Community Health Improvement Plan 2014

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Lincoln County
Community Health Improvement Plan
October 2014

Executive Summary

The Lincoln County Community Health Improvement Plan (CHIP) documents months of ongoing collaboration with multiple community partners and stakeholders. This five-year plan is informed by data published in the Lincoln County Community Health Assessment (CHA) in August 2013. The plan outlines the top public health priorities identified by community partners, and defines objectives and strategies for each priority that partners have agreed to accomplish utilizing a collective impact framework.

The public health priorities, goals and objectives detailed in this CHIP are:

Social and Economic Stability

- Increase access to community services.
    - By Dec. 31, 2016, increase the number of calls and hits from Lincoln County to 211 and 211info.org for referral and information services by 6 %, from 943 in FY 2014 to 1,000 in FY 2016.

- Promote a living wage.
    - By Dec. 31, 2014, assemble one living wage work group that will consist of at least four identified community members who can offer expertise on improving wage and benefit standards in Lincoln County.
    - By May 30, 2015, compile and prioritize an inventory of local policy opportunties for improved working and living wage conditions.
    - By Dec. 31, 2015, assess community readiness for improving wage and working conditions for Lincoln County residents.
    - By Dec. 31, 2019, increase local political and business will to pay a living wage.

- Increase affordable housing options in Lincoln County.
    - By Jan. 31, 2015, convene stakeholders to initiate a collaborative process for affordable housing.
    - By May 30, 2015, compile and prioritize an inventory of local policy opportunties for affordable housing.
    - By Dec. 31, 2019, implement at least one strategy to increase affordable housing.

Mental health and addictions

- Improve awareness and understanding of mental health and addictions issues.
    - By Dec. 31, 2019, increase the percent of Lincoln County residents who have a broader understanding of mental health issues and root causes, including adverse childhood experiences (baseline collected as part of CHIP activities).

- Increase access to prevention and treatment services.
    - By Dec. 31, 2019, decrease the rate of youth depression (self-report) by 3 %, from 24.1 % to 21.1 % of 6th-graders; from 30 % to 27 % of 8th-graders; and from 30.8 % to 27.8 % of 11th-graders.

    - By Dec. 31, 2019, decrease the average poor mental health days experienced by adults in Lincoln County by 1 day, from 3.6 days per month to 2.6 days per month.

    - By Dec. 31, 2019, develop and present to at least three potential funders one proposal, with a need and feasibility assessment, for establishing an area detox center.

Maternal, infant and child health

- Increase immunization rates.
    - By Dec. 31, 2019, increase the rate of 2-year-olds who are up-to-date on vaccinations by 5 %, from 62 % of non-WIC-enrolled and 65 % of WIC-enrolled to 67% of non-WIC-enrolled and 70 % of WIC-enrolled children.

- Decrease tobacco use among pregnant and parenting families.
    - By Dec. 31, 2019, increase the rate of pregnant women who do not smoke by 8 %, from 77 % to 85 %.

    - By Dec. 31, 2019, increase the rate of all Lincoln County residents who do not smoke by 7 %, from 73 % to 80 %.

Healthy lifestyles

- Decrease tobacco use and initiation.
    - By Dec. 31, 2019, increase the rate of all Lincoln County residents who do not smoke by 7%, from 73% to 80%.

- Increase physical activity.
    - By Dec. 31, 2019, increase the rate of Lincoln County residents who meet the CDC recommendations for physical activity by 5 %: 61 % of adults (baseline 56 %) will engage in at least two hours of moderate to vigorous activity every week, including muscle-strengthening at least twice weekly; 38 % of 8th-graders (baseline 33 %) and 33 % of 11th-graders (baseline 28 %) will engage in at least 60 minutes of physical activity every day.

- Improve nutrition.
    - By Dec. 31, 2019, increase the rate of Lincoln County residents who eat vegetables and fruits at least five times a day by 4 %: from 56 % to 60 % among

adults; from 19 % to 23 % among 8th-graders, and from 22 % to 26 % among 11th-graders.

- By Dec. 31, 2019, reduce by 5 % the rate of Lincoln County youth who consume regular soda (e.g. Coke, Sprite) four or more times per week, from 28 % to 23 % among 8th-graders and from 30 % to 25 % among 11th-graders.

Family and community conflict

- Reduce bullying, abuse and neglect and exposure to interpersonal violence throughout the life course.
  - By Dec. 31, 2019, reduce the rate of students skipping school from feeling unsafe by 2 %, from 11.9 % to 9.9 % among 6th-graders; from 5.2 % to 3.2 % among 8th-graders and from 4.4 % to 2.4 % among 11th-graders.
  - By Dec. 31, 2019, decrease the incidence of crimes against persons[1] by 10 %; from 801 in 2012 to 721 in 2017 (dates reflect a data lag).

Stakeholder work groups, which have formed for each priority area, will continue to collaborate on achieving these identified objectives during the next five years. Lincoln County Public Health, while not responsible for the implementation of this community-defined and driven improvement plan, will continue to aid in convening and facilitating the work groups. These groups will remain transparent and are open to new partnerships and group participants. Additionally, because of the grassroots nature of this work, the Lincoln County CHA and CHIP are envisioned as living documents that provide guidance and clarity for generating, measuring and sustaining improved health and well-being for all Lincoln County residents.

[1] Crimes against persons is defined as robbery, assault, rape, other sex crimes, kidnapping and homicide, and is included in the state and federal Annual Uniform Crime Reports.

MAPP and the Community Process

Lincoln County's Community Health Improvement Plan (CHIP) was developed with the input of cross-sectoral community partners in an effort to systematically address the public health issues identified in the Community Health Assessment (CHA). This 2014 CHIP is a continuation of a participatory process initiated with the CHA, which was completed in August, 2013.

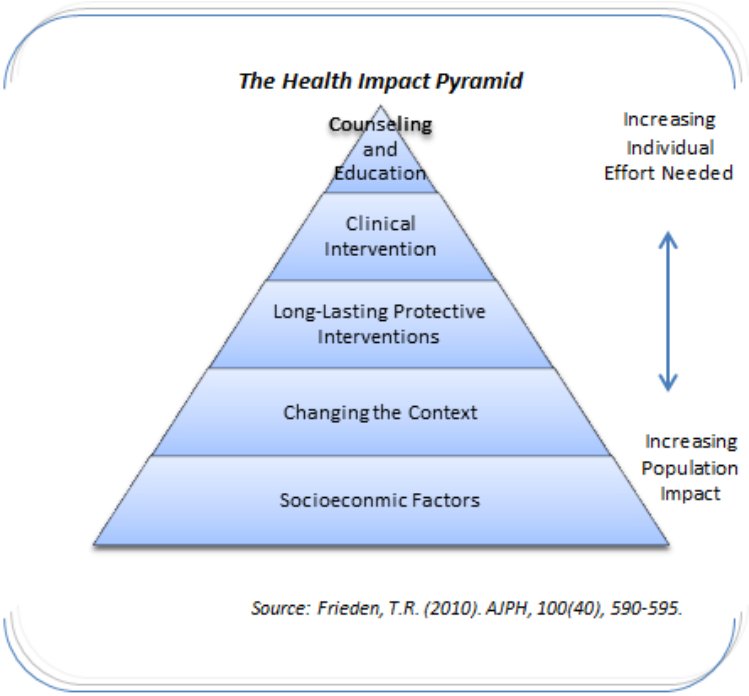
Mobilizing for Action through Planning & Partnerships (MAPP)

MAPP is a community driven strategic planning process often used by local public health leaders to improve community health.[1] This framework is used to help communities prioritize public health issues through strategic thinking, identifying resources to address these issues, and planning for action. There are six phases within the MAPP framework, which also include four distinct assessments that are important to this planning process.

The MAPP framework has been used as a guide for systematically identifying, prioritizing, and strategically addressing the major health issues and challenges in Lincoln County. The first three phases of MAPP were completed with the CHA. These included organizing and partner recruitment, visioning and conducting assessments that defined the demographic and health status of Lincoln County across multiple dimensions of health. The CHIP process continued the work of the CHA, completing MAPP phases four through six: identify and prioritize strategic issues, determine goals, objectives and strategies for each of these issues and initiating an action plan toward realizing this plan.

