

**Written Statement of Dr. Steven Chen, M.D.  
Chief Medical Officer  
ALL IN Alameda County  
Before the  
House Rules Committee  
United States House of Representatives  
“Ending Hunger in America: Food as Medicine”  
September 1, 2021**

Chair McGovern, Ranking Member Cole, and distinguished members of the Committee, thank you for the opportunity to address you today regarding Alameda County’s ALL IN Food as Medicine Program. My name is Dr. Steven Chen, I am a family medicine physician and the Chief Medical Officer of [ALL IN Alameda County](#) in California, where I lead a local Food as Medicine initiative called [Recipe4Health](#) which is an expansion of a pilot program I started at Hayward Wellness Center, a Federally Qualified Health Center (FQHC) in Hayward, California in 2015.

My story as a physician is not unique. I started medical school 26 years ago and can break up my story in three 8-year spans. I spent the first 8 years training to become a doctor. I received zero training on how to use “Food as Medicine” to help my patients. I spent the next 8 years trying to apply what I learned in residency to the front lines of day-to-day care of my immigrant patients in Oakland’s Chinatown. I saw the limitations of how we cared for our patients in time pressured one-on-one 15-minute visits. My patients wanted alternatives to taking a pill every day. They had many questions about using food to treat their conditions, for which I had few answers. Like many primary care doctors, I flirted with burn out, with frustration, with a sense of helplessness. So, I made a shift. I spent the next 8 years as a Medical Director designing different ways to care for patients, creating a Food as Medicine model that connected an urban farm to my clinic, seeing patients in group medical visits instead of 15-minute one-on-ones, integrating food insecurity screening into the electronic health record, and getting strong initial health outcome results. This early success led to the opportunity to replicate and strengthen this model across Alameda County and beyond.

In the following written testimony, I define a category of interventions collectively referred to as Food as Medicine; describe Alameda County’s Food as Medicine model called Recipe4Health; review Recipe4Health patient outcomes; and conclude with a discussion of challenges and opportunities as we look to expansion and long-term sustainability of Food as Medicine, which has the potential to lower healthcare costs and improve population health.

### **Food as Medicine**

Food as Medicine is based on the idea that we should think about food as a type of medicine that can prevent, treat, and reverse disease to improve overall health. Using food in a clinical setting helps the healthcare system address food and nutrition insecurity, chronic disease, racial and health equity, and the intersections between them. A landmark 2018 study demonstrated that an unhealthy diet is the leading cause of death in the United States, surpassing tobacco use, high blood pressure, and obesity, and causing more than half a million deaths per year in the United States.<sup>1</sup>

Whereas unhealthy diet is the leading cause of mortality in the United States<sup>2</sup>, healthy food can improve health outcomes<sup>3,4,5,6</sup> and reduce healthcare costs,<sup>7,8,9</sup> two important healthcare system goals. Individuals consume approximately 100 bites a day, which equates to about 2,000 pounds of food a year. If healthcare systems are able to influence the food people eat, and the food system around them, we would see health outcomes improve and our food economy change. Chronic disease causes suffering and costs society money that could be spent elsewhere. Currently 133 million Americans are affected by chronic diseases,<sup>10</sup> and 86% of United States healthcare costs are spent treating patients with those diseases.<sup>11</sup>

Further, there are intersections between, chronic disease and food insecurity; food insecurity increases the rate of diabetes by 200%.<sup>12</sup> The [Alameda County Community Food Bank](#) found that for the households they serve, 20% include at least one person with diabetes and 39% include someone with high blood pressure.<sup>13</sup> Finally, we know that food insecurity and chronic disease disproportionately impact low-income communities of color. In Alameda County, as across the country, there are clear racial and ethnic inequities in food insecurity: 25%<sup>14</sup> of those reporting food insecurity in the County were African-American (though they represent 10% of the County population) and 30% were Hispanic (though they represent 23% of the County population).<sup>15,16</sup> Furthermore, we know that this high-level data can hide inequities within populations: local neighborhood research found 61% food insecurity within the indigenous Guatemalan Mayan community compared to 39% within the broader LatinX population.<sup>17</sup>

### **ALL IN Alameda County**

In 2014, on the 50<sup>th</sup> Anniversary of President Johnson's War on Poverty, Alameda County Supervisor Wilma Chan, who has led forward looking health policy in government for over 25 years, launched ALL IN Alameda County (ALL IN) through a Board of Supervisors resolution to address issues of poverty across the county. Within four years, ALL IN transitioned from a community initiative within Supervisor Chan's office to a formal business unit within the County Administrator's Office.

