Assessing the Impact of Housing on Children's Health in Lane County:

A Health Impact Assessment of the Eugene-Springfield Consolidated Plan











Prepared By: Steve White, Oregon Public Health Institute; Lindsey Adkisson, Lane County Public Health; Stephanie Jennings, City of Eugene Planning and Development Department

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Contents

Aknowledgements	i
Executive Summary	ii
Full Report	1
Report Overview	1
Project scope	14
Assessment	17
Findings	18
Draft recommendations	35
References	38

Aknowledgements

This project benefitted from the feedback and advice of many individuals. Brian Johnson (Lane County Public Health) and Andrea Hamberg (Oregon Health Authority, Environmental Public Health) provided advice and reviewed the report at various phases. Representatives of affordable housing, human service, and health organizations provided guidance for this effort. In addition, members of the Lane County Public Health Advisory Committee and the Intergovernmental Housing Policy Board also provided feedback at different points in the project. We offer our thanks to these individuals and groups for their efforts.

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Executive Summary

Introduction

Since 2010, Lane County (OR) leaders in health, economic development, higher education, transportation, affordable housing, water and energy, and social equity have being working to integrate plans and strategies through the Lane Livability Consortium (LLC). The objective of the LLC is to improve the livability and well-being of Lane County residents through this coordination. In an effort to build upon and continue the partnerships developed through the LLC process, Lane County Public Health (LCPH) applied for and received a mini-HIA grant from the Oregon Health Authority (OHA) in January 2014 to conduct a pilot rapid Health Impact Assessment (HIA) on affordable housing policy in Lane County. HIA is structured process developed by public health professionals in order to facilitate collaboration with non-health sectors to explicitly consider and address the potential direct and indirect health impacts when making decision about proposed plans, policies, and projects.^a

Staff from LCPH partnered with staff from Eugene's Planning and Development Department (PDD) and the Oregon Public Health Institute (OPHI) to conduct this HIA. Based on input from local housing and health stakeholders provided at an initial HIA screening workshop, and on a policy scan of upcoming affordable housing policy development efforts, the HIA team (LCPH, OPHI, PDD) decided to focus the HIA on assessing the direct and indirect impacts of the Affordable Housing Strategic Plan, one of two strategic plans contained in the Eugene-Springfield 2010 Consolidated Plan, on the health of children and youth (age 0-17) in order to inform the next Eugene-Springfield Consolidated Plan that will be adopted in 2015.

The Consolidated Plan is a federally required document for local jurisdictions eligible to receive particular types of funding from the US Department of Housing and Urban Development (HUD), primarily from HUD's Community Development Block Grant (CDBG) and HOME Investment Partnership programs that support affordable housing and community development projects. Per HUD requirements, the Consolidated Plan provides a strategic vision for housing and community development in the jurisdiction and two corresponding five year strategic plans—the Affordable Housing Strategic Plan and the Community Development Strategic Plan—that each contain a set of goals, strategies, and activities based on HUD guidelines as well as priorities identified through an analysis of community needs and an extensive community outreach process. As will be discussed in greater detail below, the Affordable Housing Strategic Plan is concerned primarily with increasing and improving the supply of affordable housing, while the Community Development Strategic Plan is concerned with providing human services, creating jobs, improving access to public facilities, and furthering neighborhood revitalization, planning, and community-building activities.

^a A more complete overview of HIA practice, including tools and resources, can be found on the Oregon Health Authority's HIA program webpage:

http://public.health.oregon.gov/HealthyEnvironments/TrackingAssessment/HealthImpactAssessment/Pages/index.aspx



HUD requires local jurisdictions to update their Plans every five years. The current version of the Eugene-Springfield Consolidated Plan became effective in July, 2010 and is set to expire at the end of June, 2015. The process to update the Plan will begin in the fall of 2014 and must be submitted to HUD by May, 2015. The next Consolidated Plan will guide the use of an estimated \$14 million in CDBG and HOME funds received by the Cities of Eugene and Springfield.

As indicated above, HIA is a decision-making tool for helping ensure that decisions being made in non-health sectors consider the potential health impacts of their decisions. While there will be many decisions made as part of the Consolidated Plan update process, the focus of this HIA is on informing the initial decisions that will be made by Eugene and Springfield city staff regarding the process for developing the next Consolidated Plan including what data and needs to consider, which stakeholders should be engaged, and how to connect the Consolidated Plan to other community plans and initiatives. The Affordable Housing Strategic Plan that is embedded within the Consolidated Plan, outlines specific objectives, strategies, and outcomes to be achieved over the Plan's five-year implementation period. As a result, the HIA will also offers recommendations for how the Affordable Housing Strategic Plan may better address impacts on children's health as a result of housing investments.

The HIA team initially chose to focus on the relationships between health and housing for three primary reasons. First, through the Health in All Policies workshop the relationship between health and housing was identified as a significant area of interest by multiple community agencies and stakeholders. Second, the timing of the development of the next Eugene-Springfield Consolidated Plan offered a specific opportunity that aligned with the HIA grant opportunity. Furthermore, the City had staff that had capacity to participate in this process within the grant timeframe. Third, there is an abundance of readily available data to inform a rapid HIA on this subject.

Following a first meeting with community stakeholders, the scope of the project was further narrowed to assessing the impact of housing on the health of children. The HIA team chose to focus on child and youth health in part because child and youth health is an area of increasing concern in the community, but also because existing research increasingly indicates that children and youth are particularly susceptible to the health impacts of housing because of the impacts' potential to disrupt and permanently impair their mental and physical development.