A Framework for Public Health Action: The Health Impact Pyramid

Health is made up of many conditions and factors. Wordwide, a growing body of research reveals how conditions and social and economic opportunities determine health outcomes.[2] The Health Impact Pyramid[3] framework provides guidance for a comprehensive public health approach to community improvement across multiple domains of behavioral influence. In this 5-tier pyramid, efforts to address socioeconomic factors are at the base, followed by public health interventions that change the context for health (e.g., smoke-free laws, safe parks, bike lanes), protective interventions with long-term benefits (e.g., immunization, smoking cessation) come next, followed by direct clinical care, and at the top, counseling and education. In general, public action and interventions represented by the base of the pyramid require less individual effort and have the greatest population impact overall.[4] A similar model, called the Ecological



or Social Ecology model, is used in a variety of disciplines in order to better understand the larger forces that impact individuals.[5]

Utilizing the Health Impact Pyramid as a framework, the CHA provided a detailed demographic and health profile of Lincoln County. The CHIP is the second phase of this effort, and is intended to be the guiding document for improving the health and quality of life for Lincoln County residents through systematic collaboration and cooperation. Because the CHIP is approached from this broad perspective, it is designed to provide a roadmap for both existing and emerging community partners who are seeking to promote better health and quality of life in Lincoln County.

The Community Process

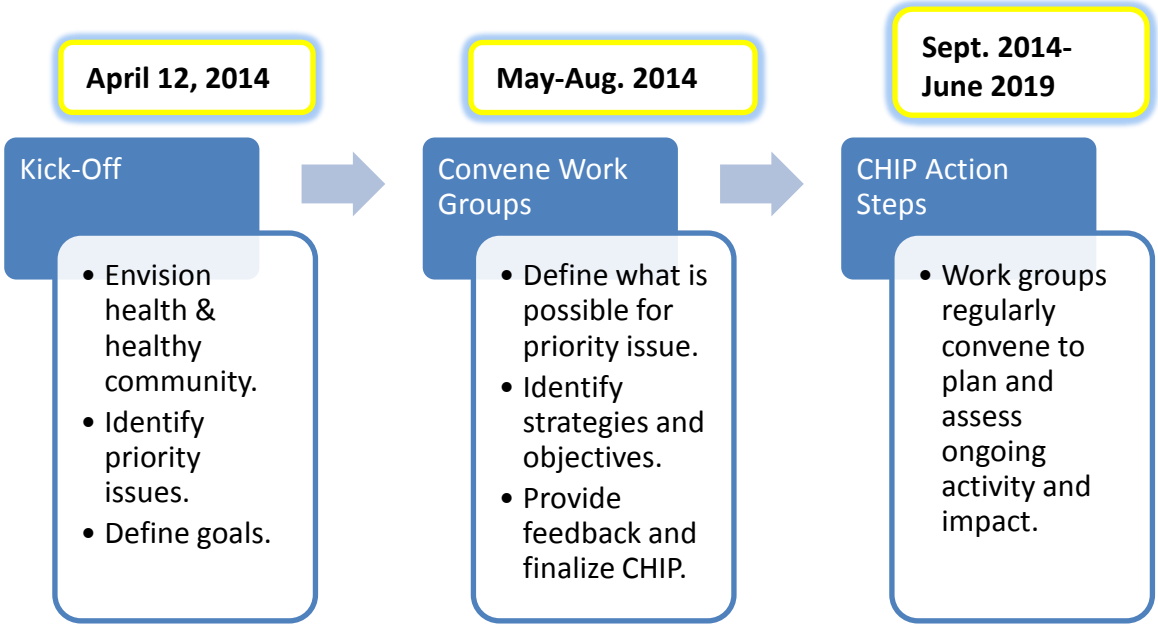
The CHIP kicked-off with a day-long Saturday workshop, during which community partners were asked to utilize CHA data to define what a healthier Lincoln County would entail, identify the priority areas for achieving that vision, and develop some goals for addressing the priorities. The group started by coming to an agreed-upon definition of health and a healthy community through synthesizing a brainstormed list of what it meant. Having health was decided to be "full social and economic participation." Relatedly, a healthy community is a "safe and collaborative community with low morbidity and mortality rates, and equitable access to the social, physical and economic resources that support individuals and families in achieving their full potential." Using these definitions as a foundation, the group was asked to reduce a list of 33 broad health issues reflected in data points published in the CHA to a handful of key priorities. This was done initially with large group discussion, in which topic areas that seemed redundant were combined. Then, using a nominal group technique in which each person's voted on what they considered the top four priorities that

How do you define health?
Full social and economic participation.

What is a healthy community?
A safe and collaborative community with low morbidity and mortality rates, and equitable access to the social, physical and economic resources that support individuals and families in achieving their full potential.

they personally could directly influence by placing a small round sticker (sticky dot) under that topic area. The results were tallied to produce a list of the top priority areas.

Lincoln County CHIP Process



While the group generally was in agreement with the results, many were reluctant to eliminate some priority issues that did not make the sticky-dot cut, and advocated for these to be incorporated into one of the top scoring priority issues. Thus, the process of trying to narrow priority areas to five or less resulted in six multi-faceted categorical priorities, listed in Table 1.

The group then divided into six groups – one for each priority area – and developed one or two goals for each priority (see Table 1), based on known capacity and opportunities for change within the community. Following the kick-off event, the access to care group did not have ongoing community participation, and was therefore dropped as a stand-alone initiative. However, it remains a component of the work done by the mental health and addictions group, and is still an active agenda item at other tables, including a coalition working on access to children's dental care, that did not organically align under the CHIP process.

Additionally, the goals outlined under the remaining priorities help to provide a focused direction for the development of strategies and objectives. As a result, the priority goals and strategies defined in this CHIP should not be viewed as a comprehensive solution to the larger priority issues identified, but initial collaborative approaches that will "chip" away at them.

Table 1. Priority areas and goals identified during the CHIP Kick-Off

Priority	Goal
Education, food access and housing	Increase access to available community services.
	Advocate for a living wage.
Mental health, emotional health and addictions	Increase community understanding and awareness of mental health and addictions issues.
	Increase accessibility of mental health and addictions prevention and treatment services.
Maternal and infant health, child wellness and infectious disease	Improve immunization rates among Lincoln County residents.
	Reduce isolation and improve health behaviors among pregnant and parenting families in a culturally sensitive and relevant way.
Chronic disease, physical activity and nutrition	Increase access to and engagement with a healthy lifestyle (including adequate physical activity and nutrition, and reduced tobacco use) across the life course.
Community and personal safety	Reduce exposure to abuse, neglect, bullying, exploitation and other threats to personal safety in homes, schools, neighborhoods and workplaces for all Lincoln County residents.
Access to health care including primary, behavioral and dental	Attain a stable, integrated quality health care system in a barrier-free environment.

Following the kick-off, Health Department subject matter experts for each priority facilitated an ongoing work group that included group participants from the CHIP kick-off as well as additional key partners and existing public committees or coalitions already working on the issue, when possible. These groups further refined the goals established during the kick-off and determined specific objectives and strategies, using as key criteria:

1. Accurate data is available and supports this issue as a need.
2. There is existing capacity and motivation to achieve or make substantial gains toward the defined goals within the next five years.
3. Resources are available and/or can be attained to realize or make gains toward the goals and objectives within the next five years.
4. Metrics or targets are based on existing program evidence and can be monitored through existing ongoing data collection efforts, such as the Oregon Healthy Teens or the CDC's Behavioral Risk Factor Surveillance Study.

