When will we decide to conquer chronic disease in Oregon?

Proposed Nutrition Oregon Campaign

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Nutrition Oregon Campaign: Phase 1 Plan

Background

The news that our population’s health is declining probably isn’t surprising. More than half of all Oregonians are now living with at least one chronic disease. Diabetes prevalence has more than doubled among Oregon adults during the past two decades. Oregonians’ weight has followed a similar path, with more than 60 percent of Oregonians considered overweight or obese. The American Heart Association predicts that the cost of caring for people with heart disease will double in the next 15 years from its present one billion dollars per day. This predicted cost increase will come from the increase in overweight and obese children, and children who have already been diagnosed with type 2 diabetes. About 60 percent of people who have type 2 diabetes will develop heart disease. If we do not intervene to reverse this epidemic of decreasing health, the impact will be devastating to the communities and the Oregon economy. The question is why this is happening now, and can it be prevented?

Over the past 20 years, a field of research called the Developmental Origins of Health and Disease, or DOHaD, has shown that the seeds of chronic disease are planted much earlier than we once realized. We now know that our risk for developing diseases like obesity, type 2 diabetes and heart disease is established before we are even born. The scientific framework of DOHaD points to three primary contributors to establishing risk for developing chronic disease: inadequate consumption of nutritious food, exposure to chronic, toxic stress and exposure to environmental toxins. All of these factors are important and often inextricably connected.

The OHSU Bob and Charlee Moore Institute for Nutrition & Wellness is dedicated to reducing the prevalence of chronic diseases throughout life by promoting healthy, nutrient-rich diets based on wholesome foods before conception, during pregnancy and lactation, and in infancy and early childhood. In addition, we link with organizations that focus on reducing exposure to toxic stress and environmental toxins. In Oregon, we experience a number of barriers related to consuming healthy foods – the perceived and real cost of healthy foods, lack of availability, the built environment and time constraints to name a few. The Moore Institute is proposing a statewide nutrition education campaign targeted toward Oregon community leaders. We know that without their support, community-based interventions to improve the food culture and increase consumption of nutritious foods are unlikely to succeed.

Why Nutrition?

The nutrition we received during our mother’s pregnancy through age two, commonly referred to as the first 1,000 days, affected how our organs and bodily systems were built, and contributed to our long-term risk for acquiring chronic diseases. This nutrition came not only from what our mother ate during her pregnancy, but also from the nutritional stores she built up during her adolescence. Given that today’s children represent the third generation to receive the bulk of their calories from processed and fast food products that are high in calories, but low in nutrients, this is especially troubling.
As we grow, we learn to eat the foods that are found within our food environment. Thus, while the mother provides the environment for the developing child, the food environment in which the mother lives strongly influences the level of nutrition she receives.

So how does this explain the sudden and steady rise in rates of chronic disease over the past twenty years? Biology provides the missing piece that explains this increased vulnerability. Women are born with the eggs that may someday become their children. That means the eggs that made us were created and nourished during our grandmothers' pregnancies with our mothers. And likewise, that the nutrition and well-being women in this generation are experiencing will affect the chronic disease risk of not only their own children, but their potential grandchildren as well. This means that chronic disease –like type 2 diabetes, heart disease, even obesity – can be shut off for future generations if we make sure that everyone in this generation – especially infants, girls and women – are surrounded by whole foods and opportunities to lead healthy lives.

The Nutrition Oregon Campaign envisions an Oregon free of chronic disease. We believe we can act now and set our children and grandchildren up to be part of the healthiest generation the world has ever seen. Empowered by the emerging science of DOHaD, we can eliminate chronic disease at its roots by preventing risk for developing chronic disease in future generations. Our first step is to collectively understand how chronic disease works and gets passed down from one generation to the next.

