The Colorado
Food Is Medicine Summit

In partnership with:
Welcome

Michael S. Ramseier
*Colorado Regional President*,
Kaiser Permanente
Opening Address

Kim Bimestefer
Executive Director,
Colorado Department of Health Care Policy & Financing
Working collaboratively toward healthy eating - shared vision, pathway, partnership

Colorado Food is Medicine Summit
November 8, 2023

Kim Bimestefer
Executive Director, Dept of Health Care Policy & Financing
Governor’s Cabinet
Tremendous Opportunity - about half* of the top 10 causes of death in CO in 2022 are influenced or impacted by diet:

1. Cardiovascular disease*
2. Cancer*
3. Accidents
4. Chronic lower respiratory diseases*
5. COVID-19
6. Alzheimer’s Disease
7. Suicide
8. Chronic liver disease and cirrhosis*
9. Diabetes mellitus*
10. Kidney diseases*

Data reported by CDPHE Colorado Statewide Report, 2022
First driver of chronic diseases/conditions: An unhealthy diet is the leading cause of death in the US

The US Bureau of Disease Collaborators, 2018 (data from 1990 – 2016), JAMA

From Alameda County Recipe4Health. Presented 10/31/2023 by Steven Chen, MD, CMO
Oct. 2014, Dr. S.: "Two choices, Kim. You do things your way (food as medicine) or my way (meds)"

Oct. 2015, Dr. S.: "I don't know what you're doing, but keep doing it."
Consider how difficult the personal health journey is for each of us. Now, consider how much privilege we have. Challenge ourselves to mitigate health disparities to drive Food As Medicine for all Coloradans

40% of Coloradans say they’re “just getting by financially”

1 in 3 worried they may not always be able to afford food

Latino, Native American, and those with incomes under $50,000 especially concerned about food insecurity

1 in 10 skipped meals because they couldn’t afford food

45% of Medicaid clients report having skipped a meal

$11 grocery budget example

spoonuniversity.com/lifestyle/i-spent-only-11-on-groceries-for-8-days-eating-below-the-poverty-line

2023 Pulse Poll, The Colorado Health Foundation: www.copulsepoll.org
Struggle to access and afford healthy foods

- A significant # of residents are >1 mi (urban) or 10 mi (rural) from the nearest food store

- Food insecurity contributes to poor diets and increased health risks

- Green reflects low-income, low-access to food stores, a higher %-age of Medicaid/CHP+ enrollment

- Low-income, rural communities, marginalized groups are most impacted
It’s not just what ISN’T there (food insecurity/deserts). It’s what IS there.

Many of today’s unhealthy foods were brought to you by Big Tobacco

A new study suggests that tobacco companies, who were skilled at marketing cigarettes, used similar strategies to hook people on processed foods.

By Anahad O’Connor
September 10, 2023 at 6:00 a.m. EDT

Ultra-processed foods may be linked to increased risk of cancer

by Conrad Duncan
01 February 2023

- Liquor Stores
- Fast Food Chains
- Mini-Marts in gas stations
- Relentless advertising
- Addictive ingredients

Obesity increases the risk of disease development such as heart disease, stroke and type 2 diabetes.
WE can decide how to approach or tackle this, what to prioritize and focus on.

Here’s one example.
Here’s a 2nd example that includes state programs.

Another Option: Stakeholder Strengths/Focus by Tier

**Tier 1: Increasing basic access to food**
- Food Banks access points; unused restaurant/grocery store food going to foodbanks
- Public programs like SNAP, WIC, Colorado Ag provide access to local food
- Community programs like Meals on Wheels, Veterans meal programs, Project Angel Heart

**Tier 2: Education - Food as it propels good/poor health education**
- Employer/payer education campaigns; carrier/payer educational campaigns
- Healthy cooking, grocery shopping, reading label lessons
- Nutritious food and education for at-risk populations for developing chronic disease
- Health Assessments - determine risk as well as readiness to change (enables resource focus)
- CDPHE Education; SNAP Cooking Matters; School curriculum; hospital community benefit