The priorities and goals remained flexible as work groups continued to convene, brainstorm, share expertise and define their objectives and strategies, based on current resources and capacity. As a result of this process, the final priority list was further refined and defined to better reflect the final priorities and opportunities for intervention that emerged from the participatory process, as follows:

Original Priority	Refined Priority
Education, food access and housing	Social and Economic Stability
Mental health, emotional health and addictions	Mental Health and Addictions
Maternal and infant health, child wellness and infectious disease	Maternal, Infant and Child Health
Chronic disease, physical activity and nutrition	Healthy Lifestyles
Community and personal safety	Family and Community Conflict
Access to health care including primary, behavioral and dental	N/A (Access to care was incorporated into mental health due to non-participation in this work group.)

This CHIP synthesizes the final goals, objectives and strategies from each of the independent work groups. Several common objectives and strategies emerged among the different priority groups. These commonalities are seen as indicative of where the readiness, motivation and influence of community participants exist presently. This overlap is detailed below in the section "A Collective Approach to Community Health."

Resources and Opportunities for Change

During the CHIP kick-off, participants identified several resources and opportunities for change in Lincoln County through a "forces of change" exercise. This activity enabled participants to take a step back from the large and systemic issues they had prioritized to brainstorm the various avenues for tackling them. The following is a list of the most common resources and opportunities listed during the exercise:

- Local elected leaders support public health.
- Strong cultural and religious communities.
- Coordination of health care.
- Sharing of resources and expertise across professional and geographic boundaries.
- Non-traditional partners.
- Greater outreach and resources to harder-to-reach populations, especially the very rural.
- New public health and prevention funding opportunities.
- Expanded education and engagement with all populations.

These resources are incorporated into the various strategies determined by each priority-area work group, as described below.

Priority Health Issue:
Social and Economic Stability

An ever-growing body of social and public health research points to the role of socio-economic status in predicting health outcomes. This issue has increased awareness that educational attainment, income and occupational status (the key indicators comprising socio-economic status) can be either risk or protective factors for disease depending on one's social location.[6,7] Additionally, studies find that increased social inequality is detrimental not only to those with lower SES, but to the health of the entire society.[8,9] Strategies to address social determinants of health are therefore a fundamental consideration in any population-based health improvement plan.

On average, residents in Lincoln County have lower socioeconomic status than other Oregonians. For example, 66 % of Lincoln County high-school students graduate in four years, compared to 68 % state-wide.[10] Additionally, the median household income in Lincoln County is $42,342, with the median earnings per worker at $23,460. Currently, 15.6 % of all Lincoln County residents and 21 % of children under 18 live below the poverty line.[11] By contrast, median household income in Oregon is $50,036 with per worker earnings at $26,702 and 15.5 % living in poverty; nationally, median earnings are $53,046, per capita earnings are $28,051 and 14.9 % in poverty.[12]

Much of the economic challenge in Lincoln County is rooted in low-wage jobs and high cost of living. More than one-third of all jobs in Lincoln County are in the "retail trade" and "arts, entertainment, accommodations and food services" sectors; these sectors comprise only one-fifth of jobs statewide.[13] These typically low-skilled, minimum wage and seasonal jobs are a reflection of the leading economy – tourism – while the higher wage natural resource economy (logging and fishing) that had historically been a large contributor to the local economy now comprises only four % of Lincoln County jobs.[14]

At the same time, local cost of living – especially housing – is too costly for the average income earner. About 53 % of renters, 36.2 % of mortgage holders and 15.5 % of homeowners without mortgages pay more than 30 % of monthly gross income in housing expenses.[15] Finally, food insecurity – defined as not having enough to eat or being able to purchase or obtain healthy food in socially acceptable ways – plagued 15.4 % of the Lincoln County population, or more than 7,000 individuals, in 2012.[16, 17]

Goal 1: Increase awareness of available community services.

Policy and Outcome Objectives:

- **By Dec. 31, 2016, increase the number of calls and hits from Lincoln County to 211 and 211info.org for referral and information services by 6 %, from 943 in FY 2014 to 1,000 in FY 2016.**

Root Causes and Intervening Variables:

- Vacation rentals and second-home mortgage market are too costly for the average local worker, while many of these properties sit empty for much of the year.
- Tourism economy produces seasonal service-industry jobs that pay minimum wage.
- The historic economic drivers of the region – fishing and logging – are in decline, following the national trend among non-energy related natural resource economies.
- Availability of community services are often dependent upon funding streams and can change without much notice.

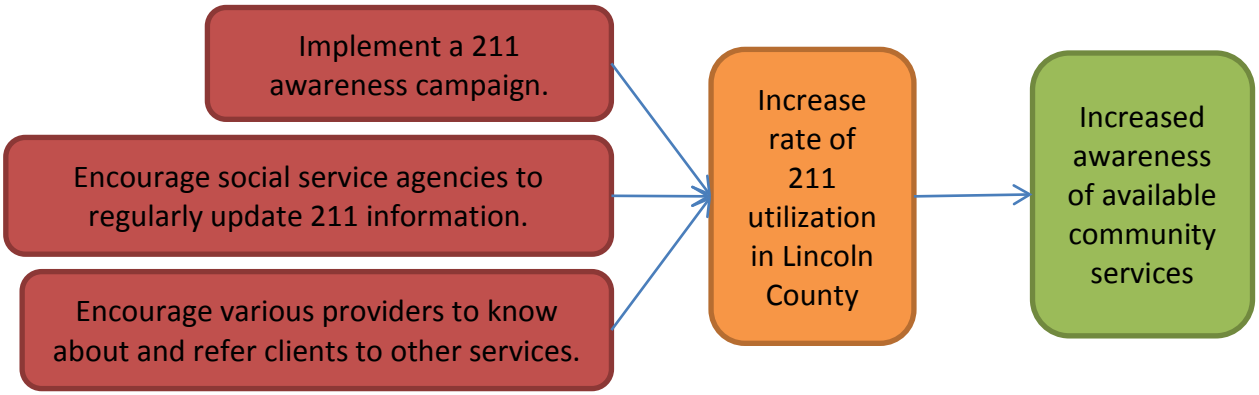
Identified Strategies:

1. Develop and implement an awareness campaign about 211 and 211info.org as a referral and information service. This service is currently managed by United Way and serves as a regional clearinghouse of resources for individuals in needs and service providers.
2. Increase awareness and use of 211 and 211info.org by social service agencies and health care providers so they regularly update agency information, and promote the service as a referral resource.

Strategy Implementation Partners:

United Way of Benton and Lincoln Counties
Lincoln County Health and Human Services
Other Social Service agencies, TBD

Theory of change for increased access to community services



Goal 2: Obtain a living wage for Lincoln County residents.

Process and Outcome Objectives:

- **By Dec. 31, 2014, assemble one living wage work group that will consist of at least four identified community members who can offer expertise on improving wage and benefit standards in Lincoln County.**

- **By May 30, 2015, compile and prioritize an inventory of local policy opportunties for improved working and living wage conditions.**

- **By Dec. 31, 2015, assess community readiness for improving wage and working conditions for Lincoln County residents.**

- **By Dec. 31, 2019, increase local political and business will to pay a living wage.**

Root Causes and Intervening Variables:

- Disagreement on the reasons people are living in poverty (individual motivation vs. structural barriers).
- Disagreement by local stakeholders about what constitutes a living wage.
- Fear from the business community that paying higher wages will bankrupt local enterprise.

