

Connecting Research to Real Life (CR2L): Findings from Reflective Conversations in the Columbia River Gorge

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My wish would be that the main players in healthcare and we who are participants in our own health, would be able to help create that vision together... to say 'this is what it means to be healthy, and this is what we want to do to make that happen.' [ID 48]

INTRODUCTION

Connecting Research to Real Life (CR2L) was designed to build a network of community members, local health leaders, and researchers who can design and implement pragmatic, patient-centered comparative effectiveness research studies addressing priority health concerns of the Columbia Gorge region. Collaborating with community partners in all phases of health research offers the opportunity to increase the relevance of research questions; develop and sustain community-researcher relationships; build community capacity; and enhance dissemination and translation of research into valuable outcomes.¹⁻³ As part of first year activities to build this network, we engaged diverse community and health system stakeholders in reflective conversations using an Appreciative Inquiry (AI) approach to direct attention to positive health experiences

Many “health” studies focus on understanding illnesses or barriers to health; few studies explore the factors that contribute to health and wellness.^{4,5} AI is an emerging research methodology and organizational development intervention that departs with the problem-oriented research paradigm to study strengths and resources and to recognize successful practices.⁶ The AI process provides the opportunity to reflect on existing strengths, identify what is important, and build a vision of the preferred future.⁷ Using the AI approach, we explored factors contributing to health to supplement illness- and barrier-focused information available in a recently-completed regional health needs assessment.⁸ In conducting and analyzing the reflective conversations, we sought to better understand health and health concerns in the region and provide a basis for developing a collaborative research agenda.

METHODS

Between March 17 and September 7, 2014, two trained members of the research team conducted AI interviews with a purposive sample of participants in Hood River and Wasco Counties using a semi-structured interview guide. Participants were selected to represent the broad diversity of the counties by socioeconomic status, self-reported health status, gender, age, ethnicity, and geography. Interviews lasted 30 minutes to 1 hour in duration and were audio recorded and professionally transcribed. Interviews with Spanish-speaking participants were conducted in Spanish then translated and transcribed in English by a bilingual team member (YC). Individuals provided verbal consent at the start of each interview and completed a brief demographic survey.

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The trans-disciplinary team reviewed transcripts concurrent with data collection and used a pragmatic, grounded theory approach to identify emergent themes. All core team members (MMD, KD, KS, MS) individually reviewed the first 7 transcripts then met as a team to reconcile codes and develop a coding template. Once a code list was created individuals reviewed transcripts and discussed new findings with the full core study team. Emergent themes were identified separately for Latino participants and Non-Latino participants then for the sample as a whole. We considered these two participant clusters in response to feedback from community-based agencies that these demographic groups may experience distinct health experiences that warrant additional consideration. The emergent themes are reported here along with participant recommendations to improve health in the region. This study was approved by the Oregon Health & Science University (OHSU) Institutional Review Board (IRB).

RESULTS

We completed 27 interviews; eight of the 12 interviews with Latino participants were conducted in Spanish. Table 1 summarizes the demographic characteristics of the overall sample as well as the Latino sub-sample and the non-Latino subsample.

Table 1. Participant Characteristics

	Overall Sample ^{1,2} (n=27)		Latino Sub-Sample (n=12)		Non-Latino Sub-Sample ² (n=15)	
	n	%	n	%	n	%
Gender						
Male	12	44.4%	6	50.0%	6	40.0%
Female	15	55.6%	6	50.0%	9	60.0%
Community						
Hood River	13	48.1%	5	41.7%	8	53.3%
The Dalles	9	33.3%	3	25.0%	6	40.0%
Other	5	18.5%	4	33.3%	1	6.7%
Age						
Mean	44		34.8		51.3	
Range	21-82		21-58		25-82	
Self- Rated Health Status						
Poor	0	0.0%	0	0.0%	0	0.0%
Fair	2	7.4%	1	8.3%	1	6.7%
Good	14	51.9%	9	75.0%	5	33.3%
Very Good	7	25.9%	2	16.7%	5	33.3%
Excellent	4	14.8%	0	0.0%	4	26.7%
Income						
Low (<200% FPL)	16	59.3%	8	66.7%	8	53.3%
Middle (200-400% FPL)	5	18.5%	3	25.0%	3	20.0%
High (Above 400%FPL)	6	22.2%	1	8.3%	4	26.7%

¹ Includes both Latino and Non-Latino sub-samples

² One participant identified as White/American Indian, all others were Non-Latino White

Themes are first presented separately for Latino community members and Non-Latino community members. We then present overarching themes in participant experiences of health and factors that enable good health for individuals and communities in the Columbia Gorge region.

I. Health Experiences of Latino Community Members (n = 12)

Nutrition and access to healthy foods contribute to health across the lifespan.

All Latino participants included nutrition in their descriptions of health, with many participants highlighting diet as a principal component of their own health and the health of their community. Participants described healthy diets as eating fruits and vegetables, avoiding foods that are high in fats and sugar, and preparing home-cooked meals. Some participants described eating a healthy diet as a means of preventing and addressing specific health conditions such as diabetes, overweight, or heart conditions.

Especially in my culture, in my Latino population, it's a high risk for diabetes so in my family it's like family history so my grandma had it and my other grandma had it too, aunts, uncles, cousins, so it's a very high risk. It's kind of like I eat like if I had diabetes just to prevent it, just to make sure. [ID 61]

Participants noted the importance of good nutrition for young children and valued healthy foods served at home and at school. They described parents' role in feeding their children nutritious foods and helping children to develop healthy eating habits.

Because my daughter just eats what we give her, so we have to teach her to eat. She just eats because she is hungry. So we have to give her good food, more healthy food because now is the time to learn those habits. [ID 60]

Several participants described a gap between knowing they should eat healthy foods and actually preparing or eating healthy foods. Participants noted barriers to maintaining a healthy diet including the expense of healthy foods, especially organic fruits and vegetables; abundance of unhealthy foods; motivation and willpower; knowledge of cooking; and time needed to prepare meals.