ALL IN actively collaborates with community members and leaders, county agencies, industry, and community-based organizations on issues such as food insecurity, community engagement and empowerment, workforce and economic development, school readiness, and ensuring children, youth, and families have adequate supports for equitable and sustained health and wellbeing. Since 2015, ALL IN has raised over \$5.1 million in philanthropic and governmental funding to implement strategies addressing issues of poverty.

More information about ALL IN is available in the [ALL IN Alameda County 2021-2024 Strategic Plan](#).

## **Recipe4Health Origin Story**

Recipe4Health, grew out of a combination of two earlier Food as Medicine programs, one starting in January 2015 at Hayward Wellness under Dr. Steven Chen and another started by the late Dr. Bertram Lubin, pediatrician and former Chief Executive Officer of [University of California, San Francisco \(UCSF\) Benioff Children's Hospital Oakland](#), following a visit to the Boston Medical Center. Dr. Lubin was excited by what he saw in Massachusetts, including an onsite Preventative Food Pantry to provide fresh produce and other healthy food to those patients who were food insecure and with medical conditions that would benefit from an ongoing healthy diet. As a result, he immediately asked his hospital's Center for Community Health and Engagement (now the [Center for Child & Community Health](#)) to research how Children's Hospital Oakland could launch a similar program.

In 2015, Dr. Lubin partnered with Alameda County Supervisor Wilma Chan to fund a study to evaluate the outcomes of providing weekly produce boxes also known as community supported agriculture (CSA) boxes to patients with diabetes and related health conditions. Simultaneously, and coincidentally, Dr. Chen was working with his team to build an on-site Food Farmacy and Behavioral Pharmacy Group Medical visits to support clinicians to address food/nutrition insecurity and chronic disease. This was the beginning of Food as Medicine programs in Alameda County, which have also included pop-up monthly food farmacies at clinics in addition to the clinically integrated Recipe4Health model.

## **Recipe4Health Model**

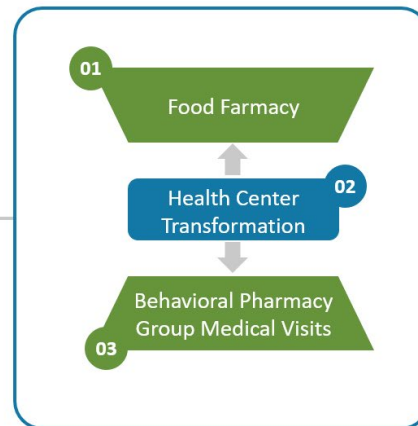
ALL IN Alameda County's Recipe4Health initiative is an integrative model for healthcare that addresses the social determinants of health (specifically food insecurity and social isolation) and chronic disease. This model advances health and racial equity by transforming the healthcare system's capacity to increase access to and utilization of affordable, nutrient-rich, whole medically supportive food<sup>18</sup> and to provide ongoing behavioral change support to improve the health of individuals, families, and communities. Alameda County's FQHC network of clinics serve over 280,000 patients with over 1.57 million visits per year.<sup>19</sup> The majority of those patients (89%) are people of color.<sup>20</sup>

Recipe4Health integrates with the circular food economy<sup>21</sup> by sourcing food from local farms that use regenerative growing practices, meaning they improve soil health, human health, and planetary health with an equity lens. Through clinically integrated sites, Recipe4Health works to address food and nutrition security and treat, prevent, and reverse chronic disease, which has been shown to reduce emergency department visits,<sup>22</sup> hospitalizations,<sup>23</sup> and medication usage.<sup>24</sup>

## Circular Food Economy



## Recipe4Health



The clinically integrated Recipe4Health model builds three important pieces of innovative infrastructure with clinics:

**1. Food Farmacy:** Where a traditional prescription is filled at a pharmacy, Recipe4Health's produce prescriptions are filled by a "food farmacy" or farm stand typically physically located in the clinic. Healthcare staff refer food/nutrition insecure and/or patients with a diet-sensitive chronic condition for a free 16-week prescription of fresh produce, with each week's dose including approximately 16 servings of vegetables. The food has a value of \$10/bag and has been provided through delivery to patients' doorsteps since the start of the COVID-19 pandemic. Delivery has increased the amount of produce going directly to individuals, regardless of transportation or mobility.



