



The Importance of Investing in Food Security for Title V: Partnering with the MCH Nutrition Training Programs

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Objectives

- Describe what food insecurity is and how it affects MCH populations
- Identify measures to assess food insecurity and utilize these in State needs assessments
- Employ MCH Nutrition training grant resources and partners to support systems approaches to address food insecurity and reduce health inequities

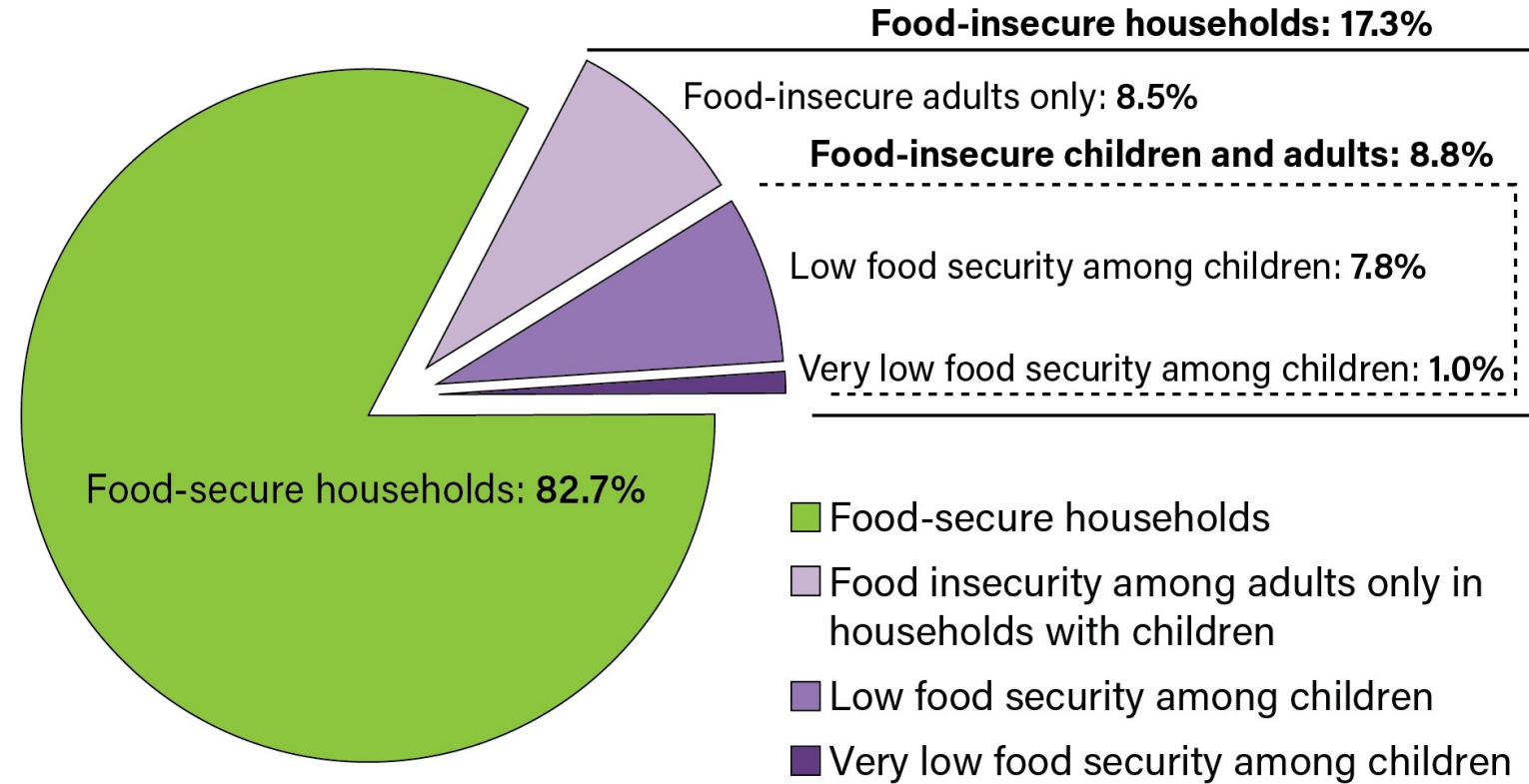
Food and Nutrition Security Definitions

Term	Keywords	Definition/Description
Food Security	access; availability; nutritionally adequate; safe	Access by all household members at all times to enough food for an active, healthy life. Food security includes at a minimum: The ready availability of nutritionally adequate and safe foods; Assured ability to acquire acceptable foods in socially acceptable ways. Source: USDA-ERS ; Date accessed: 10-29-2023.
Food and Nutrition Security	physical access to food; social access to food; economic access to food; safe food; sufficient quantity; sufficient quality; health equity; social determinants of health	Having reliable access to enough high-quality food to avoid hunger and stay healthy. Improving access to nutritious food supports overall health, reduces chronic diseases, and helps people avoid unnecessary health care. Source: HHS, CDC ; Date accessed: 10-29-2023.
Food Insecurity as a Social Determinant of Health	food insecurity; low food security; very low food security; nutrition security; food and nutrition security; social determinants of health	A household-level economic and social condition of limited or uncertain access to adequate food "that may be influenced by a number of factors, including income, employment, race/ethnicity, and disability." Source: HHS, HP2030 and HHS, HP2030 ; Date accessed: 12-27-2022.

Levels of Food Insecurity

- **Marginal Food Security:** Reports of anxiety over food sufficiency or shortage of food in the house. Little or no indication of changes in diets or food intake.
- **Low Food Security:** Reports of reduced quality, variety, or desirability of diet. Little or no indication of reduced food intake.
- **Very low Food Security:** Reports of multiple indications of disrupted eating patterns and reduced food intake.

U.S. households with children by food security status of adults and children, 2022



Note: In most instances, when children are food insecure, the adults in the household are also food insecure.

Source: USDA, Economic Research Service using data from U.S. Department of Commerce, Bureau of the Census, 2022 Current Population Survey Food Security Supplement.