**Tier 3: Driving behavior through policies, tools, payments/incentives**
- Value based payments rewarding providers for outcomes and member incentives to engage
- Drawing down fed dollars thru Medicaid to fund goals; covering food as medicine
- Prescriber Tool Phase II, including Social Health Information Exchange
Also need to think about WHO we want to focus on

- ALL Coloradans
- Older adults, 65+ years
- Children
- People with chronic conditions
- Low-income/Medicaid
- People experiencing homelessness
- Rural and Frontier
- People with disabilities
- Whatever we do, it needs to be culturally responsive
  - Latino/Hispanic
  - African American/Black
  - Native American/American Indian
  - New American cultures, etc.

Photo by Brooke Lark on Unsplash
Leverage what has already been built in Colorado

(Need to fully inventory)
Leverage what we have: Collective value of food bank visits nationwide may be as high as $28B annually based on a study at The Food Bank for Larimer County where each family served valued their visits at $600-1,000/year

- 5 food banks work with Feeding Colorado to serve statewide
- Plus partner programs at soup kitchens, food pantries, shelters, daycares, older adult and youth programs, and other organizations
- **123M pounds** of food distributed statewide in 2022
- Thank you to all of our food bank partners!

More info at: feedingcolorado.org
Passionate Community Engagement: ACCESS Community Health Centers making fresh foods accessible to Medicaid members

Peak Vista Community Centers - Southern Colorado
- Distributed a semi-load of fresh produce and food bags to families during back-to-school physicals
- In Aug, recovered ~23k lbs of fresh, perishable food and distributed to 1,900 community members

Clinica Family Health - Boulder/Broomfield region
- In Aug, distributed food to >300 families, incl. ~12k lbs of fresh food and produce
Pueblo Food Project offers 4 community gardens, 5 edible landscapes around Pueblo

One of those is the Ray Aguilera Community Garden Located at the St. Mary Corwin Hospital and open to the community

Residents can work in the garden and take food

20 garden beds provide fresh produce

“We hope to provide nearby residents with access to healthier food for them and their families”

Mike Cafasso, St. Mary-Corwin CEO
Highlighting Schools: Healthy food for all students

Denver Public Schools

- 61 schools participate in the Fresh Fruit and Vegetable Program where students are served a fresh fruit or vegetable snack 3 days/week
- 2 schools have Urban Farms: 2021-22 harvested >8,000 lbs of produce and served tomatoes, cucumbers and zucchini grown on the farms to schools across DPS

Boulder Valley School District

- 34 school gardens, 1 greenhouse in partnership Garden to Table, Growing Gardens and Big Green
- Students show more willingness to try new foods, esp. fruits and vegetables
Programs commonly through commercial carriers

NOTE: Medicaid has an opportunity

- Know Your Numbers health screenings and risk assessments to measure member “readiness to change” (all individuals - allows stratification)
- Wellness education to emphasize relationship between food choices and health
- Diabetes/cardiovascular disease management programs, including healthy eating (chronic disease, higher risk populations)
- Lifestyle management/coaching programs on healthy eating - personally tailored to each participant (at-risk populations)
- Impressive digital tools, workbooks, cultural competencies, member incentives - to drive engagement and results
- ACO value based payments create financial alignment between payers, patients and providers - rewards to improve health
Leveraging State Programs
Leveraging Medicaid Federal Funding Opportunity

Today, In Process, Tomorrow
Opportunity: Leverage and Enhance State Programs

● Drive awareness and better leverage state programs
  ○ State agencies working on 15+ programs to expand accessible, affordable healthy eating
    ■ SNAP participation may lower health care costs, increase use of primary care and preventative services. USDA ranked CO 8th most improved state at ensuring SNAP benefits reach most vulnerable

● New Opportunity: USDA awarded national contracts to provide earned income verification services for SNAP
  ○ Eliminates need to get pay stubs for many applicants
  ○ May also increase ex parte approvals for Medicaid

