

NYS Food Summit 2024

Leading DEI in Food-is- Medicine

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Health Care Revolution in California!

CaAIM

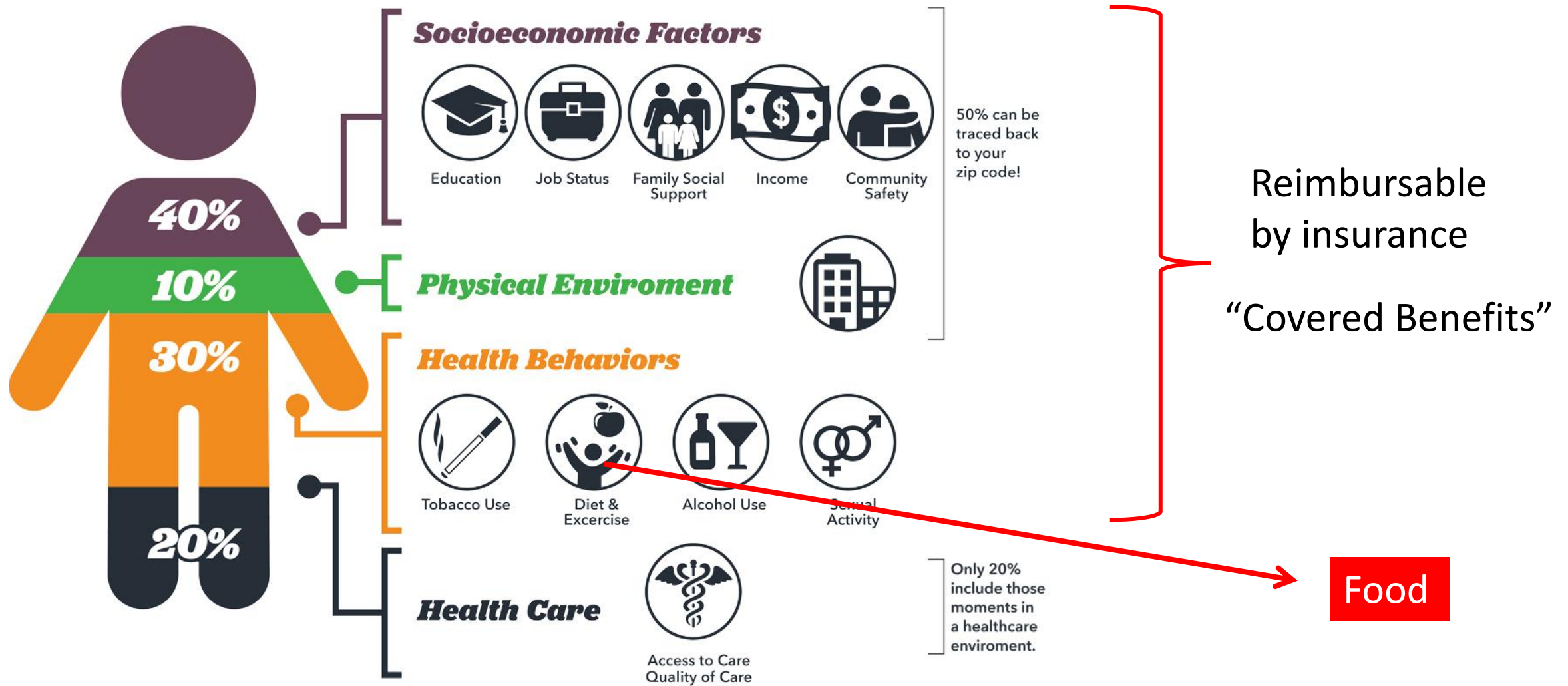
California Advancing and Innovating Medi-Cal

a 5-year multi-billion-dollar investment in changing how care is given to low-income population (2022-2026)

Addressing the SDoH (Social Determinants of Health)—the social and non-biomedical factors that affect a person's health outcome by making these services reimbursable.

Food :
Covered Benefit!





Source: Institute for Clinical Systems Improvement, Going Beyond Clinical Walls: Solving Complex Problems (October 2014)

Access to healthy and affordable food:
a SDOH for many in low-income, BIPOC, or Medicaid communities.



We have a problem!



Let Food Be Thy Medicine

Hippocrates

Food is Medicine.
Or is it?



What's wrong with this?

