19early.org/dmeta.html>

Diet's Role in Modifying Risk of Alzheimer's Disease

- ▶ Primary findings:
 - Diets that increase inflammation and insulin resistance increase risk of Alzheimer's disease.
 - Foods that increase risk:
 - Meat, especially red and processed meat, ultra-processed foods. Eating these foods can result in obesity, a major risk factor for type 2 diabetes mellitus and Alzheimer's disease,
 - Foods that reduce risk:
 - Whole grains, legumes (beans), colorful fruits and vegetables, nuts, coffee, and olive oil

WB Grant & SM Blake, *Journal of Alzheimer's Disease*,
<https://content.iospress.com/articles/journal-of-alzheimers-disease/jad230418>

Healthy Eating Pyramid



www.lifelinehealthcarebd.org/Healthy-Eating-Guide-%E2%80%93-The-Food-Pyramid