

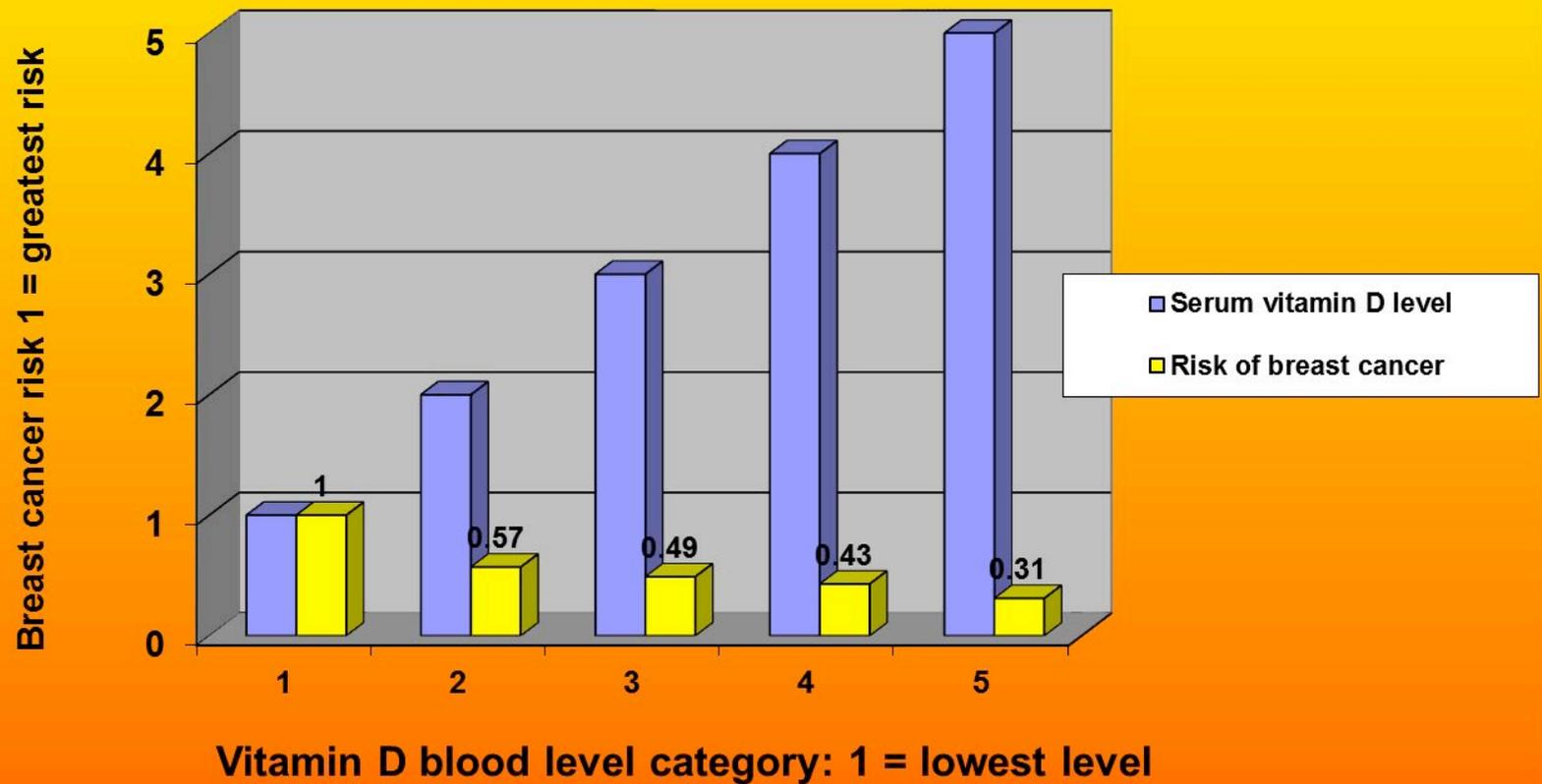
What Is The Best Source of Vitamin D?

Marc Sorenson, EdD



Sunlight
Institute

Serum Vitamin D Levels and Risk of Breast Cancer



Abbas, S et al. Serum 25-hydroxyvitamin D and risk of postmenopausal breast cancer - results of a large case-control study. *Carcinogenesis* Oct 31,2007 advanced access publication



Sources of Vitamin D	Vitamin D Content
FULL BODY UV EXPOSURE:	10,000 – 20,000 IU
Cod Liver Oil (1 tsp.)	400 – 1,000 IU
Salmon (fresh, wild, 3.5 oz.)	600 – 1,000 IU
Salmon (farmed, 3.5 oz.)	100-250 IU
Fortified Milk (8 oz.)	100 IU
Fortified orange juice (8 oz.)	100 IU

REFLECTING BACK



Early Tanning Parlor

Nurse Betty Dodson adjusts quartz light intensity for what, in 1925, was a new method for treating rickets. Photo of "synthetic sun" light treatment was taken at a Chicago "orphan asylum."