Sample bag of food provided weekly through the Food Farmacy (16 servings)

The prescription is "filled" by the [Alameda County Deputy Sheriffs' Activities League's](#) social enterprise [Dig Deep Farms](#), an urban farm utilizing regenerative practices to fortify the soil and grow nutrient-dense food. Further benefiting the community, Dig Deep Farms creates green economy jobs for formerly incarcerated or returning citizens to work as "farmacists," farmers, and delivery drivers.



Dig Deep Farm's urban agriculture provides the vegetables for the Food Farmacy

*"I really like the vegetables. They're consistent, and they've helped me to make a change in the things that I eat and what I keep at home." – Previous Recipe4Health Patient*

**2. Behavioral Pharmacy:** Group medical visits (GMV) bring together patients with various medical conditions to “move, nourish, connect, and be” through weekly visits that include physical activity, healthy meals and nutrition education, social connection, and stress reduction. This four-month “Behavioral Pharmacy” group medical visit program teaches patients how to make fruits and vegetables a regular part of their diet. GMVs meet once a week to learn about smart shopping, cooking skills, movement, mindfulness, and more. All GMV patients receive a produce prescription, and sessions include nutrition education based on produce distributed that week. Further the GMV is held in coordination with a clinic provider (e.g., MD or NP), to provide chronic disease management and address food insecurity.

The Behavioral Pharmacy Group GMVs are the result of a partnership between each community clinic and [Open Source Wellness](#), a local not-for-profit community based organization. The Behavioral Pharmacy GMVs are currently delivered virtually and occur weekly (approximately 48 weeks a year) per COVID-19 regulations. New patients can join monthly reducing the time between a patient’s referral and participation. Group size is ideally 12-24 patients per session, and the groups intentionally accept patients with different medical conditions ranging from diabetes to depression in one universal group. This is different than traditional single disease specific groups like a diabetes group or a hypertension group. The Open Source Wellness model is based on a proven behavior change model that capitalizes on the power of community.



Group Medical Visit patients engaging in physical activity together

*“When I leave the group [medical visit], it’s good. Like when a child is given a toy and goes out with that smile and joy, I feel the same as that child. You come out of the group with more energy and positivity. The group nourished your soul, gave you more strength, as if they tell you: You still have a lot to give; you come back to life.” – Previous Recipe4Health Patient*

**3. Provider Training:** Providers and healthcare staff receive state-of-the-art trainings on how to use “Food as Medicine.” ALL IN trains clinical teams at clinics on the latest science and develops their confidence to implement nutrition interventions in a clinical visit with diverse patients. Staff also receive training on implementing universal food insecurity screening, improving Supplemental Nutrition Assistance Program (SNAP) referrals (known as CalFresh in California), and referring to the Food Farmacy and/or the Behavioral Pharmacy.

In addition to these three components, Recipe4Health is part of a larger local systems change effort that includes farming, employment, and food recovery to promote wellness, improve food security, and address climate change referred to as the circular food economy.

Finally, ALL IN provides significant operational support for each clinic to launch Recipe4Health, ongoing capacity building, and planning towards sustainability. This includes, but is not limited to coordinating between the clinic, Dig Deep Farms (food source), and Open Source Wellness (behavioral health program); developing workflows in coordination with clinic teams; training new staff and GMV providers; identifying funding; working with clinics on partner agreements (e.g., Memorandum of Understanding) to ensure data sharing; and more.



## **Recipe4Health Funding**

Currently, Recipe4Health is funded through a combination of public and private funding. Federal funding from the [United States Department of Agriculture, National Institute of Food and Agriculture, Gus Schumacher Nutrition Incentive Program](#) supports the clinic food pharmacy and food prescription delivery, as well as the Behavioral Pharmacy, provider training, evaluation, and program operations. Recipe4Health receives local foundation/private funding from managed care health plan [Alameda Alliance for Health](#), the [Stupski Foundation](#), and the [Hellman Foundation](#) to support all key program elements including the Food Pharmacy, Behavioral Pharmacy, provider training, evaluation, and program operations. In addition, local funding from Alameda County supports personnel and program operations.