Case 1: Indian patient and dhal

- An Indian patient with a high-risk pregnancy and prediabetes struggles to make the appropriate dietary changes to support her blood sugar management.
- Her comfort food is dhal (puréed split pea soup) made by her mother.
- At her third visit, the visibly irritated dietitian reiterates that the patient simply needs to stop eating too many carb-rich foods and ends the consultation.

What's wrong with this?

Case 2: Islamic patient and calorie count

- The Muslim patient, who is recovering from a stroke, could not communicate directly with the healthcare team.
- The hospital's menu contained items unfamiliar to the patient, and her relative prepared cultural foods for her consumption.
- The dietitian couldn't find comparable ingredients in the institutional nutrient analysis software, and the calorie count was foregone — using Ensure supplement intake to estimate overall intake.



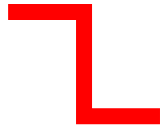


What's wrong with this?

Case 3: Chinese parent and dairy

- A Chinese woman brings her child to the regular well-child visit at the pediatric clinic.
- Upon completing the diet assessment of her child, she is told her child might not get optimal nutrition because she does not feed her child with dairy, cheese, yogurt.
- The mom is worried and stressed because dairy has never been part of her cultural dietary pattern.

MORE than



Food is Medicine

Food	Medicine
Tasty	NO
Look good	NO
Culture	NO
Religion	NO
Country of origin	NO
Art + Science	100% Science

And more.....



We have a
problem:

Systemic
&
Structural

1

Workforce & Subject Matter



Subject Matter: deeply rooted in
cultures and ethnicity

Workforce: dominated by white
female Caucasians (about 80%)

2

Target Audience



People who benefit from
nutrition intervention are
mostly ethnic minorities and
vulnerable populations

3

BIGGER problem

Our
government
tells us what
and how to
eat



Government tells us what
and how to eat:

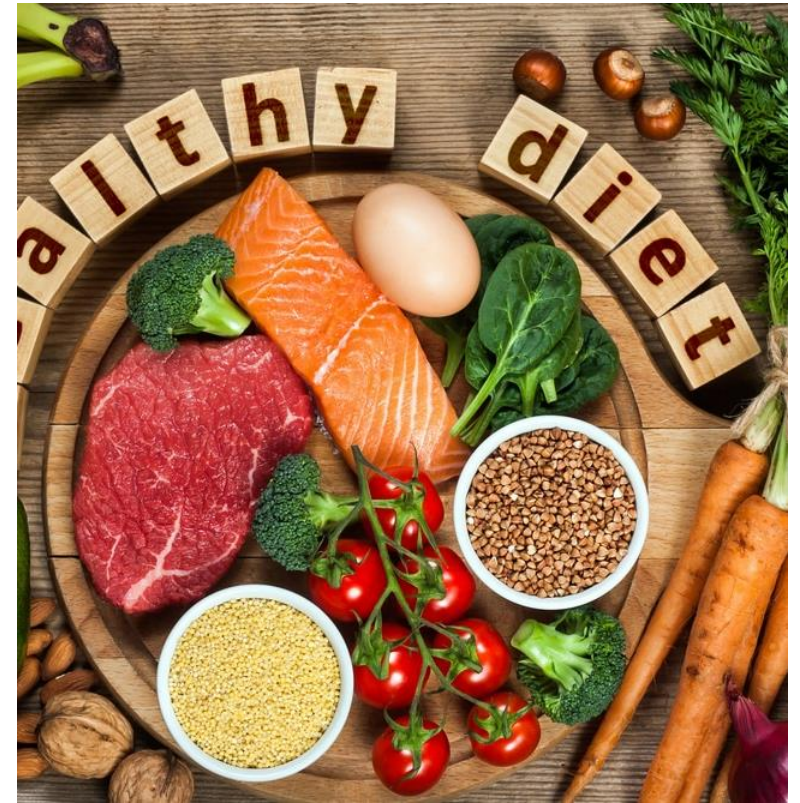
Dietary Guidelines for Americans (DGA)



Diet Recommendation: a brief history

- US government has issued diet recommendations for over 100 years
- 1916: First food guide issued
- 1943: Basic Seven Food guide: National Wartime Nutrition Guide
- 1956: Basic Five Food group---milk, meat, cereals, vegetables, fruits, + others (fats and fatty foods, sugars and sugary foods)
- 1980 Dietary Guideline for Americans (DGA): released & revised every 5 yrs.