Project goals

Build off of existing "Health in All Policies" efforts, particularly the work of the Lane
 Livability Consortium, to provide city staff and stakeholders with additional information about how the Affordable Housing Strategic Plan and other housing policies currently



impact key health determinants and outcomes^b for youth (ages 0-17)in Eugene-Springfield;

- Provide information and recommendations to city staff useful for more explicitly and effectively identifying and addressing youth-related public health issues in the next version of the Consolidated Plan;
- Build capacity and working relationships in Lane County's public health and affordable
 housing stakeholder community for promoting improved community health and wellbeing through the development and promotion of health-conscious housing policies and
 plans; and
- Continue to develop a set of Lane County specific tools and datasets useful for understanding, articulating, assessing, and improving the ability of housing plans and policies to support and improve the health of county residents.

Research questions and methods

Assessment of the upcoming update of the Affordable Housing Strategic Plan was focused on answering the following questions, based on a review of published literature and relevant local reports and datasets:

- 1. What are the connections between housing and health, particularly for youth?
- 2. How does the current Affordable Housing Strategic Plan impact key housing-related health determinants and health outcomes?
- 3. How could the Consolidated Plan better address these housing and youth health issues? Specifically:
- 4. What data should be considered as part of the Consolidated Plan process to help ensure beneficial health outcomes, particularly for children and youth?
- 5. Is there potential for public health professionals to be more involved in next Consolidated Plan process including the identification of priorities and development of goals and strategies for the Affordable Housing Strategic Plan that is embedded within the Consolidated Plan?

^b "Health Determinants" are the range of social, economic and environmental factors which determine the health status of individuals or populations. Examples include air quality, access to parks, income, genetics, and individual behaviors such as smoking.

[&]quot;Health outcomes" are changes in the health status of an individual or population. Examples include: diabetes, cancer, physical injury, depression.



Findings

Finding #1: According to published research, there are three primary characteristics of housing that impact people's health, including the health of children and youth: housing quality, housing affordability, and location and neighborhood effects.

Finding #2: By addressing the statutory goals of HUDs HOME and CDBG programs, the current Consolidated Plan's Affordable Housing Strategic Plan seeks to improve each of the three primary health-related housing issues (affordability, quality, and location and neighborhood effects), and thus positively impacts the various health determinants and health outcomes related to these three primary issues. Because the updated Affordable Housing Strategic Plan will also have to address the same HOME and CDBG goals, it will also likely improve the broad set of health determinants and outcomes related to housing affordability, quality, and location and neighborhood effects (Table 1).

Table ES 1. Health impacts of the current Affordable Housing Strategic Plan, and likely health impacts of the 2015 Affordable Housing Strategic Plan

Impacted Health Determinants:

- decreased rates of homelessness
- increase in disposable household income
- decreased likelihood and severity of household dysfunction
- improved access to schools and quality childcare
- reduced rates of adverse childhood experiences
- reduced exposure to crime
- increased opportunities for social cohesion

increased opportunities for physical activity

- increased access to healthy food
- increased ability to acquire basic need such as heating and water
- reduced exposure to physical hazards
- reduced exposure to toxic materials
- improved sanitary conditions
- reduced exposure to noise
- access to health care

Impacted Health Outcomes: Reduced Rates of...

- substance abuse
- suicide
- stress and depression
- diabetes
- obesity
- heart disease
- physical injuries

- reduced lung function
- allergies
- asthma
- brain and nerve damage
- cancer
- bacterial illnesses
- communicable diseases

Finding #3: The current Consolidated Plan was developed and implemented with limited involvement from public health stakeholders. Both the Consolidated Plan update and implementation processes are flexible and allow for greater involvement of the public health



community. As a result of recent efforts, particularly those related to the Lane Livability Consortium, LCPH staff and other members of Lane County's public health community now have the knowledge, capacity, and relationships necessary for effectively participating in the next Consolidated Plan process, including the development of the Affordable Housing Strategic Plan.

Finding #4: While city staff and participating stakeholders already rely on a great deal of quantitative and qualitative data in order to identify community housing needs and priorities as a part of the Consolidated Plan development process, additional data on health determinants and outcomes exist that could be useful in determining housing needs and priorities.

Initial Recommendations

The recommendations below are intended to help city staff and stakeholders determine who to involve and what data to consider in the update process for the Affordable Housing Strategic Plan. They are based on the findings and were developed by members of the HIA Team. Because of the short timeline for this project, no stakeholder input has been garnered for the development of these recommendations. Because such input can be very crucial for ensuring the development of effective recommendations, it is possible that these recommendations will be revised before the Consolidated Plan update process begins if opportunities for getting such feedback arise.

Recommendation #1: Eugene and Springfield city staff should work with LCPH staff and others to increase involvement of public health staff in the development and implementation of the next Consolidated Plan.

Recommendation #2: Eugene and Springfield city staff should include information from the Lane County Community Health Assessment and the Equity and Opportunity Assessment when determining community needs and priorities.

Recommendation #3: Eugene and Springfield city staff and stakeholders should consider how health could be more explicitly recognized as a desired outcome of housing strategies in the next Affordable Housing Strategic Plan.

Recommendation #4: Eugene and Springfield city staff should consider identifying children and youth as a special needs population.

Recommendation #5: Eugene and Springfield city staff should work with LCPH, local hospitals, health systems, affordable housing providers, and health and human services organizations to identify needs and opportunities for evaluating the health impacts of affordable housing investments in Lane County.

The data and rationale for these findings and recommendations is provided in the Full Report.



