Summer Speaker Series for Students 2024
Getting Started!

• Update your name on Zoom, if needed
  • Right click on your Zoom box, click “rename”

• Type your name and institution into the chat box!
  • Question: Which best describes you?
    ■ Ex. Undergraduate Student, Dietetic Intern, Masters Student, Doctoral Student, Post Doc, Public Health Practitioner, Researcher/Professor, Other

• Remember to keep yourself on mute.

• Type your questions into the chat box.
Schedule and Topics

- June 12: Food Policies in Schools - More than just Lunch!
- **June 26: Food is Medicine: What does it mean?** Where are we going?
- July 10: Leveraging Food Service Contracts at 4-year Public Universities to Understand Meal Plan Costs and Affordability
- July 24: Policy Systems and Environmental Strategies to Support Young Children's Diet and Health
- August 7: Collaborating Successfully across Sectors toward Nutrition Security
- August 14: Student Presentations

For more information, to register, or to view past recordings: [https://nopren.ucsf.edu/her-nopren-summer-speaker-series-students-2024](https://nopren.ucsf.edu/her-nopren-summer-speaker-series-students-2024)
Student Presentations!

The HER/ NOPREN Summer Speaker Series will end with Student Presentations and Poster Sessions on August 14. Stay tuned for more details!

Selected students will give a presentation on a nutrition-related project or research they worked on over the summer. **Applications are due July 17th.** To apply, scan QR code below.
Session 2: Food is Medicine – What does it mean? Where are we going?
The mission of the Work Group is to examine, implement, and disseminate work to support food security through evidence-informed policies, programs, and practices.

In our work, we aim to include and uplift the voices of communities who face historic and ongoing oppression, as these groups are more likely to experience food insecurity.

To join the listserv, please contact our work group fellow:
Ximena Perez-Velazco (ximenapv@live.unc.edu)
Today’s Presenters

Hilary Seligman, MD MAS
University of California San Francisco

Lisa Goldman Rosas, PhD MPH
Stanford University

Melissa Akers, MPH CPH
University of California San Francisco

Ronli Levi, MPH RDN
University of California San Francisco
1 in 8 US Households Food Insecure in 2022

Figure 1
U.S. households by food security status, 2022

Food-secure households-87.2%

Food-insecure households-12.8%

Households with low food security-7.7%

Households with very low food security-5.1%

Disparities in food insecurity rates by race, 2020

These disparities mimic disparities in chronic disease risk.

Bidirectional relationship between food insecurity and poor health

- Poor health (Development/worsening chronic conditions)
- Food insecurity
- ↑ Healthcare expenditures
- ↓ Household income/competing demands (e.g., choosing between medical care and food)

FIGURE 1

Adults in Households with Less Food Security Are Likelier to Have a Chronic Illness

Probability of any chronic illness

Source: Christian A. Gregory and Alisha Coleman-Jensen, “Food Insecurity, Chronic Disease, and Health Among Working-Age Adults,” U.S. Department of Agriculture, July 2017. Adjusted for differences in demographic, socioeconomic and other characteristics. Sample includes working-age adults in households at or below 200% of the federal poverty level.
Food Insecurity & Subsequent Annual Health Care Expenditures

NHIS-MEPS data adjusted for: age, age squared, gender, race/ethnicity, education, income, rural residence, and insurance.

$77.5 billion additional health care expenditures annually

These is the downstream impact of policies we have put into place.

Figure 1. Health and Social Care Spending as a Percentage of GDP

“Meeting Individual Social Needs Falls Short Of Addressing Social Determinants Of Health,” Health Affairs Blog, January 16, 2019. DOI: 10.1377/hblog20190115.234942
Nutrition Security vs Food Security (simplified)

**WHAT IS NUTRITION SECURITY?**
Consistent access to nutritious foods that promote optimal health and well-being for all Americans, throughout all stages of life.

**HOW DOES NUTRITION SECURITY BUILD ON FOOD SECURITY?**
Food security is having *enough* calories. Nutrition security is having the *right* calories.

