Advancing Nutrition Equity in the 21st Century
Advancing Nutrition Equity with Policy, Systems & Environmental Change
What is the impact of food insecurity & diet-related disease in the U.S.?

What factors contribute to food security?

### Availability
- Is healthy food available?
- Relative to other foods?

### Access
- Is it affordable?

### Adequacy
- Is it nutritious?
- Is it safe to consume?

### Acceptability
- Is it culturally acceptable or preferred?

### Agency
- What policies or processes exist?

"‘Latino food in particular, it is tortillas, salsas, sometimes red meat or chicken. We have had to change our food for canned food, for sandwich bread.’"


Source: https://www.torontomu.ca/foodsecurity/
1 in 3 families who fed infants formula reported using 1+ deleterious formula-feeding practices during the COVID-19 pandemic.


Structural barriers exist to accessing school lunch meals in low-income communities (e.g., long lines, administrative issues).

Shift from a patchwork of state laws to federal legislation

Policy as a Public Health Tool
Let’s Make This Real
Can You Think of Other Examples?

Photo: Erick Schmal // MexicanElite on Instagram

Local and Global Nutrition Policy
The Path to Achieving Health Equity

Food Recovery Hierarchy

- **Source Reduction**: Reduce the volume of surplus food generated
- **Feed Hungry People**: Donate extra food to food banks, soup kitchens and shelters
- **Feed Animals**: Divert food scraps to animal food
- **Industrial Uses**: Provide waste oils for rendering and fuel conversion and food scraps for digestion to recover energy
- **Composting**: Create a nutrient-rich soil amendment
- **Landfill/Incineration**: Last resort to disposal

Environmental Impacts of U.S. Food Waste:
- **Greenhouse gas emissions**: of more than 42 coal-fired power plants
- **Enough water and energy**: to supply more than 50 million homes
- **The amount of fertilizer** used in the U.S. to grow all plant-based foods for U.S. human consumption
- **An area of agricultural land** equal to California and New York

Learn more: [www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste](http://www.epa.gov/land-research/farm-kitchen-environmental-impacts-us-food-waste)

The Environmental Impact of Food
Innovative Approaches Across Sectors

FOOD IS MEDICINE PYRAMID

SNAP, WIC, HIP, and Emergency Food Programs

Population-Level Healthy Food Programs

Nutritious Food Referrals

Medically Tailored Food Packages

Medically Tailored Meal Programs

Priorities for Health Care Funding

Source: https://abasto.com/noticias/northgate-gonzalez-market-celebrando-40-anos-de-exito-y-trabajo-duro/

Innovative Approaches Across Sectors

UCI Public Health
Nutrition Equity in the First 1000 Days
Opportunities to Advance Maternal and Child Health
Nutrition in the First 1000 Days

Period from conception until child is age 2 years

- Critical window of development
- Nutrition influences lifelong propensity for health and disease risk
- WIC and CalFresh support access to healthy food
- Persistent inequities exist for food insecurity

9% overall

California & Orange County

OC by race/ethnicity

14-15% among Black & Hispanic households

https://map.feedingamerica.org/county/2020/overall/california/county/orange
Food Insecurity, Diet Quality & Eating Behaviors

Pregnant Moms in Orange County (n=74; 84% self-identified as Hispanic)

- 21.6% low or very low food security (p = .017)
- No difference in diet quality (Healthy Eating Index-2015) according to food security status
- Higher tendency for emotional eating behavior among those with low/very low food security
Need for Food Resources in First 1000 Days
Survey of n=147 providers and advocates from healthcare, childcare, community and governmental agencies across California, serve low-income families

Knowledge & Skills
- Nutrition education
- Food use and management
- Point of purchase decisions

Navigation & Advocacy
- Awareness and connection
- Support

Access
- Access to healthy food
- Access to food resources

Environment
- Home environment
- Community environment
Need for Food Resources in First 1000 Days

Perceptions Shared

“Information on how to cook in a healthful way. Education on how to select and store fresh fruits and vegetables and other whole foods.”
Community Health Manager

“...The back and forth between Medi-Cal managed care/providers/WIC office adds undue stress on the client.”
Community Health Manager

“We are in a rural area and the cost of gas has become an increasing hardship when trying to access food resources.”
Registered Dietitian

“We are in a rural area and we are experiencing increasing hardship when trying to access food resources.”
Pediatrician
Nutrition Needs Assessment in First 1000 Days

Overall Results

1) Improved access to nutritious food and diverse educational resources for low-income families
2) Improved cultural responsiveness in the delivery and content of nutrition education
3) Resource navigation and support to assist families in accessing resources and offering guidance responsive to parent/family needs
4) Attention to social and structural determinants of health to address competing challenges/priorities
5) Simple, focused, consistent, and tailored nutrition education messaging and resources
6) Further professional development opportunities on early life nutrition and key micronutrients for fetal and early child development
Current Projects and Next Steps
Advancing nutrition equity in the first 1000 days

1. Develop simple, focused, consistent nutrition messaging
2. Disseminate culturally responsive nutrition education resources
3. Assess family needs and desires for food skills training
4. Deliver culturally responsive culinary nutrition training programs
Community Engagement
Healthy Food Access at Northgate Gonzalez Market
42

Grocery stores located in Southern California

Family-Owned Hispanic Grocer
Cooking up Change Program

650 Health & wellbeing events at our stores or within the community in 2022
Engage with parents, teachers, school leaders and policymakers

Support schools to address student health needs

Publish reports, policy recommendations and toolkits
$4 Million
Funded to communities through grants, vouchers/gift cards, free health screenings and food donations in 2022

¡Más Fresco! More Fresh Program
¡Más Fresco! More Fresh Program

Promote consumption of healthy foods, including fresh fruits and vegetables

Support community members experiencing health disparities, including food insecurity and diet related chronic disease

Improve nutrition and health status among program participants

Nutrition incentive program utilizing point-of-sale technology in a retail setting
$250,000

Distributed to scholarships from the González Reynoso Family Foundation in 2022

Northgate Gonzalez Market invests in future public health practitioners

A graduate student scholarship was established to be awarded to a Santa Ana resident or graduate who plans to practice in that community.
From Hunger to Health: The Road Forward to Nutrition Equity
Reaching People at the Right Moment

Focus on the first mile and the proactive lifestyle changes.

75% healthcare spending goes toward the treatment of chronic diseases

Food Security in the United States

Trends in Food Insecurity in US Households, 2013-2021

Food Security in the United States

Trends in Food Insecurity in US Households, 2013-2021

Trends in Food Insecurity by Race and Ethnicity, 2013-2021

Nutrition Security

Consistent and equitable access to healthy, safe, affordable foods essential to optimal health and well-being.
The White House Conference - 2022
College Food and Basic Needs Security

1 in 3 college students experienced food insecurity before the pandemic

What is the UCI Basic Needs Center?

UCI Basic Needs Center offers a variety of services to UC Irvine students to help them meet their basic needs. From food pantry visits, CalFresh Application Assistance, to consultations with our social workers. We strive to offer support from a holistic approach.

basicneeds.uci.edu
Collaborating across sectors and disciplines, we can develop more comprehensive and sustainable solutions that address the root causes of food insecurity, such as poverty, inequality, and lack of access to healthy food options.
Leveraging New Partnerships & Technology

Nutrition Equity

UCI Public Health