To support expansion of the Recipe4Health model, ALL IN leverages funding raised to cover the cost for participating clinics through the first year which includes food sourcing from Dig Deep Farms and Behavioral Pharmacy operations from Open Source Wellness. ALL IN's funding also covers the necessary staffing and operational support for training and technical assistance to participating clinics. ALL IN works with each clinic on lessons learned during that first year with the goal to create a longer-term plan for funding and sustainability.

## **Recipe4Health Population Served**

Recipe4Health currently operates in four Alameda County FQHCs which provide primary care services in underserved areas that are largely communities of color. Between January 2020 and July 2021, Recipe4Health clinics have provided produce to over 1,300 patients resulting in the provision of nearly 20,000 bags of vegetables (over 300,000 servings). The Behavioral Pharmacy has served 165 patients.

## **Recipe4Health Intervention Results**

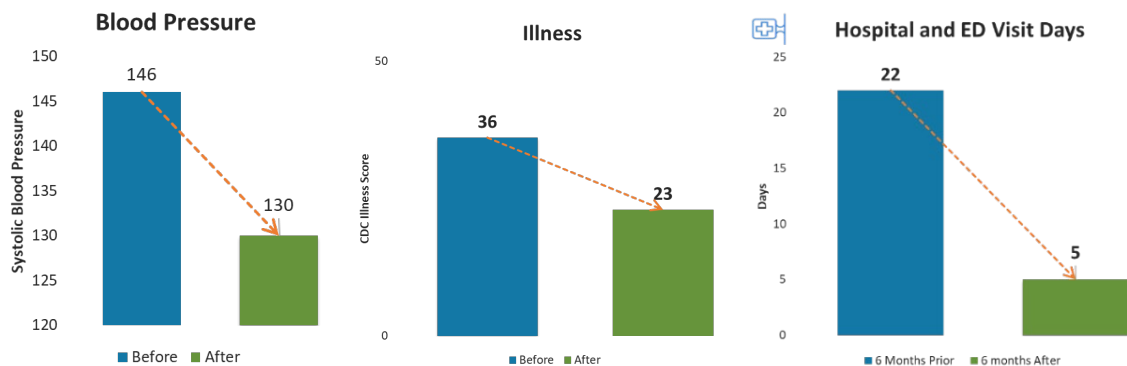
Recipe4Health's preliminary results are based on participants enrolled in the combined Behavioral Pharmacy GMV and Food Pharmacy and indicate improvements in health outcomes, mental health, health promoting behaviors, and food/nutrition security. The following data were collected during the pandemic when physical and mental health were worsening nationwide.

### **Physical Health Outcomes**

1. *Blood Pressure:* GMV patients (n=23; p<0.01) showed a 16-point reduction in systolic blood pressure.<sup>25</sup> A 20-point elevation in systolic blood pressure is associated with twice the risk of death from a heart attack or stroke.<sup>26</sup>

2. *Illness:* GMV patients reported decreased illness and improved overall health. Recipe4Health uses the standard 4-item set of Healthy Days core questions (CDC HRQOL- 4)<sup>27</sup> to capture self-reported physical and mental health (range of 0-90). Preliminary results (n=50; p<0.001) show a reduction of 13 points.

3. *Hospital and Emergency Department Visit Days:* Patients participating in the GMV (n=49) had 77% fewer hospital and emergency department (ED) visit days in the 6 months after participation in the GMV compared with 6 months prior (p=0.14),<sup>28</sup> as shown by the charts on the next page. Fewer hospital and ED visits results in cost savings for the healthcare system as well as improved quality of life for patients.