Rates of Food Insecurity among Pregnant Low-Income Women (< 400% of FPL)

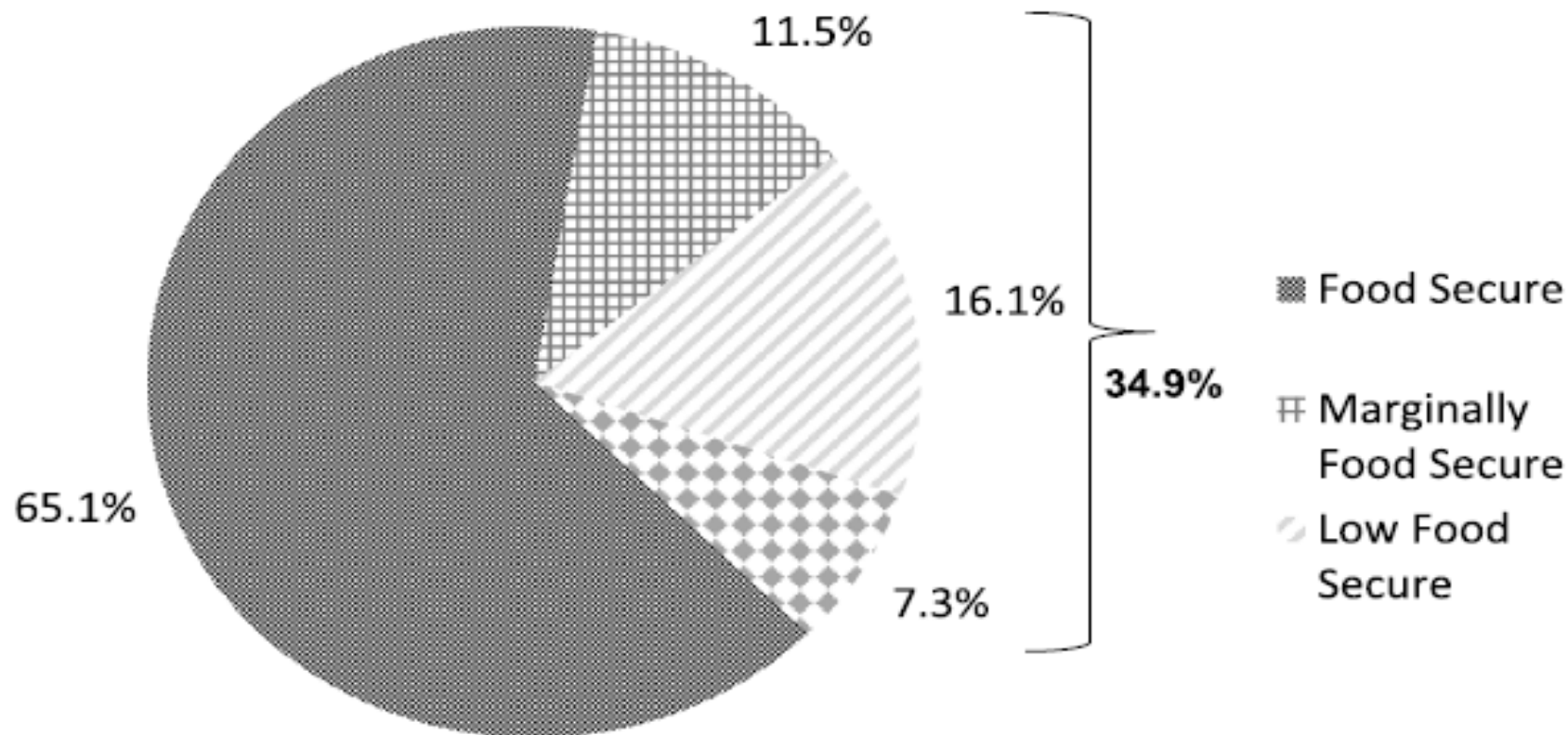
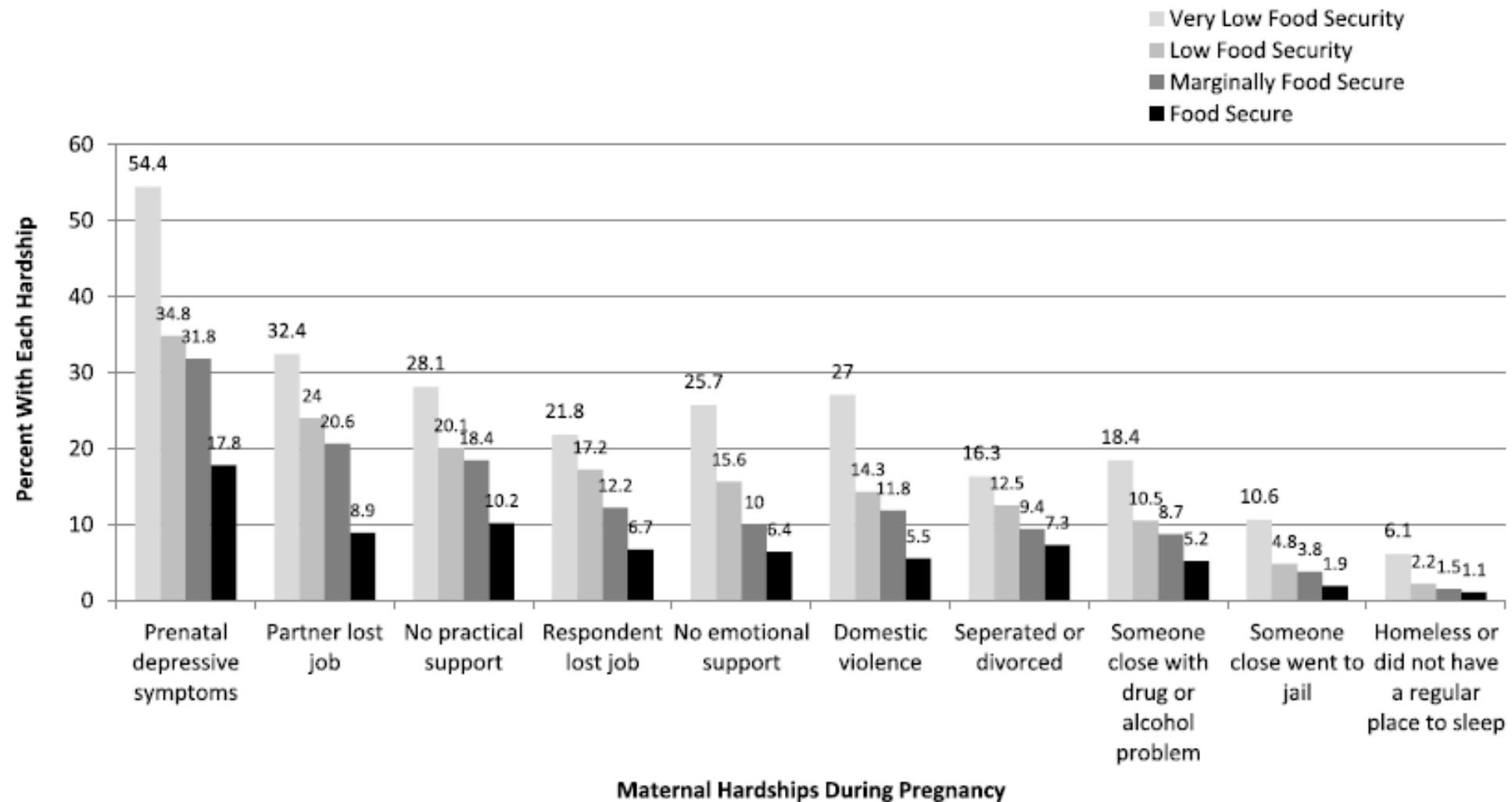