State programs:
  ● Community Local Food Access Program (CDA)
  ● Healthy School Meals for All (CDE)
  ● Everyday Eats (CDHS)
  ● SNAP (CDHS)
  ● Colorado Healthy Hospital Contract (CDPHE)
  ● WIC (CDPHE)
  ● Eat Well at CSU (CDHE)
  ● Home Delivered Meals Program (HCPF)
Medicaid - Vehicle to Address Emerging Nat’l Problems, Making It Ripe for Innovation

● Jan 2023: **93M** in Medicaid & CHIP (**>25% of pop**): 86M Medicaid, 7M CHP

● **Behavioral health investments** $1.23B, up **>$600M** since FY 2018-19
  ○ Supportive housing, wraparound services, crisis response, justice diversion

● **Interoperability** across other human services programs, to increase enrollment in other services

● **Expanding coverage and supports vulnerable populations**
  ○ Cover All Coloradans

● **Social determinants of health:** Health-related social needs, social supports, value based payments – **AND FOOD AS MEDICINE**
Leveraging Medicaid in Schools

Colorado Medicaid Direct Certification Demonstration Project

- Launched July 1, 2023. HB22-1202 and HB22-1414 both required Colorado Dept. of Education (CDE) to apply for participation in USDA’s Medicaid direct certification demonstration project. Healthy School Meals for All (HB22-1414) was approved by CO voters with a state income tax to help fund the program.

- Collaboration between CDE and HCPF: updated state systems enabled direct certification with Medicaid data eff. July 2023. Matched ~300k students with Medicaid in our 1st run!

- Allows school districts to use Medicaid data, in addition to other assistance program data, to auto approve children who qualify to receive free or reduced-price school meals, without an application. Est. 9,000 additional kids will be enrolled.

- CO already certifies households in SNAP, TANF, and the Migrant Education Program.
Phase I: OpiSafe (Jan 2021)
- Helps prescribers prevent misuse/abuse of opioids, benzos, controlled substances
- 5,250+ allocated licenses

Phase I: Affordability (June 2021)
- Shares real-time Rx benefit info, affordability hierarchy empowering prescribers to be part of solution
- 100% shared savings
- Better patient and provider service experience

Phase II: Patient Health Supports for Providers and Care/Case Managers “Programs, Not Just Pills” - In Process
- State programs like WIC (CDPHE), SNAP & TANF (CDHS), Housing Vouchers (DOLA)
- Medicaid & Commercial payer programs like: prenatal support, diabetes management, case management
- Social Determinants of Health supports, like food banks, housing vouchers (S-HIE)
- Awarded bid; Initial build begins fall/winter 2023

CO.gov/HCPF/prescriber-tool-project
Produce prescriptions

- Prescribed by healthcare providers to patients with or at risk for diet-related chronic diseases and/or food insecurity to increase access to produce
- Can be implemented as fruit and vegetable boxes, vouchers, etc.
- Research shows improved food insecurity, increased fruit and vegetable intake, and improved markers of disease risk (HgA1C, blood pressure, BMI, etc.)
Leveraging Medicaid in Colorado Communities

Home Delivered Meals Expansion - *in process*
- Nutritious meals delivered to homebound clients who are unable to prepare their own meals and have limited or no outside assistance
- Expands eligibility to adult HCBS waiver members for 30 days post-hospital discharge eff April 1, 2023 (R-9 FY22-23)
- Anticipates the reduction of hospital readmissions and improvement in the overall health and welfare of members

Accountable Care Collaborative Phase III (Eff July 2025)
- Enhanced care coordination and case management
- Member incentives to engage - how can we leverage incentives?
- Reward engagement in prenatal/diabetes programs, what else?
Leveraging Federal Opportunities

● **Opportunity: Align with Federal policy initiatives and research goals**
  ○ National Strategy on Hunger, Nutrition & Health
    ■ **2023 FIM initiative**: develop and implement fed strategy to unify and advance collective action in FIM space
    ■ Indian Health Service (IHS) **Produce Prescription Pilot Program** 2023: awarded $2.5M to address food insecurity, 5 tribes and tribal orgs received $500k ea for produce prescription programs