Our work is guided by the following values and principles:

- Everyone deserves to start life on an equal footing. This may involve focusing extra attention on communities that are starting at a greater disadvantage.
- Chronic disease rates will not decrease until we improve the nutrition levels of infants, adolescents and women of childbearing age.
- Communities cannot access healthy nutrition if their schools, workplaces, neighborhoods, and policy makers don't prioritize healthy choices.
- Community members best understand the unique barriers to nutrition they face. They should be the driving force in developing the vision and interventions to improve nutrition in their own populations.
- If Oregon leaders are knowledgeable about the effects of nutrition on chronic disease risk in this and future generations, they will be motivated to work with the communities they serve to generate solutions.
Planning Phase

Statewide Engagement

During the fall of 2016, the Nutrition Oregon Campaign project team traveled to six locations across the state to share the science of DOHaD and to hear reactions from community leaders on several elements of the draft campaign plan. With generous support from the Ford Family Foundation, we spoke with hundreds of people and heard from a myriad of organizations.

We invited leaders from four sectors of the community to participate in listening sessions. The four distinct sectors that we targeted were: 1) health care providers; 2) community health workers; 3) preK-12 education and food and nutrition service leaders; 3) community, business and government leaders. During these sessions, we facilitated small group discussions to illuminate the potential for cross-sector engagement with the campaign and spreading the word to others in their field. We discussed the messaging needed to effectively engage different sectors, and the tools, resources, and support they need to not only participate, but “buy into” the campaign. We have used the responses heard at these listening sessions to inform our strategies and approach.

To get a deeper understanding of the issues unique to the communities we visited, as well as hear firsthand how they define issues related to access and consumption of nutritious foods, we participated in listening tours designed, facilitated and led by local leaders. We learned a tremendous amount about the infrastructure in place in rural communities to support community health and wellbeing for all, but especially those community members most at risk for poor nutrition. In each of the tour stops, this meant we were visiting an array of change makers, social service delivery offices, and community development organizations, including WIC offices, farm stands, food pantries, grocery stores, hospitals, community health clinics, community gardens, local city offices and municipalities, Headstart programs, child relief nurseries, and more. The communities demonstrated resiliency through their sophisticated, coordinated and multi-sector efforts, which underscored the approach we are taking with the campaign.

Literature Review

To prepare for the development of the plan, we conducted a national scan of nutrition related programs, initiatives and campaigns. After discovering over 60, we narrowed the list to six nutrition campaigns based on relevance to our work, the availability of information and evidence of the effort, longevity of the program, and their engagement with multiple sectors in the work. Key themes emerged from efforts we researched in more depth, including:

- the use of targeted messaging to leaders in the settings where change was intended;
- development and implementation of community-driven strategies;
- cross-sector participation; and
- embracing intersectional community needs and issues.

This review has been hugely informative to our work and has helped to underscore several of the roads we were beginning to walk down and the goals we have outlined for Phase 1.
Phase 1 Campaign Description

Seeking Structural Change

This isn’t your same old - same old nutrition education campaign. The difference? We seek to change the environments surrounding families and communities - to change the factors and contexts that help or inhibit healthy food options. This means we are moving away from promoting lifestyle changes of individuals to strategies that create healthy food environments that encourage and support all members of a community to eat well by ensuring everybody can eat safe, healthful, and affordable foods.

We know that multiple factors contribute to consumption of a nutritious diet. Therefore, creating healthy food environments in communities across the state requires an “all hands on deck” approach. This means that our charge in Phase 1 is not only to increase the level of knowledge about DOHaD, but to also draw connections between sectors, current efforts, and support services that haven’t previously seen themselves as part of the movement towards community health and wellbeing. The Moore Institute has a track record of working with the Latino community as well as the African American community through the Black Parent Initiative. We have begun to develop ties with native groups in Oregon. We want our efforts to benefit populations within these groups that have unique nutritional needs.