• Integration of specific food and nutrition interventions in, or in close collaboration with, the health care system

• Target population
  • People with or at high risk for certain health conditions (often diet-related)
  • People with or at high risk of food insecurity
Largest FIM Program

Can FIM programs be scaled?

PROVEN

Can FIM programs impact short and long term health outcomes?

PROVEN

**WIC: BUILDING A HEALTHY FOUNDATION**

What is WIC?

The Special Supplemental Nutrition Program for Women, Infants, and Children – also known as WIC – supports maternal and child health by providing nutritious supplemental foods, nutrition education, breastfeeding promotion and support, and referrals to important health care and other social services.
Theory of Change

- Identification of food insecurity by positive clinical screen
- Referral to FIM program
- Enrollment in FIM program
- Improved diet quality, food security, and satisfaction
- Improvement of health and utilization outcomes

- Data transfer between sectors (health care, CBO, & food vendor)
- Data tracking within the electronic health record
- CBO capacity to provide food how, when, where and at the price that healthcare desires
- Fragmentation of the ecosystem outside of healthcare
Clinical Screen for Food Insecurity

“On-Site” Programs
- Food pantry in clinic
- Mobile food distribution in clinic
- SNAP enrollment assistance

Community Programs
- MTM’s/MTG’s
- Food Pantry
- Produce Prescriptions

Federal Nutrition Programs
- SNAP
- WIC
- Numerous Others

MTM=Medically Tailored Meals
MTG=Medically Tailored Groceries
SNAP=Supplemental Nutrition Assistance Program

Spectrum of FIM Programs
From the perspective of health care

Food Is Medicine

Clinical Referral

= “food is medicine”
“CSA boxes” refers to delivery of foods directly from the farm to a household.
What do we know about the impact of FIM programs?
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<th>Weak Evidence</th>
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<th>Strong Evidence</th>
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MTM=Medically Tailored Meals
MTG=Medically Tailored Groceries
SNAP=Supplemental Nutrition Assistance Program
PPR=Produce Prescription Program
# Summary of Research

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- MTM’s: 10 studies, 2 RCT’s, 5 with a ctl group, & 5 with >100 ppts
- MTG’s: 12 studies, 3 with a ctl group, & 5 with >100 ppts
- PPP: 27 studies, 5 with a ctl group, & 8 with >100 ppts
## Table 1. Summary of review results: Food insecurity interventions

<table>
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<tr>
<th>Outcome</th>
<th>Referrals</th>
<th>Vouchers</th>
<th>Food*</th>
</tr>
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<tbody>
<tr>
<td>Resource use</td>
<td>Mixed (4)</td>
<td>Improved (3)</td>
<td>-</td>
</tr>
<tr>
<td>Food security status</td>
<td>Improved (2)</td>
<td>Improved (2)</td>
<td>Improved (1)</td>
</tr>
<tr>
<td>Health behaviors</td>
<td>Mixed (2)</td>
<td>Improved (5)</td>
<td>Improved (1)</td>
</tr>
<tr>
<td>Health</td>
<td>Mixed (1)</td>
<td>Mixed (3)</td>
<td>Mixed (2)</td>
</tr>
<tr>
<td>Cost/utilization</td>
<td>Mixed (1)</td>
<td>-</td>
<td>Mixed (1)</td>
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Numbers in parentheses indicate the number of studies that reported on each outcome.

1. Based on two studies of home-delivered meals, and one study of an intervention offering infant formula, nutrition educational materials, and referrals to social work, a medical-legal partnership, and food banks
2. Based on a study with a sample size 13 and a qualitative retrospective study so should be interpreted with caution
3. All five studies found improvements, although in one case only for fruit consumption and in another the improvements were not statistically significant

Why is the data so limited?
Evaluation Challenges

• Almost all programs reach a small number of people
  • Not suitable* for examining health outcomes, utilization, & cost

• Almost all programs offer a relatively small dose & duration
  • Not suitable* for examining health outcomes, utilization & cost

• Many programs are single-site
  • Limited applicability to the field as a whole

• Bottom line: You need a LOT of data to show an impact
  • Most programs have limited funds available for evaluation

* I would argue it is also not ethical

"This is really hard!"
Why is so much data needed to prove impact on health outcomes, utilization, & cost?