● **Section 1115 Waivers can be used to address food and nutrition access, including:**
  ○ Medically-tailored meals
  ○ Fruit and vegetables prescriptions and/or protein boxes
  ○ Nutrition counseling and education
  ○ Meals or pantry stocking

● **CO: conducting study using Medicaid dollars to support SDoH, incl food security, housing**
Consider Next Steps

Committee of leadership who can help:

- Determine strategic approach
- Determine who the focus is on
- Create reasonable goals
- Rally participation of key partners and encourage collaborative partnerships
- Monitor progress
- Continually assemble Colorado leadership
Partner together to achieve shared goals

This summit builds upon your existing programs and efforts as well as state and community programs, while leveraging our shared vision, passion, and strengths going forward to achieve shared goals.

Thank you for your continued collaborative partnership!
Food is Medicine in Practice

Owen Ryan
President and CEO,
Project Angel Heart

Erin Pulling
President and CEO,
Food Bank of the Rockies
Scan the QR code
or go to menti.com
Code 1336 0989

WiFi: TCCGuest
No password
Food Security
Access by all members of a household at all times to enough food for an active, healthy life

Nutrition Security
Consistent and equitable access to healthy, safe, and affordable foods that promote optimal health and well-being

Image Source: Tufts University, tuftsfoodismedicine.org and nature.com/articles/s41591-022-0202703 | Definition Source: USDA.gov
Pillar 1
Improve Food Access and Affordability

Pillar 2
Integrate Nutrition and Health

Pillar 3
Empower All Consumers to Make and Have Access to Healthy Choices

Pillar 4
Support Physical Activity for All

Pillar 5
Enhance Nutrition and Food Security Research
In Oregon, some people on Medicaid will soon get free meals. Here’s why

Six months of medically tailored meals can reduce medical costs by 10%. An increasing number of states are incorporating this approach into their programs.

U.S. Begins Allowing Medicaid Money to Be Spent on Food

Biden administration allows states to tap funds for nutrition to battle chronic diseases, improve health

By Stephanie Armour and Kristina Peterson
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

- Fruits
- Nuts/Seeds
- Vegetables
- Whole grains
- Seafood
- Plant oils

Insurance covers 30% of cost of eligible food

$100 billion

Less in healthcare utilization over model population’s lifetime

Cost-effective after 5 years

Less diabetes

120 thousand cases prevented or postponed

Less cardiovascular disease

3.28 million cases prevented or postponed

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.1002761

Common Sense & Modeling Studies Still Driving Much Momentum
Medicare Advantage Plan Offerings of Special Supplemental Benefits for the Chronically Ill and Beneficiary Enrollment in These Plans, 2020

<table>
<thead>
<tr>
<th>SSBG benefit category</th>
<th>Non-SNP</th>
<th>SNP</th>
<th>Total MA plans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of plans</td>
<td>Total plan enrollment</td>
<td>Percent of total MA enrollment</td>
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<tr>
<td>Complementary therapies</td>
<td>1</td>
<td>32,150</td>
<td>0%</td>
</tr>
<tr>
<td>Food and produce</td>
<td>61</td>
<td>514,735</td>
<td>0%</td>
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<tr>
<td>Indoor air quality equipment and services</td>
<td>42</td>
<td>196,730</td>
<td>16%</td>
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<tr>
<td>Meals**</td>
<td>39</td>
<td>800,575</td>
<td>16%</td>
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<tr>
<td>Pest control</td>
<td>80</td>
<td>508,582</td>
<td>3%</td>
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<tr>
<td>Social services **</td>
<td>90</td>
<td>357,793</td>
<td>2%</td>
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<tr>
<td>Supportive **</td>
<td>16</td>
<td>100,384</td>
<td>4%</td>
</tr>
<tr>
<td>Transportation for Non-Medical needs</td>
<td>20</td>
<td>132,198</td>
<td>1%</td>
</tr>
<tr>
<td>Structural home modifications</td>
<td>37</td>
<td>76,295</td>
<td>1%</td>
</tr>
<tr>
<td>Transitional/Temporary supports</td>
<td>45</td>
<td>181,068</td>
<td>2%</td>
</tr>
<tr>
<td>Transportation for nonmedical needs</td>
<td>53</td>
<td>194,295</td>
<td>14%</td>
</tr>
</tbody>
</table>