1925: UV Used To Help Prevent Rickets

Times
Archive

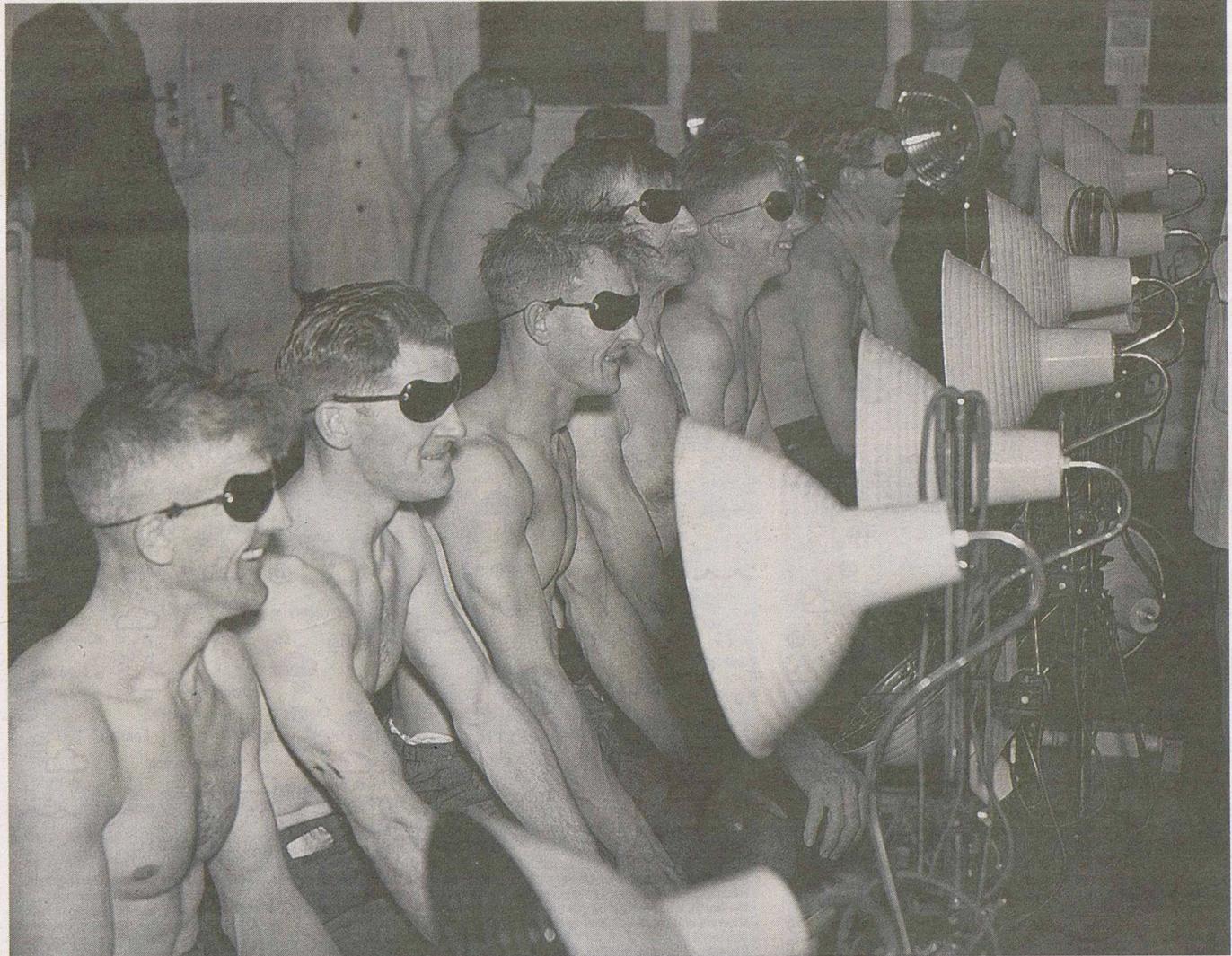
Warming rays in postwar austerity Britain

Miners at Silverhill colliery in the Nottinghamshire coalfield supplying the vitamin deficiencies inherent in a working life spent underground with a session at the in-house solarium in September 1947. The management at Silverhill piqued itself on rates of pay and perks, which, it claimed, kept its miners contented and the pit strike-free