Well to mainly above all avoid things that are not healthy, because sometimes we know they are bad for us but we still eat them. A lot of times we like to eat out and buy foods with a lot of preservatives...our community should not sell stuff that is bad for our health. I wish everything was more natural but I don't know if that is possible, for example in meats that they would not have so much fat and to be able to buy those meats that don't have much fat. But it is also important for us to have access to buying food that is affordable, because sometimes even though we want to buy healthier foods we can't. [ID 5]

Physical exercise was described as a critical component of health, with many factors contributing to engagement in regular exercise.

Many Latino participants across gender and age groups described their time of optimal health as a time when they exercised regularly or felt physically fit. Participants associated exercise with experiencing increased energy and motivation to be active.

I felt proud of myself, I had managed to lose a lot of weight and that made me feel good, it made me feel like I could do it. I felt more motivated to keep exercising and going to the gym. I also felt

more motivated to go back to school and this time try harder. I also worked better it just helped me a lot in many ways. I was not as tired at work I felt more energized. I would get home and still have time to play with my kid. [ID 59]

Participants identified community assets that enable exercise such as places to walk, soccer leagues, and feelings of safety in the community. They also described a culture of active people in the region.

I see a lot of people that are always running and walking, I think that's good because it shows that everyone knows each other, that's essential for them to go out, because if they were scared to go out, then they would not exercise. [ID 6]

Participants also identified availability of time outside of work as a key factor contributing to exercise habits. They noted this was especially important for individuals and family members with physically demanding jobs or jobs with irregular hours.

Well, I liked to exercise a lot and I really liked soccer but now one works and gets home tired and therefore it's harder to practice. [ID 4]

...My parents and my husband work too much, if they had more time they could go out and walk or do other things. Or do things that help them think positively, and not just be tired from work. [ID 59]

Some participants also shared positive experiences of workplace wellness activities that allowed them to incorporate exercise into their work day.

Social support from family and friends is a key contributor to physical and mental health.

Family and friends were frequently described by Latino participants as a source of support for healthy lifestyle choices and overall well-being. Maintaining a balanced life with time to spend with family and friends supported participants' emotional and mental health. Some participants noted that social support helped with stress, as one participant stated *"having a friend I can talk to and share my thoughts with so I can just let it all out."* [ID 59] The following quote illustrates the many levels in a community where participants found social support.

To me one of the best tools or one of the best assets that we should consider and what I believe that contributes to the good health is always to have a strong circle of people that they like to think in a positive way. You know, the association could be with your friends, with your family members, with your community members. In addition to that, sometimes having a nice spiritual and faith community also association is nice to have also that combine it with some healthy activities that you usually practice. [ID 40]

Social support also played a role in participant's practice of health behaviors including diet and exercise. For several participants, support from friends or family helped motivate them to exercise. One participant described organizing walks with neighbors for both exercise and social engagement:

I think I kind of like wanted to set an example for my neighbors that I see that they were trying to do more exercise but they were not... they cannot do it, and they cannot find the time, and I was kind of trying to show them that it was possible, to kind of balance the whole things and so then

I started getting some girls, neighbors to go for walks with me or I would take the kids with my daughter and I would do like little groups then I can enjoy more time with them. [ID 61]

Agricultural chemicals were identified as a health threat that affects the community through environmental and dietary exposures.

Many Latino participants voiced concern about the health consequences of agricultural chemicals and hoped to see a reduction in the use of these chemicals to improve community health. This concern was shared by Latino participants living in communities throughout the Gorge area but was given particular emphasis by those living in the farming areas in the region. Participants described exposures both from eating produce grown using chemicals and from proximity to local orchards.

I: What do you want to see for the people of the Columbia Gorge in the future?

S: Well, that there be fewer chemicals because we are damaging ourselves the more and more things are artificial. That fruits here don't have as many pesticides to try to maintain them more natural and also to think about the river that is known for fishing and pollution we should be concerned and protecting the environment. Also when people choose to walk there's spray nearby and to think more about the people and children there. [ID 3]

In addition to concern about current chemical exposures, some participants noted that exposure was part of their childhood experiences growing up on or near orchards and farms.

There I grew up in the orchards because my godfather was the owner of an orchard, so we lived there and we would play and run around. But there was a lot of chemicals around the area, but I was young I didn't care. But they would tell us not to go outside when the tractors sprayed, we still didn't care and hung out outside. I know it was bad. [ID 60]

Several participants contrasted the local use of agricultural chemicals with their experience of produce grown in Mexico, describing memories of more naturally grown food.

I'm not sure if the difference between Mexico and here... but everything over there they didn't make it grow like they do here... forcefully. Over there things just grow slowly, the corn, the beans... well the beans did get fumigated or they call it sprayed here but just for plague, but it was all natural, it grew naturally in the gardens, with water. That's a big difference from Mexico and here, that here they add more things to grow their things bigger and faster. [ID 5]

Health education and prevention programs were recognized as having positive impacts on participants' health and the health of the community.

Many Latino respondents shared positive experiences of local health education and prevention programs and described their community as having many resources for health promotion.

Well there's a lot of people in our community that care about us and are trying to give us warnings so we can have good health and that is something that helps us all because they are promoting good health and the people listen and that helps us say "well I will take care of myself." [ID 62]

Participants talked about benefitting from many resources including early childhood nutrition programs, health education messages on the radio, markets selling local produce, and free exercise classes. Among

participants who discussed these resources, they indicated that existing programs have a positive impact and there was interest in participating in more classes and programs.

Well WIC, and is WIC the same people that give us more coupons for fruit? Like a lot of fruit. I think that helps us a lot because they are showing us to eat more fruits, instead of giving us coupons for like McDonalds. They are doing something for us that is healthy. Fruit and all the stuff they give us is because they are looking out for us, with the things they give us, they aren't just giving us anything. I think that helps out a lot. [ID 60]

I think there is a lot of things we are trying to do right now, a lot of things I think it's kind of like bringing the knowledge to people, like the markets like Thursday markets, farmers market, Saturday markets in Mid-Valley so bringing like a little bit more that its ok you know possibilities that you can use them like if you are receiving food stamps, you can use your food stamps, you can use your WIC I believe. ... I think the community is getting a little bit better and is bringing more awareness. [ID 61]

Recommendations to improve community health

Participants provided many recommendations for changes that could help support health behavior and improve health outcomes in the future. Table 2 summarizes these suggested improvements as shared by Latino participants. Recommendations focused on community health education and trainings; decreased use of agricultural chemicals; and increased access to basic services including healthy food, exercise opportunities, transportation, and housing.