1. Demographic: White European dominance
2. Research data: Euro-centric





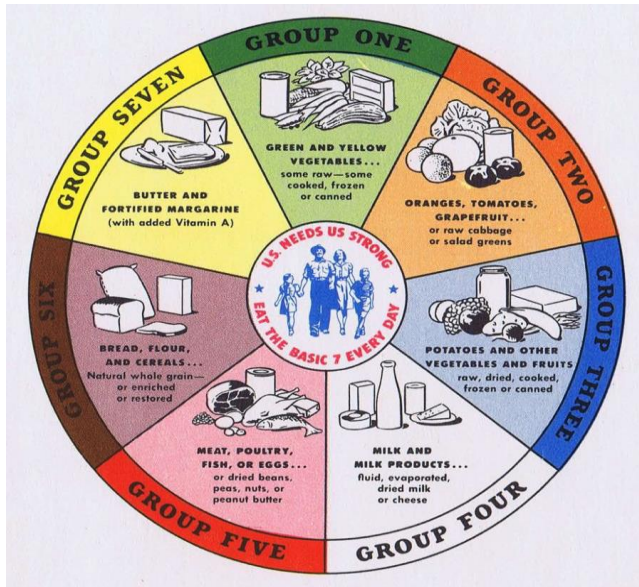
- **1980 Dietary Guideline for Americans (DGA):** released & revised every 5 years
- Objective and Neutral?
 - ✓ Dietary Guidelines Advisory Committee was established, composed of scientific experts entirely outside the Federal sector
- Current 2020-2025. Next :2025-2030
 - a) Final say rests with HHS/USDA
 - b) Research references mostly from Western & European studies
 - c) Food-industry influence

Diet Recommendation over 100 years.....

1. **Research** that underlies these recommendation has expanded considerably over the century
2. **Demographic landscape** has changed significantly. But today's dietary recommendations remains impressively similar to those of **yesterdays**
3. **More politics than science**



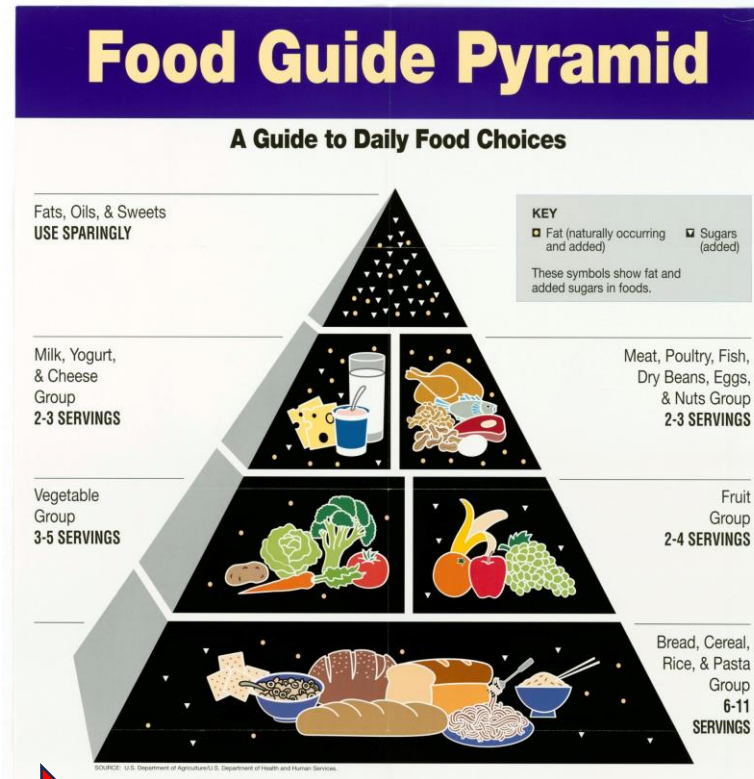
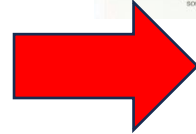
Diet Recommendation: a brief history