Share of Medicare Advantage Enrollees in Plans with Special Supplemental Benefits for the Chronically Ill (SSBCI), by Benefit and Plan Type, 2022

<table>
<thead>
<tr>
<th>Benefit Area</th>
<th>Individual Plans (n=18.7 million)</th>
<th>Special Needs Plans (n=4.6 million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food and Produce</td>
<td>9.0%</td>
<td>Special Needs Plans</td>
</tr>
<tr>
<td>Meals (beyond limited basis)</td>
<td>7.9%</td>
<td>20.5%</td>
</tr>
<tr>
<td>Transportation for Non-Medical needs</td>
<td>6.4%</td>
<td>18.9%</td>
</tr>
<tr>
<td>General Supports for Living</td>
<td>4.2%</td>
<td>16.6%</td>
</tr>
<tr>
<td>Indoor Air Quality Equipment and Services</td>
<td>2.7%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Social Needs Benefit</td>
<td>2.7%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Services Supporting Self-Direction</td>
<td>2.6%</td>
<td>8.7%</td>
</tr>
<tr>
<td>Structural Home Modifications</td>
<td>0.6%</td>
<td>1.2%</td>
</tr>
</tbody>
</table>

NOTE: Some plans may offer variations of the same plan, but with different SSBG benefits, so shares enrolled may be slight overestimates of actual enrollment. Social needs include access to community or plan-sponsored programs and events, such as non-fee-for-service club memberships, community or social events, and park passes. Indoor air quality equipment and services may include temporary or portable air conditioning units, humidifiers, or dehumidifiers. General supports for living, such as housing, may include services provided to help low-income enrollees pay their rent or utility bills. Supportive self-direction may include services to assist in the establishment of decision-making authority for healthcare needs (e.g., power of attorney for health services) and may provide education such as financial literacy classes. Individual plans are open for general enrollment and exclude employer group health plans and SNPs.

SOURCE: KFF analysis of CMS Landscape and benefit files for 2022.
About Food Bank of the Rockies
Our Service Area

- We are one of 5 food banks working together to serve every county in the State of Colorado

- Four distribution centers serving 32 Colorado counties and all of Wyoming

- Largest geographic area
- server of all 200 Feeding America food banks in the contiguous United States
How We Help

Food Bank of the Rockies works to ensure that anyone who needs it gets the nourishing food they need to thrive.

Generous Supporters Fuel Everything We Do

Where Food Comes From

Sorting and Packing Food for our Neighbors

WHEREVER HUNGER RISES, SO CAN WE.
Fiscal Year 2023

These numbers illustrate the sustained high need for food and innovative support.

Clients Served: 367,685

- 21% of people served were children.

Meal Equivalent for Pounds Distributed: 66,277,085

- Meals distributed on average per day: 181,500

Total Pounds of Food Distributed: 81,992,270

- Percentage of pounds distributed that was fresh produce: 31%

Service Area Covered: 150,000 square miles

- Largest food bank distribution area in the contiguous U.S.

Volunteer Hours Logged: 112,967

- The equivalent of 64 full-time employees.

WHEREVER HUNGER RISES, SO CAN WE.

Our Annual Impact
Where We Fit in the Charitable Food Ecosystem

- 800 Hunger Relief Partners
- 78 Monthly Mobile Pantries
- Kids' Meals
- Evergreen (Older Adult) Food Boxes
- SNAP Enrollment

Wherever hunger rises, so can we.
The Feeding America Network

200 food banks + 60,000 food pantries and meal programs

Surplus food → Local food banks → 60,000 meal programs → 1 in 7 Americans served
Our clients

28% Kidney Disease
26% COPD
25% Cancer
24% Congestive heart failure
11% Protein calorie malnutrition

90% 60+ years old
50% Male / 50% Female
80% at or below 200% FPL
30% have no internet access