Table 2. Recommendations from Latino participants for promoting community health

Recommendation	Exemplar Quotes
Provide Community Health Education	
<ul style="list-style-type: none"> • Nutrition education 	<p><i>I would like more classes on nutrition. [ID 59]</i></p> <p><i>I have heard on the radio tips on how to eat healthier and I think that helps us a lot also I have heard the people from the health department give messages on the radio and I think that also helps us a lot... [ID 62]</i></p>
<ul style="list-style-type: none"> • Parenting training 	<p><i>I just believe it's a good tactic or a good strategy ... to ... create more parenting education as a prevention of delinquency, criminality, all that kind of stuff. So I think it's a very good way to create a strong and solid foundation to better support children and families for their future. [ID 40]</i></p>
<ul style="list-style-type: none"> • Health education 	<p><i>I know people that have all the symptoms of diabetes but they are not thinking they have diabetes because they are always feeling that way, they don't know any better that you are supposed to feel good, and that you are not supposed to feel that way because all your life you've been feeling that, so I think the knowledge and lack of knowledge and education is the things that bring more knowledge giving more tools to learn how to prevent and also when you already have them how to manage giving you tools to learn how to eat better, how to do exercise and guide you and give you support groups in your own community your own language, and where you feel very welcome. [ID 61]</i></p>

<ul style="list-style-type: none"> • Drug & alcohol prevention 	<p><i>...they focus a lot on drugs and alcohol and they want to prevent those things from happening in our communities. I think that's very important because I would like for those things not to be within our youths reach in the future. [62]</i></p>
Decrease Use of Agricultural Chemicals	
<ul style="list-style-type: none"> • Fewer chemicals and sprays in local orchards 	<p><i>Well, that there be fewer chemicals because we are damaging ourselves the more and more things are artificial. That fruits here don't have as many pesticides to try to maintain them more natural and also to think about the river that is known for fishing and pollution we should be concerned and protecting the environment. Also when people choose to walk there's spray nearby and to think more about the people and children there. [ID3]</i></p>
Increase Access to Basic Services at Affordable Prices	
<ul style="list-style-type: none"> • Access to affordable, healthy, organic foods 	<p><i>Well I would hope that we can all eat healthier and pretty much what I said earlier, have access to healthier foods with no chemicals and that we would be able to buy them for cheaper prices. Also I would like to receive more information here and orientation on how to better choose foods. [ID 5]</i></p>
<ul style="list-style-type: none"> • Access to quick healthy food for farmworkers 	<p><i>I would like to see a place where, especially all the people who work really hard for so many hours and they don't have access to quick meals especially the men, that we have a lot of farmworkers that come and they don't even have a family with them to have some kind of like kitchen, that they can sell like healthy foods and meals or something just very affordable to be a part of the orchards for the people so they don't have to worry about that and they can also eat healthy food, that would be one of my dreams! [ID 61]</i></p>
<ul style="list-style-type: none"> • Access to affordable gyms and exercise places 	<p><i>... if there would be like a gym or like that's affordable... and healthy, like I mean a safe place to go to do exercise. I know there's trails and... you can run and stuff, but I wish there would be like a gym for its affordable for people to get in and safe environment also. I think that would help. I ... it would ... help me....like I said [it needs to be] affordable and ... and...Yeah. Yeah. Yeah. 'Cause the big gym is pretty spendy and then [names another gym], I think their ... prices went up. [ID 50]</i></p>
<ul style="list-style-type: none"> • Exercise and healthy foods for kids in school 	<p><i>...more activities for the students that are in schools, when they are young so they can learn to do more stuff. Because now a days they are telling the kids things like well this year there is not enough money for soccer, but it's not their fault and they are just going to end up on the streets if they have nothing else to do...[and] healthier foods in schools.</i></p>

	[ID 60]
<ul style="list-style-type: none"> • Transportation 	<p><i>For instance, [if you're thinking of the] Latino communities, sometimes with the loss of the driver license {unintelligible}, that brings a big barrier for families to, you know, ... to transport to meet their basic needs, which is medical appointments, to buy their food or to ... to or to support their children when there is no transportation to school. [ID 40]</i></p>
<ul style="list-style-type: none"> • Higher quality, affordable housing 	<p><i>From what I have seen I mean I am not sure why but there is not a lot of places to live at like newly built houses and apartments. A lot of them are pretty old and very expensive so I don't know I am not really sure why people would want to find a job here or work here because at work I heard that a lot of people come to work but you know they don't stay too long, I am not sure why. People don't like it here or you know there is just nowhere to live. [ID 65]</i></p>
<ul style="list-style-type: none"> • Extend local foods beyond seasonal farmer's market 	<p><i>...instead of having seasonal markets, the farmers market for those things to be more accessible like in the regular stores, and it would be local, and its people that can continue growing things and sell them and offer them to the public, even if it's not the season maybe they can freeze them or use them in different ways. [ID 61]</i></p>

II. Health Experiences of Non-Latino Community Members (n = 15)

Active social and physical engagement was identified as a critical component of health.

Non-Latino participants of all ages and socioeconomic statuses noted the importance of active engagement as a critical component of health. This included contributing to the community through volunteer or church activities, caring for family members (both young and old), staying physically active, and keeping socially engaged.