Full Report

Report Overview

HIA is a structured process based on six basic steps:

- 1. **Screening**: to determine whether a decision likely to have health effects and whether the HIA will provide useful information to stakeholders/decision makers
- 2. **Scoping:** to establish the scope of health effects that will be included in the HIA, as well as the populations affected, and the sources of data and the methods to be used for assessment
- 3. **Assessment:** describes the baseline health status of the affected population, and assesses potential impacts of the decision on the health of the affected population
- 4. **Recommendations**: suggest design alternatives that could be implemented to improve health or potential actions to manage health effects
- 5. Reporting: presents findings and recommendations to decision makers and stakeholders
- 6. **Monitoring and evaluation:** includes monitoring the implementation of HIA recommendations. Evaluation can be of process, impact or outcomes

A summary of the screening process, including a description of the decision that this HIA is intended to inform and the rationale for choosing this decision for the HIA, is provided in the Introduction section above. After providing a brief description and overview of Eugene and Springfield, the remainder of this report will focus primarily on documenting the scoping, assessment, and recommendations components of this project. The reporting phase, which includes the preparation and dissemination of this report, will occur as this report is completed. A process evaluation will be completed after the report is finalized, but there are currently no plans to conduct an impact/outcome evaluation or develop or implement a monitoring plan.

Community Overview

The neighboring cities of Eugene and Springfield comprise the largest urban area in Lane County, Oregon. While the Consolidated Plan guides investments only within the boundaries of these two cities, these investments often end up serving people moving from other parts of the county and elsewhere. What follows is a brief description of the population in Eugene, Springfield, and Lane County, including basic demographics, key public health issues, and housing access and affordability. Additional information on specific housing and health issues will also be provided in the Assessment section of this report.



Lane County

Lane County is located in western Oregon and covers 4,722 square miles. From the Pacific Ocean to the Cascade Mountains, Lane County is almost the size of Connecticut. With a population of 351,715 residents, Lane County accounts for almost 10 percent of the population in Oregon. Although 90 percent of Lane County is forestland, Eugene and Springfield comprise the second largest urban area in Oregon. The Eugene-Springfield area covers about 123 square miles, is home to roughly 60 percent of Lane County residents and contains the majority of county health and social services. Outside of this population center, Lane County is primarily rural. The large size and geographic diversity of Lane County create localized disparities in social service delivery, and health care availability, access to healthy foods or safe environments to walk or bike, and related disparities in health outcomes.

According to the most recent U.S. Census, Lane County's population is becoming more racially and ethnically diverse. While Lane County as a whole is predominately White, several communities have sizeable populations of Latino residents and smaller populations of other racial/ethnic groups (see Table 1). Communities of color account for roughly 12 percent of the population. The proportion of Latino residents is projected to grow the fastest, most notably in the Springfield and Eugene metro area and in South Lane County.

City	Total Population	White	Black	American Indian	Pacific Islander	Asian	Hispanic
Cottage Grove	9,686	90.4%	0.3%	1.3%	0.1%	1.1%	8.0%
Creswell	5,031	89.6%	0.4%	1.0%	0.1%	1.0%	8.6%
Eugene	156,185	85.8%	1.4%	1.0%	0.2%	4.0%	7.8%
Florence	8,466	92.5%	0.3%	1.3%	0.3%	1.0%	5.4%
Junction City	5,392	90.4%	0.7%	1.3%	0.1%	0.6%	9.0%
Springfield	59,403	85.9%	1.1%	1.4%	0.3%	1.3%	12.1%
Lane County	351,715	88.3	1.0%	1.2%	0.2%	2.4%	7.4%
Oregon	3,831,074	83.6%	1.8%	1.4%	0.3%	2.4%	11.4%
United States	308,745,538	72.4%	12.6%	0.9%	0.2%	4.8%	16.3%

The age distribution of residents of Lane County varies widely. While the median age of Lane County overall is 38, several rural communities in Lane County have significantly older populations than the county as a whole. For example, in Eugene only 10 percent of residents are 65 years of age or older, while in Florence 36 percent of residents are 65 or older.



In Lane County the poverty rate is slightly higher than both the state and nation, with several communities experiencing significantly higher rates of poverty. According to the 2010 U.S. Census, 16.7 percent of the population of Lane County lives below the poverty line, with a range from 13 percent in Florence to 21 percent in Eugene. Enrollment in the Oregon Health Plan for the County overall averages 18 percent, while in some areas as much as 40 percent of the population is enrolled. Half of all children in Lane County are enrolled in the Oregon Health Plan.

The leading causes of morbidity and mortality in Lane County are cancer, heart disease, respiratory illness, and cerebrovascular disease. Cancer is the number one cause of death. While more than 100 different types of cancer exist, over half of the cancers diagnosed among Lane County residents each year are one of four types: breast, prostate, lung or colorectal. Behavioral risk factors such as physical inactivity, poor nutrition, and tobacco and substance abuse contribute to many of the leading causes of death and disability. Tobacco use and obesity are the leading causes of preventable death. Tobacco alone kills nearly 700 people a year in Lane County. An additional 800 deaths are caused by exposure to secondhand smoke across the State of Oregon. Obesity rates in Lane County have followed the national trend of dramatic increases over the past two decades. Over 60% of adults in Lane County are obese or overweight.