Fig. 1 Prevalence of food insecurity among pregnant women in MIHA with household incomes \leq 400% of the Federal Poverty Guidelines ($n = 15,779$)

Percent of Women with Household Incomes < 400% FPL in CA Experiencing Serious Hardship during Pregnancy by Food Security Status (MIHA 2010-2012, n=14,274)



Maternal Health and Food Insecurity

Selected studies evaluating the effect of food insecurity in high-income countries on pregnancy outcomes

Study (author, year)	Population and sample	Key findings
Tipton et al, 2020 ¹⁶	Loyola University Medical Center in Chicago, IL (n=1001)	Residing within a food desert associated with pregnancy morbidity (aOR, 1.64; 95% CI, 1.18–2.29; $P<.004$)
Cheu et al, 2020 ²⁹	Northwestern Memorial Hospital in Chicago, IL (n=299)	Food insecurity associated with lower median GWG (9.2 kg [IQR, 7.5–14.1] vs 13.9 kg [IQR, 10.6–16.7]; $P<.001$)
Park and Eicher-Miller, 2014 ³⁰	National Health and Nutrition Examination Survey 1999–2010 (n=1045)	Food insecurity associated with high odds of iron deficiency during pregnancy (aOR, 2.90; 95% CI, 1.29–6.51; $P<.05$)
Tarasuk et al, 2020 ³¹	Ontario, Canada (n=1998)	Food insecurity during pregnancy was associated with postpartum mental health disorders (aRR, 1.86; 95% CI, 1.40–2.46)
Laraia et al, 2010 ³²	University of North Carolina Hospitals (n=810)	Food insecurity associated with prepregnancy obesity and higher GWG
Hromi-Fiedler et al, 2011 ³³	Hartford, CT (n=135)	Food insecurity associated with depressive symptoms during pregnancy among Latina women (aOR, 2.59; 95% CI, 1.03–6.52)

aOR, adjusted odds ratio; aRR, adjusted risk ratio; CI, confidence interval; GWG, gestational weight gain; IQR, interquartile range.

Source: Dolin CD, Compher CC, Oh JK, et al. Am J Obstet Gynecol MFM 2021;3:100378.



Children's Health and Food Insecurity

Food-insecure children are:

- Twice as likely to report being in fair or poor health with health issues such as cognitive problems, aggression, anxiety, depression, and oral health concerns
- 1.4 times more likely to have asthma
- 2-3 times increased odds of having anemia
- At higher risk for obesity
- More likely to experience increased annual healthcare costs

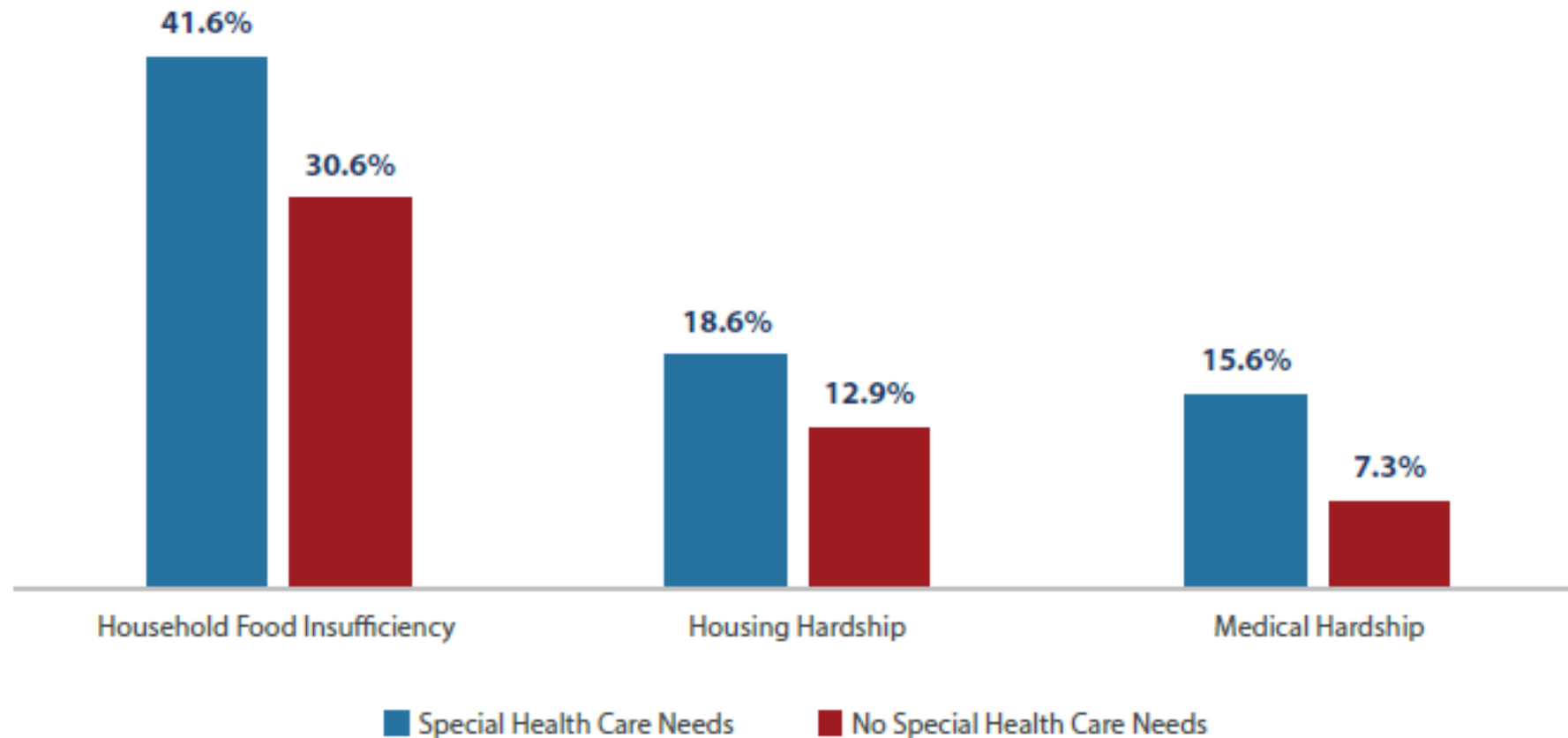
National Survey of Children's Health

Material Hardship Among Children, 2022

Data Brief | October 2023

Poverty and material hardship – the inability to afford basic needs like food, housing, and medical care – place children at risk of physical health problems, mental health and behavioral problems, and worse learning outcomes. This brief presents new data showing the percentage of children in the United States (US) who experience poverty and material hardships.