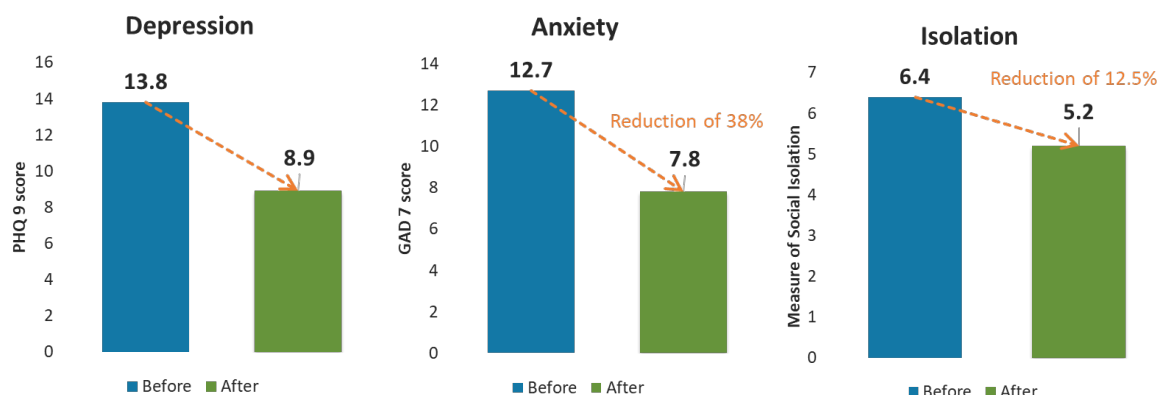


## Mental Health Outcomes

1. **Depression:** Patients participating in the GMVs showed a change from moderate depression to mild depression. Depression data represent a subsample of patients with elevated depression at baseline (n=22). Depression improved from pre-test to post-program participation, showing a reduction of 35% based on the Patient Health Questionnaire-9 (PHQ-9)<sup>29</sup> with scores reduced from 13.8 to 8.9 (p=0.01). The PHQ-9 has a range of 0-27, with 5, 10, 15, and 20 as cut points for mild, moderate, moderately severe, and severe depression.

2. **Anxiety:** Patients participating in the GMVs showed a change from moderate anxiety to mild anxiety. Anxiety outcomes represent a subsample of patients with elevated depression at baseline (n=19; same subsample as the depression analysis). Anxiety improved from pre-test to post-program participation, with a reduction of 38% on the Generalized Anxiety Disorder-7 (GAD-7)<sup>30</sup>, with scores reduced from 12.7 to 7.8 (p=0.01). The GAD-7 has a range of 0-21 with 5, 10, and 15 as cut points for mild, moderate, and severe anxiety.

3. **Social Isolation:** GMV patients saw a decrease in loneliness, despite dramatically increasing isolation and loneliness during the pandemic. Based on the UCLA 3-item loneliness screener,<sup>31</sup> social isolation (n=22) decreased 12.5% among GMV patients from 6.4 to 5.2 (screener ranges from 3-9) during a pandemic year mandating social distancing (p<0.01). Social isolation has an equivalent impact on mortality as smoking 15 cigarettes/day, and a greater impact than physical inactivity or obesity.<sup>32</sup>



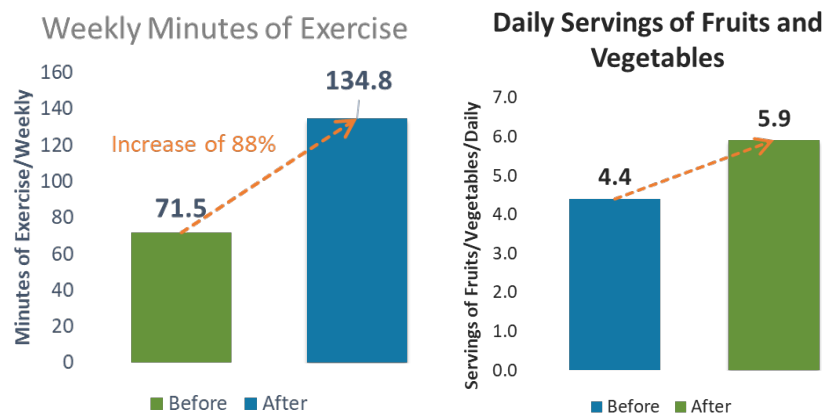
*“Well I felt like I wasn't alone, I wasn't the only one going through something. And it kind of uplifts your spirit hearing other people respond to what you say.” – Previous Recipe4Health Patient*

### Health-Promoting Behaviors

**1. Exercise/Physical Activity:** Weekly minutes of exercise increased among GMV patients from 71.5 minutes/week to 134.8 minutes/week (n=87; p<0.001) during a pandemic year which often was associated with decreases in exercise. Federal guidelines recommend 150 minutes of exercise per week,<sup>33</sup> which is associated with lower diabetes, hypertension, and incidence of cancer.