Overall, the health of Lane County's Adult and youth population is very similar to the state as a whole. Table 2 summarizes the state and county rates of various housing-related health outcomes and key risk factors based on data from the Oregon Behavioral Risk Factor Surveillance System¹ and the 2013 Oregon Healthy Teens survey.²



Table 2: Summary and Comparison of Housing Related Health Data for Lane County and Oregon Contained in the Oregon BRFSS and OHA Healthy Teens Surveys

	Adult BRFSS (Age-adjusted, 2006-2009)			OHA Healthy Teens Survey (2013)					
					Grade 8		Gra	de 11	
Health Issue:	Metric	Lane	Oregon	Metric	Lane	Oregon	Lane	Oregon	
General health	% of Adults in Good General HealthGood general health: Reported that their health in general was "excellent", "very good", or "good"	87.3%	86.9%						
Physical health	% with Good Physical Health: Had no poor physical health in past 30 days	62.9%	63.6%	% with "excellent" or "very good" self- rated physical health	57.1%	55.9%	55.3%	53.3%	
Mental health	Adults in Good Mental Health: Had no poor mental health in past 30 days.	64.1%	66.4%	% with "excellent" or "very good" self- rated mental health	53.3%	55.3%	54.2%	51.1%	
Substance Abuse	% of adults who currently smoke cigarettes	18.4%	17.1%	% who did not smoke any cigarettes in the past 30 days	93.7%	95.9%	93.7%	90.6%	
	% of Heavy DrinkersMale	5.4%	5.4%	% who have never drank alcohol	53.7%	57.9%	36.5%	33.0%	
	% of Heavy DrinkersFemale	6.3%	6.1%	78 WITO HAVE HEVEL GLATIK ALCOHOL	33.770	37.376	30.376	33.076	
				% who have used marijuana at least once in the past 30 days	13.9%	9.7%	18.6%	20.9%	
Suicide				% who attempted suicide at least once in the past 12 months	10.4%	7.9%	3.6%	4.9%	
Stress/depression				% who reported feeling so sad or hopeless almost every day for two weeks or more in a row in the past 12 months that they stopped doing some usual activities	27.8%	25.6%	26.2%	27.0%	
Diabetes	Diabetes	6.3%	6.8%						



Table 2: Summary and Comparison of Housing Related Health Data for Lane County and Oregon Contained in the Oregon BRFSS and OHA Healthy Teens Surveys

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	Adult BRFSS (Age-adjusted, 2006-2009)			OHA Healthy Teens Survey (2013)					
					Gra	ade 8	Gra	de 11	
Health Issue:	Metric	Lane	Oregon	Metric	Lane	Oregon	Lane	Oregon	
Obesity	overweight	35.1%	36.1%	BMI-overweight	15.9%	14.8%	15.2%	13.6%	
	obese	25.0%	24.5%	BMI-obese	10.7%	10.1%	13.2%	11.2%	
Heart disease	Angina	3.5%	3.4%						
Asthma	Asthma	10.6%	9.7%						
Health care access	Adults Who Had Any Kind of Health Insurance	81.0%	83.6%						
reco	% of adults who met CDC recommendations for physical activity	59.5%	55.8%	% that were not physically active for a total of at least 60 minutes per day on any of the last 7 days	7.5%	6.2%	10.6%	11.1%	
				% that were physically active for a total of at least 60 minutes per day in the last 7 days	32.5%	32.2%	24.9%	25.8%	
Quality of life	Oregon Adults Who Have Any Limitations in Any Activities, Due to Physical, Mental, or Emotional Problems	25.0%	22.9%						



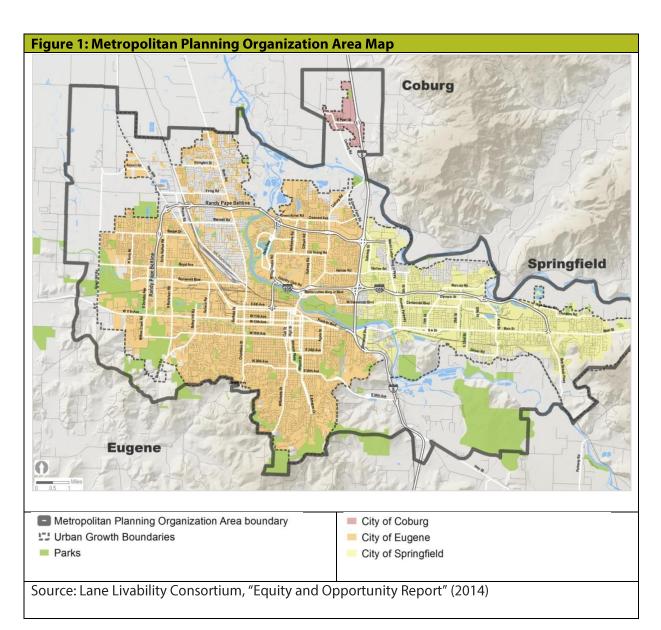
The issues of tobacco use and obesity were recently highlighted in the Lane County Health Department's recently Community Health Assessment,² which identified the following five priorities for the Health Department and its partners to focus on over the next 3-5 years:

- Advance and Improve Health Equity
- Prevent and Reduce Tobacco Use
- Slow the Increase of Obesity
- Prevent and Reduce Substance Abuse and Mental Illness
- Improve Access to Health Care

Eugene and Springfield

As noted above, the neighboring cities of Eugene and Springfield comprise about 60% of Lane County's population and counts as the second largest urban area in Oregon. When the surrounding unincorporated areas and the town of Coburg just to the north of Eugene that make up the remainder of the urban area as defined by the Central Lane Metropolitan Planning Organization (MPO) are included, the area's proportion of Lane County's residents increases to about 67% of the population.





The following summary profile of the Eugene-Springfield urban area was taken directly from the 2014 "Equity and Opportunity Report" recently developed by the Lane Livability Consortium. The report itself also contains maps and more detailed information for many of the issues summarized here.

ⁱⁱⁱ The Lane Livability Consortium is a collaborative effort of eleven and private planning and community development agencies serving the Eugene-Springfield metropolitan area to advance community growth and prosperity. The Equity and Opportunity Report and other Consortium materials can be found at: www.livabilitylane.org.