Proportion of children who experienced household food insufficiency, housing hardship, and medical hardship in the past 12 months, by special health care needs status, 2022



How is Food Security Measured?

How is Food Security Measured?

- The U.S. Food Security Survey Module (USFSSM) is used nationally to determine the prevalence of reported household FS and FI.
 - Further delineated into low FS and very FS.
 - Food security status also provided for households without children and households with children age 0-17.

Source: Economic Research Service. Food Security in the United States. <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/measurement/#measurement>.

How is Food Security Measured?

- The USFSSM consists of 10 survey questions for all households and an additional 8 questions for households with children.
- The questions cover a range of severity of conditions and behaviors that characterize FI .
- Households that affirm 3 items are classified as food insecure.
- Adult-only households that affirm 6 items, and households with children that affirm 8 items, are classified as very low food secure.

What is Food Insufficiency and How is it Measured?

- Food Insufficiency: households sometimes or often did not have enough to eat.
- Assessed with single question: “In the last 7 days, which of these statements best describes the food eaten in your household?”
 - Respondents are asked to choose one of these answers:
 - 1) Enough of the kinds of food (I/we) wanted to eat;
 - 2) Enough, but not always the kinds of food (I/we) wanted to eat;
 - 3) Sometimes not enough to eat;
 - 4) Often not enough to eat.”
- Responses of (3) or (4) are classified as food insufficient.



“Since no single intervention will ever be sufficient to address the epidemic of poor dietary intake, obesity and diabetes in the United States, we need to provide easy tools for researchers across the U.S. to be deploying, testing and refining various interventions and combinations of interventions.”

- **Dr. Hilary Seligman**, Expert Working Group Member

Measuring Nutrition Security and other Related Measures

Additional Food and Nutrition Security Measures

Household resilience: assesses factors associated with a household's ability to react to and handle household-level financial shocks that might otherwise lead to food insecurity

“Other Three Pillars”: assess perceived limited availability, utilization barriers, and food insecurity stability.

Nutrition Security and Related Measures: assess factors associated with the ability for a household to obtain foods that meet their nutritional and health needs, and dietary preferences, without resource limitations or worry.

Gretchen Swanson Center for Nutrition. <https://www.centerfornutrition.org/food-insecurity-measures>

Food Security Measurement in State Plans

State	Priority Needs	Example Strategies	Objectives	National and State PM
Washington, DC	Improving access to healthcare and healthful foods among children	<ul style="list-style-type: none"> • Provide free healthy foods to children and their families through pop up markets located in food insecure areas of the District • Collaborate with the DC Department of Small and Local Business Development to explore sustainability strategies, such as cooperative produce purchases among Healthy Corners vendors. 	Increase access to healthful foods for children living in food deserts.	SPM 2: Healthy Food Access- Percent children living in households that were food insecure at some point during the year.
Hawaii	Reduce food insecurity for pregnant women and infants through WIC program promotion and partnerships.	<ul style="list-style-type: none"> • Partner with agency and community programs to establish a working group that is committed to improving WIC utilization. • Identify key barriers to WIC benefit utilization and enrollments. • Develop recommendations for initiatives to pursue to improve WIC utilization. 	By 2025, increase the total number of WIC participants in Hawaii to 30,000.	SPM 2: Reduce the rate of food insecurity for pregnant women and infants through WIC Program services.

NEW FOOD SECURITY RESOURCES!

- Database of Food Security Practices & Programs
- Title V Food Security Snapshots
- Highlights from AMCHP's projects & partnerships
- Additional resources from our partners