We also know that healthy food environments are not created solely by the presence or absence of healthy foods. They are created by the policies that support or inhibit reliable access to nutritious and affordable foods. They are created by the organizations that create programs or advocate for healthy food environments. They are created by social norms and regional and cultural food traditions. And they are created by how these combined factors (and more) influence the knowledge and attitudes of the community members in any given area that lead to individual choices. We recognize that isolation of any one of these layers of influence is to deny the intrinsic and interdependent nature of the broader food environment. Therefore, we seek to create change across levels with intentional engagement and participation from leaders that most influence each level and can make the decisions necessary to create change in their communities.

Socio Ecological Model modified and designed for the Nutrition Oregon Campaign
This calls us to consider how we can use a comprehensive approach to effectively tie individual level service delivery strategies to broader, community-wide efforts. We believe this will improve the nutrition of communities. By tying issues together, it serves to improve consumption of healthy foods by also improving factors such as increased economic opportunity and workforce development, access to health services, stable housing and thriving local businesses. When communities are thriving in these areas, access to nutritious, whole foods becomes a meaningful and integrated part of community wellbeing.

**Theory of Change**

The primary objective of Phase 1 of the Nutrition Oregon Campaign is to engage, educate and partner with communities across the state to build a firm understanding of the role of nutrition in building healthy, resilient communities. To kick this off, we will engage and generate buy-in among Oregon leaders. We know that without their support, it will be difficult for communities to successfully bring forth program and policy ideas that support and/or link nutrition to work underway while applying a DOHaD framework. Through creation of a shared learning network and cross-sector collaboration, community leaders across the state will be encouraged to develop a unique vision for cultivating interest, understanding and commitment within their communities. The intent of Phase 1 is to touch leaders in every county in Oregon with the DOHaD nutrition message in some manner.

We know there are a myriad of efforts underway across the state working to improve community health, wellbeing and nutrition. We want to build on these efforts to leverage the great work already happening in communities. To this end, we have surveyed the relevant work underway that we hope to build on, learn from and/or collaborate with. Knowing the regional activity has provided the starting point we need to explore potential for engagement and education with local efforts including communities who are traditionally at risk.
Goals of Phase 1

Goal 1: Gain a broad understanding and endorsement of DOHaD concepts among leaders in key sectors

The project team will convene regional meetings across the state to share the science of DOHaD, seed discussion on opportunities to engage in the campaign, and establish a sense of interest from communities to participate and endorsement at various levels of commitment.

Goal 2: Develop a statewide shared learning network to increase mutual understanding and self-interest among key stakeholder groups

The network will be utilized as the medium and mode for connecting the nodes of activity, to cultivate mutual understanding by linking the great, relevant work already underway and by leveraging it to increase the impact through a coordinated approach.

Goal 3: Disseminate educational tools and materials through the networks of community leaders

Various tools will be created to aid leaders in using a DOHaD framework to engage colleagues and community members in understanding the importance of nutrition in creating healthy communities.

Goal 4: Ensure that the Nutrition Oregon Campaign represents a cross-sector collaboration

The project team will diversify its make-up to include representatives from the key sectors and other needed areas of expertise. Through this collaboration, we will be able to leverage the expertise needed to steer the direction of the campaign.
Implementation of Phase 1: Levels and Types of Engagement

Reach All Regions

During the three-year period of Phase 1, we will connect with regions across the state through baseline engagement. The project team will convene initial regional meetings to share the science of DOHaD, seed a discussion on opportunities to engage in the campaign, and establish a sense of interest from communities in participating at some level. The project team will also connect with scheduled meetings among professional associations and organizations and conferences to share the message. Everyone that participates in the community education and engagement events will have the option to become part of the shared learning network. At a minimum, this will include communication from the Moore Institute on activity across the state, progress towards goals, and resources for increased learning.