Archive

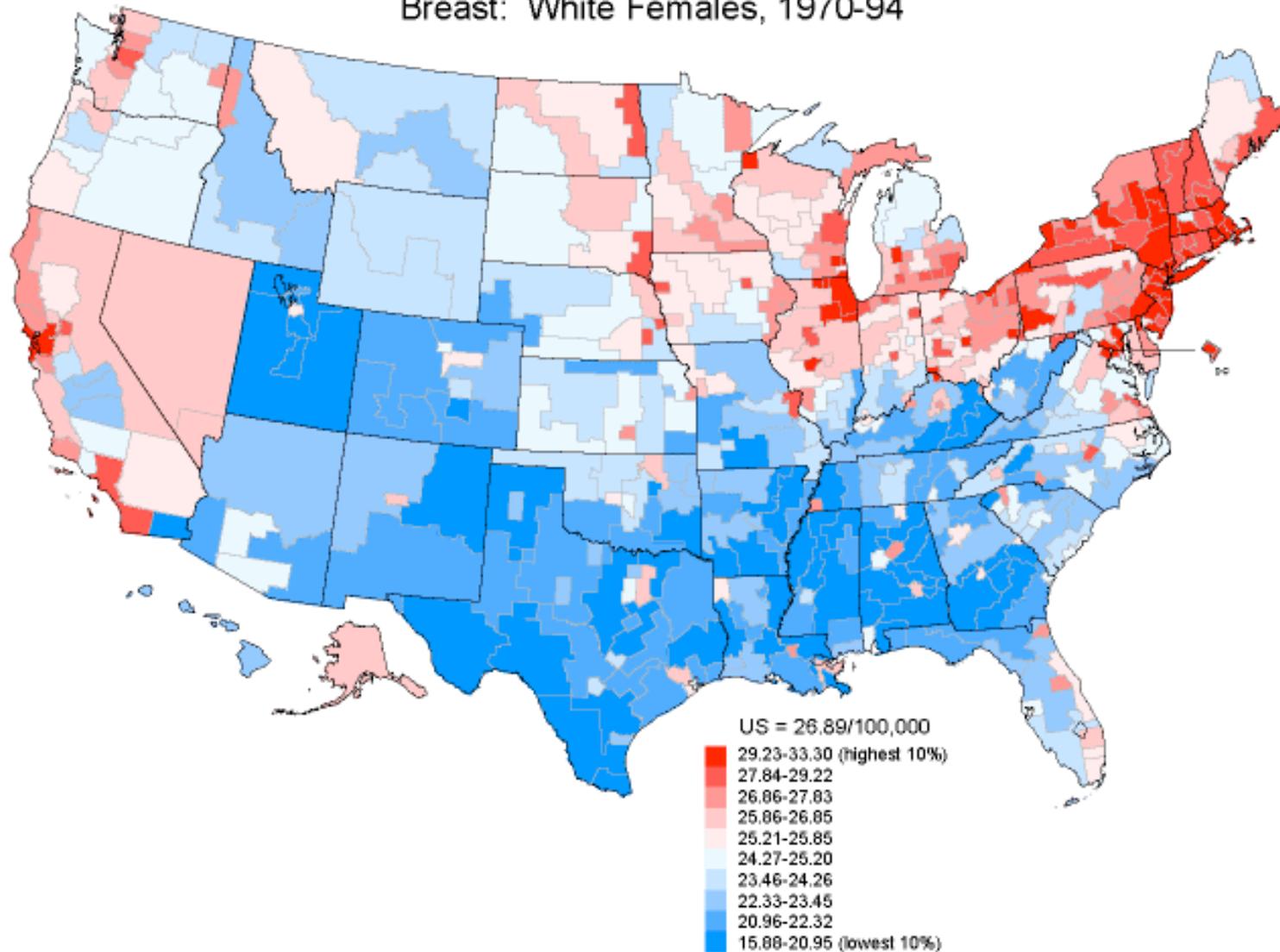
For a
selection
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[timesonline.co.uk/
archive](http://timesonline.co.uk/archive)