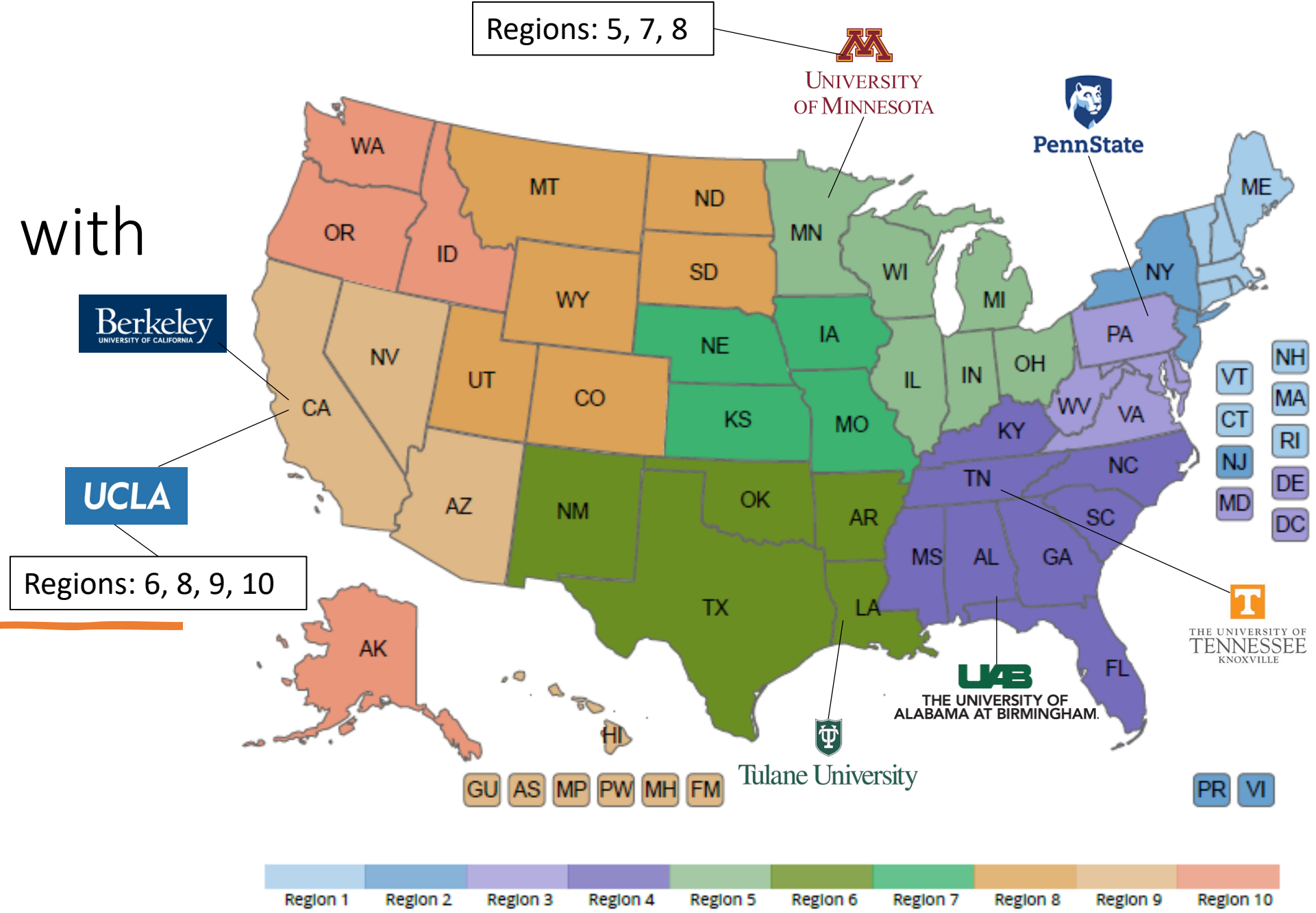


bit.ly/AMCHPFoodSecurity 



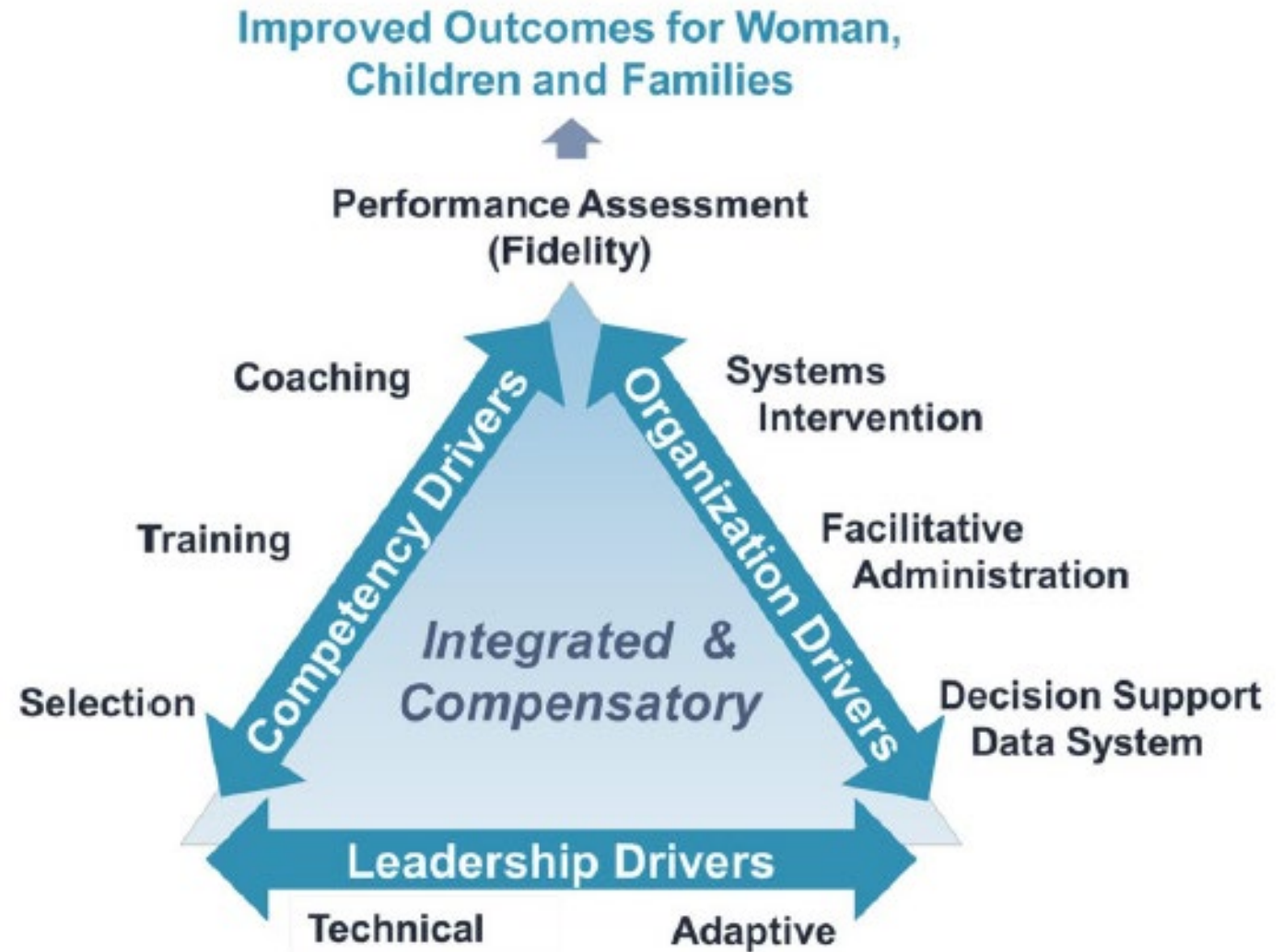
Partnering with the MCH Nutrition Training Programs

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MCH Workforce Development Training & Technical Assistance Implementation Drivers Framework

Oscar Fleming W, Apostolico A, Mullenix A, Starr K, Margolis L. Putting implementation science into practice: Lessons from the creation of the National Maternal and Child Health Workforce Development Center. *Matern Child Health J.* 2019; 23:722-732. <https://doi.org/10.1007/s10995-018-02697-x>





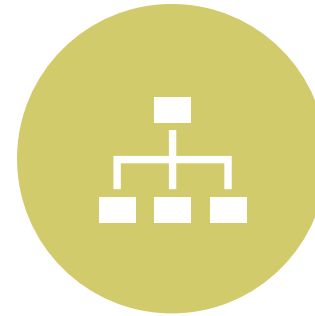
TA EXAMPLE: THE CHILDHOOD OBESITY ENHANCEMENT PROJECT



WESTERN MCH NUTRITION LEADERSHIP NETWORK



The Western Partners MCH Nutrition Leadership Network (NLN) members are state and regional Title V and public health nutrition leaders from the 13 Western states, including Hawaii, Alaska and Inter-tribal Councils.