I. Community Profile

- The geographic area for the Equity and Opportunity Assessment is the Central Lane Metropolitan Planning Organization Area (MPO), which includes the cities of Eugene, Springfield, Coburg as well as adjacent unincorporated areas totaling 123 square miles.
- The area includes numerous geographic features including the Willamette and McKenzie Rivers; surrounded by foothills and forest; wetlands to the west, and farmland to the northwest and north. All of these features, along with Oregon's strong land use regulations have encouraged compact growth over time.
- The MPO area contains 251,721 people and has grown by 9% since 2000. Eugene has a population of 158,335 and has grown 14.8% since 2000. Springfield has a population of 59,840 and grown 13% since 2000.
- Population density is greatest in downtown Eugene and in areas adjacent to University of Oregon. Areas outside the urban growth boundaries, near natural hazards, and areas preserved for parks have the least population density.

II. Social and Demographic Characteristics

- The MPO's population is aging and growing more diverse while household sizes are slowly shrinking.
- Latino residents make up 8% of the Assessment area's population (21,795 people). The
 number of Latino residents has increased by 82% between 2000 and 2010. In the 17 tracts
 with the highest percentages, 11% to 15.3% of residents identify with Latino ethnicity.
 These tracts are clustered in West Eugene Hwy 99 and West 11th Corridors, and in
 Springfield along Pioneer Parkway and Main Street.
- Persons of a minority race make up 13% of the area's population (34,288 people). The
 number of Minority residents has increased by 37% between 2000 and 2010. In the 8 tracts
 with the highest percentages, 17% to 22.8% of residents identify with a non-white race.
 These tracts are located in West Eugene, around University of Oregon, and along Pioneer
 Parkway in Springfield.
- Persons with a disability make up 18% of the area's population. In the 9 tracts with the highest percentages, 23% to 30.5% of residents have a disability. These are clustered in West Eugene along the Hwy 99 and West 11th Corridors, and along Pioneer Parkway and Main Street in Springfield.
- Children make up 20% of the area's population. In the 35 census tracts with the highest concentrations of children, they make up 20% to 29% of the population by tract. These



tracts are located throughout the community except downtown Eugene and near University of Oregon.

- Single female headed households make up 11% of households in the area. In the 11 tracts with the highest percentages, 15% to 21.5% of households are headed by a single female. These tracts are located along Pioneer Parkway and Main Street in Springfield, and in certain areas of West Eugene.
- There are multiple tracts with greater percentages of Latinos, Minorities, youth, populations with disabilities, and single headed households. These areas also tend to have fewer seniors. These more vulnerable and historically marginalized populations are consistently found along West 11th and Highway 99 in Eugene and along Pioneer Parkway and Main Street in Springfield.
- Areas within the MPO but outside of urban growth boundaries of the cities tend to have very low densities and are occupied primarily by older white residents.

III. Income and Poverty

- 19% of the population is in poverty. The inclusion of college students in the poverty calculations has the potential to alter the overall poverty rate since the dynamics of college student finances can be much different than the general population.
- About 25% of the population in poverty lives in the 5 tracts with the highest percentages (40% to 68.7%). These are also areas of extreme poverty. These tracts are located around the University area and in the West Eugene Hwy 99 area. When off-campus college students are excluded from the poverty calculations there is one tract in the area with extreme poverty, found in the West Eugene Hwy 99 area.
- The median household incomes of the Assessment area's two main cities of Eugene and Springfield are below the county, state, and national income levels.
- The degree and extent of children in poverty is more difficult to measure. Information on lunch eligibility and the HUD poverty index show that poverty for children is greater. Around half of elementary students qualify for the free or reduced lunch program at school and areas with high percentages for elementary school students who qualify for the school meal program show 63% to 94.1% of students eligible.
- About 19% of households receive SNAP benefits. In the 7 tracts with the highest percentages 33%-49.4% of households receive SNAP benefits and 25% of households that receive benefits live in these tracts. These tracts are located around West-central Eugene, and include the Hwy 99 and Roosevelt Boulevard tracts and along Main Street in Springfield.



- More vulnerable populations tend to live in areas with economic vulnerability.
- Areas with greater economic vulnerability tend to have higher percentages of Latino populations, youth, older populations age 60 to79, more populations with disabilities, and single headed households.
- The picture of where opportunity exists in the Assessment area varies for housing, education, employment, transportation, and safety, health, and wellness. As a result, there are no areas that have the greatest access to opportunity across all these factors. Again, the compact development patterns and disbursed employment, education, transportation, and park/recreational facilities improve access to opportunity for the community as whole.
- There are some variations that can be identified. In general, more central areas have greater access to transportation, housing, and employment opportunities but lesser access to educational opportunities and positive health and wellness influences. Areas along major transportation corridors have a concentration of industrial uses that offer significant access to employment opportunities but also have more negative safety, health, and wellness influences. These areas include West Eugene West 11th, Roosevelt Boulevard, and Hwy 99 areas, and in Springfield along the Pioneer Parkway, Gateway Street, and Main Street areas. Variations by specific factors are summarized below.

IV. Housing Access and Affordability

- Housing is more affordable in core areas although subsidized affordable housing and manufactured home parks are scattered throughout the region. Renter housing cost burden indicators are quite high, but are strongly impacted by the presence of many college students. Even for those living in subsidized affordable housing, these costs remain a significant challenge.
- Areas with greater housing affordability are not necessarily areas without housing hardship.
- Areas with more housing affordability tend to have more economically and demographically vulnerable populations. These areas also tend to have lower priced units, older housing stock, and a greater percentage of rental units and renter households. These are all centrally located with more access to public transportation, services, and jobs.
- Renter households make up 45% of occupied housing and are concentrated in downtown and midcentral Eugene, including the University and Hwy 99 areas. The area around the University of Oregon has the highest percentage of rental units with many developments that cater to college students.



