



Food is Medicine National Summit

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Diet-Related Disease in the U.S.

- More American adults are **sick** than are healthy:
 - **1 in 2** have **diabetes or prediabetes**
 - **1 in 2** lifetime risk of **cancer**
 - **3 in 4** have **overweight or obesity**
 - Only **1 in 15** (6.8%) are **metabolically healthy**
- Among American teenagers:
 - **1 in 4** have **prediabetes**
 - **1 in 4** have **overweight or obesity**
 - **1 in 6** have **fatty liver disease**

Centers for Medicare & Medicaid Services, 2018

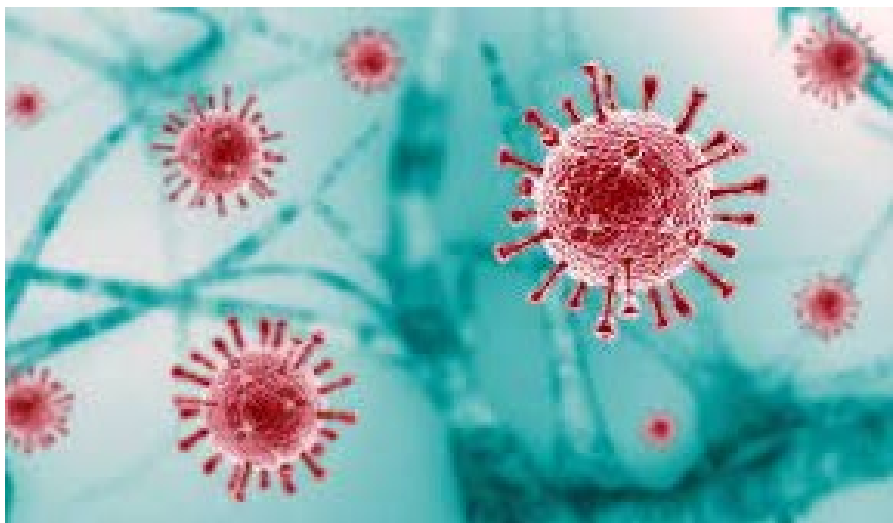
American Heart Association, *Heart Disease and Stroke Statistics*, 2018

The Milken Institute, *America's Obesity Crisis*, 2018

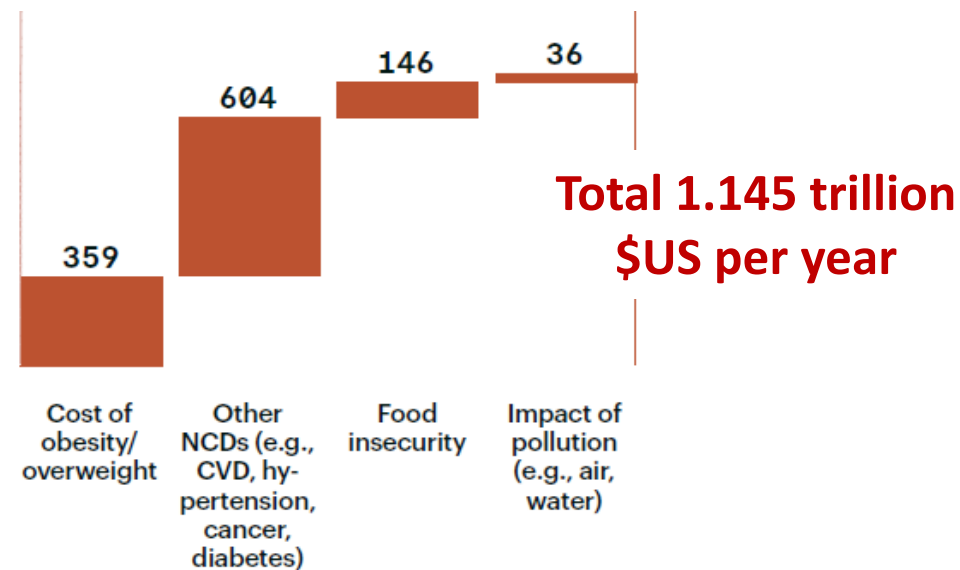
O'Hearn M et al., JACC 2022

Poor Nutrition: True Societal Costs

Diet-related diseases like diabetes, obesity, and hypertension have contributed to an estimated **723,000 excess U.S. deaths from COVID-19**



Poor nutrition causes an estimated **\$1.1 trillion in economic losses each year** due to excess healthcare spending and lost productivity



O'Hearn et al., JAMA 2021;