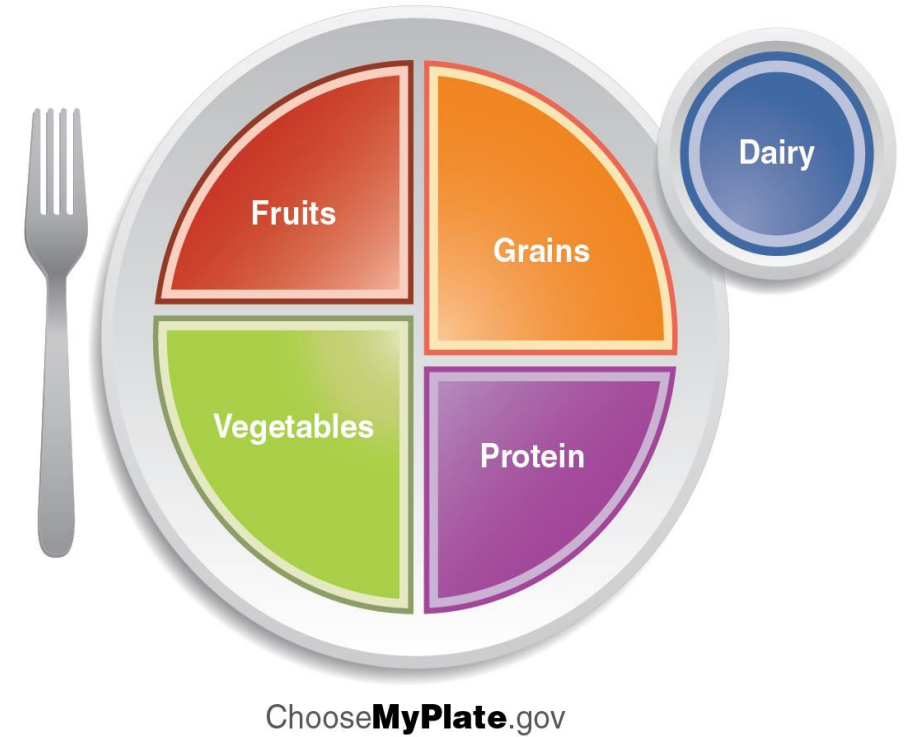
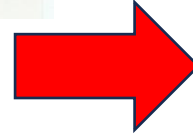
1943



1956



1977

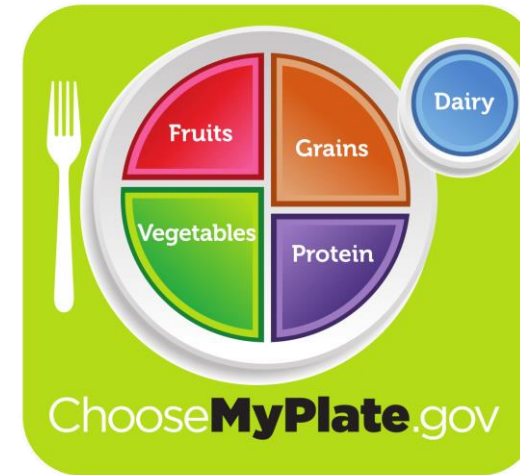


2011

Nutrition 101

The rest of the World

America



Four Basic Essential Nutrients

1. Protein
2. Carbohydrate
3. Fat
4. Vitamins and Minerals

Five Basic Essential Nutrients

1. Protein
2. Fat
3. Carbohydrate
4. Vitamins and Mineral
5. Milk

Who drink cow's milk?

1. Humans are the only species who drink another species milk
2. The only “person” that drinks milk is baby.
3. Anyone who is over 2 years old should not drink milk, whether from your mother or another animal's mother!
4. About 70% of the world population are lactose intolerant
 - Koreans, Vietnamese, Cambodians—close to 100%



Who is Lactose Intolerance?



About **70%** of the world's population has lactose malabsorption

Who in America?