- Areas with less housing affordability are also areas with fewer demographically and
 economically vulnerable populations. These areas have high percentages of youth and
 older populations, but low percentages of Minority, Latino, populations with disabilities,
 and single headed households. These areas tend to have less access to public
 transportation, services, and jobs but greater education opportunity, and more positive
 health and wellness influences.
- Renter housing affordability is an issue. There are not any tracts with characteristics of affordable rental housing in the Assessment area. These characteristics include lower monthly rental housing costs and low percentages (less than 25%) of renter households experiencing housing cost burdens.
- The majority of tracts have over 25% of renter or owner households with a cost burden.
- Regionally, the growth of housing costs has exceeded the growth of incomes.
- About 3.6% (4,040) of housing are affordable subsidized housing units in the MPO. In the 3 tracts with the highest percentages, affordable subsidized housing makes up 18% to 27.3% of housing units. In these tracts, 25% of affordable subsidized housing units are found. There are 23 tracts with no subsidized affordable housing developments.
- About 5% (5,540 units) of housing units are located in manufactured home parks. These developments vary in size and unit quality and are located throughout the MPO with concentrations in West Eugene, Glenwood, and East Springfield.
- Homelessness is a prevalent issue in the community, with a one night winter count in 2013 finding 1,751 people on the streets or in emergency shelters in the County. In the 2011-12 school year, Lane County schools reported 2,262 children homeless.

V. Educational Opportunity

- Educational opportunity tends to be greatest in outlying areas where there children make up a greater proportion of the population and there is better access to elementary schools. There are two tracts in west Eugene and multiple tracts in Springfield along Pioneer Parkway and Main Street where 14 to 20 percent of the residents do not have a high school diploma. There is a strong correlation between the educational achievement of adults and their children.
- Education trends show a community with more higher education degrees, however, a large segment of the population over age 25 (9%) still does not have a high school diploma or equivalent.



- Residents in affordable housing developments reported that language was a barrier when trying to communicate with school staff on behalf of their children.
- Areas with less educational opportunity are also areas with demographically and economically vulnerable populations with higher percentages of Latinos, youth, and single headed households (male and female). These also tend to be areas of poverty and have greater need of food assistance.
- Areas with high percentages of people without a high school diploma are also similar to the areas with lower school proficiency, have higher percentage of students eligible for free or reduced lunches (63% to 94.1% in school attendance areas), and over half of the tracts are areas of poverty.
- Affordable housing residents identified transportation and costs as challenges and barriers for children accessing after school activities.
- Greater percentages of Latino populations have less than a high school diploma and there are higher percentages of Latino populations living in areas with less educational opportunity.
- Areas with more educational opportunity tend be areas with less economically vulnerable populations.
- Areas with less educational opportunity tend to have more demographically vulnerable populations.
- A few of the tracts with greater educational opportunity have less housing affordability, lower use of alternate modes, and fewer employment opportunities.
- Most residents of affordable housing were satisfied with their children's schools.
- Affordable housing residents reported that three reasons schools were chosen were: reputation, ability to get there, and closeness to home.
- Overall, areas with educational opportunity are found in mid-south and northeast Eugene, and mid-north and east Springfield.

VI. Employment Opportunity

The core areas and areas along major transportation corridors have more employment
opportunities and better access to transportation than outer portions of the region. While
there is greater access in core areas, these areas also have varying labor force participation
and unemployment rates. The lower participations rates are due in part to a larger number
of college students, seniors, and persons with disabilities. There are two tracts with



unemployment rates exceeding 18% including the Highway 99 tract and a tract along Pioneer Parkway.

- Employment in the region, while diversifying towards areas like education and health services is increasingly comprised of lower wage work.
- Areas with the greatest overall employment opportunity are in the central core areas of Eugene in
- Downtown and the University area; and in Springfield in Glenwood, and along Pioneer Parkway and Gateway St.
- The Hwy 99 and Gateway Street tracts have high labor force participation but they are also areas of high unemployment.
- The areas with higher employment are around the Roosevelt Boulevard West 11th area, north of Downtown by the regional mall Valley River Center, and the Downtown and University area of Eugene.
- In Springfield these areas are the northern Pioneer Parkway area, around the Gateway area, and south in Glenwood.
- Residents in affordable housing developments identified certain barriers in looking for work: childcare, transportation, low salaries offered by available jobs, not having the experience or education needed for available jobs (computer skills), language, age, and disability.
- Tracts that have fewer employment opportunities tend to also have less housing affordability.
- There are areas in the community where even though there is access to jobs by commute or the presence of employment, residents are still experiencing economic distress. These tracts also tend to have more vulnerable populations. These tracts are located in the Roosevelt Boulevard West 11th Corridor area, and Pioneer Parkway and Gateway St in Springfield.

Who will the proposal impact?

The issue of health and wellness permeates issues that affect affordable housing residents. Housing stability and improved quality of housing have a positive impact on health. National research clearly shows a link between increased healthcare costs, negative health outcomes and individuals who experience homelessness due to poverty.



The 1.5 million Americans who experience homelessness in any given year face numerous health risks and are disproportionately represented among the highest users of costly hospital-based acute care. Placing people who are homeless in supportive housing — affordable housing paired with supportive services such as on-site case management and referrals to community-based services — can lead to improved health, reduced hospital use, and decreased health care costs, especially when frequent users of health services are targeted.⁴

The primary populations impacted by the Affordable Housing Strategic Plan are low to moderate income individuals and households in the Eugene-Springfield metropolitan area since these are the households that will qualify for receiving assistance from the funding streams guided by the Consolidated Plan. Compared with the general population, this group is more racially and ethnically diverse, and contains higher proportions of children and youth under age 18.

The primary ways in which the Affordable Housing Strategic Plan impacts these people are by increasing the supply of safe, affordable housing, either through support of the construction of new subsidized housing, or the renovation of existing affordable housing, and by determining which neighborhoods affordable housing is placed in. The connections between the Affordable housing Strategic Plan, safe, affordable housing, and health are outlined in Figure 1 (scoping pathway) and will be described in greater detail in the assessment component of this HIA.