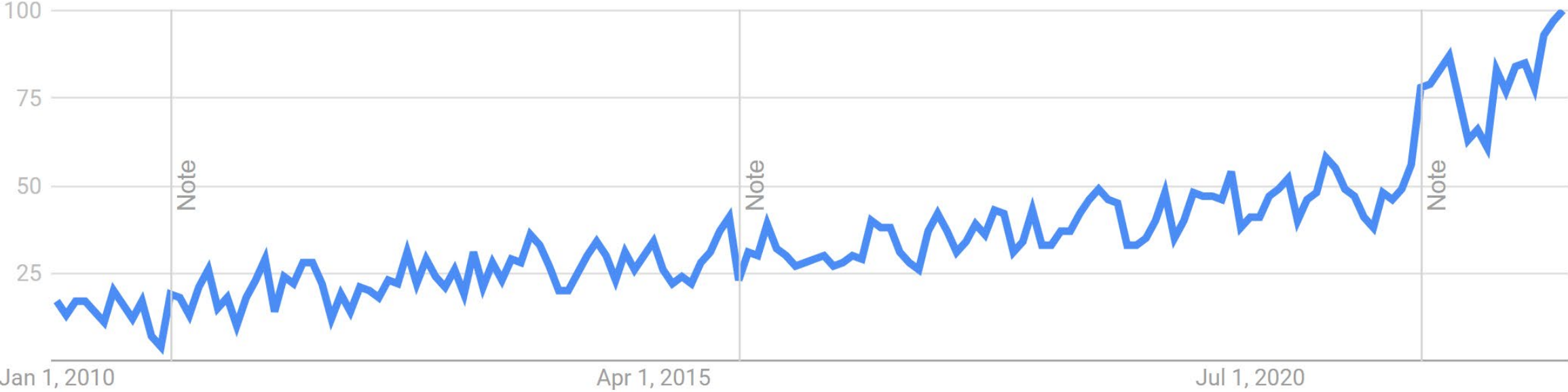
True Cost of Food: Measuring What Matters to Transform the U.S. Food System, 2021

Potential to Unlock Business Innovation

- **1 in 10 U.S. jobs** – 19.7 million – are directly supported by the food and agriculture sector
- The food and agriculture sector contributes **\$1.1 trillion** to the nation's economic output
- Food and agriculture **exports total \$183 billion** each year
- Food sector businesses are the **#1 source of new small businesses and new jobs** in racial and ethnic minority communities
- Consumers demanding **healthier, more authentic, more nourishing foods**
- Rapid growth of Environment, Social, Governance (**ESG**) investing