Deepened Collaboration: Campaign Hubs

As we learned from our listening sessions, some communities will be poised for deeper collaboration more quickly than others. Those communities that are ready to partner will be designated as "hubs." The hubs will be determined by mutual interest and willingness to deepen the level of collaboration between
the Moore Institute and the prospective community. This will be evaluated by the presence of at least a three-person committed project team in the region, and multi-sector leaders prepared to provide small, in-kind resources to match a mini-grant provided by the Moore Institute to support and seed collaboration. The Moore Institute will then act as a resource provider and collaborator to engage with education, research, and project ideation for Phase 2 of the project (which includes implementation of a community designed project).

Tools
Participants in the listening sessions made a consistent request for tools to enable leaders and community members to engage with the campaign. Therefore, participants in the shared learning network (which includes all levels of engagement) will be able to access a baseline suite of tools to support their learning, education and engagement efforts. These may include DOHaD explanatory information like fact sheets, PowerPoint presentations and infographics; messaging and communication tools; and ideas for community engagement and outreach. For sectors interested in professional training, continuing education curriculum will be developed for community health workers and health care professionals that will include information on DOHaD, epigenetics and the role of nutrition and stress in setting risk for chronic disease.

Sectors Involved and Their Unique Roles

Messaging and Calls to Action
While everyone has a significant role to play, we have identified the following key sectors, or communities of practice, to target in our engagement and education efforts:

- Health care providers
- Community health workers
- Pre-K - 12 education and food and nutrition service leaders
- Community, business and government leaders

Below are descriptions of why each sector is important to the effort and how we envision them contributing to the success of the campaign. We realize that each sector is defined by unique characteristics regarding their roles, cultures, systems of operation, and overall ways that they exist in the community, which is why each sector has a series of messages that will be used to engage leaders. These messages will be used to excite and engage sectors as we request meetings, speaking opportunities, and invite them to community events. Once engaged, we have found that individuals often want clear directives for what they can do to take action. To respond to this, we have developed sector-specific “calls to action” that reflect action leaders can take immediately to engage in the work and educate their communities. Sector-specific participants at the statewide listening sessions provided feedback on draft messages aimed at reaching leaders as well as brainstormed the key “calls to action” their sectors could take to respond to the urgency the science of DOHaD tends to create.
In addition to sector specific messages, we also have a broad message that will be used as our entry message to all sectors.

Creating Targeted Messaging: Coordinated Approach to Child Health

Through a review of nutrition campaigns across the country, we found several that utilize targeted messaging for engagement. For example, Coordinated Approach to Child Health (CATCH), a nationwide nutrition and physical education campaign, engages with schools by using messaging targeted at leaders within school settings, such as messaging for Child Nutrition Services: "... help your school cafeteria become an exciting place where creative and nutritious meals are served in a colorful environment [that] reinforces classroom learning about healthy habits and choosing foods wisely for good health." This messaging varies greatly from the messaging intended for Pre-K Educators: "CATCH researchers continue to gather evidence that reaching children at a young age improves chances of embracing healthy messages and behaviors for a lifetime."\(^1\)

Broad Message

Everyone deserves the best start in life. However, we now know that the nutrition we receive before birth and during the first years of life impact our risk for developing chronic diseases like obesity, type 2 diabetes and heart disease. With this knowledge we have the power to prevent these diseases, if communities have access to nutritious whole foods and an understanding of how they can affect the health of this and future generations.

Sector Specific Messages and Calls to Action

Health Care Providers

Health care providers have a tremendous role to play as the interface between the clinical world and patients. They see the health impacts of diet-related disease and are in a unique position to educate and recommend strategies. DOHaD provides a new way to talk about the importance of nutrition and the urgency to respond. Health care providers can participate in pursuing a model and movement that has a more widespread and long-term impact through prevention of disease later in life and in future generations.

Emerging movements in Oregon support clinicians’ participation in innovative strategies to understand barriers to food security and to help increase access to fruits and vegetables. Statewide work is underway
to develop screening and intervention questions for patients about their level of food security. This is important to understand as patients who are experiencing diet related diseases may have limitations to how much they can change their diet. Statewide work is also underway to build partnerships between health clinics, farms and community-based organizations through fruit and vegetable prescription programs. Both of these, if built upon, may provide promising and innovative pathways for interventions down the road.