[What] makes me happy is getting involved, staying busy ... I mean we all like to sit obviously and have our relaxing time, but when I do that, I kind of think to myself "what am I doing with my life?" If I sit and ... am not active in my community or my family or my daughter or whatever I need to be active in ... then I could get myself depressed if I let it happen. So I like to stay involved. Like I said, I'm involved in my daughter's school, I'm involved in my church, I'm involve at my work, I'm involved wherever I can be. ...That keeps me happy. [ID 47]

Well, and even if it's not necessarily working out or something like that, but if you're ... I feel like there's a lot of people now that spend more time ... glued to the TV... and not necessarily out doing things. And even if it's not ... like we try and go on a walk every night, me and the girls ... even if it's just a short one-mile ... I mean the town is so small anyways, but ... just things like that. If you're not moving around constantly, then everything else catches up with you. [ID 57]

Older non-Latino participants also identified social and physical activity as a key component of healthy aging. They described staying socially and physically active as something that requires effort and commitment but was essential for promoting physical and mental health.

Continued activity in order to at least maintain the shell that I exist in. Make sure that ... try to get as much activity as possible, whether it's walking, cardio or whether it's strength training and that ... to try to continue to do that. Be purposeful in doing that. And then stay engaged in the community. Get ready for retirement. Continue to work toward that goal. And then have plenty of activities in retirement that will continue to stimulate you, and things you can look forward to do. [ID 49]

The regional natural environment, community activities, and local culture provide opportunities for engagement and performance of health behaviors.

A number of non-Latino participants noted that they had consciously chosen to live in this area – and that certain occupational sacrifices may be needed to stay in the region. Many participants commented on the beauty of the natural environment around them and the easy access to opportunities to be physically active. Additionally, participants also commented on the opportunities to engage in social activities offered through the local community – including team sports and cooking groups. Many of these opportunities were seen as family friendly, and the community was identified as a safe place to raise children.

I:...And what in your environment or community helps you to be in great health?

S: Oh, the fact that we live in the most beautiful place {laughing} in the world, I think! I mean how ... just looking out the window is an experience... of healing as far as I'm concerned. [ID 48]

I think just that we live here and ... and there's so much ... so much anybody can do ... the river is right out ... our front door. You know, the mountain is 45 minutes away. There's hiking. There's Kayaking. I mean there's just everything.... [ID 53]

Well, I love all the activities ... I think every weekend [community name] has something fun going on. They're very ... very kid friendly. There's lots of things for kids... it's nice to have the river and the mountain right close by ... everything we do has to be family friendly, kid-oriented, so [our community] is the perfect spot for that. [ID 47]

Some non-Latino participants noted how the active/outdoor ethos and culture of the community promoted health and healthy behaviors. Some participants noted how the focus on health permeated conversations that occurred between community members.

I moved to [community 1] about two years ago. Well, I lived in [community 2] last year, and then now I'm in [community 1] this year...I was doing a volunteer program that brought me out here. And I really enjoyed coming out here and seeing the difference in lifestyle and how everyone is just so ... well, I shouldn't say everyone. Most people are into the outdoors and being active, and so that's been something that I've really embraced and started to do that. So that's great. I've gotten into road biking and just hiking a lot. And so those are a couple of things that I enjoy. [ID 52]

The first thing I think of [when you ask what factors contribute to health and well-being], and I don't know if this is what you are asking about, but... here in [this community], it is a very

positive health-oriented community. When I lived in New York City, you'd chat with people, and they would say ... basically the topic of conversation was "how New York was unpleasant today." ...something was bad, or this was bad or something was bad. Here in [this community], its like "Hey, did you get on the river today?" "Hey, did you get outside?" ... it's so positive and health-oriented... I could see that for someone who suffers a lot of health challenges, that would be annoying ...because "no, I didn't on the river, because, you know, my back is ... whatever." But it's ... it's such a positive health-oriented culture, I think that that builds on itself, and that one's outlook really has a lot to do with how much health one is able to enjoy. [ID 32]

Family was identified as both a source of strength and barrier to health. Community organizations must pick up/correct what family systems do not offer.

Non-Latino participants identified family as a resource to support healthy behaviors but also as something that could detract from an individual's development. Participants noted family members' role in caring for children or adults with health conditions, describing both difficult and rewarding aspects of these experiences. Many participants identified childhood and adolescence as critical times for families to support health. Schools were identified as a resource in the local community for helping students and families.

We need to focus on our children. They're gonna be our future...we need to get involved with our young folks. And I know the school has worked very hard in trying to teach them not to smoke and no drugs and ... etc., but I think the real thing is to help them build their self-esteem. It's so hard nowadays. Both mom and dads have to work to eke out a living. And the family time is You know, when my kids were growing up and we still sit around the table, you talk about your day. That's just about nonexistent, 'cause one's doing this, one Mom is the chauffeur, and Do you know what I'm saying? [ID 45]

Frequently non-Latino participants noted that failures of the family to provide critical components of an individual's health (e.g., emotional nurturing, safe environment, educational readiness) fell to the broader community and/or other supportive adult figures.

.... Well, one time I ... in high school, and I was already in therapy, I got drunk one night, ... and I called the counselors in the middle of the night, [states two names], and they came to my house about three in the morning ... and woke my parents up and said "your ... daughter, has some problems, and we need to talk about it." So they talked upstairs at the kitchen table, and I was downstairs drunk off my butt on the pool table. And I was uncontrollably sobbing. And I was, you know, I just ... you know, I was drunk and ... Well, they knew about it, and they talked to my parents. They brought me up and sat me on my dad's lap and said "you know, your daughter really needs some help. She's really relying on you guys to ... to get her some help." And, it was like this event, it was like the next day, nothing. The next day, nothing. The next day, nothing. And so it was like I took upon myself to go down to the [service provider]... [ID 43]

It's easy to feel like "well, the parents should be doing it," and my reaction is "well, yeah! But if they aren't, we're still inheriting that child ...into the school system...." So I sort of don't care about the parent. It's about the child. [ID 36]

Financial security promotes engagement and participation in healthy activities.

In general, finances were seen by non-Latino participants of both higher and lower socioeconomic status to be a critical contributor to an individual's health. Lack of financial resources was seen by some as a

barrier to routine physical activity, accessing healthy foods, obtaining health care services, and “belonging” in community life. Access to resources could promote or hinder community member’s ability to engage in physical activity, such as the ability to be an active member of a gym.