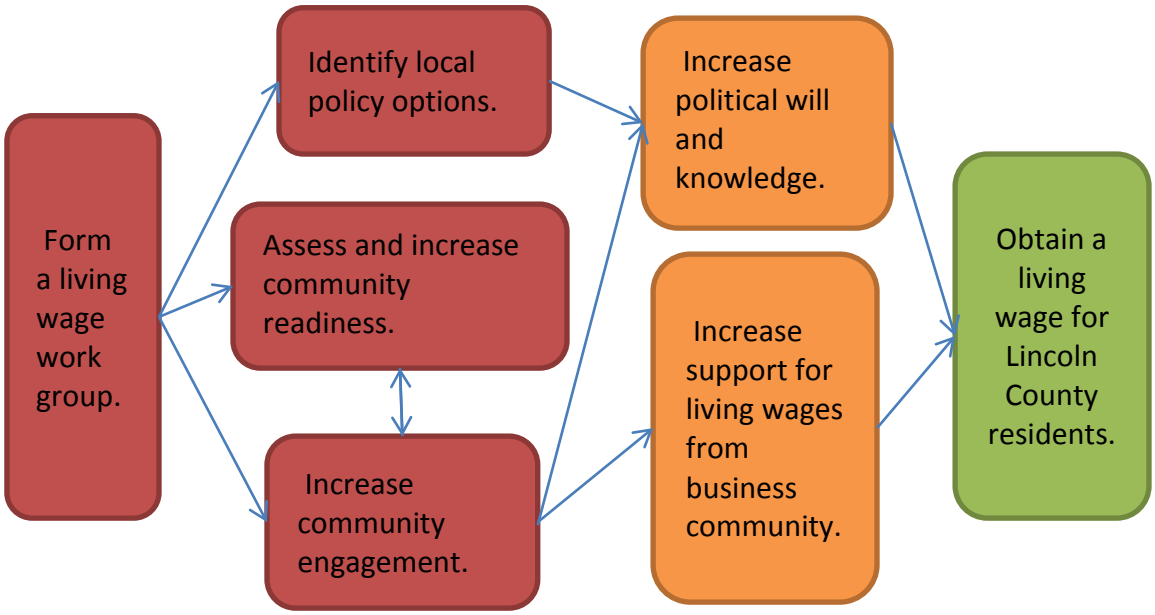
Identified Strategies:

1. Form a living wage task force with members who have expertise and capacity to advocate for change.
2. Identify and prioritize specific policy options that are not preempted at the local level.
3. Assess community readiness for awareness and of and willingness to address living wage issues.
4. Increase community engagement through broad-based campaigns and public education.

Strategy Implementation Partners:

Local business community
United Way of Benton and Lincoln Counties
Lincoln County Health and Human Services

Theory of change for promoting a living wage



Goal 3: Increase affordable housing options in Lincoln County.

Process and Outcome Objectives:

- **By Jan. 31, 2015, convene stakeholders to initiate a collaborative process for affordable housing.**
- **By May 30, 2015, compile and prioritize an inventory of local policy opportunities for affordable housing.**
- **By Dec. 31, 2019, implement at least one strategy to increase affordable housing.**

Root Causes and Intervening Variables:

- Vacation rentals and second homes comprise a large portion of the housing stock.
- Local zoning codes need to be updated to consider affordable housing options and density.

Identified Strategies:

1. Form an affordable housing task force with members who have expertise and capacity to advocate for change.
2. Identify and prioritize specific policy options.
3. Research possible strategies that have worked in other communities.
4. Determine best approach for local solution.

Strategy Implementation Partners:
Lincoln County Housing Authority
United Way of Benton and Lincoln Counties
Lincoln County Health and Human Services
Others TBD

Theory of change for promoting a living wage

Priority Health Issue:
Mental Health and Addictions

Mental wellbeing is a key component of a healthy life with "full economic and social participation." Nationally, someone diagnosed with a mental illness has an average life expectancy 25 years shorter than those without mental illness. Sixty percent of those deaths are due to medical conditions such as cardiovascular disease, diabetes, respiratory diseases, and infectious illnesses; 40 % are due to suicide and injury.[18] In Oregon, people with substance abuse issues and/or mental health conditions die 34.5 years earlier than the general population.[19]

Overall, Lincoln County residents report experiencing 3.6 poor mental health days in a month, compared with the state average of 3.3 days.[20] Additionally, 19 % of Lincoln County residents engage in "excessive drinking," which is defined by the CDC as "drinking 5 or more drinks on an occasion for men or 4 or more drinks on an occasion for women."[21] This is the third highest rate in Oregon. Coupled with Lincoln County's poverty rate of 15 % and high proportion of older adults at 22 % suggests it is a high need county for mental health services. Yet, there is only one mental health provider for every 609 patients in the county, compared with one for every 419 across Oregon.

Research suggests that early intervention and prevention services across the life course, care coordination across providers and reducing disparities in access to care are critical to addressing mental health and addictions issues.[22] Additionally, an emerging body of research points to adverse childhood experiences, or ACEs, as a root cause of many mental health, physical health and addictions issues. These adverse experiences include seven categories: psychological, physical, or sexual abuse; violence against mother; or living with household members who were substance abusers, mentally ill or suicidal, or ever imprisoned.[23] Studies have demonstrated that more adverse experiences significantly increase the risk of long-term chronic physical and mental health consequences, and poor health behaviors, including addiction.[24]

Goal 1: Increase understanding and awareness of mental health and addictions issues.

Policy and Outcome Objectives:

- **By Dec. 31, 2019, increase the rate of Lincoln County residents who have a broader understanding of mental health issues and root causes, including adverse childhood experiences (baseline collected as part of CHIP activities).**

Root Causes and Intervening Variables:

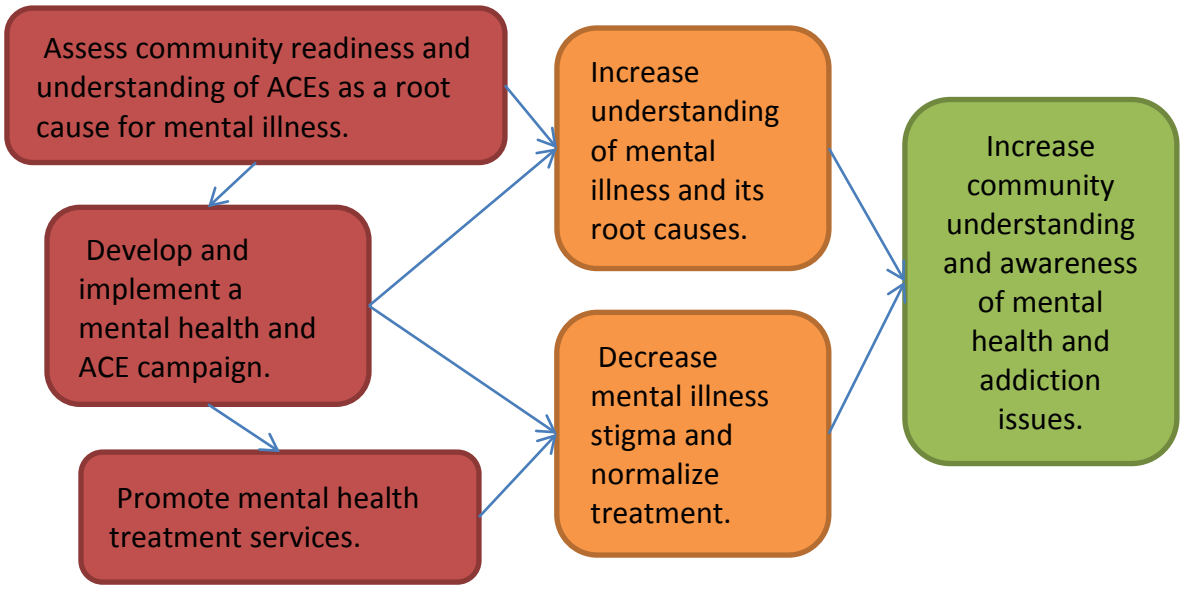
- **Insufficient community knowledge about mental illness causes, signs and symptoms.**
- **Adverse childhood experiences, including abuse and neglect, are common.**

Identified Strategies

1. Conduct a community readiness assessment for accepting Adverse Childhood Experiences as a root cause of chronic mental and physical illnesses.
2. Develop and implement a mental health campaign that promotes broader understanding of the signs and root causes of mental illness, including Adverse Childhood Experiences (ACEs).

Strategy Implementation Partners:
Addictions Prevention and Recovery Committee
Mental Health Advisory Committee
Lincoln County Health and Human Services

Theory of change for increasing awareness of mental health and addictions issues



Goal 2: Increase accessibility, use and efficacy of mental health and addictions treatment and prevention services.