A key sub-group of this population, and the focus of this HIA, is children and youth who account for a disproportionate number of low to moderate income households. As noted above, the 0-17 age group accounts for 20% of the total population in the area, but 24% of the population in poverty. While the health impacts of safe, affordable housing in children and youth are in many ways similar to those impacts on other age groups, there are some that are of greater concern than others because of their particular needs or vulnerabilities.

Project scope

The HIA team met on May 28th to develop a pathway diagram mapping the connections between the decisions that will be made as part of the Plan update process and youth health outcomes (Figure 1). As the pathway diagram indicates, key decisions that are made at the outset of the update process include determining what data to analyze and include in the Plan and which stakeholders to involve, and how to evaluate past performance of the expiring Plan. Based on these inputs, the stakeholders involved work to establish a profile of the community, particularly those community members in need of subsidized housing, and then identify the priority housing and community development needs for those community members. Once the priorities are

iv As defined by the US Department of Housing and Urban Development, low income households are those that earn less than 30% of the area median income (AMI). Low-moderate income households are those that earn less than 50% of the AMI, and moderate income households are those that earn less than 80% of the AMI. The AMI for the Eugene-Springfield MSA (Lane County) in 2013 was \$55,800.



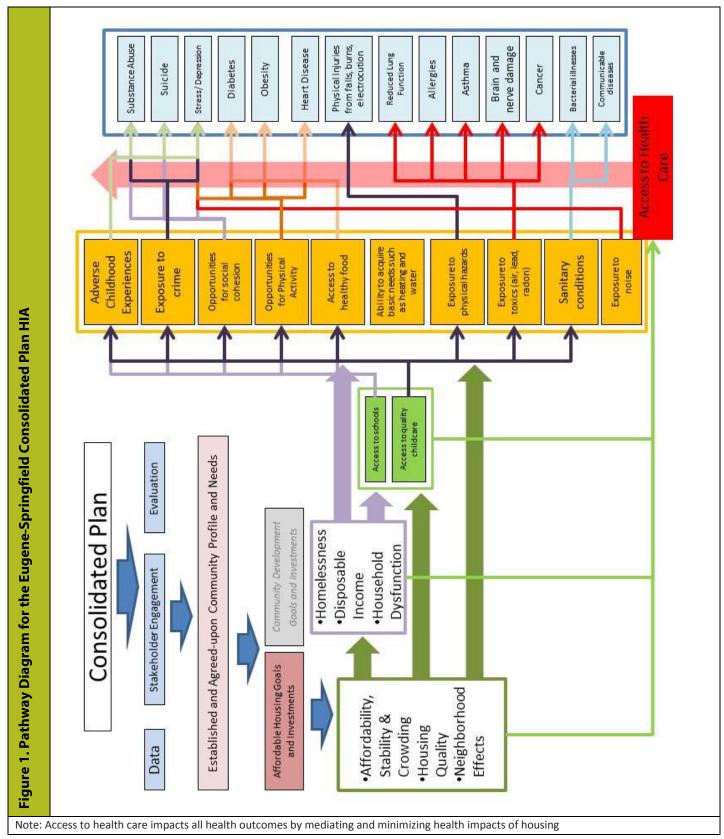
established, stakeholders then develop two sets of goals to ensure that CDBG and HOME funding received from HUD is invested in a ways that most effectively addresses the established priorities. The purpose of CDBG and HOME is to advance the following statutory objectives principally for extremely low-income, low-income, and moderate-income residents:

- Provide decent, safe, and affordable housing (CDBG)
- Create suitable living environments (CDBG)
- Expand economic opportunities (CDBG)
- Expand the supply of decent, safe, sanitary, and affordable housing (HOME)

As Figure 1 indicates, the Consolidated Plan contains two sets of goals to meet these objectives a set of housing goals (Affordable Housing Strategic Plan) that are focused on improving and expanding the supply of affordable housing through the development of new units and rehabilitation of existing units, and a set of community development goals (the Community Development Strategic Plan) that are focused on improving the social, economic and physical environments for low-income households. As Figure 1 indicates, both of the Strategic Plans impact health by producing changes in housing affordability, housing quality, and neighborhood effects, which are the three primary housing characteristics known to influence health through a variety of different pathways, as outlined in Figure 1. In this diagram, the broad arrows indicate that the issues in the box to the left of the arrow impact all of the issues in the box to the right of the arrow. Thus, the three housing dimensions noted above all impact homelessness, disposable income and household dysfunction, all of which then also impact more downstream health determinants such as access to schools and day care, as well as all the more downstream health determinants in the gold box ("Adverse Childhood Experiences," "Exposure to Crime," etc). In addition to impacting more downstream health determinants through the purple "homelessness" and "disposable income" pathway, they also directly impact "access to schools" and "access to childcare" and subsequent downstream health determinants and outcomes. The three dimensions also directly impact many of the most downstream determinants (those in the gold box) directly. The thinner arrows in Figure 1 are meant to indicate connections between specific downstream health determinants and health outcomes. The connections between the Affordable Housing Strategic Plan and these downstream health determinants and outcomes will be described in greater detail in the assessment section below.

It important to note that, even with all the boxes and arrows in this pathway diagram, it is still a simplified model of the relationships between housing and health. Additional connections could be made to highlight the interplay of different health determinants such as "exposure to crime" and "opportunities for social cohesion" since crime would likely deter use of public spaces such as parks. Similarly, connections could be made between many health outcomes since health outcomes such as stress can contribute to other issues such as substance abuse and heart disease.