And, you know, we can afford to buy like lettuce and tomato and stuff like that the first of the month, but by the end of the month, we’re not eating fresh fruit and vegetables, ‘cause we don’t have the money to go back to the store and buy it. [ID 42]

Well, again, there, you have finances. I was always a member of the ... the fitness club before, and I can’t afford to do that anymore. And the same thing goes with my kids. They were always on my membership. So ... my oldest son is an insulin dependent diabetic... I see it more important for him than for anybody else in the family to have [access to the gym]...[yet when the local health plan recently granted money to promote health] very little of the money went for fitness-type projects....Especially with people with chronic conditions, I think if this community wants to look at how to do things better, I think that they need to expand their thought process and look at, people with chronic conditions that could benefit from, membership at the fitness club. They should pay for that. Or... somehow it needs to be figured out how it can happen. [ID 46]

Many participants identified the importance of self-advocacy in receiving health services and interacting with the health care system.

Non-Latino participants, particularly those of lower socio-economic classes, told stories of learning about their voice and responsibility for taking an active role in the health care system. Several participants described the importance of taking a “proactive” approach in obtaining health care.

...Teach people that it’s okay to be concerned about what they ... about their health. I think it’s gotten a lot better since back ... like my parents, they never ask anything. I’m all questions and what, you know They aren’t proactive. They just take it as gospel, and I think patients ... people need to learn to be their own best advocate. [ID 45]

I think my ability to be proactive about it, whether it’s trying to get into the doctor’s or doing this and that or like “oh, well, you know what? Something hurts. I’m not just gonna fluff for a while. Like I’m gonna go seek care.” Or like “oh, well, this is what I want to do. How do I get there,” and try to make it a reality. I think that’s what I bring to the table. [ID 52]

Some participants also described positive experiences of advocating for service delivery or policy changes to improve community health.

Being listened to and having professionals actually say “wow.” [Or] looking at different ways ... to help people.... and then getting to know other people in the community that ...have gone through different circumstances ... or different agencies helping them and encouraging other people that have disabilities and say “Write it up. ... We can send your story to the Oregon Health Authority, and they will take a look at it and see how ... things can be changed. [ID 43]

Recommendations to improve community health

Non-Latino participants offered many suggestions and strategies that could be implemented in the community to increase or reinforce opportunities for healthy behaviors. Table 3 summarizes key areas of concern from this sub-sample.

Table 3. Recommendations from Non-Latino participants for promoting community health

Recommendation	Exemplar Quotes
Enhance Opportunities in the Broad Community	
<ul style="list-style-type: none"> • Increase Economic Viability 	<p><i>... one of the big problems with The Gorge is there's not a great deal of economic opportunity for folks.... I think we have a high poverty...we have a pretty high poverty level in [community name]...I was on the school board for quite a number of years and the percentage of students on free or reduced lunch was significant. It was the larger share of the students that were in the school system, which then just points to, you know, economically that there are a lot of families are disadvantaged from an economic standpoints, which then affects their ability to have opportunities for advancement, opportunities for doing things other than just surviving and trying to get, you know, what best they can for their families at the time.... And probably, a number of them are in situations where they have to make those financial decisions between what it is that they eat and the food, you know, they put in front of their children, and the clothes on their back and the activities they pursue or are ... are able to engage in. So it's ... I think The Gorge... needs some economic stimulation that will ...it's kind of the old adage where the tide raises all ships. And ... and I think that's really something we need in The Gorge...clean industry is what I'd like to see...something that contributes or...that has the employees' best interest at heart and is not just merely out trying to make a buck, that actually pays a living wage job, that provides healthcare for employees and their families, so that that's one less thing from an economic standpoint that families have to worry about. [ID 49]</i></p>
<ul style="list-style-type: none"> • Engage community members in health system transformation and self-advocacy around what is needed to support health 	<p><i>... I'm speaking from my experience now ... in health care....And this whole transition that's happening from volume-based health care to value-based health care ... I think that's a really great vision and idea. I don't know that anybody, including the main players in healthcare, actually know how to make that happen. But I don't think it's only about the main ... players in healthcare making it happen. I think it's about individuals and communities who are participants in their own health making that happen.... My wish would be that the main players in healthcare and we who are participants in our own health, would be able to help create that vision together of "this is how it's going to happen ... nobody is going to hand anything down to us, but we have to say 'this is what it means to be healthy, and this is what we want to do to make that happen.'" [ID 48]</i></p>
<ul style="list-style-type: none"> • Take care of the natural environment so it's there for future generations 	<p><i>...I hope for a better world for my sons and ... my granddaughters...the world can look like a pretty scary place from a political and environmental standpoint. And I'd like to wish that eventually we as people on earth would get our act together ... and start taking care of what it is that we've been given, so that those that come after us have the same ... can enjoy the same bounty and beauty that we do. So,</i></p>