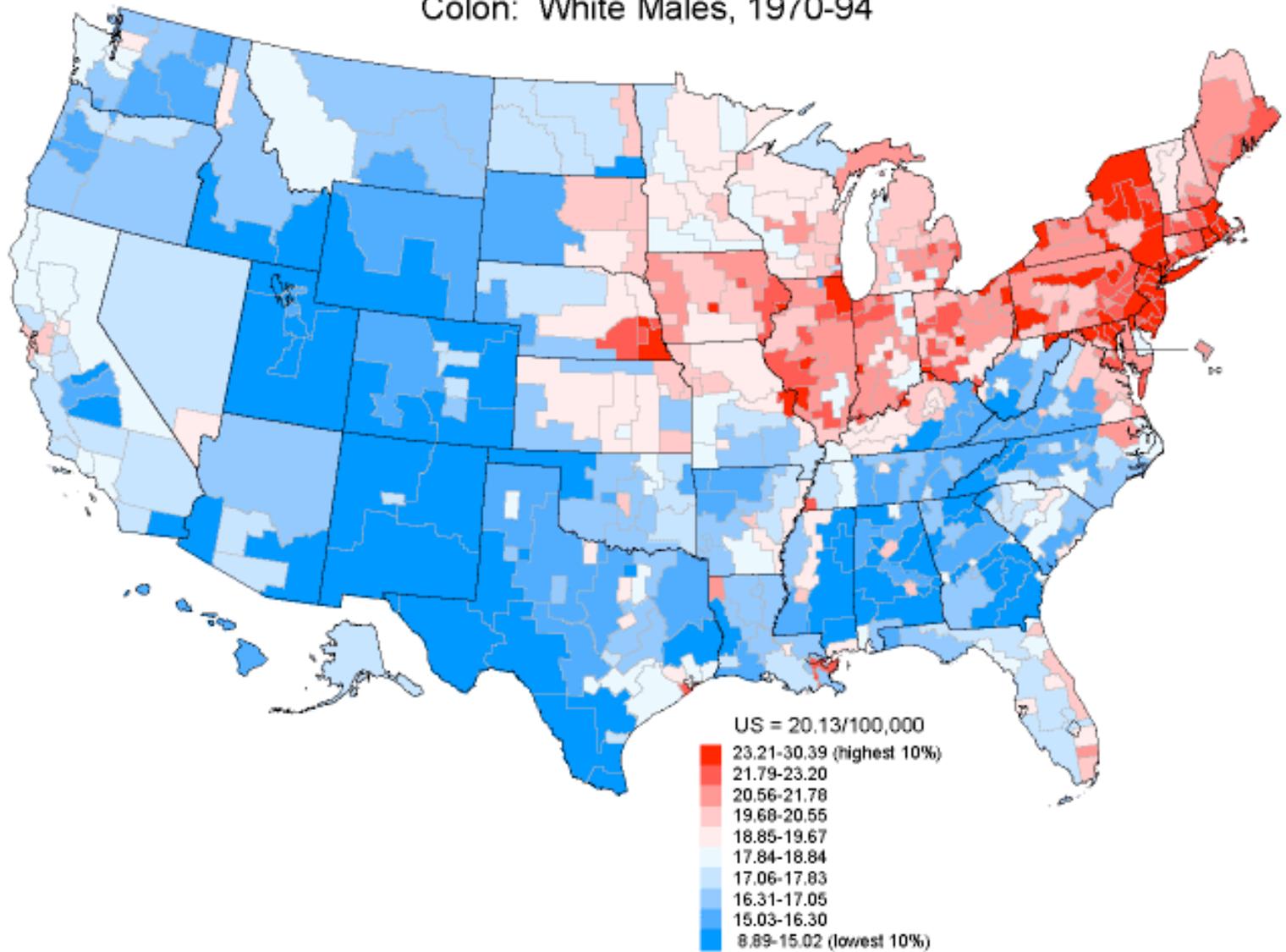


**We've Known This
For A Long Time...**

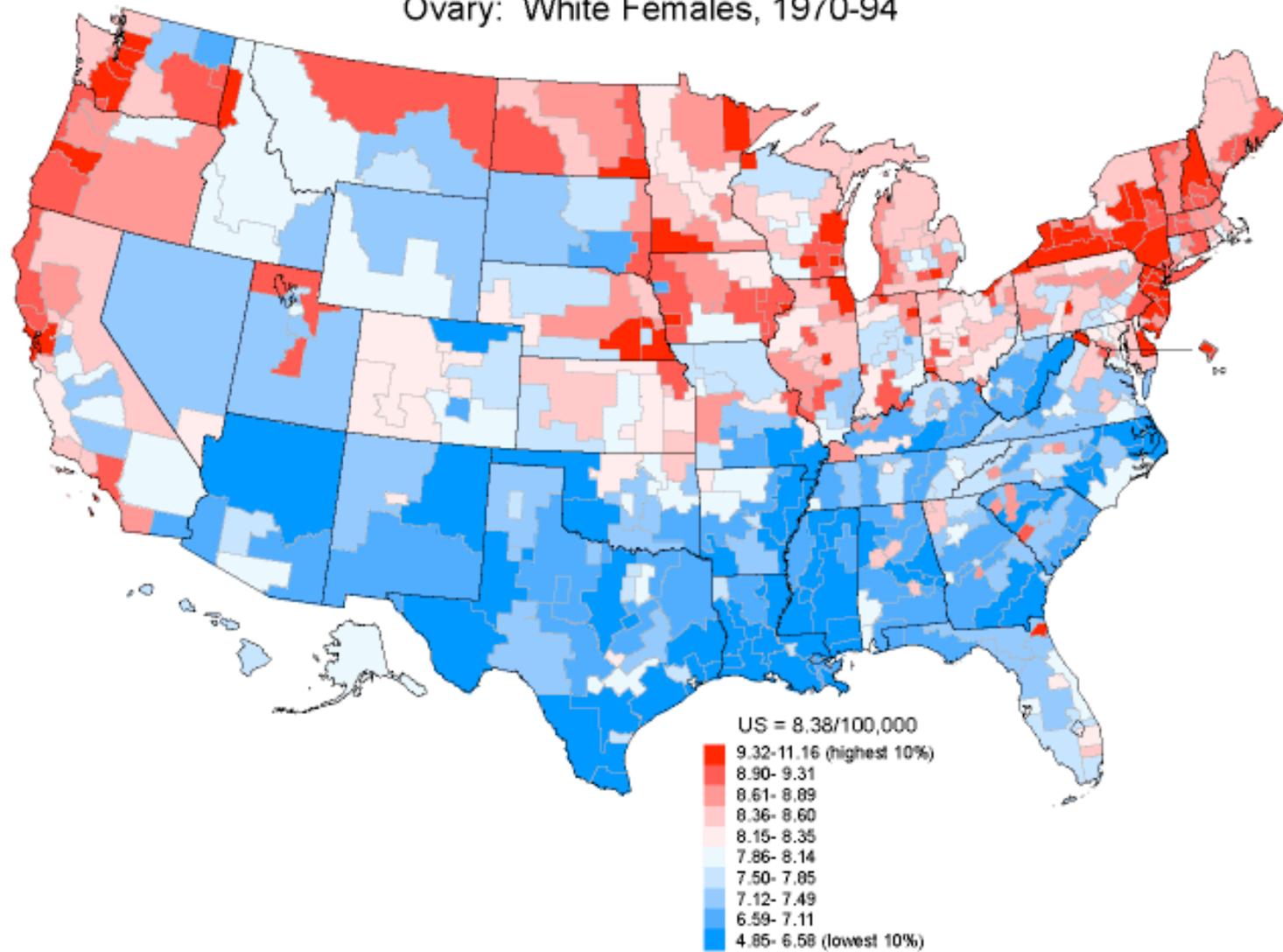
Cancer Mortality Rates by State Economic Area Breast: White Females, 1970-94