Process and Outcome Objectives:

- **By Dec. 31, 2019, develop and present to at least three potential funders a proposal, that includes a need and feasibility assessment, for establishing an area substance detox center and mental health respite center.**

- **By Dec. 31, 2019, decrease the rate of youth depression (self-reported) by 3 %, from 24.1 % to 21.1 % of 6th-graders; from 30 % to 27 % of 8th-graders; and from 30.8 % to 27.8 % of 11th-graders.**

- **By Dec. 31, 2019, decrease the average poor mental health days experienced by adults in Lincoln Country by 1 day, from 3.6 days per month to 2.6 days per month.**

Root Causes and Intervening Variables:

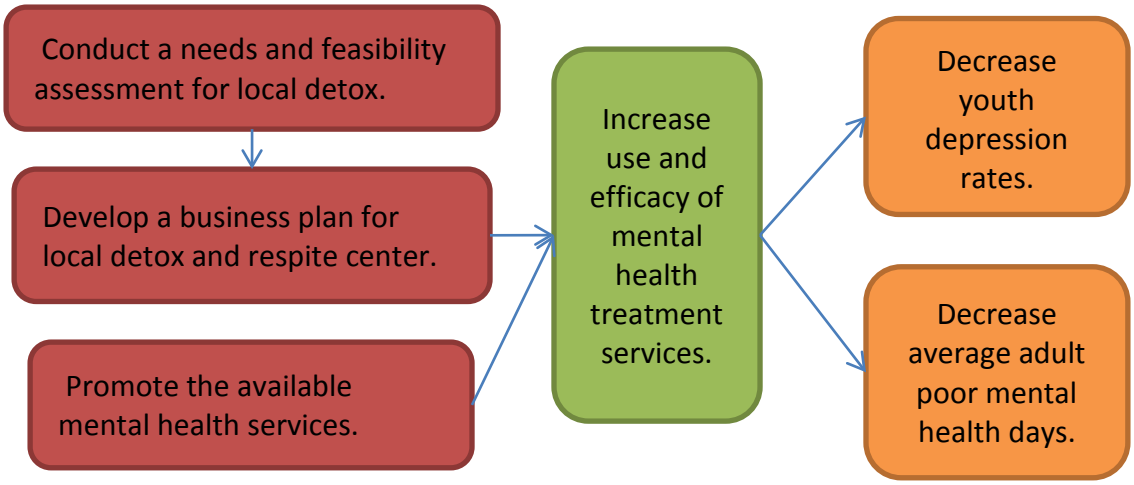
- **Difficulties in recruiting and retention of mental health providers.**
- **High rates of poverty.**
- **High rates of substance abuse.**

Identified Strategies

1. Develop a need and feasibility assessment for a local detox center and mental health respite center.
2. Use need and feasibility assessment to write and present a business plan for a local detox center and mental health respite center.
3. Promote utilization of existing public and private mental health services.

Strategy Implementation Partners:
Addictions Prevention and Recovery Committee
Mental Health Advisory Committee
Lincoln County Health and Human Services

Theory of Change for increasing access to and use of mental health and addictions services.



Priority Health Issue:
Maternal, Infant and Child Health

While Lincoln County has lower rates of infant mortality, and higher rates of breastfeeding than Oregon or the U.S. overall, there are several disparities among the different pregnant and parenting populations that are of priority for the community.[25] First, the maternal age in Lincoln County tends to be younger with higher rates of teen and young motherhood. Fertility rates (births per 1,000 women) are 17 for 15- to 17-year-olds 87 for 18- and 19-year-olds and 136 for 20- to 24-year-olds, compared to the state averages of 15, 70 and 82, respectively. Younger moms are less likely to utilize pre-natal care in the first trimester and significantly more likely to use tobacco while pregnant.[26] In Lincoln County, young mothers (ages 20 to 24) and Native American mothers, at rates of 32.8 % and 38.8 % respectively, are the most likely to use tobacco while pregnant. These populations drive up the average rate of Lincoln County pregnant women who smoke to 23.2 % compared with 10.9 % in Oregon overall.[27] Tobacco use during pregnancy is the single most preventable cause of illness and death among mothers and infants, yet one of the most detrimental for long-term effects.[28] Studies linked smoking during pregnancy to a variety of short and long-term ailments, including increased risk of stillbirth, low birth weight, sudden infant death syndrome (SIDS), preterm birth, orofacial cleft defects, cognitive and behavioral problems, and respiratory problems in both mother and child.[29]

Data indicate that as they grow, Lincoln County infants and toddlers have limited utilization and access to important public health resources – especially vaccinations. Specifically, only 56 % of Lincoln County children are up-to-date on vaccinations by age 2, compared with 67 % in Oregon and 68 % nationally.[30]

Goal: Improve health behaviors among pregnant and parenting families in a culturally-appropriate way.

Policy and Outcome Objectives:

- **By Dec. 31, 2019, increase the rate of 2-year-olds who are up-to-date on vaccinations by 5 %, from 62 % of non-WIC-enrolled and 65 % of WIC-enrolled to 67 % of non-WIC-enrolled and 70 % of WIC-enrolled children.**

- **By Dec. 31, 2019, increase the rate of pregnant women who do not smoke by 8 %, from 77 % to 85 %.**

- **By Dec. 31, 2019, increase the rate of all Lincoln County residents who do not smoke by 7 %, from 73 % to 80 %. This improvement will reduce the likelihood that pregnant women and children will be exposed to second hand smoke from another family member or friend.**

Root Causes and Intervening Variables:

- **Inadequate information on the schedule of vaccinations recommended for children.**
- **Anti-vaccination movement providing misinformation about the risks of vaccinating.**
- **Inconsistent or infrequent well-child checks prevent parents from obtaining sufficient information from pediatricians or family physicians.**
- **Pediatricians are inconsistent in providing vaccination information.**
- **Language and cultural barriers that affect the receipt and dissemination of information, and utilization of treatment services.**
- **Urban myth that quitting smoking when pregnant will "shock" the fetus.**
- **Inadequate information provided to pregnant women about the extent of harm caused by smoking when pregnant.**
- **Inadequate resources to help pregnant women quit.**
- **Challenging for the pregnant woman to quit when family continues to smoke.**
- **Pregnant women exposed to second-hand smoke.**

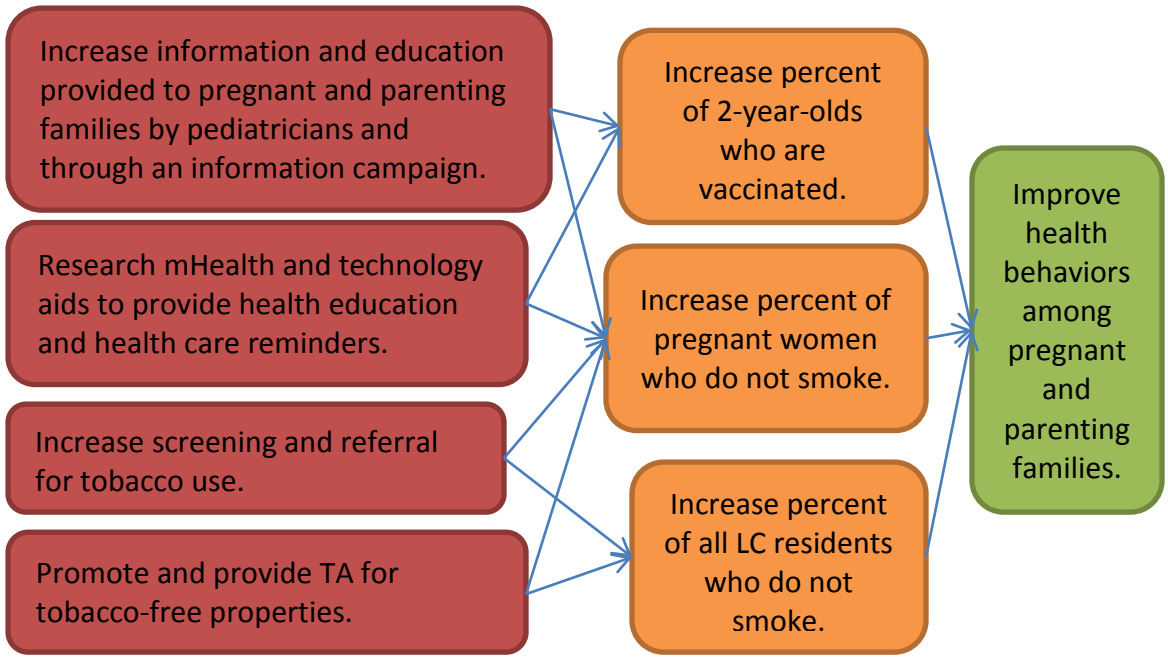
Identified Strategies:

1. Increase the information and education provided through pediatricians and other health and service providers about the timing and importance of vaccinations through information, training and improvements to clinic policies and processes.
2. Research possible use of mobile health software apps and other technology options that will provide real-time reminders and educational information to parents about the timing of immunizations, developmental milestones and other health-related information.
3. Collaborate with local health care providers to ensure all pregnant women are being screened and referred for tobacco use.