- African Americans
- American Indians
- Asian Americans
- Hispanics/Latinos

<https://www.niddk.nih.gov/health-information/digestive-diseases/lactose-intolerance/definition-facts#:~:text=Experts%20estimate%20that%20about%2068,world's%20population%20has%20lactose%20malabsorption.&text=Lactose%20malabsorption%20is%20more%20common,the%20world%20than%20in%20others.>

<https://www.sciencedirect.com/science/article/pii/S0022030287800231>

Lactose Intolerance-- by Country

Top 10 Countries

1.	Ghana	100%
2.	Malawi	100%
3.	South Korea	100%
4.	Yemen	100%
5.	Solomon Islands	99%
6.	Armenia	98%
7.	Vietnam	98%
8.	Zambia	98%
9.	Azerbaijan	96%
10.	Oman	96%

Syria	: 95%
Iraq	: 93%
Israel	: 89%
Iran	: 88%

Taiwan	: 88%
Malaysia	: 87%
China	: 85%
South Africa	: 81%

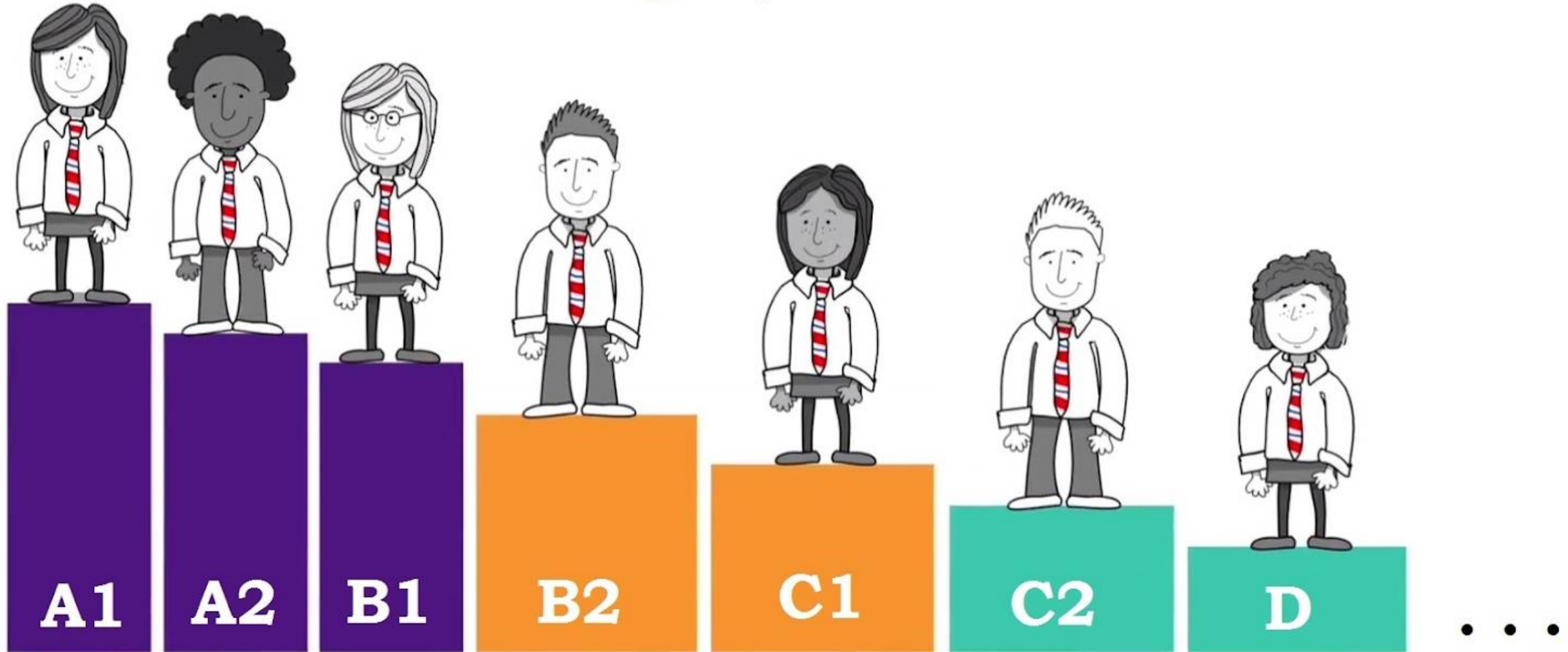
Bottom 10 Countries:

1.	Denmark	4%
2.	Ireland	4%
3.	Sweden	7%
4.	United Kingdom	8%
5.	New Zealand	10%
6.	Netherlands	12%
7.	Norway	12%
8.	Niger	13%
9.	Belgium	15%
10.	Cyprus	16%
.....	America	36%

Reference:

<https://milk.procon.org/lactose-intolerance-by-country>

Grading System in Education



Healthy Eating Index (HEI)–Toddlers–2020 components and scoring standards ^a

Component	Maximum points	Standard for maximum score	Standard for minimum score of zero
HEI–Toddlers–2020 Applies to ages 12 through 23 months			
Adequacy Components			
Total Fruits ^b	5	≥ 0.7 cup equiv. per 1,000 kcal	No Fruit
Whole Fruits ^c	5	≥ 0.3 cup equiv. per 1,000 kcal	No Whole Fruit
Total Vegetables ^d	5	≥ 0.9 cup equiv. per 1,000 kcal	No Vegetables
Greens and Beans	5	≥ 0.1 cup equiv. per 1,000 kcal	No Dark Green Vegetables or Legumes
Whole Grains	10	≥ 1.5 oz equiv. per 1,000 kcal	No Whole Grains
Dairy ^e	10	≥ 2.0 cup equiv. per 1,000 kcal	No Dairy
Total Protein Foods ^d	5	≥ 2.0 oz equiv. per 1,000 kcal	No Protein Foods
Seafood and Plant Proteins ^f	5	≥ 0.5 oz equiv. per 1,000 kcal	No Seafood or Plant Proteins
Fatty Acids ^g	10	(PUFAs ^h + MUFAs ⁱ)/SFAs ^j ≥ 1.5	(PUFAs + MUFAs)/SFAs ≤ 0.9
Moderation Components			
Refined Grains	10	≤ 1.5 oz equiv. per 1,000 kcal	≥ 3.4 oz equiv. per 1,000 kcal
Sodium	10	≤ 1.1 grams per 1,000 kcal	≥ 1.7 grams per 1,000 kcal
Added Sugars	10	0% of energy	≥ 13.8% of energy
Fatty Acids	10	≤ 12.2% of energy	≥ 18.2% of energy

Healthy Eating Index



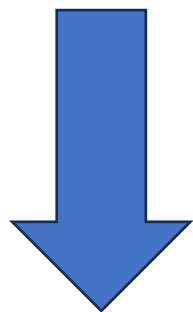
- a) Calcium Recommendation: 1200mg/day
- b) High Diet Quality: 3 glasses cow's milk/day



Public & Private nutrition programs and guidelines

* Include fluid milk, yogurt, cheese, and fortified soy beverage

DGA, HEI, MyPlate



Milk Mandate

- Is it for EVERYONE?



Chinese: Low calcium intake from dairy but low risk of chronic diseases

Two cohort studies of more than 14,000 Chinese adults who are largely on a plant-based diet over period of 5 yrs

- Average calcium intake: 400 mg/day
- Chinese: calcium source from dairy and meat <5%
- Westerners: calcium source from dairy and meat > 80%

After adjustment of confounders, calcium intake is:

- ✓ Not related to bone density
- ✓ Nor related to type 2 diabetes
- ✓ Not related to CVD
- ✓ Not related to obesity * (after further adjustment of vegetable intake)



Association of Dietary Calcium Intake With Bone Health and Chronic Diseases: Two Prospective Cohort Studies in China.
Front. Nutr., 24 December 2021 Sec. Nutritional Epidemiology Volume 8 - 2021 | <https://doi.org/10.3389/fnut.2021.683918>