Cancer Mortality Rates by State Economic Area
Colon: White Males, 1970-94



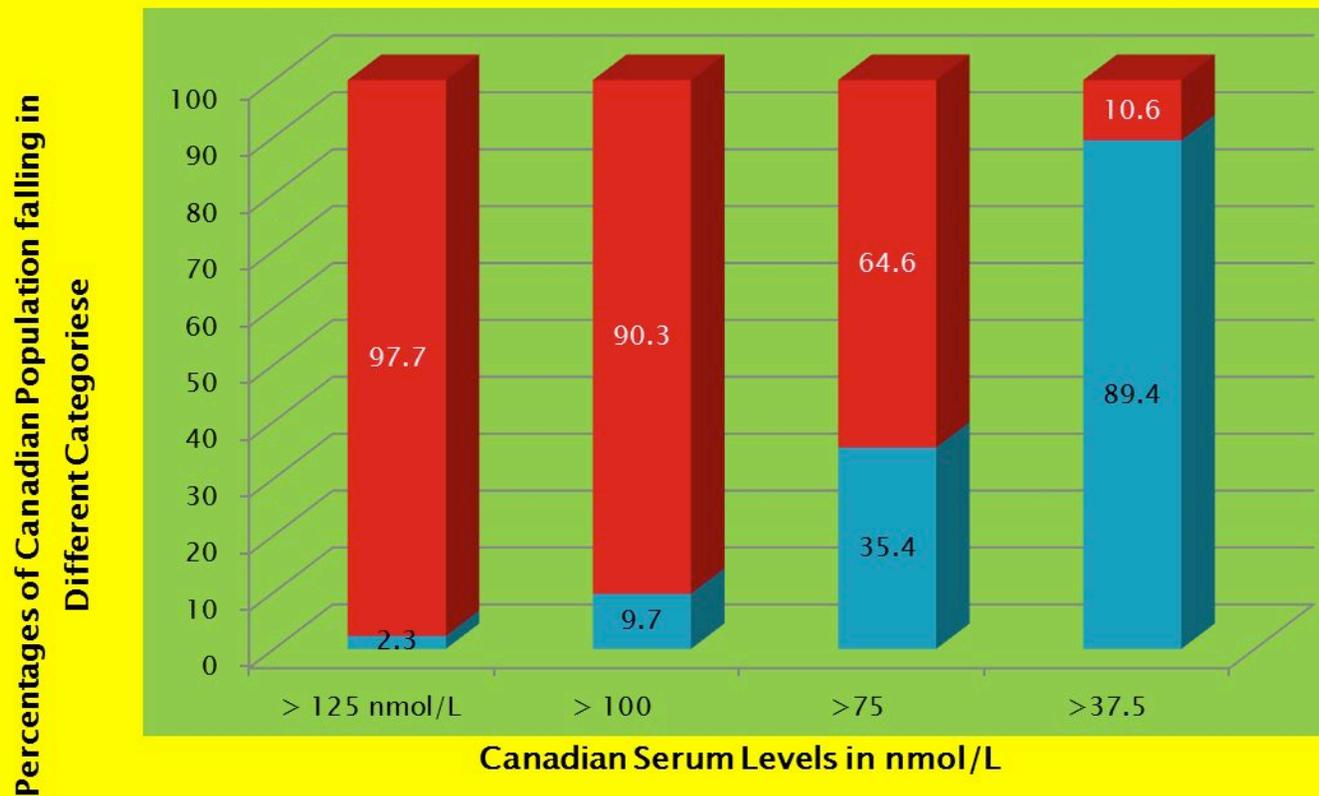
Cancer Mortality Rates by State Economic Area
Ovary: White Females, 1970-94