The NLN began in 1999 and has State members in Regions: VI, VII, VIII, IX, and X.



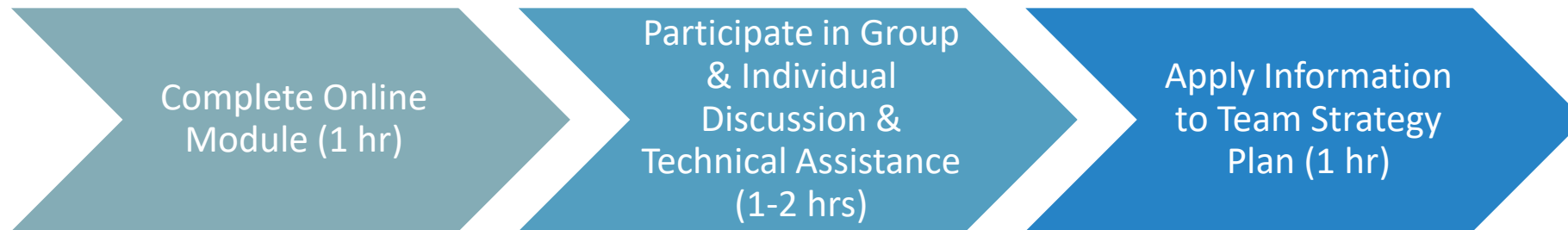
NLN Purpose: provide leadership training for nutritionists in leadership positions, as well as networking, promoting CE , and supporting TA and opportunities for collaborative learning to strengthen the practice of public health nutrition across the western region.



The Western MCH Partners include nutrition faculty at the following universities: Colorado State University, Oregon Health Sciences University, and University of Hawaii, Manoa, University of Washington and collaboration with University of California at Berkeley.

Childhood Obesity Prevention Enhancement Project

- Scope: State health departments are charged with addressing childhood obesity, yet often lack resources, skills, and training needed to address multifactorial issues to reduce/prevent obesity at the systems level
- Aim: Provide comprehensive I+PSE training to enhance the viability and sustainability of state program efforts to reduce childhood obesity
- Process: Provide I+PSE training and TA for 4 western state MCH nutrition teams that result in comprehensive, tailored strategic plans

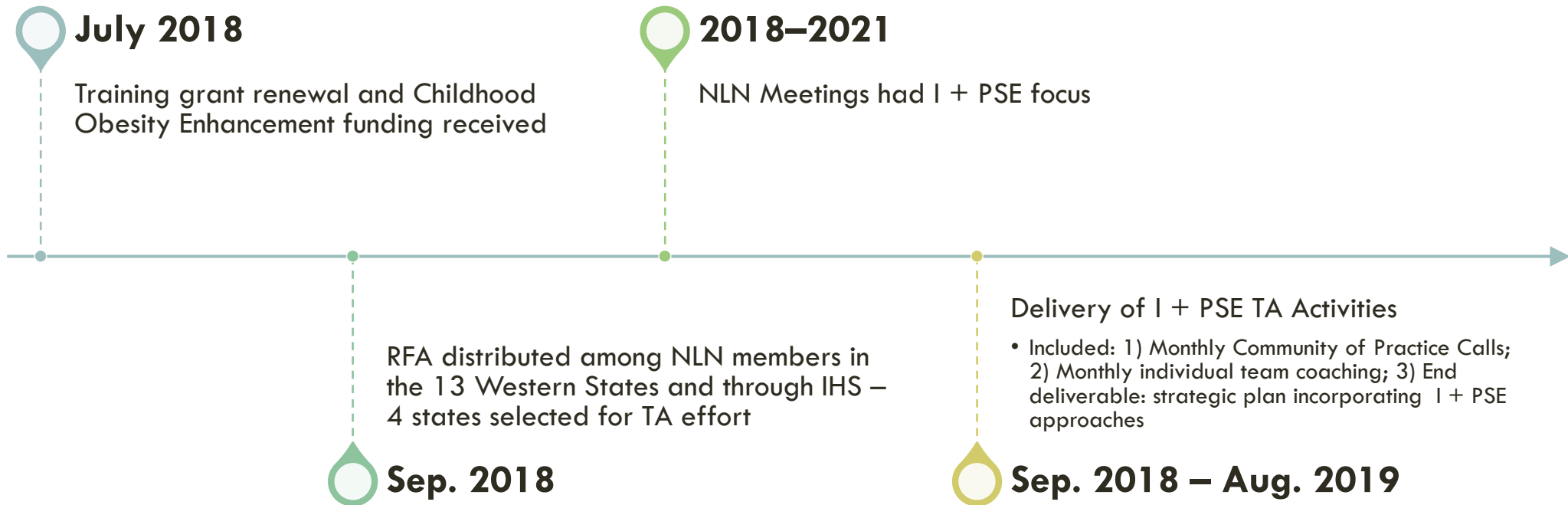


- Teams: California, Oregon, Washington, Winslow Indian Health Care Center (Arizona)


“I+PSE”

Individual	Direct Services - Evidence-based interventions directed to individuals and families that support increased knowledge and positive behavior change
Policy	Organizational & Community Policy – Changes to procedures or organizational practices Public Policy - Changes to or creation of laws, ordinances, resolutions, mandates, regulations or rules
Systems	Infrastructure & Operations - Changes to infrastructure that impacts all elements of an organization, institution, or framework <i>*Result of individual, policy PLUS environmental changes</i>
Environment	Built Environment - Modifications to physical spaces and settings in organizations, institutions, or public areas Natural Environments – Changes to ecological resources, landscapes and ecosystems that impact soil, water, energy, climate, biodiversity, and energy