	<i>yeah, it causes me concern... I think that it's something that we as people need to work on. [ID 49]</i>
Provide Community Trainings	
<ul style="list-style-type: none"> • Support emotional literacy trainings 	<i>...Growing up in this community, everything has changed in the high school settings. ... but learning how to notice and be able to name your emotions is a biggie, because I didn't know how to communicate my emotions. I didn't know how to be assertive. I was either passive or aggressive or passive/aggressive. And educating parents... if your son or daughter is sleeping for three days...that's not normal for a kid.... Or like the sanctuary model teaches, instead of saying "what's wrong with you?" ... say "what has happened to you?" [ID 43]</i>
Increase Access to Basic Services	
<ul style="list-style-type: none"> • More affordable housing 	<i>We can use some more housing. Housing in the river is through the roof. You cannot find ... I have some friends who, after waiting on the wait list for Section 8 voucher, finally got to the top, were told "you have so many amount of days to find a place to live." And they wanted to move from [Community 2] to [Community 1]. They were given a maximum of \$820 is what the voucher was good for. In [Community 1], they could not find a single place. Not a single place. They ... have been put ... back to the bottom of that list and have to wait another 2-3 years, because they couldn't find a place cheap enough to live in [Community 1]. They've applied to ... these apartments that I live, thankfully, they are also income based. But I was on the wait list for like eight months. I was lucky. That was short. Most people wait for this place for two years....When I was pregnant with her, we were homeless. I slept in my car in the Dairy Queen parking lot. We did just build those nice new apartments by Les Schwab. They're full. They have a wait list, too. We need more. [ID 47]</i>
<ul style="list-style-type: none"> • Better transportation services 	<i>You know, as much as I hate to say it, 'cause it kind of turned into more touristy and city, I think maybe more public transportation. I have a car. I don't need it. But I know a lot of people who don't [have transportation]. And we have the CAT bus. That's great, but that's all. And if someone needs to get from point A to point B, and the CAT bus isn't gonna be here for another two hours, and they need to be there in 10 minutes And we have some private taxis, but they're very private, and they're very expensive. So maybe a couple more CAT buses even would be fine or something. I'm thinking of my friends that could use that transportation definitely. And... I think we turned down the Super Wal-Mart, but I would like to have a little bit more shopping that's affordable [ID 47]</i>
<ul style="list-style-type: none"> • Access to more affordable healthy, nutritious foods 	<i>Well, like I said...if it affects us, I'm sure it affects other people, too. Lack of a good balanced diet and stuff like that. Like [our grandson] eats a lot of macaroni and cheese. First of all, it's one of the few things</i>

	<p><i>he'll eat, but it's ... not nutritionally balanced...We can afford to buy lettuce and tomato and stuff like that the first of the month, but by the end of the month, we're not eating fresh fruit and vegetables, 'cause we don't have the money to go back to the store and buy it. So... if we could figure out a way through the State level to supply the needs like that ...that would be good. [ID 42]</i></p>
<ul style="list-style-type: none"> • Access to an affordable exercise options 	<p><i>...I was always a member of the ... the fitness club before, and I can't afford to do that anymore. And the same thing goes with my kids. They were always on my membership. So ... my oldest son is an insulin dependent diabetic... I see it more important for him than for anybody else in the family to have [access to the gym]...[yet when the local health plan recently granted money to promote health] very little of the money went for fitness-type projects.....Especially with people with chronic conditions, I think if this community wants to look at how to do things better, I think that they need to expand their thought process and look at, people with chronic conditions that could benefit from, membership at the fitness club. They should pay for that. Or... somehow it needs to be figured out how it can happen. [ID 46]</i></p>
<p>Improve Access to Health Care Services</p>	
<ul style="list-style-type: none"> • Increase access and integration of mental health services into other care locations 	<p><i>...but also feeling, too, mental health services are available if someone needs to talk or stuff is going on, and like knowing ... not just like "oh, well, you know, there's that building that"like I know it's there but not really knowing about it. [or] How to access services or even like really what they do. Like "oh, well, I don't need to see a counselor, because I'm not crazy." I'm like "are you stigmatizing mental health?" I was like "not everyone that sees a counselor is crazy, so to speak, but it's a matter of additional support that a lot of people can benefit from...There's not enough access for our patients, especially at the high school. I see so many kids that have anxiety or depression or have psychotic breaks and stuff like that. And it just They aren't able to get the help they need, because they can't get in quick enough or it's ... some of it's the cultural difference between the Hispanic culture and the Anglo culture and like what that means. But also people that will take OHP or uninsured clients is also a big part of too. [ID 52]</i></p>
<ul style="list-style-type: none"> • Change health financing to support preventive activities (e.g., gym membership) 	<p><i>Yeah, the wife and I both like to...go to the pool and go swimming and stuff like that. But, you know, to do that year-round, you have to belong to the membership clubs, and we just don't have the money for the You'd think that insurance would also be willing to do ... help with that if it'd get you ambulatory and maybe improve your health. [ID 42]</i></p>
<ul style="list-style-type: none"> • Develop urgent care resources (especially on weekends) and 	<p><i>... I go to [names local primary care clinic], and I know that they ... I say recently. I know it's been probably a year, maybe two, since they opened up their aftercare/acute care. Love it, but I would like to see</i></p>

<p>educate patients on how to access</p>	<p><i>something that ... I would like to see an acute care ... I think one just opened down the street I saw the other day. An acute care that's opened on the weekends, because when something happens on Saturday at three after they're closed, I have to wait until Monday, and I don't want to go to the ER, 'cause it's not ER worthy, but it needs to be seen before Monday. What do you do? You know, you get on Web MD and hope that they're right, you know!...I would love to have that here, though. [ID 47]</i></p>
<ul style="list-style-type: none"> • Open mobile or small clinics in small towns 	<p><i>We used to have like a ... it was like a RV kind of set-up that would park down at the store and do almost like free medical check-ups ... And I liked that. I mean I never went myself, but I know my sister did. My sister is diabetic, and it's important for her to stay up with her health. But I felt like it was well used. It seemed like every time I seen it down, there was plenty of people wanting to get checked out....I haven't seen it in a long time. And then at one point, too, they talked... We got a new fire station here within the last four years ... four or five years. And they talked about just east of the fire station putting a small clinic, like [clinic name] type set-up. And I'd like to see something like that. I mean I know that, the population here isn't huge, but I feel like we'd probably get business from across the river and ... and the general area. Maybe it would put less of a load on ... on some of the places in [Community 1] if they had the option to come down here.[ID 57]</i></p>

III. Overarching Themes — Latino and Non-Latino Participants (N = 27)

Multidimensional definitions of health.

Participants described health as a multi-dimensional concept that encompassed both characteristics of the individual as well as the local community. Most participants noted the importance of physical functioning, as well as emotional, social, and spiritual components of health. Healthy diet and exercise were noted as important contributors to both physical and emotional health. In describing how they stayed healthy, participants identified many aspects of health that occur outside of what is delivered by our traditional “healthcare system.”