*My husband sees that I'm going to do Zumba, and I tell him: Let's do Zumba, come on everyone. And we do Zumba as a family and that's what I like.” – Previous Recipe4Health Patient*

**2. Fruit and Vegetable Consumption:** Based on a 2-item fruit and vegetable intake screening,<sup>34</sup> daily servings of fruits and vegetables increased by 25% among GMV patients (n=88) from 4.4 servings/day to 5.9 servings/day (p<0.001). An increase of 1 serving (1/2 cup) of fruit and vegetables per day decreases all-cause mortality by 5%<sup>35</sup> and could save 30,301 lives across the United States per year.<sup>36</sup>

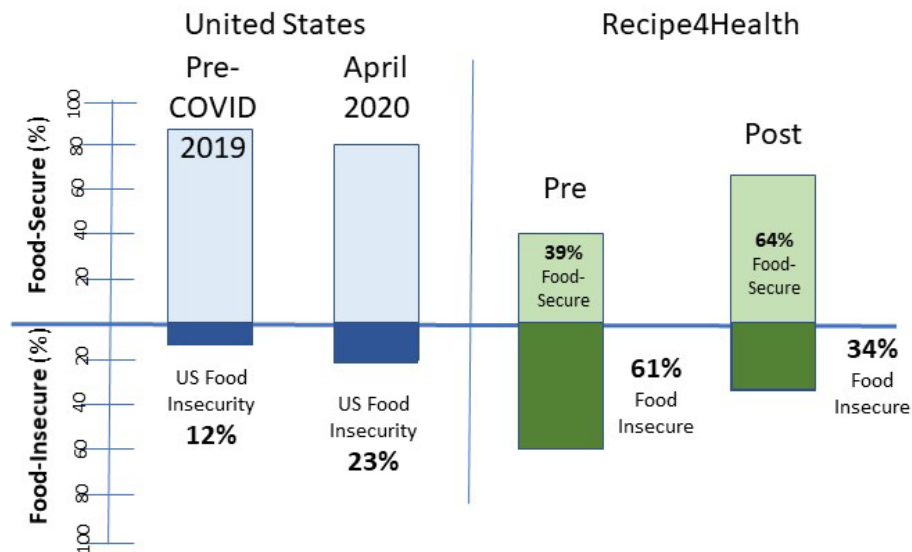


*“People who have never eaten vegetables in their life before, are now eating vegetables.” – Clinic-Based Recipe4Health Staff Person*

### Food Security

Food insecurity status decreased among GMV patients (n=88; p < 0.001) with reduction of 25%, from an initial 61% down to 34%,<sup>37</sup> as shown on the charts on the next page. This was significant given that the United States population as a whole experienced a doubling in overall food insecurity from 12% to 23% and tripling among households with children – the most vulnerable of all groups during this last pandemic year.<sup>38</sup>





*“Now eating well is not about money. The food is delivered here. I cook it up the same day it arrives, so we have the greens and carrots at every meal. Better food choices are available to me now.” – Previous Recipe4Health Patient*

### **Recipe4Health Case Study**

Mr. X is a 56-year-old Mexican-American man diagnosed with high blood pressure, diabetes, and who was morbidly obese. His doctor prescribed him a produce prescription through the Recipe4Health Food Farmacy. Each week, he received a bag of regeneratively grown vegetables, delivered to his home, along with a recipe on how to prepare the food. Mr. X’s doctor also prescribed the Behavioral Pharmacy Group Medical Visit to provide nutritional and behavioral coaching to strengthen the effect of the food prescription. Mr. X regularly attended the weekly Group Medical Visits.

By the end of his four months of participation in Recipe4Health, Mr. X increased his fruit and vegetable intake by 2 servings per day to 5 servings per day. This is likely to have long-term impacts on Mr. X’s health, by reducing his likelihood of mortality from any cause.<sup>39</sup> Further, his high blood pressure dropped 16 points, reducing his risk of heart attack or stroke. His diabetes, which had been poorly controlled, moved to prediabetic ranges. Finally, by the end of the program he went from a sedentary lifestyle to exercising 4.5 hours per week and lost 60 pounds.