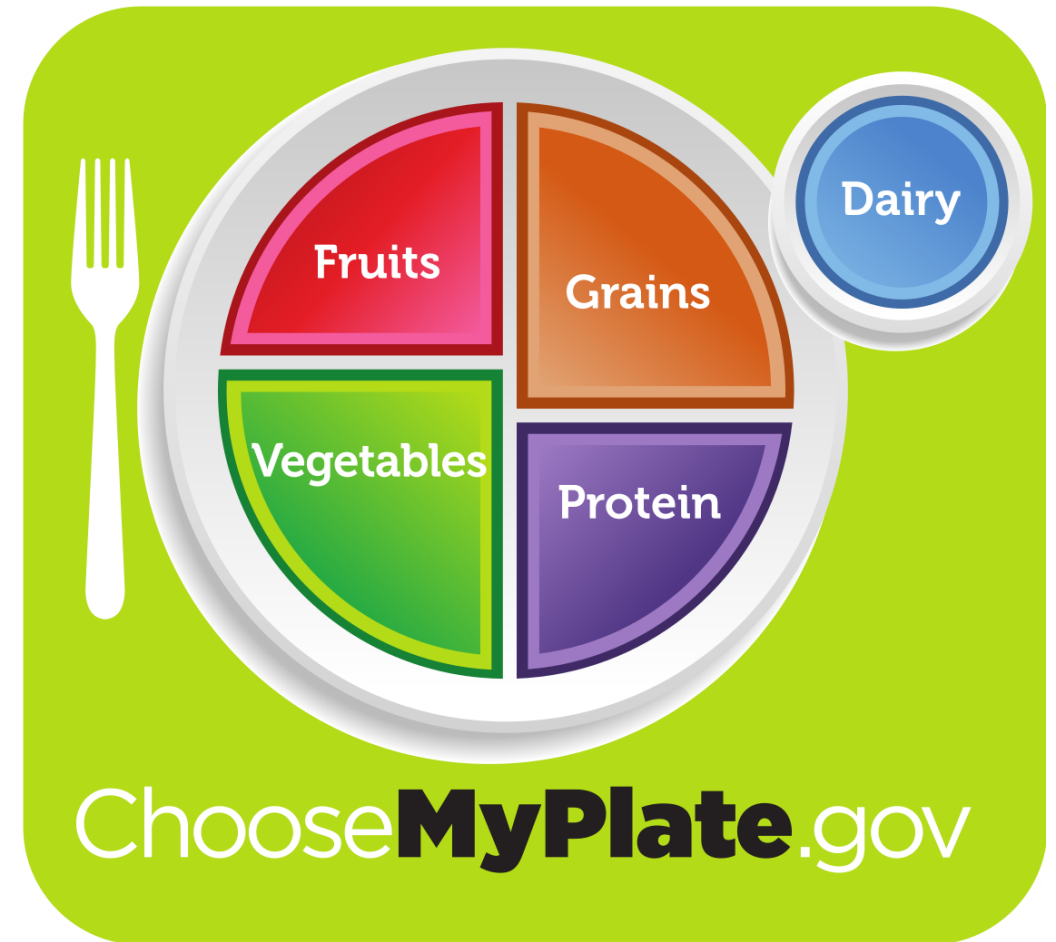
Over-exaggeration of Dairy— in our nation feeding programs and consciousness

- Indoctrination for over 100 years
- DGA: developed by White Caucasians reflecting White Caucasian diet
- Euro-Centric Biases: Most research data drawn from White Caucasians



DGA: does it promote DEI, or White Supremacy?

1. **Northern /Central European signature food dairy:** not tolerated by 70% of the world population
2. **Preferential:** a cultural food is singled out and elevated above the rest
3. **Beverage of Choice:** cultural food as the Beverage of Choice? Why not water?
4. **Representation:** How important is representation in official and default version?



Omni-present

DGA: does it matter?

1. All Federal-funded feeding programs and services
 - ✓ CalFresh (SNAP)
 - ✓ WIC
 - ✓ NSLP
 - ✓ Senior Programs eg: Meals-on-Wheels
 - ✓ Clinical services: MTM, MNT
 - ✓ Nutrition screening
2. National Nutrition Education
 - ✓ K to 12
 - ✓ SNAP-Ed



DGA, MyPlate and HEI: Who cares?

REAL LIFE consequences:

- Hurt the people who need it the most
- People living in poverty
- BIPOC
- Immigrants from non-European countries
- Missed opportunity to close disparity gap

- 40 millions in SNAP
- 30 million kids in NSLP
- 6.6 million moms in WIC
- 2.5 million Meals-on-Wheels
- Millions on MNT, MTM



Example

Milk Mandate in school: NSLP

- About 30 million kids
- 17 millions (56%) are lactose intolerance
- About 30% of milk cartons are thrown away, or \$ 300 millions/year wasted taxpayers money (2019)
- 2 BIG barriers
 - Only exception to milk alternatives
 - Medically Disable**
 - Schools not reimbursed for milk alternatives