TIMELINE OF ACTIVITIES

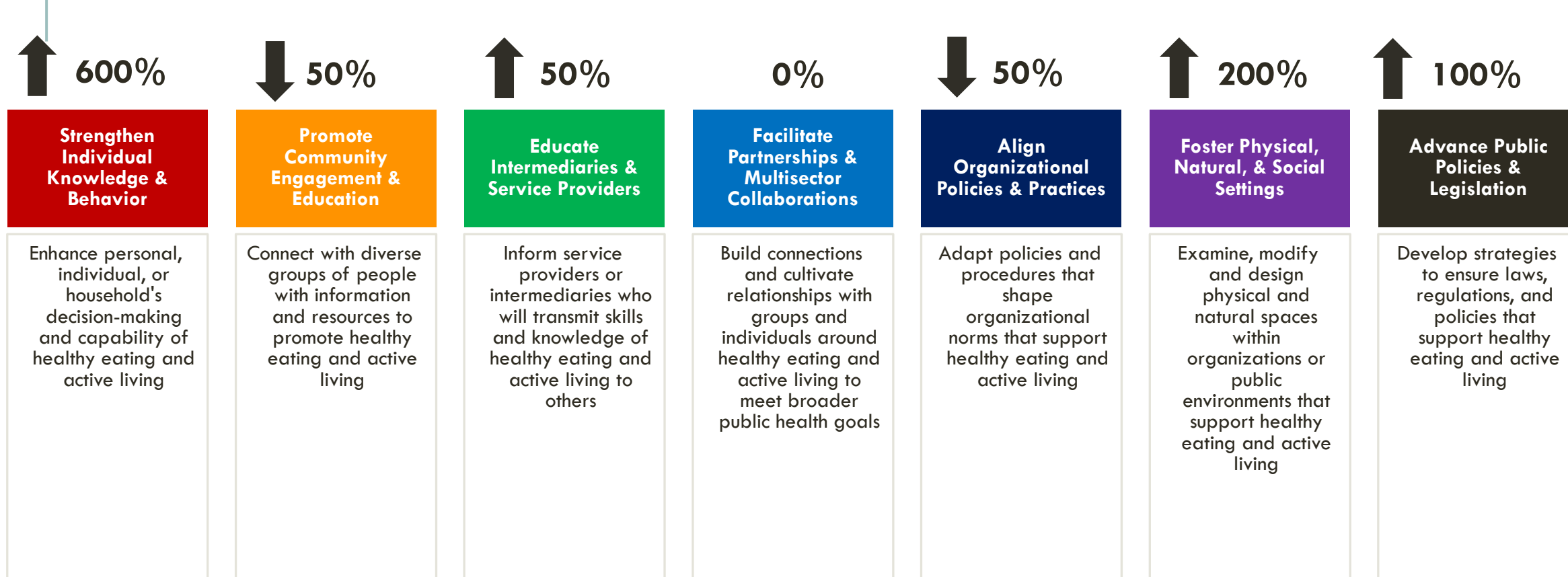


OUTCOMES: RELATIONSHIP INTEGRATION FROM MIDPOINT TO ENDPOINT OF THE TA INITIATIVE

Relationship Type	Communication (1)	Contribution (2)	Coordination (3)	Cooperation (4)	Collaboration (5)
					
Function	Dialogue and common understanding. Clearinghouse for information. Explore common and conflicting interests.	Mutual exchanges to support each other's efforts. Build mutual obligation and trust.	Match and coordinate needs, resources, and activities. Limit duplication of services. Adjust current activities for more efficient and effective results.	Link resources to help parties achieve joint goals. Discover shared interests. Build trust by working together.	Develop shared vision. Build interdependent system to address issues and opportunities. Share resources.
Example	Network, Roundtable	Support each other's efforts	Taskforce, Council, Alliance	Partnership, Consortium, Coalition	Interdependent system with shared resources
Midpoint %(n)	30.7% (12)	17.9% (7)	28.2% (11)	10.2% (4)	12.8% (5)
Endpoint %(n)	0% (0)	35% (7)	15% (3)	30% (6)	20% (4)

USING THE I+PSE CONCEPTUAL FRAMEWORK FOR ACTION* TO SUPPORT HEALTHY EATING AND ACTIVE LIVING:

ACTIVITY COMPLETION FROM INITIAL TO FINAL ACTION PLANS**



* Tagtow A, Herman D, Cunningham-Sabo L. Next-Generation Solutions to Address Adaptive Challenges in Dietetics Practice: The I+PSE Conceptual Framework for Action. *J Acad Nutr Diet.* 2022;122(1):15-24. <https://doi.org/10.1016/j.jand.2021.01.018>

** Herman DR, Blom A, Tagtow A, Cunningham-Sabo L. Implementation of an Individual + Policy, System, and Environmental (I + PSE) Technical Assistance Initiative to Increase Capacity of MCH Nutrition Strategic Planning. *Matern Child Health J.* 2022;26(Suppl 1):216-228. doi:10.1007/s10995-022-03435-0



Emerging Practice
**Individual + Policy, Systems
and Environmental
Approaches Technical
Assistance**



CHILDHOOD OBESITY ENHANCEMENT BY THE NUMBERS

This TA project that included 4 states using the
I + PSE Conceptual Framework for Action
accomplished the following in 15 months...

PRESENTATIONS

12!

5 NLN meetings, 4 scientific
meetings, 3 webinars



PRODUCTS & CE

14!

3 manuscripts in high impact journals
6 peer-reviewed abstracts - 3 by trainees
5 CE events &
2 short courses developed (CEUs offered)



PARTNERSHIPS

231!