As this case study demonstrates, produce prescriptions, plus nutritional and behavioral coaching has the potential to support improvement in a person’s health, well-being, and healthcare utilization.

### **Challenges and Opportunities**

**Federal Grant Funding** – In 2019, ALL IN received a 3-year \$507,258 produce prescription grant from the United States Department of Agriculture Gus Schumacher Nutrition Incentive Program (GusNIP). GusNIP allows grantees the opportunity to demonstrate and evaluate the impact of produce prescriptions and

of nutritional education opportunities on fruit and vegetable consumption, food insecurity, and healthcare usage and associated costs. Due to limited sources of funding for implementing Food as Medicine initiatives, federal grant programs such as GusNIP remain essential to support program costs, identify best practices nationally, and build organizational capacity.

**Public Insurance Innovations** – Following states like Massachusetts, North Carolina, and Oregon, California has recently taken an important step to integrate Food as Medicine into the healthcare system through the [state’s Medicaid waiver](#), which is currently pending approval by the Centers for Medicare & Medicaid Services (CMS). If approved by CMS, California managed care plans will have the option to offer medically supportive food and nutrition and other services that address basic needs which impact health outcomes “in lieu” of traditional healthcare services beginning January 2022. This includes a broad spectrum of interventions such as produce prescriptions, food pharmacies, healthy food boxes, and medically tailored meals. To secure the benefits of this spectrum of services, they must be fully integrated into the medical system from screening and referral through medical billing and invoicing. Transitioning Food as Medicine services beyond Medicaid waivers to fully covered reimbursable public health insurance benefits would impact many more lives.

**Circular Food Economy** – Recipe4Health integrates with Alameda County’s [circular food economy](#), also known as ALL IN Eats. ALL IN Eats is a public/private collaborative launched in 2020 to increase food security, reduce health disparities, promote environmental sustainability, and provide food entrepreneurship and living wage employment opportunities for vulnerable populations, including those who are formerly incarcerated. ALL IN Eats partners like Dig Deep Farms, grow the nutrient-dense food provided to Recipe4Health patients – the first part of the circular food economy. Building out a local food economy requires substantial up-front capital commitments for essential infrastructure such as the land on which to grow food, and food hubs which offer commercial kitchens, large-scale refrigeration, and space to process, aggregate, cook, and distribute meals, produce, and recovered food to the food insecure and/or those with chronic, diet-related diseases.



*ALL IN Eats van filled with recovered apples*

**Evaluation** – ALL IN has built a strong data management architecture in partnership with [Stanford University](#), the [University of California San Francisco](#), and the [Community Health Center Network](#) to conduct a robust evaluation of Recipe4Health. The evaluation will feature process and outcomes evaluations, using a rigorous mixed methods design (i.e., both qualitative and quantitative analyses) to examine program effectiveness and inform future implementation and dissemination. The process evaluation will document implementation and operations processes, challenges, and successes, and identify opportunities to improve future implementation. The outcome evaluation will examine effectiveness of Recipe4Health to increase fruit and vegetable consumption and on measures related to healthcare utilization and health outcomes. In addition to continuing prospective analyses such as this, there is an ongoing need for analyses evaluating the long-term health impacts, cost effectiveness, and cost savings of Food as Medicine interventions.

**Training and Capacity Building** – Despite increasing national recognition, food as medicine is still largely a new concept to many healthcare providers and clinic staff, not regularly covered in medical education programs. Further, implementing food/nutrition insecurity and other social determinants of health screenings in the exam room or the clinic is new for many clinicians and clinics. ALL IN has developed a robust training and capacity building technical assistance program to support successful implementation of the Recipe4Health model into healthcare settings. ALL IN provides evidence-based training on clinical nutrition topics including, but not limited to: eating patterns (e.g., Mediterranean, Whole Food Plant Based, Ketogenic, DASH, etc.), insulin resistance and inflammation as root causes for illness, food interventions specific to particular conditions (e.g., hypertension, chronic kidney disease, depression, etc.), organic vs. regenerative food vs. GMO foods, whole vs. refined grains, how to read food labels, and practical tools for use in a primary care setting. Further, ALL IN trains clinic staff, including Medical Assistants on how to administer food insecurity screenings. Further work and funding support is needed to better integrate Food as Medicine concepts into graduate and continuing medical provider education.