A majority of our clients seek referrals to other providers addressing SDOH, particularly rent / utility assistance and transportation. For clients that screen with food insecurity, we also have a referral partnership with Hunger Free Colorado.
5 diet groups
- Kidney-friendly
- Heart healthy
- Unseasoned
- Allergen friendly
- Vegetarian
- Additional modifications

Nutrition Support
- 1 on 1 counseling
- peer support groups
- cooking demonstrations & guides

Weekly Delivery
- 85% of clients receive 7 frozen entrees, 2 servings of fruit, 3 dairy, bread and a small dessert.
- 15% of clients receive 7 additional breakfast items (currently offered to patients with BMI loss or PLHIV.)
Home-delivered Meals

- Delivering to 29 out of 30 of Colorado's most populous municipalities
- Approximately 2,300 sq mi of volunteer-led delivery
- Tripled delivery area since 2020
Health Care Partnership Programs and Partners

Conceptual Model: How FIM programs typically work

- Identification of food insecurity by positive clinical screen
- Referral to someone in HC setting who can connect pt to a program
- Enrollment in FIM program
- Improved diet quality, food security, and clinical satisfaction
- Improvement of health and utilization outcomes

If this is how things typically work, where do we fit in?

Source: H. Seligman, 2023
Health Care Partnership Programs and Partners

Conceptual Model: How FIM programs typically work

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We support screening. Our programs focus on patients with a focus on Food Insecurity + Chronic Condition

We provide heart healthy, diabetic friendly, and nutritionally focused foods, including fresh produce

Our goal is to reduce barriers and increase access to nutritious foods that can help improve the health and well-being of our neighbors

Source: H. Seligman, 2023
Food Insecurity Interventions in Health Care Settings
A Review of the Evidence

Figure 1. Number of studies by type of intervention (n=29)

- 29 Unique Studies
- 17 Food Referrals
  - 7 Passive
  - 10 Active
- 9 Produce Vouchers
  - Vouchers or Incentives to Use at Farmers Markets
- 6 Food Provisions
  - 4 Onsite Distribution
  - 2 Home Meal Delivery

Table 1. Summary of review results: Food insecurity interventions

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Referrals</td>
<td>Vouchers</td>
</tr>
<tr>
<td>Resource use</td>
<td>Mixed (4)</td>
</tr>
<tr>
<td>Food security status</td>
<td>Mixed (2)</td>
</tr>
<tr>
<td>Health behaviors</td>
<td>Mixed (1)</td>
</tr>
<tr>
<td>Health</td>
<td>Mixed (1)</td>
</tr>
<tr>
<td>Cost/utilization</td>
<td>Mixed (1)</td>
</tr>
</tbody>
</table>

Numbers in parentheses indicate the number of studies that reported on each outcome.
* Based on two studies of home-delivered meals, and one study of an intervention offering infant formula, nutritional educational materials, and referrals to social work, a medical legal partnership, and food banks.
† Based on a study with a sample size 13 and a qualitative retrospective so should be interpreted with caution.
* All five studies found improvements, although in one case only for fruit consumption and in another the improvements were not statistically significant.

Health Care Partnership Programs and Partners
Health Care Partnership Programs and Partners

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Clients are referred by their social worker, clinical case manager, provider, or self-refer

Medically appropriate diet is determined at intake by PAH case managers in coordination with clinical provider

Length of service determined by partner contact

Source: H. Seligman, 2023
Regional Accountable Entity (RAE) Regions in AAC Phase Two

- Region 1: Rocky Mountain Health Plans
- Region 2: Northeast Health Partners
- Region 3: Colorado Access
- Region 4: Health Colorado Inc
- Region 5: Colorado Access
- Region 6: Colorado Community Health
- Region 7: Colorado Community Health Alliance

WHEREVER HUNGER RISES, SO CAN WE.
Looking Forward

- Build on collective learnings and leverage existing evidence
- Align on shared goals and build partnerships
- Lean into our core competencies
- Pursue scale and impact
Thank you!