- Food security and nutrition programs are generally
  - Better at prevention than at treatment
  - Expected to have an impact over a long length of time
  - Proven by their SMALL effect on a LARGE number of people, rather than their LARGE effect on a SMALL number of people

- If you anticipate a SMALL effect, to show an impact you need
  - A lot of people
  - A long duration of “treatment”
  - A high “dose”
  - A long duration of observation
Modelling Studies Have Limitations but Can Fill in Some Gaps

Prescribing healthy food in Medicare/Medicaid is cost effective, could improve health outcomes

New study finds that health insurance coverage for healthy food could improve health, reduce healthcare costs, and be highly cost-effective after five years

**Medicare/Medicaid: Healthy food prescriptions**

- Insurance covers 30% of cost of eligible food
- $100 billion less in healthcare utilization over model population’s lifetime
- Cost-effective after 5 years

<table>
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<th>Benefit</th>
<th>Cost</th>
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<tr>
<td>Less diabetes</td>
<td>120 thousand cases prevented or postponed</td>
</tr>
<tr>
<td>Less cardiovascular disease</td>
<td>3.28 million cases prevented or postponed</td>
</tr>
<tr>
<td>As or more cost-effective than many currently covered medical treatments</td>
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For more information, see “Cost-effectiveness of financial incentives for improving diet through Medicare and Medicaid: A microsimulation study” by Lee et al. (2019). https://doi.org/10.1371/journal.pmed.1002781

Gerald J. and Dorothy R. Friedman School of Nutrition Science and Policy at Tufts University
Where are the opportunities?
Opportunities for the Field
Access to Large Amounts of Data

- Shared metrics across numerous programs
  - eg GusNIP Produce Prescription Programs
- Large health systems with a single electronic health record
  - VA, Indian Health Service, other integrated health systems
- Health insurers
  - Claims data
Opportunities for Individual Programs

Nutritious Diet → Better Health
Increased FV Intake → Better Health
Food Security → Better Health

THIS IS PROVEN ALREADY

Controversy Alert!
This will happen if:
• Implemented at scale
• Dose and duration are sufficient
Opportunities for Individual Programs: Shared Metrics


Shared metrics → pooled data → More participants
More sites

- Food security
- FV intake
- SNAP participation
- Program satisfaction
- Health status
- Basic demographics

https://www.nutritionincentivehub.org/resources/resources/reporting-evaluation/core-metrics-produce-prescription/participant-level-metrics
Opportunities for Individual Programs: Implementation Science

Pillar 2

Integrating nutrition and health

#WHConfHungerHealth
Key Plans to Support Pillar 2

- Expands “food is medicine” programs in Medicare, Medicaid, the VA, and the IHS, including medically tailored meals and produce prescriptions
- Universal screening for food insecurity in federal healthcare systems and incentivizes payors to screen for food insecurity and other SDOH
- Supports data infrastructure for food insecurity and other SDOH screenings
- Increases nutrition training for clinicians
Breakout Rooms
Purpose: To connect with experts aligned with your potential career trajectory

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Announcements

Please fill out the session evaluation after today’s session.

- You should be directed to fill it out after the call ends OR you may scan the QR code on the right.

Join us for the next session of the speaker series!

- Wednesday, July 10 from 4:00 - 5:00 PM ET
- Title: Leveraging Food service Contracts at 4-year Public Universities to Understand Meal Plan Costs and Affordability

To view the recording or learn more about the series: [https://nopren.ucsf.edu/her-nopren-summer-speaker-series-students-2024](https://nopren.ucsf.edu/her-nopren-summer-speaker-series-students-2024)