### **Partner/Funder Acknowledgement**

This work would not be possible without our programmatic partners listed below. Our partners have persisted through a global pandemic to deliver healthcare services and Food as Medicine initiatives to patients throughout Alameda County. We deeply extend our gratitude for the time and energy of clinic staff and healthcare leadership who work to implement Recipe4Health in their clinics. ALL IN also thanks the Recipe4Health evaluators, Alameda County agencies, funders, and policy partners.

- [Alameda County Board of Supervisors](#)
- [Alameda County Administrator's Office](#)
- [Alameda County Health Care Services Agency](#)
- [Alameda Alliance for Health](#)
- [Community Health Center Network](#)
- [Dig Deep Farms](#) and the [Alameda County Deputy Sheriffs' Activities League](#)
- [Open Source Wellness](#)
- [United States Department of Agriculture, National Institute of Food and Agriculture, Gus Schumacher Nutrition Incentive Program](#)
- [Hellman Foundation](#)
- [Stupski Foundation](#)
- [Stanford University](#), School of Medicine
- [University of California, San Francisco](#)
- [Medically-Supportive Food and Nutrition \(MSF&N\) Steering Committee](#)
- Current Recipe4Health Clinic Partners include:
  - [Tiburcio Vasquez Health Center](#)
  - [LifeLong Medical Care](#)
  - [Native American Health Center](#)
  - [Alameda Health System – Hayward Wellness Center](#)
- [Gretchen Swanson Center for Nutrition](#)

## Notes and References

- <sup>1</sup> The US Burden of Disease Collaborators. The State of US Health, 1990-2016: Burden of Diseases, Injuries, and Risk Factors Among US States. *JAMA*. 2018; 319(14):1444–1472.
- <sup>2</sup> The US Burden of Disease Collaborators. The State of US Health, 1990-2016: Burden of Diseases, Injuries, and Risk Factors Among US States. *JAMA*. 2018; 319(14):1444–1472.
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- <sup>12</sup> Tait CA, et al. The Association Between Food Insecurity and Incident Type 2 Diabetes in Canada: A Population-Based Cohort Study. *PloS One*. 2018; 13(5).
- <sup>13</sup> Alameda County Community Food Bank. Hunger by the Numbers. <https://www.accfb.org/impact/by-the-numbers/>. Published 2019. Accessed March 30, 2021.
- <sup>14</sup> The studies referenced here were based on 2010 Census data and will need to be updated based on current data.
- <sup>15</sup> Waxman E, et al. Unmet Charitable Food Need in Alameda County. Urban Institute. [https://www.urban.org/research/publication/unmet-charitable-food-need-alameda-county/view/full\\_report](https://www.urban.org/research/publication/unmet-charitable-food-need-alameda-county/view/full_report) Published 2019. Accessed August 30, 2021.
- <sup>16</sup> Healthy Alameda County. Summary Data for County: Alameda. <http://www.healthyalamedacounty.org/demographicdata>. Accessed March 30, 2021.
- <sup>17</sup> Sanando Juntos: Fruitvale. (2020). *Sanando Juntos, Unidos en Salud: Fruitvale Community COVID-19 Testing Event*. [PowerPoint Slide]. <https://unitedinhealthoakland.org/en/fruitvale>. Accessed August 30, 2021.
- <sup>18</sup> “Medically supportive food and nutrition” refers to a spectrum of interventions that provide nutrient-rich whole food, including any fruit, vegetable, legume, nut, seed, whole grain, low mercury/high omega 3 fatty acid seafood, and/or lean animal protein used for prevention, reversal, or management of certain health conditions. In Alameda County, we source our produce from local farms utilizing regenerative farming practices to ensure local, seasonal, and pesticide-free medicinal foods and improved soil health.
- <sup>19</sup> Rhodora Ursua, e-mail communication, September 30, 2020.
- <sup>20</sup> Rhodora Ursua, e-mail communication, September 30, 2020.
- <sup>21</sup> ALL IN Eats. Alameda County Circular Food Economy. July 2020. <https://allineats.com/all-in-eats-circular-economy-for-food-pathway-for-growth-lr/>. Accessed August 31, 2021
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