Owen Ryan
President & CEO
Project Angel Heart
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Erin Pulling
President & CEO
Food Bank of the Rockies
Epulling@foodbankrockies.org
The Role of Food is Medicine in Improving Health Care

FACILITATOR:
Sara Schmitt
President and CEO, Colorado Health Institute

PANELISTS:
Bob Belknapp
Executive Director, Public Health Institute at Denver Health

Jim Garcia
CEO/Founder, Tepeyac Community Health Center

Dr. Wendolyn S. Gozansky, MD, MPH
Vice President and Chief Quality Officer, Kaiser Permanente

Annie Lee
President and CEO, Colorado Access

Krista Newton
Director, Care Coordination, Physician Health Partners
Lunch Address

Michelle Barnes
Interim Behavioral Health Commissioner and Executive Director, Colorado Department of Human Services
Expanding Access to Food is Medicine for All Coloradans

FACILITATOR:
Owen Ryan
President and CEO, Project Angel Heart

PANELLISTS:
Giselle Díaz Campagna
Executive Director, GrowHaus

Shannon Francis
Executive Director, Spirit of the Sun

Sarah Hoerle
HCBS Unit Supervisor, Colorado Department of Health Care Policy & Financing

Patience Kabwasa
Executive Director, Food to Power

Lynnette Namba, MPH
Senior Community Health Specialist, Housing Lead, Kaiser Permanente
SPIRIT OF THE SUN

An Indigenous womxn-led nonprofit located on the land of the Tséstho’e, hinono’eino’ biito’owu’, Núu-aŋha-tʉvʉ̀-pʉ, and Očhéthi Šakówiŋ, as well as 48+ other tribes sacred land, working to empower Native communities, one youth at a time.
SOTS Mycelium Healing Project
Agenda

Part 1: Introduction
Part 2: Why Mycelium?
Part 3: How it's innovative
Part 4: Timeline
Part 5: Conclusion
Introduction

The Mycelium Healing Project (MHP) highlights the Northeast Denver Metropolitan area where constituents are primarily made up of marginalized communities facing devastating air pollution, as well as water and soil contamination. This project will provide education and community engagement to support communities in the beginning steps of environmental justice work. Marginalized communities have been neglected and abused by major corporations and MHP will empower community members to become agents of change. The Mycelium Healing Project educates communities about the healing and restorative powers of mycelium via online and in-person workshops.
Introduction cont.

This project anticipates mitigating harmful pollutants in the soil, water, and air through the use of mycelium, which is the underground network that creates mushrooms above the soil. By ‘planting the water’ and mycelium, we will grow local ecosystems to sequester carbon and metabolize pollutants before they leach out into the atmosphere and watersheds.

Additionally, we will ensure the stewardship of Indigenous plants and bugs to the affected lands to promote food sovereignty and Indigenous education.
The Issue

- Major corporations are responsible for drastically degrading the health in lower income communities in Colorado.
- Suncor specifically is responsible for lowering the quality of the air, soil, and water in disenfranchised communities due to the pollution they emit. Some of the harmful pollutants emitted include benzene, hydrogen cyanide, and hydrogen sulfide.
- Our focus is on the community that is around a two-mile radius surrounding Suncor, specifically known as Tier 1.
What is Mycelium?

Mycelium are the unseen parts of mushrooms, long threads hidden beneath the forest floor that serve as “roots” for mushrooms.
Mycelium can be a natural healing remedy that allows the earth to heal itself in a closed-loop cycle.

Why Mycelium?

- The knowledge and cultivation of mycelium will improve our health and the health of ecosystems while driving economic growth for our communities.

- The main goal is to reduce carbon emissions through accessible, efficient and sustainable methods.
Here is why our project is innovative.

Through the use of Mycelium, Spirit of the Sun is taking a new eco-friendly route to address the air, land, and water pollution in the Metro Denver area. Our project focuses on healing the community from the soil up.

I.
The use of Mycelium as a soil regeneration system is not a common practice in Colorado and we hope to shed some light on this clean way of restoring the land.