... for me, “health” is ...very holistic....it’s not just about the physical but about emotional health, spiritual health, physical health and how those are integrated and ... and inform and affect each other ... [Health is] not just about individuals, but I think it’s about communities, too. I mean how ... I am healthy as an individual, but how the community that I live in—whether it’s my workplace, or the place that I live?... what it’s physical and spiritual and emotional well-being is like?.... I think nutrition is a part of it. I think exercise is a part of it. But I mean those are the physical things, so for me being able ... to think and dream and imagine are all part of health as well. [ID 42]

...Everything was like, like when you’re putting a puzzle together, each part was very important. Like my emotions, my psychological part, the health part, everything like my community was

part of that so I can't even think about even missing one ... it can be any one kind of like if I was sad about something maybe I have like too much stress, it is also that I don't feel ok in my community, if I am not feeling happy I'm probably not able to do that... so I think complete balance of everything. [ID 61]

Many participants noted social components of health describing how family, friends and community members played an important role in their physical and mental health. One participant reflected on the factors that allowed him to be in good health by saying, "I don't know this very well, but I think just...I mean living life. Having a family, having children. Having the will to work for them." [ID 1] Others commented on the effort required to stay socially connected.

Well, I think social [interaction] is very important, too, just having social networks. You know, really staying connected. For me ... it's fairly easy here, because I do have a lot of old friends, and I have my children... my two sons in the area. Which I don't see all that often, but ...I think social [interaction] is a huge part of that. Being able to get out and do things with people and ... and not to be isolated. I really think that is a huge ... issue in health ... is being isolated.... and I think you have to work at that. [ID 32]

Weight was commonly described as an indicator of health for female and male participants across the age spectrum. Several participants talked about times when they had lost weight and felt good about their health as a result.

I mean I have been pretty healthy I guess my whole life. Only when I was little I was a little chunky but you know, but I guess not anymore so yeah I think I am healthy and I'm just going to try to get more fit and that's the plan for now.[ID 65]

... I did join a gym, and I had a workout partner... I had a roommate who was a fairly healthy person, as far as eating, nutrition... my eating habits were a little at that point... during that point in my life, I had lost a lot of weight, too, so really felt good about myself. And... since I was already at where I wanted to be, it was easier for me to keep myself at that point...like right now... I would have to work really hard to get back to where I want to be, and that would ... take more effort and more time and more sweat than it did back then when I was already there. [ID 47]

Some participants expressed a tension between how they had been raised and what was currently being promoted around health and health behaviors.

Well... I see all these people wearing yoga pants and tight T-shirts ... and they're ... eating these weird foods... maybe they were grown up with that type of teaching. But I was grown up on steak and potatoes...we butchered our sheep, we butchered our pigs, we butchered our ... steers...We had chickens. We ...had a milk cow...we had our fresh milk, we made butter...we had cream.... so I don't know which one is the old school ... 'cause you look at the history of farming ... and when the farmers always were able to help themselves feed themselves, and they didn't always have to go to the grocery store or the fast food restaurant. And now you go into [Grocery Store] and they've got this whole health food section. And they've got this quinoa, acai berry, and flax seed...chia seed ... and then they got these ... supposedly healthy chips and ... and they're promoting organic and cage-free ... and, pasture-fed and no hormones and ... no antibiotics. And then ... then you ... you look at the ... the farming industry, and the

chickens...they're raised so fast now ... to go from ... the egg to the meat counter, within ... I don't know, like two months? [ID 43]

Preventive behaviors are valued as a way of staying healthy across the lifespan.

Performing health behaviors early was seen as a preventive strategy and a way to stay healthy over the long-term. Many described routine and disciplined performance of health behaviors such as eating a healthy diet, exercising regularly, and being actively engaged with friends, family, and community activities when they were at their peak levels of health.

Well, first of all, I walked every morning 45 minutes with my neighbor. Every morning. And then I always ate very healthy. And what I'm talking is your proteins, your vegetables.... I cook from scratch. I don't own a box. I don't believe in that. So ... and my kids ate that way as well. And I would go with them, and they'd ride bikes or something. I was always trying to promote health, because you can fix your teeth, you can fix your eyes with glasses, but if your health gets broke ... you actually are at the mercy of whatever is going on. There's no control. So if we can control it to a certain degree with food and exercise and environment, stress... all those things, then we can actually function pretty good. [ID 45]

I'm not sure if it's with the passing of time and we are getting older but I find myself thinking more about my health, and I think that we must watch what we eat and not eat so many of those foods that are unhealthy for us. Also me for myself I am trying to eat a little less and well I'm trying to exercise...well I actually exercise at work! But when you go to the doctor they tell you to eat more fiber and vegetables and I am not used to eating vegetables, just sometimes, but now I am really trying to eat more vegetables. Also for my kids I don't buy them things that are bad for them like sodas and cookies, it's important to have more control with what they eat. [ID 5]

Participants also commented that parental support for childhood nutrition and exercise was an important prevention strategy. Helping children learn health behaviors at a young age was described as a way to promote child health and build healthy habits for adulthood.

...Because [children] are learning and if they don't like it because it's not good well then we just have to get used to eating good food like fruits and all the foods that are healthier for us. They will get used to it...And then they will just love fruit, it's just well you know, they will pick it up by themselves. [ID 60]

I remember the dentist looked at my teeth and said, "man, you have rocks for teeth," and I just thought "wow, you know, that's drinking milk as a kid, having fluoride." I mean some of that baseline stuff as opposed to growing up in a home where you're ignored and fed poorly. [ID 36]

Personal and community resources provide opportunities for individuals to be healthy.

Most participants noted the importance of assets outside of individual behaviors that contribute to health. A deficiency of resources, in turn, was described as a barrier to health. Participants across socioeconomic and health statuses acknowledged and expressed gratitude for assets like financial resources, family relationships, natural environment, and community services that contribute to their well-being.