4. Develop and implement an education campaign to promote availability of cessation services and dispel myths about quitting when pregnant.
5. Provide technical assistance for implementing tobacco-free properties laws and policies, especially those frequented by pregnant women and families such as social service agencies and public parks.
6. Develop and deliver information and resources that are culturally and linguistically appropriate.

Strategy Implementation Partners:
Community Services Consortium: Head Start
Oregon State University Extension Services
Lincoln County School District
Lincoln County Health and Human Services
Linn-Benton-Lincoln Education Services District
Pacific Communities Health District Foundation

Theory of change for improving maternal, infant and child health.



Priority Health Issue:
Healthy Lifestyles

The leading causes of preventable death in the state of Oregon are tobacco, diet and activity patterns.[31] These risk factors contribute to chronic diseases, such as heart disease, stroke, cancer and diabetes, which are among the most prevalent, costly, and preventable of all health problems. Healthy lifestyles, which include regular exercise, good nutrition and abstaining from tobacco products, greatly reduce a person's risk for developing chronic illnesses. Research shows that access to the resources that support healthy lifestyles, including nutritious food, physical recreational opportunities, and high quality and affordable prevention measures (including screening and appropriate follow-up) saves lives, reduces disability and lowers medical costs.[32]

In Lincoln County tobacco use is the single leading cause of preventable death, contributing to 170 deaths in 2012 and costing $28.1 million in lost productivity due to shortened life spans. As of 2009, 27 % of Lincoln County residents were current tobacco users, compared with only 16 % in Oregon and 18 % nationally. While the state and national averages have been declining since the late 1990s, Lincoln County's rate is five points higher.[33] Of additional concern, about a quarter of all pregnant women in Lincoln County smoke (and nearly 40 % of pregnant Native American women smoke), more than twice the state average.[34] While youth use rates have declined and currently are trending closer to state averages – about 11 % of 11th-graders smoke. However, the tobacco industry continues to target youth with candy-flavored products and point of sale marketing of about $1 million per hour in the United States.[35]

Good nutrition and physical activity, while not lagging significantly in comparison with Oregon as a whole, also need attention. Only 56 % of Lincoln County adults meet the CDC recommendations for physical activity: at least two hours of moderate to vigorous activity weekly that includes muscle-strengthening exercises on two or more days each week.[36] Similarly, the CDC recommends children and youth exercise at least 60 minutes per day, including aerobic, muscle strengthening and bone strengthening activities. Only 34.3 % of 8th graders and 35.6 % of 11th-graders in Lincoln County met this requirement.[37] (About 22.5 % and 25.9 % of 8th- and 11th-graders, respectively, reported 60 minutes of exercise on at least 5 days per week.)

Goal: Increase engagement in a healthy lifestyle that includes adequate physical activity and nutrition, and cessation from tobacco use.

Policy and Outcome Objectives:

- **Objective 1: By Dec. 31, 2019, increase the rate of all Lincoln County residents who do not smoke by 7 %, from 73 % to 80 %.**

- **Objective 2: By Dec. 31, 2019, increase the rate of Lincoln County residents who meet the CDC recommendations for physical activity by 5 %: 61 % of adults (baseline 56 %) will engage in at least two hours of moderate to vigorous activity every week, including muscle-strengthening at least twice weekly; 38 % of 8th-graders (baseline 33 %) and 33 % of 11th-graders (baseline 28 %) will engage in at least 60 minutes of physical activity every day.**

- **Objective 3: By Dec. 31, 2019, increase the rate of Lincoln County residents who eat vegetables and fruits at least five times a day by 4 %: from 56 % to 60 % among adults; from 19 % to 23 % among 8th-graders, and from 22 % to 26 % among 11th-graders.**

- **By Dec. 31, 2019 reduce by 5 % the rate of Lincoln County youth who consume regular soda (e.g. Coke, Sprite) four or more times per week, from 28 % to 23 % among 8th-graders and from 30 % to 25 % among 11th-graders.**

Root Causes and Intervening Variables:

- Fresh produce is perceived as more expensive and difficult to prepare.
- Fresh produce and non-processed foods are not always prominent at food banks or distributed through the backpack programs.
- Confusion about what is "healthy," including portion sizes and adequate activity levels.
- Social norms around food, exercise and tobacco.
- Marketing and prevalence of junk food and tobacco, especially in more rural areas and within walking distances of schools.
- Most communities are not pedestrian friendly – especially along Highway 101.

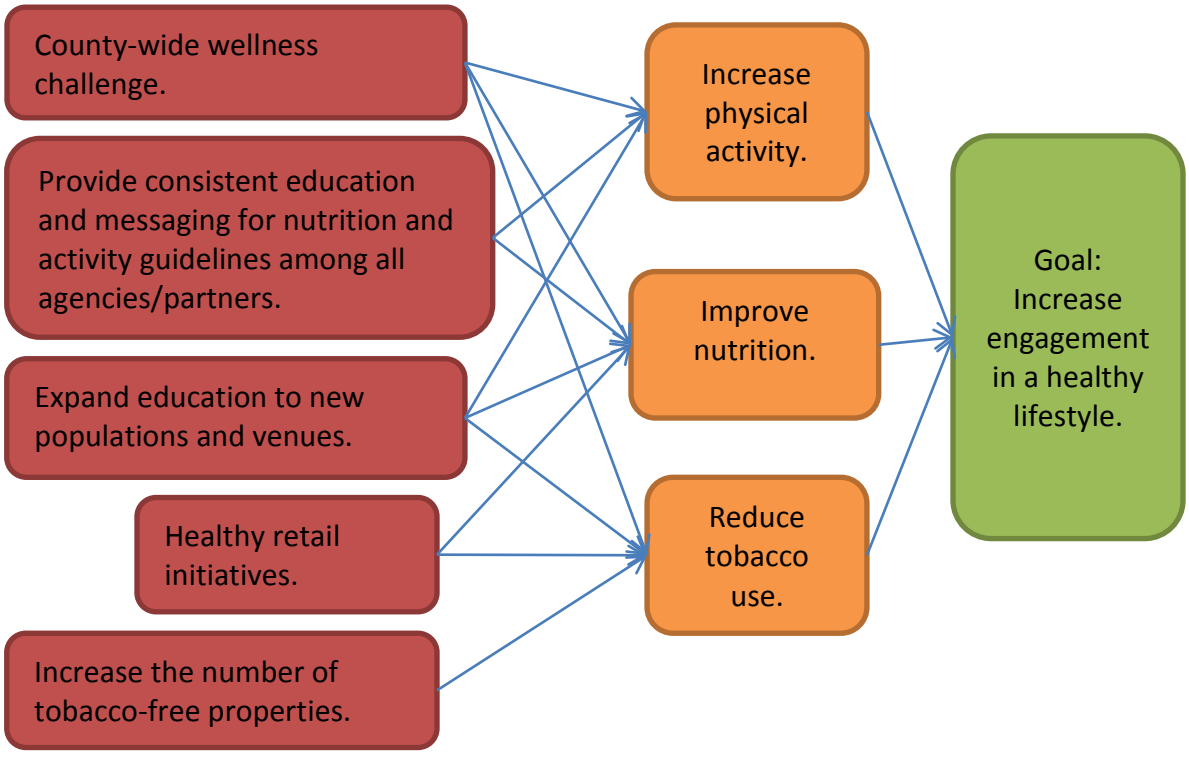
Strategies:

1. Develop and implement a coordinated, county-wide wellness challenge that engages employers, schools and families in improved physical activity, nutrition and tobacco cessation.
2. Provide education to more populations and in less traditional venues and in their most commonly spoken language, including in grocery stores, at farmer's markets, at food banks and other venues.