Evidence of Vitamin D Deficiency in Canada

Stats Canada – 2010 Langlois – Vitamin D status of Canadians as measured in the 2007 to 2009 Canadian Health Measures Survey

Percent of Canadians in Each Baseline Circulating 25(OH)D Level. 125 nmol/L = optimal; 100 = low optimal; 75 = deficient; 37.5 = severely deficient.



- ▶ The following slides show serum (blood) levels of vitamin D expressed in the U.S. measurement of ng/ml. To convert to the Canadian measurement of nmol/L, simply multiply by 2.5. For example, optimal levels of vitamin D are 40-60 ng/ml in the U.S, which would be 100-150 nmol/L in Canada



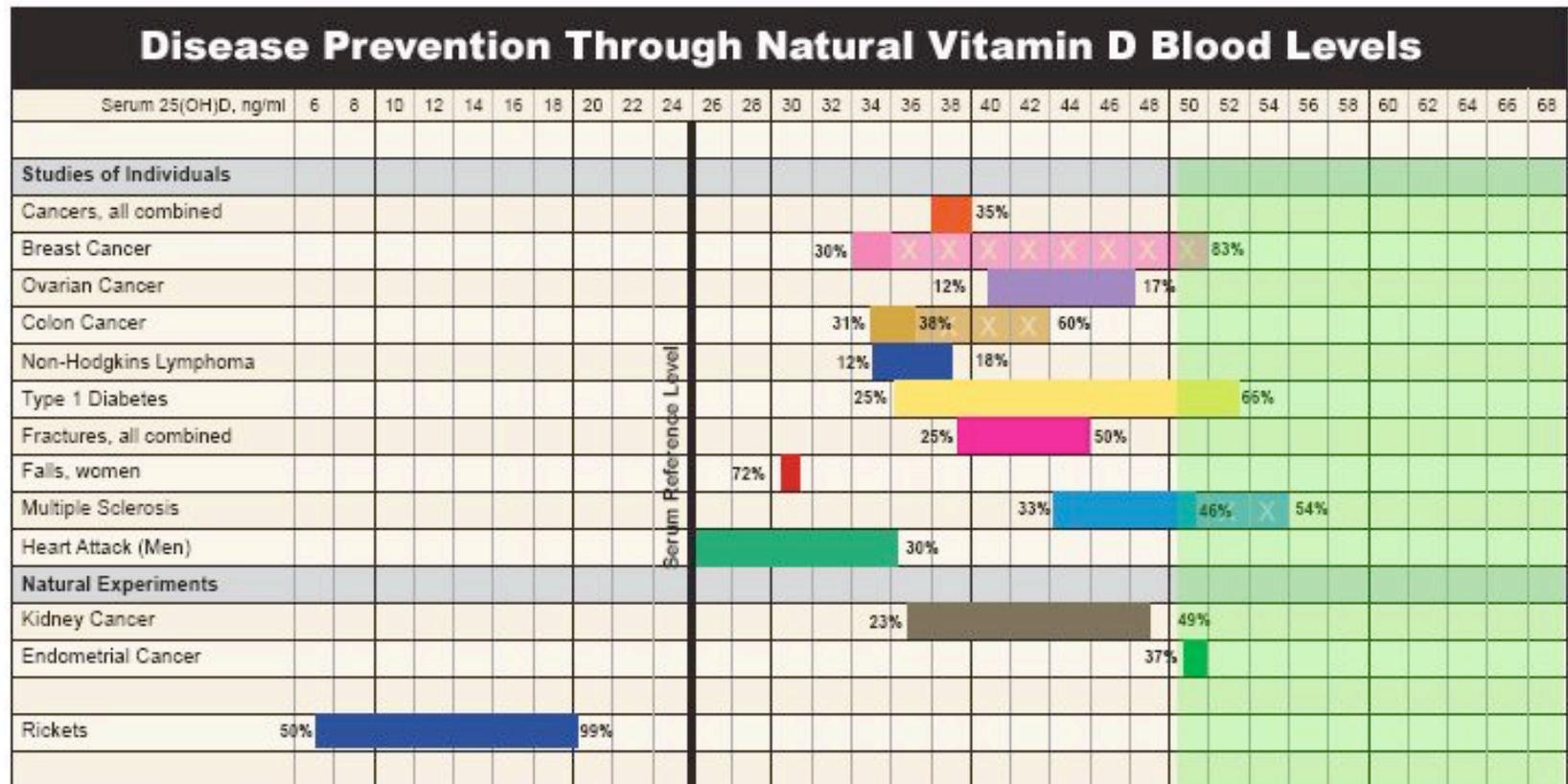


Chart prepared by: Garland CF, Baggerly CA