Food is Medicine: Rising National Interest

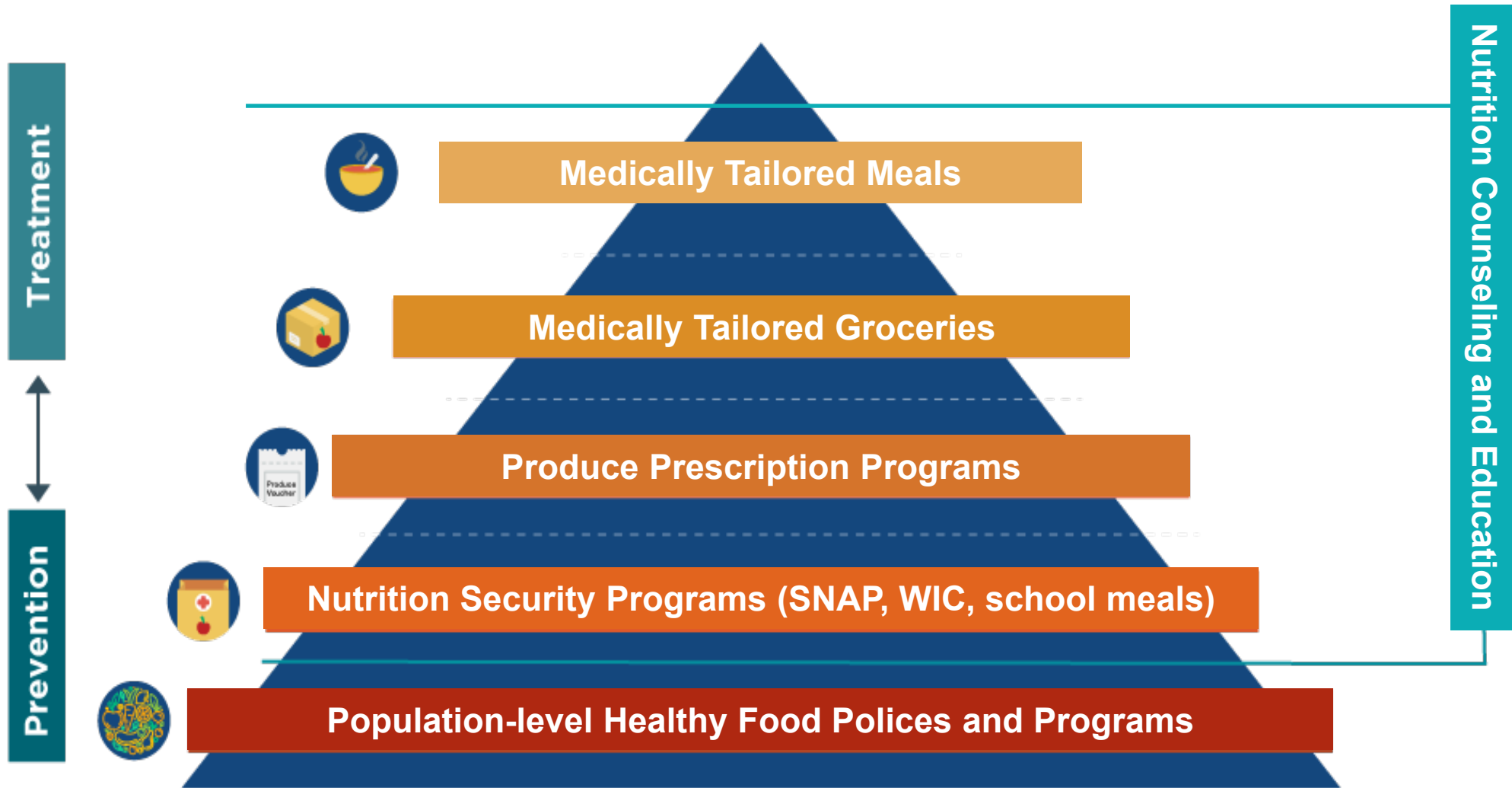


Source: Google analytics

Food is Medicine: Varying Conceptual Frameworks

- 1. Food as foundational to health (“Food is health”)**
- 2. Food-based natural bioactive compounds to treat or prevent disease**
- 3. Food-based nutrition interventions in healthcare to treat or prevent disease**
 - *centered in health equity*
 - *focuses on nutrition security, while addressing food security*
 - *not a social determinant of health, but a determinant of health*

Food is Medicine: Healthcare Systems



Food is Medicine: Advancing Nutrition Security

Nutrition security: *Consistent access, availability, and affordability of foods and beverages that promote well-being and prevent (and if needed, treat) disease*

- Additive to (not replacing) food security: Moving beyond diet quantity alone to *diet quality* – nourishing foods
- Centered in *health equity* to address large and rising diet-related disparities
- Not a *social* determinant of health – a top *determinant of health*
- Available brief screeners: e.g., the 2-item *Nutrition Security Screener (NSS)*



Mozaffarian, Fleischhacker, & Andres, JAMA 2021

Mozaffarian, Health Affairs 2023

<https://nutrition.tufts.edu/about/public-impact-initiative-friedman-school/food-is-medicine>

Food is Medicine: Medicaid Section 1115 Waivers

2013

2013

2014

2015

2016

2017

2018

2019

2020

2021

2022

2023

2023

Category 1

Iowa Aug 4

Kansas Dec 28 - Apr 1

Maine Jan 21

Michigan Aug 12 - Jul 15

Category 2

Florida Nov 27 - Jul 31

Arkansas Jul 19 - Nov 1

Georgia Jul 16

Illinois Oct 5 - May 7

Maryland Jul 13 - Apr 22

Rhode Island Jul 11 - Dec 20

Category 3

California Jan 8 - Dec 29

Delaware Dec 30 - Apr 1

Massachusetts Dec 22 - Sep 28

New Jersey Feb 28 - Apr 1

New Mexico Dec 9 - Apr 1

New York Sep 2 - Apr 1

North Carolina Nov 20 - Oct 19

Oregon Feb 8 - Sep 28

Washington Jun 29 - Apr 1

Food is Medicine: National Momentum

- White House Conference and **National Strategy on Hunger, Nutrition, and Health**
- State **Medicaid 1115 and 1915(b) waivers**, and **Medicaid managed care organization** services (“in lieu of”, value-added, or QI)
- **Medicare Advantage Organization** and **Medicare Shared Savings ACO** programs
- **Private healthcare investments**, e.g. Kaiser Permanente, Geisinger Health, others
- **Veterans Affairs** and **Indian Health Services** pilots on Produce Rx
- Potential **Medicare pilot** on medically tailored meals
- **USDA GusNIP Produce Rx** programs
- **CDC programs** such as SPAN, HOP, and REACH
- New prioritization of **human nutrition at FDA**
- AAP and ACLM commitments, and ACGME/AAMC/AAMOC deliberations, on **nutrition education for physicians**
- NIH Office of Nutrition Research **FIM Centers of Excellence**
- Rockefeller Foundation/AHA **FIM research initiative**
- Non-profit and private sector **implementers and innovators**