II.
We use a highly adaptive organism, mycelium, to mitigate contamination of soil, water, and air, to “plant water” to mitigate climate change. It has been recognized that most carbon-sequestering takes place at the level of the soil.

III.
Studies suggest that symbiotic fungi can store up to 70% more carbon in the soil and over 90% of plants on earth have a symbiotic relationship with fungi (so even spaces that are deserted and filled with what we may consider weeds). Some also note that fungal mycelium is the largest repository of biological carbon in soil.
Youth leaders work together to co-create with Elders of the Commerce City community, our first community-based Youth and Elder-led Mycelium Healing Project public training this Spring 2023 to build mother patches, inoculate in the tier 1 suncor zone and start the mycoremediation/bioremediation process on a larger scale!
## Timeline

<table>
<thead>
<tr>
<th>January - March</th>
<th>April - July</th>
<th>August - December</th>
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</thead>
<tbody>
<tr>
<td>Develop curriculum report</td>
<td>Monthly Check-ins</td>
<td>Progress</td>
</tr>
<tr>
<td>Develop Soil Test &amp; Tracking Sheet</td>
<td>Soil Testing &amp; Tracking</td>
<td>Soil Testing &amp; Tracking</td>
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<tr>
<td>Spread Biomass/Mother patch patch</td>
<td>Spread Biomass/mother patch</td>
<td>Spread Biomass/mother patch</td>
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<tr>
<td>Bi-Weekly Check-ins</td>
<td>Document Changes</td>
<td>Community</td>
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<td>Training</td>
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<tr>
<td>Community Training</td>
<td>Progress Update</td>
<td>Collect Data</td>
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<tr>
<td>Control Testing</td>
<td>Collect Data</td>
<td>Present</td>
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<tr>
<td>Results</td>
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</tbody>
</table>
Conclusion

This project looks at mycelium’s ability to capture carbon at deeper substrates of soil, the focus for evaluation will be based on the soil itself.

Evaluation for this project will be done through a soil measuring strategy that captures the natural variation in soil carbon.

<table>
<thead>
<tr>
<th>Highlight 1</th>
<th>The mycelium project will highlight the extreme damage that Suncore has done in the Metro Denver area.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highlight 2</td>
<td>The mycelium project highlights the rights to nature; we recognize that the earth has the right to thrive just as humans do.</td>
</tr>
<tr>
<td>Highlight 3</td>
<td>We will use mycelium, to mitigate contamination of soil, water, and air, to “plant water” to mitigate climate change.</td>
</tr>
</tbody>
</table>
Looking Ahead and Upcoming Events!

Spirit of the Sun has created partnerships to move the project forward to expand the mycelium inoculation installations through elders and youth! We are holding a series of public events and traveling to train other youth on Indigenous homelands to build new mother patches and mushroom grow kits!

Our first community Youth and Elder-led Mycelium Healing Project training will be held this Spring 2023 to show folks how to build mycelium kits for installation in their own backyards. The goal is to hold Suncor oil refinery accountable and responsible for our ecological health impacts and to become a mindful ancestor!

Suncor Sundown Film Documentary link: Please share with all!

https://vimeo.com/649168546
FACILITATOR:
Jeff Bontrager  
*Director of Research and Evaluation, Colorado Health Institute*

PANELISTS:
Astrid De la Cruz  
*Nutrition Services Manager, Project Angel Heart*

Shepard Nevel  
*Director of Policy and Research, Office of Governor Jared Polis*

Luis Perez, PhD, RD  
*Advanced Health Services Research Dietitian Fellow, U.S. Department of Veterans Affairs*

Dr. John Steiner, MD, MPH  
*Senior Investigator, Institute for Health Research, Kaiser Permanente*
Health Care Cost Reductions Related to MTM: CO All Payers Claims Database (2018)

- 708 clients, 6 months, 1 meal per day
- Looked at health care costs 6 mos. before, during, & after meals stopped
Qualitative: Meals Matter (2022) & Supplemental Nutrition Services Evaluation (KP 2023)
Programmatic Changes
We’d love your feedback on today’s event. Scan this QR code to complete our survey.