**Sector Specific Messages**
1. The science of the Developmental Origins of Health and Disease provides a framework for improving population health, which is a key component of the ongoing health system transformation.
2. To have healthy communities, we must stop chronic diseases where they start.
3. To understand a patient’s risk for chronic disease, you must understand how vulnerabilities for these diseases are established and passed from one generation to the next. Scientific evidence now overwhelmingly shows that risk is programmed before birth as a result of the nutrition a mother received before and during her pregnancy.

**Calls to Action**
- **Prioritize Prevention Before Treatment:** conduct food security screenings during intakes and provide connection to resources to meet nutrition needs.
- **Train the Trainer:** train physicians, nurses, and other providers on the role of nutrition in preventing and treating chronic disease.
- **Innovate:** join advocacy efforts for flexible spending rules to allow purchase of fruits and vegetables with insurance dollars.
- **Connect with Community:** partner with and hire community health workers for broader reach, deeper impact, and to generate understanding community needs that impede their path to health.
- **Be a Health Hub:** lead by example by increasing healthy food options in hospital cafeteria and patient meals, and providing nutrition education at clinics and hospitals.

**Community Health Workers**
Community health workers are trusted members of their communities who fill the role of liaison between community and the clinic as patient navigators, community ambassadors, health translators, doulas, and several other important roles. They have a deep understanding of the culture and unique community needs. They are seen as allies and friends in relaying health-related information to the patients and communities they interact with and serve. This means they are already key messengers of various health topics. Community health workers have often witnessed firsthand the impacts of poverty, discrimination and the systemic lack of resources that contributes to toxic stress and persistent lack of access to healthy foods. This experience and personal knowledge adds an element of on-the-ground validation of assets, problems and circumstances unique to communities that other health care providers aren’t able to offer.
Sector Specific Messages

1. This work supports the knowledge gained through the lived experience of many communities.
2. Chronic diseases that were once rare have become commonplace as traditional diets that emphasized family meals and whole foods have been replaced by dollar menus and processed products from corner markets eaten on the move. This work provides an opportunity to strengthen the resiliency of our communities by working together to ensure we all have access to healthy food.
3. Building healthy communities free of chronic disease starts with access to nutritious whole foods for everyone.

Calls to Action

- **Be the Glue**: connect leaders to community and community members to leaders to increase their voice in decision making to improve community health.
- **Educate**: provide cultural competence and knowledge to colleagues in related fields, or fields that have direct bearing on the health and well-being of communities, on how to work effectively with existing cultural communities.
- **Use Your Voice**: advocate for patient centered health care and education in clinical settings.
- **Build Relationships**: connect with unusual yet necessary partners to bring credibility to the field, including obtaining reimbursements from insurance companies for services provided in clinics and community settings.

PreK-12 Education

Leaders in preK-12 education are increasingly making the link between the importance of addressing the social and systems factors that families face as a precursor to kids being prepared for and able to succeed in kindergarten and beyond. To do this effectively, leaders recognize that the playing field needs to be leveled for kids to increase their chances of success. Schools are a powerful setting for nutrition education and interventions - some children consume up to two-thirds of their overall daily calories during school. By employing strategies that work to close the healthy food access gap within schools, they can play a pivotal role in long-term student success.

Sector Specific Messages

1. Preparing children for school begins even earlier than we thought – children born into healthy families with access to good nutrition have better brain development and more success in school.
2. Schools can improve the health of not only this generation, but also the next by ensuring that children and adolescents have access to nutritious food and information about the importance of nutrition in assuring their lifelong health.
3. Investing in brain development through strategies that improve nutrition will lead to better-prepared students, better test scores and improved graduation rates.