3. Utilize the Samaritan Pacific Communities Hospital Health Education Center to host educational summits for professionals and community residents on the topics of tobacco, nutrition and physical activity.
4. Establish healthier retail options through developing public/private partnerships for stocking fresh produce, reducing the influence of tobacco marketing in the retail environment and raising awareness about what and how products are sold to youth and in identified food deserts.
5. Increase the number of properties, including social service agencies and public parks, that are 100 % tobacco-free.

Strategy Implementation Partners:
Confederated Tribes of Siletz Indians
Lincoln County Health and Human Services
Oregon State University – Extension Office
Oregon Coast West Council of Governments
Oregon Coast Community College
Pacific Communities Health Foundation
Samaritan Health Services

Theory of change for promoting healthy lifestyles



Priority Health Issue:
Family and Community Conflict

Since 2008 Lincoln County has seen a steady rise in the number of crimes against persons from 568 in 2008 to 801 in 2012, ranking the county number one in all of Oregon (rate of 173 per 10,000; Oregon average is 96.5 per 10,000).[38] Crimes against persons is a key indicator in measuring interpersonal violence, including rates of homicide, rape and sex crimes, kidnapping, robbery and assault. Because the trauma experienced by these victims is at the root of a myriad of mental and physical health issues, Lincoln County residents identified it as a key public health concern during the CHIP process.[39] While these traumatic events have important consequences for adults, years of research into interpersonal violence experienced or witnessed in childhood (termed adverse childhood experiences) has demonstrated lasting health and social impacts throughout the life course of the individual and inter-generationally. For example, the more adverse experiences one is exposed to in childhood results in increased rates of chronic illness, depression, teen pregnancy, substance abuse, and likelihood of perpetuating or becoming a victim of intimate partner violence.[40]

Interpersonal violence is not only perpetuated by adults. Lincoln County School District students report higher than average rates of bullying (including verbal, physical or ostracizing forms of harassment). In 2012, 9.9 % of 6th-graders, 9.2 % of 8th-graders and 6.4 % of 11th-graders reported missing school due to feeling unsafe at or en route to school, compared with Oregon rates of 8.3, 7 and 4.1, respectively.[41] The leading reason cited for experiencing harassment was the individual's physical characteristics: weight, clothes, acne, etc.

The CHIP Community Safety committee decided to approach all issues of interpersonal violence, as outlined below, through the lens of bullying behavior. From this perspective, it is hoped that these issues can be approached proactively, transitioning the community norm from acting as a "bystander" to safely intervening by discouraging the bullying and lending support to the victim as an "upstander."[42]

Goal: All Lincoln County residents live in a safe environment with socially supportive interpersonal relationships.

Policy and Outcome Objectives:

- **By Dec. 31, 2016, increase awareness of and readiness to address bullying behavior among youth and adults through the implementation of one ongoing, multi-platform awareness campaign.**

- **By Dec. 31, 2019, reduce the rate of students skipping school from feeling unsafe by 2 %, from 11.9 % to 9.9 % among 6th-graders; from 5.2 % to 3.2 % among 8th-graders and from 4.4 % to 2.4 % among 11th-graders.**

- **By Dec. 31, 2019, decrease incidents of crimes against persons by 5 %, from 801 in 2012 to 760 in 2018.**[2]

Root Causes and Intervening Variables:

- Generational cycles have shifted the social norms of what is acceptable.
- A lack of accountability for abusive/bully behavior exists due to the perspective that it is a "private" issue within the home.
- Targets of mistreatment are often already marginalized, vulnerable and isolated.
- The "private issue" perspective might contribute to weak community buy-in on changing the norms.
- Income inequality has been linked to higher rates of bullying.

Identified Strategies:

1. Design and implement a social norms and awareness campaign that leads to broad awareness as to what is bullying, the need for everyone to act as an "upstander" and how to safely intervene and report.

2. Provide anti-bullying and violence prevention trainings to law enforcement, educators and other key groups in the community.

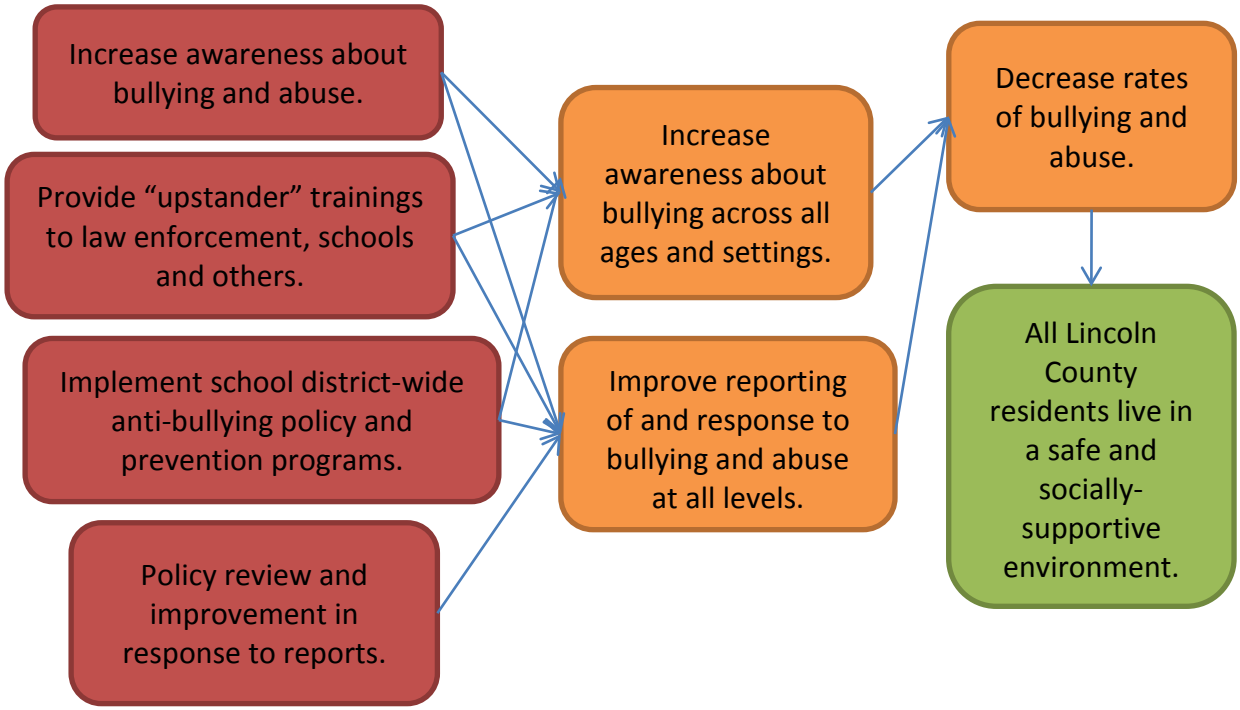
3. Implement universal anti-bullying policies and programs across all schools in the district.

4. Identify and, where possible, improve upon existing policies and their enforcement capacities to assure all reports of bullying and abuse are sufficiently investigated and the person targeted with violence is safe.

[2] Year reflects data available in 2019 due to analysis lag time.