Vitamin D Blood Levels for Different Populations Today

Non-Human Primates

50-80 ng/ml

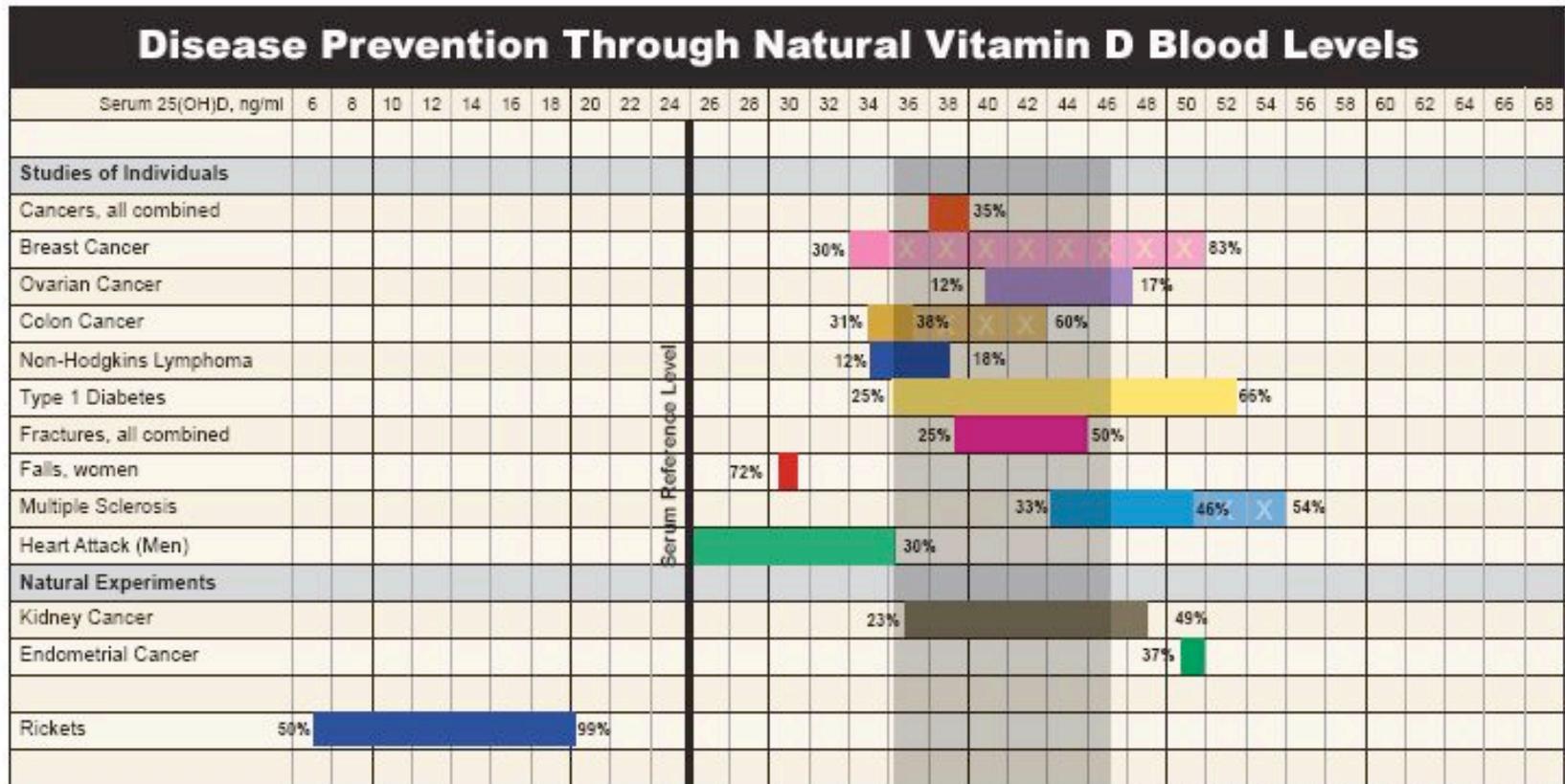


Chart prepared by: Garland CF, Baggerly CA

Vitamin D Blood Levels for Different Populations Today



Disease Prevention Through Natural Vitamin D Blood Levels

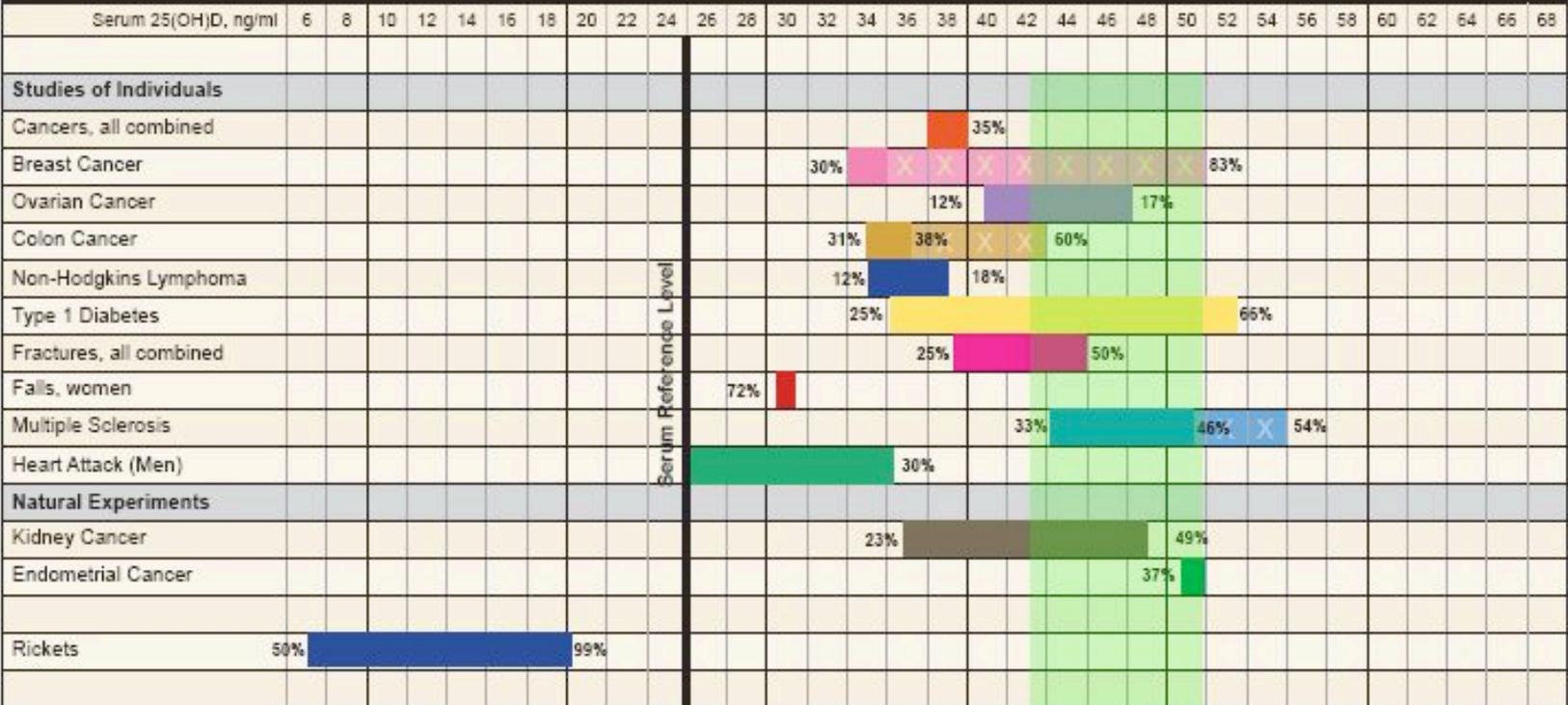


Chart prepared by: Garland CF, Baggerly CA

Vitamin D Blood Levels for Different Populations Today

Indoor Tanners **43-49 ng/ml**

DERMATOLOGISTS

13-14 ng/ml¹

INDOOR TANNERS

43-49 ng/ml²

NON-HUMAN PRIMATES

50-80 ng/ml¹

AMERICAN AVERAGE

23-25 ng/ml⁴

OUTDOOR WORKERS

49-50 ng/ml^{1,2}

Sources of Vitamin D

Vitamin D Content

UVB exposure from sunlight*	10,000 – 20,000 IU
Cod Liver Oil (1 tsp.)	400 – 1,000 IU
Salmon (fresh, wild, 3.5 oz.)	600 – 1,000 IU
Salmon (farmed, 3.5 oz.)	100-250 IU
Fortified Milk (8 oz.)	100 IU
Fortified orange juice (8 oz.)	100 IU

* A full-body suntan without a sunburn. Variables include age, amount of skin exposed to sunlight. A dark-skinned individual may need 5-10 times more sun exposure to make the same amount of vitamin D as a fair-skinned person. Source: Dr. Michael Holick

Question:

If 6,000 IU/day are needed to get 98 percent of the population above 40 ng/ml⁵ – and if that level is what is natural and intended – then isn't UVB exposure from sunlight the only natural source capable of achieving those levels?