I know a lot of families have to worry about other things like “oh I have to go to work”, not enough money for high school [activities]...there is a lot of kids that had high school jobs and I was privileged and lucky to not have to worry about that stuff, and just focus on soccer and school and those were my two things I had to focus on and anything else I didn't need to worry about like, “oh yeah, we don't have enough money for books or soccer stuff.” [ID 65]

...We do have public transportation that is pretty reasonable. They have like a \$5 taxi here in town, and they'll take you anywhere in town for five bucks, and with the price of gas, that's pretty reasonable. And then we have the LINK bus that if you call up the day before, they can take you up to the store or up to the hospital or to the doctor's office...And they are wheelchair accessible. So that's good. There's a lot of good things going on. There's a few that I think could be improved on, but you know, I can't really complain a lot about what goes on. Just a few things I'd like to see improved. But with The Dalles as isolated as they are, it's kind of hard to do some of those things. [ID 42]

...I can enjoy the nature and that makes me feel healthier, the air I breathe. The air is free of smoke and garbage, all those things I value a lot because you know how the air is here it's easy to breathe.... The water is another thing I value a lot that is very important because here we can just drink it from tap and there's a lot of places where we can't do that. [ID 62]

Lack of resources was generally identified as a barrier to routine physical activity, accessing healthy foods, obtaining health care services, and “belonging” in community life. Participants talked about the resource barriers of performing health behaviors as both time and financial costs.

It's so easy to just pass by a dollar menu from McDonalds after you finish working 10 hours or 12 hours. It's just easier to go rather [than] go to the store and buy a pear and salad and all that, you're probably going to spend like 20 dollars just trying to eat healthier. [ID 61]

...I don't know what services are available where most of the people are living, but to take the time to drive to anything, unless it was just down the block, I think is challenging, and then cost. And time ... time is probably the biggest one. I think most people that are not earning very much, are spending all their time trying to earn it. [ID 56]

DISCUSSION AND FUTURE DIRECTIONS

Community members in the rural Columbia Gorge viewed health as a multi-dimensional concept, supported by both individual behaviors and community characteristics. Participants identified nutrition, physical exercise, and social engagement as key factors in experiencing good health, and perceived that implementing these preventive strategies helped facilitate health across the lifespan. Throughout the AI interviews, participants highlighted personal and community assets that contributed to health and recommended improvements to enhance health in the region.

Participants placed limited emphasis on characteristics of the health care system in their descriptions of good health, focusing instead on factors in the broader community and personal healthy lifestyle behaviors such as diet, exercise, and social engagement. While this focus was evident across all interviews, Latino participants discussed health care less frequently than non-Latino participants; many Latino participants did not mention health care at all during the interviews. Our findings suggest that focusing primarily on disease- and treatment-related health and health care messages may not align

with community understandings of what contributes to health. Integrating the health promoting factors that community members prioritize could enhance receptiveness to messages and supports for health or health care related behaviors.

Many of the participant's recommendations for improving community health focused on increasing access to basic resources including healthy foods, exercise opportunities, housing, transportation, and economic opportunity. Participants identified a host of resources that contribute to health, highlighting that individuals' and families' financial and social capital enable them to engage in health behaviors. The path to health for those who have limited resources presents barriers that cannot be addressed by changes to the health care system alone. Local health interventions focused on systemic improvements to increase access to resources promoting healthy lifestyle behaviors may improve community member health beyond what is feasible through health care-focused interventions alone. Additionally, future research and interventions might explore what allows someone who encounters a resource barrier in the local regional context to successfully navigate around it.

While we found common themes across Latino and non-Latino participants, several differences emerged. Latino participants indicated that the use of agricultural chemicals is a key health concern, and recommended reductions in order to improve health. Latino participants also noted occupational factors like long work hours and physically demanding work that were not discussed by non-Latino participants. Additionally, Latino participants frequently emphasized nutrition in their understandings of health and recommendations for improvements, suggesting that this issue may be seen as a higher priority for Latino community members than non-Latino community members. These differences suggest that while sharing a number of concerns with the broader regional community, Latino community members have distinct health experiences that should be taken into account. Health interventions that are tailored to the distinct health experiences and priorities of local Latino community members may better align with community concerns than a uniform approach.

A few differences also emerged between participants from Hood River and participants from The Dalles; however, themes were notably similar across geographic communities. More participants from Hood River described the natural environment and outdoor recreation opportunities such as walking paths as important factors in their community that contribute to good health. A few participants indicated that housing in Hood River was higher quality than the housing available in The Dalles. Participants also commented on the different grocery store options that were available in the two communities. Beyond these issues, however, participant discussion of differences between communities was very limited. The commonality of overarching themes between The Dalles and Hood River suggests that members of both communities share similar views of health and understandings of the key factors that contribute to good health in their community. A regional approach to health and health research in the Columbia Gorge may be effective, since the findings of this project do not indicate distinct priorities between the two geographic communities.

The findings of this project should be interpreted with a few limitations in mind. The sample was designed to be representative of the diversity of Hood River and Wasco counties; therefore findings may not be generalizable to other rural or urban communities. Additionally, the small sample sizes for the Latino sub-population ($n = 12$) and non-Latino sub-population ($n = 15$) alone may not have been sufficient to reach saturation. Additionally, although we attempted to recruit participants with a diverse level of health, no participants in our sample self-identified as being in poor health; this finding may warrant additional exploration. Finally, despite the use of an AI framework, participants frequently struggled to describe factors that contributed to health and often reverted to describing challenges they

faced in being healthy. Continued work to encourage participants to focus on the positive aspects of their personal and community environment may be an important component of interventions to promote a regional culture of health.

Despite these limitations, our results provide valuable insight into the health experiences and health concerns of community members that can help inform future research and interventions to improve health and health care in the Columbia Gorge region. Our findings suggest that community members value being engaged to proactively improve health and health care. Many Latino participants described positive experiences with community health education and prevention programs that provided them with information and skills to maintain healthy lifestyles. Among non-Latino participants, self-advocacy was described as an important part of obtaining services that meet individuals' health needs. We found that participants see themselves as playing an important role in improving health and health care. Community members may be responsive to local health interventions that actively engage patients and provide individuals with knowledge and skills to practice health behaviors and self-advocacy.

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