Strategy implementation partners:
Confederated Tribes of Siletz Indians: CARE
Lincoln County Health and Human Services
Lincoln County School District
Lincoln County Youth Development Coalition
Oregon Cascades West Council of Governments
PFLAG Oregon Central Coast

Theory of change for reducing conflict among families and communities



CHIP Implementation and Evaluation

The Community Health Improvement Plan is intended to be a living document that serves as the road map for achieving the goals and objectives defined in this document. While Lincoln County Public Health facilitated this process, it is the community partner organizations and community citizens who have the influence to successfully implement and adapt the plans when needed. All of the objectives specified in this CHIP are based on cross-sectional data that is regularly collected and publicly available through state or federal agencies, or by a partner organization represented on that work group. While implementation of these initiatives is largely the responsibility of community partners, Lincoln County Public Health will track and document the work being done, and facilitate both process and outcome evaluation activities with the each work group. Each evaluation process and timeline will be based on the objectives and pace set by the work groups, utilizing a developmental evaluation framework.[43] In contrast to the traditional external objective evaluator who seeks to define a replicable model program, this framework allows for social innovation through an ongoing, team-based approach to improvement, adaptation and change informed by ongoing data collection and feedback on the implemented initiatives. Both the activities of the work groups and the process and outcomes of the evaluations will be documented by Lincoln County Public Health and published as an annual update on CHIP progress.

Below is a description of the responsibilities and roles of work group participants and the Public Health Department.

CHIP work group participants will:

- Continue to meet on at least quarterly intervals.
- Define and implement the action steps needed to enact the strategies and achieve the outcomes.
- Provided updates on data sources provided by their organization, when available.
- Collaborate in ongoing evaluation.
- Use evaluation outcomes to adapt to community change and refine action steps or strategies to better accomplish the goal.

Lincoln County Public Health will:

- Continue to serve as a convener and facilitator of the work groups.
- Assist in identifying emerging best practices that might aid in accomplishing the defined objectives.
- Track the process and progress of work groups as they implement the strategies.
- Track and report to the groups any data updates published by state and federal agencies, when they are available.
- Oversee and facilitate the evaluation process for each work group.
- Document the activities and impact evaluation processes for each work group, and publish this information in an annual update report.

A Collective Approach to Community Health

The CHIP process facilitated an opportunity to bring together diverse partners who were already actively engaged in many related initiatives. Although some of the initiatives and goals outlined in this CHIP have been community priorities with action for years, the process helped to make new connections and forge new partnerships utilizing a collective impact framework. Engaging the CHIP process created an opportunity to reassess and, in some cases, learn the existing community landscape amidst health department and partner organization staff turnover and changing political and public health trends. As a result, many of the goals described in this document require further needs or readiness assessment as initial steps. This additional information will build upon the data provided through the CHA, and better inform and target the initiatives. Additionally, many of the priority areas have overlapping objectives, such as tobacco prevention and cessation. In these cases, the different work groups and partners are communicating and collaborating with facilitation from the health department to assure streamlined, unduplicated activities and broader impact.

It also is important to recognize the broader climate of coordination and collaboration in which this CHIP process was initiated. In the past few years, Oregon has undergone large transformations with the development of Coordinated Care Organizations (CCO) to manage the Oregon Health Plan (Medicaid) services, regional Early Learning Hubs, and the ongoing "Future of Public Health" task force in Oregon, which is exploring opportunities for regionalizing the public health structure. For Lincoln County, these structural transformations have already spurred the use of collective impact on many fronts. The local CCO, Intercommunity Health Network (IHN-CCO), the regional Early Learning Hub and several public health initiatives have resulted in collaboration among staff and organizations in Lincoln County, Benton County and Linn County. For example, the three area county health departments (Lincoln, Linn and Benton) and IHN-CCO jointly received were awarded grant funding for several health promotion initiatives, while the Early Learning Hub sparked greater collaboration among school districts, early learning centers, early childhood serving agencies and public health departments from the three counties. This growing regional approach, coupled with requirements for the CCOs to engage in their own a CHA/CHIP process is also leading to another coordinated approach – the CHA/CHIP alignment project. It is anticipated that the next cycle of CHA and CHIP processes will be jointly facilitated to meet the needs of Lincoln, Benton and Linn counties health departments and IHN-CCO.

Finally, it is important to state that none of the work groups outlined in this CHIP, or regional partnerships described above will operate in isolation. Many of the individuals participating at in the CHIP work groups also are involved in other regional partnerships, and every effort will be made to assure open communication and coordination of efforts toward not only a healthier Lincoln County, but a healthier region.

CHIP, SHIP and Healthy People 2020

The Lincoln County CHIP, while driven by a local participatory process and framed by regional collaborations, also has many parallel initiatives and outcomes that will contribute to those defined by the Oregon State Health Improvement Plan (SHIP)[44] and the U.S. Department of Health and Human Services Healthy People 2020. Table 2 on page 28 outlines the relationship between these three plans.

Lincoln County		Oregon SHIP	Healthy People 2020
Social and Economic Stability	Increase access to needed community services.	Improve health equity: Improve High School graduation rates, by race/ethnicity.	SDOH-4: Proportion of households that experience housing cost burden.
	Advocate for a living wage.		NWS-13: Reduce household food insecurity and in doing so reduce hunger.
	Increase affordable housing options.		SDOH-4: Proportion of households that experience housing cost burden
Mental Health and Addictions	Increase access to prevention and treatment.	Reduce substance use and other untreated behavioral health issues.	MHMD-9: Increase the proportion of adults with mental health disorders who receive treatment.
	Improve awareness and understanding of mental health and addiction issues.		MHMD-10: Increase the proportion of persons with co-occurring substance abuse and mental disorders who receive treatment for both disorders.
Maternal, Infant and Child Health	Increase immunization rates.	NA	IID-7: Achieve and maintain effective vaccination coverage levels for universally recommended vaccines among young children.
	Decrease tobacco use.	Prevent and reduce tobacco use: Reduce smoking prevalence among adults and youth.	MICH-11: Increase abstinence from alcohol, cigarettes, and illicit drugs among pregnant women.
			MICH-18 : Reduce postpartum relapse of smoking among women who quit smoking during pregnancy.
Healthy Lifestyles	Decrease tobacco use and initiation.		TU-1 : Reduce tobacco use by adults.
			TU-2: Reduce tobacco use by adolescents.
			TU-3: Reduce the initiation of tobacco use among children, adolescents, and young adults.
	Increase physical activity.	Slow the increase of obesity: promote and support physical activity; promote and support community gardens.	PA-2: Increase the proportion of adults who meet current Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening activity.
			PA-3: Increase the proportion of adolescents who meet current Federal physical activity guidelines for aerobic physical activity and for muscle-strengthening activity.
	Increase consumption of fruits and vegetables.		NWS-14: Increase the contribution of fruits to the diets of the population aged 2 years and older.
			NWS-15: Increase the variety and contribution of vegetables to the diets of the population aged 2 years and older.
Family and Community Conflict	Reduce bullying, abuse and neglect across the life course.	NA	IVP-35: Reduce bullying among adolescents .
			IVP-37: Reduce child maltreatment deaths.
			IVP-38: Reduce nonfatal child maltreatment.
			IVP-39: Reduce violence by current or former intimate partner.
			IVP-40: Reduce sexual violence.
			IVP-42: Reduce children's exposure to violence.

Lincoln County CHIP Partners

A special thanks to the individual community members who have contributed to this plan and continue to participate on the strategic work groups.

Addictions Prevention and Recovery Committee

Centro de Ayuda

Confederated Tribes of Siletz Indians

Lincoln County Health and Human Services

Housing Authority of Lincoln County

Lincoln County School District

Mental Health Advisory Committee

Oregon Cascades West Council of Governments

Oregon Central Coast Parents, Families and Friends of Lesbians and Gays

Oregon Coast Community College

Oregon State University Extension

Pacific Communities Health Foundation

Partnership Against Alcohol and Drug Abuse

Public Health Advisory Committee

Samaritan Health Services

United Way of Benton and Lincoln Counties

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