78% increase new relationships
66% increase new organizational
partners

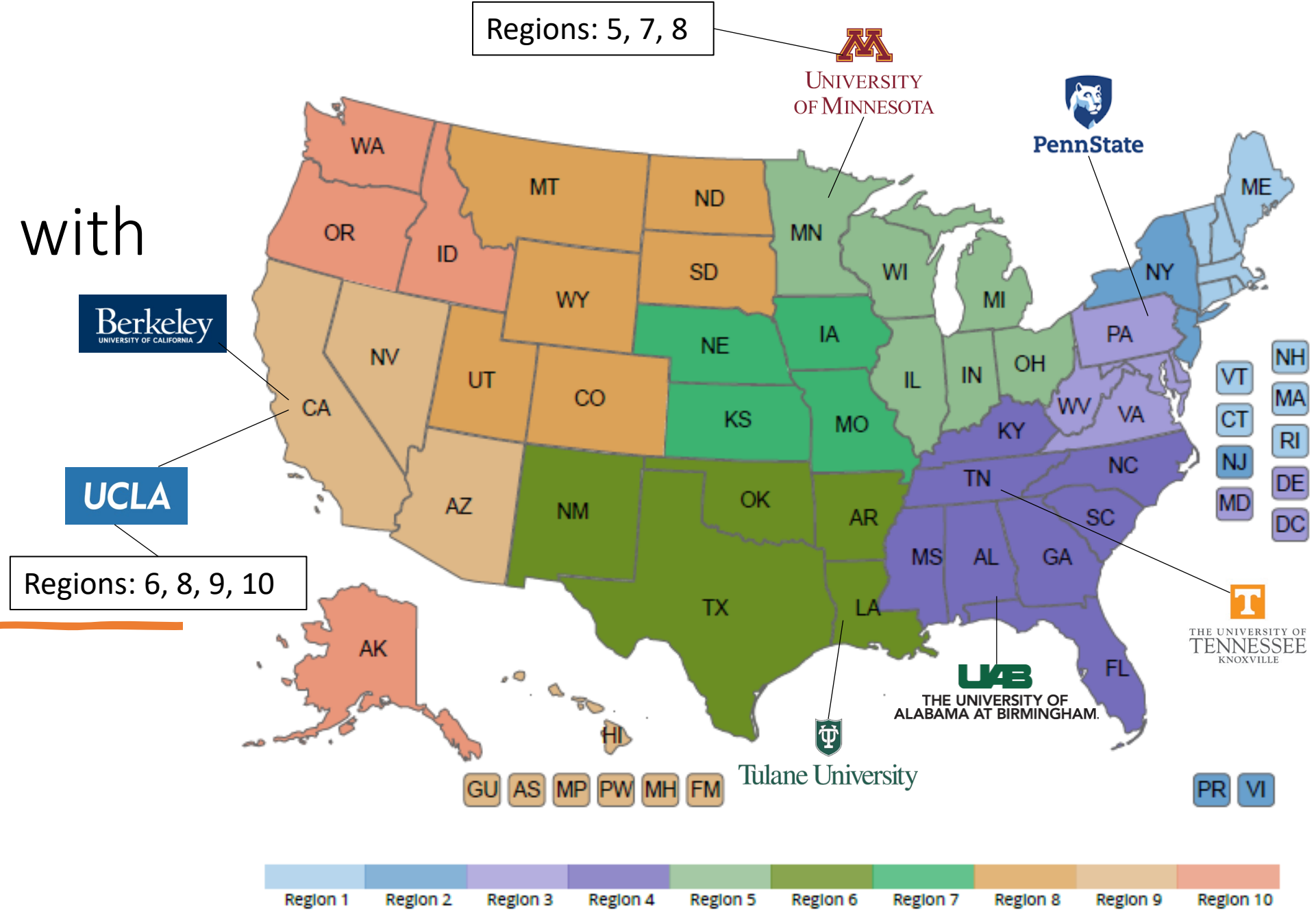


I+PSE Conceptual Model



A Short Course in
**System Approaches to Healthy Eating & Active Living
Using the I+PSE Conceptual Framework for Action**
UCLA Fielding School of Public Health
Maternal and Child Health Nutrition Leadership Network

Partnering with the MCH Nutrition Training Programs



Partnering with the MCH Nutrition Training Grantees

Program Name	Program Goals	What Can Offer States	Contact
Pennsylvania State University	Graduate nutrition training, Pathways for undergraduates into MCH nutrition careers CE, TA.	Conducting analyses on research questions created by state and local partners to address agency needs for which partners do not have internal capacity (time + resources) to address. Support grant writing, strategic planning, and other TA.	Meg Bruening Director Email: mmb203@psu.edu
University of Tennessee	Graduate-level MCH nutr. ed. & training, collab. w/Title V & other MCH-related agencies MCH nutrition WFD thru TA, collab., & CE. Prepares RDNs for leadership in Title V & other PH programs, research &/or academia. Use culturally appropriate, family-centered approaches & evidenced-based pxs to decrease health disparities.	Provide TA, consultation, and collaborative assistance w/quality improvement, community nutrition implementation& dissemination science, evaluation, community assessment, & intercultural competence development.	Marsha Spence Director Email: mspence@utk.edu

Partnering with the MCH Nutrition Training Grantees

Program Name	Program Goals	What Can Offer States	Contact
<p>University of California, Los Angeles</p> <p>(Faculty partners: UW, Colorado State University, Oregon Health Sciences University, and University of Hawaii, Manoa).</p>	<p>Workforce development focused on mentoring PH nutritionists from diverse backgrounds with rigorous training in PH and MCH nutrition; and 2) Providing on-going professional development of PH nutrition leaders via an active and responsive program of CE/TA.</p>	<p>Offer WFD CE:1) Annual conference focusing on cutting edge MCH nutrition & policy, topics, networking & leadership training; 2) Online short course training in I + PSE focused with MCH focus. TA: As a faculty consortium of 5 universities in the Western States we have broad expertise in working with diverse populations including Hawaiian natives. Also offer development of nutrition education materials, data analysis, program planning, and evaluation w/food systems focus.</p>	<p>Dena Herman Email: dherman@ucla.edu</p>
<p>University of California, Berkeley</p>	<p>Focus on leadership, research, policy and food systems.</p>	<p>Assist with data analysis, program planning, program evaluation, & development of nutrition education materials.</p>	<p>Carol Hui or Elsa Esparza Email: phnprogram@berkeley.edu</p>

Partnering with the MCH Nutrition Training Grantees

Program Name	Program Goals	What Can Offer States	Contact
University of Minnesota	Development of the current & future MCH nutrition workforce through graduate education, CE and TA.	Long history of working in PSE change strategies. The Systems Approaches to Healthy Communities training through UMN Extension developed by 2 former trainees. Partner closely with Extension to provide TA to state and local agencies around PSE approaches to MCH nutrition, childhood obesity prevention, school nutrition interventions and workforce training.	Jamie Stang Director Email: stang002@umn.edu
Tulane University	Expand & strengthen MCH nutrition workforce to improve nutritional health of women, infants, children, youth, and families in Louisiana and U.S.	Incorporate food security assessment & analysis through consultation, TA, & staff training. Bring food systems approach to programming to address nutrition problems of MCH population.	Keelia O'Malley Associate Director Email: komalley@tulane.edu

Partnering with the MCH Nutrition Training Grantees

Program Name	Program Goals	What Can Offer States	Contact
University of Alabama, Birmingham	Enhance nutritional status of mothers, children & families through training future & current MCH nutrition professionals to provide care in diverse clinical, community and PH settings, considering SDOH & prioritizing health equity.	Trainees receive clinically-focused nutrition training w/focus on direct patient care, specialized training in pediatric populations & their families, who have a variety of nutrition-related challenges (e.g. eating disorders, malnutrition, overweight/obesity). Trainees acquire skills working with CYSHCN & are involved in community education, classes for pregnant women w/obesity & nutrition education for youth, incl. youth with mental health disorders.	Aida Miles Director Email: aidamiles@uabmc.edu

Resources for Partnering with the MCH Nutrition Training Programs



Thank
you!



Let's Accelerate Upstream Together....

Questions
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