Calls to Action

- **Create a healthy school environment**: change the food environment by removing junk food from vending machines, lunch lines, school functions, and fundraisers.
- **Support scratch cooking**: install functioning kitchens in all schools that are capable of scratch cooking.
- **Leverage broader support**: federal wellness policies can be used to obtain funds to support increased access to and consumption of fruits and vegetables via salad bars, gardening education and more.
- **Connect food and community need**: create roles for community health workers to connect students and their families to food and nutrition resources as well as other support services like health care, housing, and employment training.
- **Cultivate and grow youth leaders**: work with youth leadership boards at school-based health centers to inform and improve the school food environment.
- **Give teachers resources**: support motivated teachers in making curriculum changes to incorporate nutrition, cooking and/or gardening education.
- **Start young and stick with ‘em**: start nutrition education in preschool and work with students through high school.

**Government, Business, and Community**

Historically, many of these groups may not have seen themselves as part of a movement for improved nutrition and community health. However, they are now needed more than ever. As the change-makers in their communities, their leadership and ability to make a difference has never been so urgently needed. While the other sector groups serve specific target populations such as students, patients, and community members, this broad bucket of community leaders resembles the cross-sector collaboration that will be needed for structural change in communities. Two important roles of this group include advocating for funding to support cross-sector, collaborative work and advocating for policies that create healthier environments for community members.

**Sector Specific Messages**

- Access to nutritious whole foods for all is a foundation on which to build healthy communities.
- Improving the food environment will improve the health of this generation and the next.
- By supporting policies informed by this work you can send a message that you want Oregonians to live longer, healthier lives.
- The science of the Developmental Origins of Health and Disease (DOHaD) offers a framework for understanding and improving community health, which is necessary to ensure we have a healthy workforce, sustainable health care system and strong economy.

** Calls to Action**

- **Let your opinion be known**: make public recognition of the role and importance of nutrition in creating healthy communities.
- **Ensure everyone has the opportunity to eat healthy**: advocate for statewide food policy reform, such as a sales tax on processed foods and sugar sweetened beverages.
- **Lead by example**: implement worksite wellness policies that model healthy food choices and eating.
• **Think outside the box:** help school districts identify alternate revenue streams that support healthy changes in the school environment and do away with contracts with sugar sweetened beverage and fast food companies.

• **Connect the dots:** form cross-sector coalitions that support comprehensive changes in your communities.

**Help us Build the Movement**

When will we decide to end chronic disease? The moment we realize the future is in our hands. We are calling on leaders across Oregon to join us in halting the rise of chronic disease in their communities. OHSU’s Bob and Charlee Moore Institute for Nutrition & Wellness is sharing this plan far and wide to ensure that solutions are available that fit the needs of communities. We will continue this work as we continue to approach funders and supporters to join the campaign efforts. We know there is a tremendous body of research and practice that points to the growing need to shift our focus from a treatment model to a prevention model – with skyrocketing health care costs and widening gaps in poor health outcomes, we must act now to turn this epidemic around. We are looking for partners, supporters, leaders, community members and more to collaborate with us in this effort. To invite us to an event in their community to talk about DOHaD and how they can be involved in the campaign, introduce us to local decision makers and change makers, attend events convened in their communities - whatever feels like the best starting place for each community. Please join us to end chronic disease where it starts and create a healthier Oregon for all.
More information
More information about the Moore Institute and the proposed Nutrition Oregon Campaign is available here: www.ohsu.edu/mooreinstitute

Who we are
The OHSU Bob and Charlee Moore Institute for Nutrition & Wellness is dedicated to reducing the prevalence of chronic disease across the lifespan in current and future generations by promoting healthy, nutrient-rich diets based on whole foods in early life – before conception, during pregnancy and lactation, and in infancy and early childhood. The Moore Institute works directly with communities to spread the message of the importance of nutrition in reducing chronic disease risk and to develop community-led strategies and programs addressing nutrition issues.

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