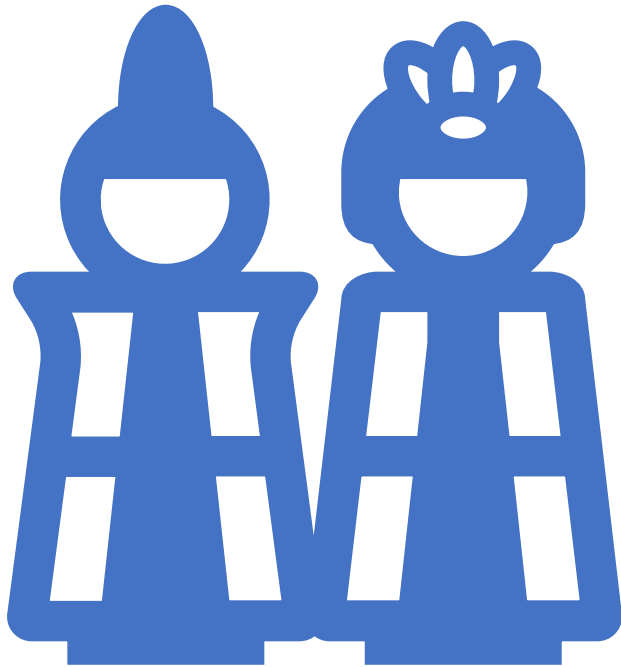




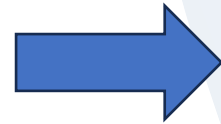
Lactose Intolerance

- **NOT** a sickness or disability
- **NOT** a medical emergency to be treated
- **NOT** a public health crisis

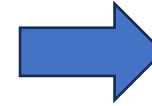
Lack of DEI (Diversity Equity Inclusivity) in food intervention services



- Cultural Ignorance
- insensitivity
- incompetency



- Cultural-Food Shaming
- Micro-aggression
- Marginalization
- Stereotypes
- Non-compliance
- Missed Opportunity



- Health Disparity & Inequity




Examples of White Supremacy in Diet

1. Mediterranean diet: North Star
2. Lactose intolerance?
 - Medical disability
 - Something that must be fixed
3. Demonizing traditional diet or food choices:
 - White rice is bad
 - Coconut is bad
 - Peanut is bad
 - Olive oil is the best
 - Tofu is bad



Food-is-Medicine:

is not about fixing
someone's traditional diet
that has stood the test of
time



YOU ARE NOT
GOOD
ENOUGH!

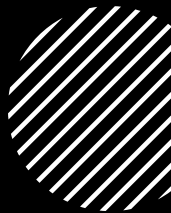
Euro-centric and Microaggression in Diet

1. Over-emphasis of Mediterranean & European diets
2. Demonization of traditional staples
3. Whitewashing Non-European cuisines





DEI in
Food-is Medicine:
Non-negotiable!



Workforce



Target audience



Government: policies,
programs, education, fundings



How do we lead the change?

Start with Cultural Humility

How do we lead the change?



DIVERSIFY WORKFORCE



EDUCATION THROUGH
LENS OF DEI



POLICY ADVOCACY



Call for Actions

- 1. Stop making cultural food a mandate!**
 - Remove Cow's milk** as the beverage of choice or the 5th food group in MyPlate, HEI
 - Representation Matters:** The one and only official and default version of DGA:—inclusive and equitable of all ethnicities, cultures and diet persuasions
- 2. Stop food shaming:** remove White Supremacy in food and nutrition

<https://www.dietaryguidelines.gov/get-involved>

Food is **MORE**
than medicine

Food is
Culture
Comfort
Community
Heritage
Identity



*Let Food Be Thy
Medicine*
Hippocrates

References

- Davis C & Saltos E. Chapter 2: Dietary recommendations and how they have changed over time. USDA. https://www.ers.usda.gov/webdocs/publications/42215/5831_aib750b_1.pdf
- Healthy Eating Index: <https://www.fns.usda.gov/cnpp/how-hei-scored>
- Lactose Intolerance by Country Reference: <https://milk.procon.org/lactose-intolerance-by-country/>
- Guo X et al. Association of Dietary Calcium Intake With Bone Health and Chronic Diseases: Two Prospective Cohort Studies in China. *Frontiers Nutr.*, 24 December 2021 Sec. Nutritional Epidemiology Volume 8 - 2021 | <https://doi.org/10.3389/fnut.2021.683918>

A close-up photograph of a chessboard with several dark wooden pieces. A king piece stands prominently in the center-left. To its right, a pawn stands upright. Further right, another king piece is visible. In the foreground, a light-colored piece, possibly a queen or rook, lies on its side. The background is softly blurred with warm, bokeh light spots. The text "The End" is centered in white.

The End