Assessment

The following section summarizes the research questions and associated methods used for characterizing the current and potential health impacts of the Eugene-Springfield Consolidated Plan (Plan) with a focus on the Affordable Housing Strategic Plan component. The next Consolidated Plan will be completed in 2015. It is organized according to the findings that emerged from the assessment work.

Research questions and methods

Assessment of the upcoming update of the Affordable Housing Strategic Plan was focused on answering the following questions, using the following methods:

- 1. What are the connections between housing and health, particularly for youth?
 - a. Method: review of recent published summary reviews about the connections between housing and health, and about youth-specific issues
- 2. How does the current Affordable Housing Strategic Plan impact key housing-related health determinants?
 - a. Method: qualitative review of the current Affordable Housing Strategic Plan, with a focus on how the goals were developed and implemented, and how the goals and associated activities since its completion in 2010 have impacted the three key housing-related health determinants: housing quality, neighborhood effects, and affordability.
 - i. Assessment of goal development was based on a review of the current Affordable Housing Strategic Plan, which documents which stakeholders were involved in the Affordable Housing Strategic Plan update process, and on qualitative information provided by city staff who participated in the update process. It was also based on a review of the data that was used to determine the priorities that served as the basis for goal development.
 - ii. Assessment of the impacts of the goals and associated activities on the three main health determinants was based on the published research used to document the connections between housing and health, and on a qualitative review of the annual evaluation reports submitted to HUD.
- 3. How could the Plan better address these housing and youth health issues? Specifically:
 - a. What data should be considered as part of the CP process to help ensure beneficial health outcomes, particularly for children and youth?



- i. Method: review reports recently developed by the Lane Livability Consortium that provide summaries of multiple agency reports and datasets related to housing-related health outcomes, particularly for children and youth, that aren't currently considered in the Plan update process to determine whether there is data that would help inform the establishment of priorities and goals that would enable the updated Plan to better improve the health of children and youth.
- 4. Is there potential for public health professionals to be more involved in the identification of priorities and development of goals and strategies for the Affordable Housing Strategic Plan of the updated Plan?
 - a. Method: review the current Plan's citizen and agency involvement plan to determine the extent to which public health professionals were involved in the development of the current Plan, and the extent to which they could be involved in the upcoming Plan update.

Assessment Limitations

The assessment component of this project was limited by a very short project timeframe and scarce resources. As a result, the literature reviews focused primarily on identifying recent meta-analyses of research on the connections in both gray and peer-reviewed literature and should not be considered exhaustive. In addition, when compiling and assessing data and information on the existing conditions of various housing-related health determinants and outcomes, we focused primarily on getting data from published, publicly available and easily accessible datasets. It is possible that there is additional, more accurate data available that we were not able to either identify or effectively interpret for this project.

Findings

Finding 1: According to published research, there are three primary characteristics of housing that impact people's health, including the health of children and youth: housing quality, housing affordability, and location and neighborhood effects.

There is a large body of research documenting the multiple connections between affordable housing and health. According to recent published summaries of this research^{5-9, 10}, there are three primary characteristics of housing that impact people's health, including the health of children and youth:

- Housing quality
- Housing affordability
- Location and neighborhood effects



What follows is a brief overview of each of these three issues. Following the overview of issues is a summary of what we were able to learn over the course of this project about the prevalence and distribution of these issues in Eugene and Springfield.

Housing Quality

Housing quality refers to the physical condition of the various components of a housing structure such as ventilation systems, stairs, windows, electrical systems, insulation, and emergency exits. The primary health issues related to poor housing quality stem from exposure to lead, radon, asbestos, and mold^{9,11,1213}. Lead is a toxin that can cause temporary and permanent neurological disorders when ingested, particularly among children whose brains are still developing. Radon and asbestos are known carcinogens, exposure to which increases cancer risk and, in the case of asbestos, cardiopulmonary disorders. Mold, along with other allergens such as animal dander, household chemicals, off-gases from flooring and other building materials, contributes to asthma and other respiratory conditions.^{7,9,14–16}

Poor housing quality can also lead to a variety of other physical ailments such as injuries stemming from falls, electrocution, and burns, and can facilitate the spread of communicable diseases as a result of unsanitary and cold conditions. Poor housing quality can also impact mental health by increasing stress and exposure to noise and poor lighting.^{7,11} It can also discourage healthy behaviors such as eating healthy food or being physically active if components such as kitchen appliances or outdoor play areas and walkways are poorly designed or in disrepair.^{17, 18}

Poor housing quality results primarily from poor construction and improper maintenance. For some issues, particularly lead and asbestos exposure, the age of the housing is also an issue because older building codes allowed the use of toxic materials such as lead-based paint and asbestos-based insulation and flooring. Lead paint was banned in 1978 and asbestos in 1991, although asbestos materials became less widely used in the 1980s. Older houses are also more likely to be inadequately maintained. Newer building codes have also benefitted from design standards that have emerged from the identification and study of health-related housing issues that minimize the risk of many of the health issues identified above.

Along with the elderly, children and youth are at the greatest risk of suffering the ill health effects of poor housing quality, particularly those health issues stemming from exposure to lead and allergens such as mold. ^{15,19,20} This is due primarily to the fact that their bodies and brains are still developing.

Housing Quality in Eugene and Springfield

As indicated above the age of housing is a decent indicator of quality, with older housing units more often in need of repair, and more likely to contain toxic building materials such as lead and asbestos. According to the current Consolidated Plan, about two-thirds of the housing stock in Eugene and Springfield was built before 1980, with the older housing stock generally clustered in



the central part of each city. However, despite the fact that over half of the housing is over 30 years old, it appears to be in relatively good condition, with less than one percent of units lacking basic features such as complete plumbing and kitchen facilities and heating sources.²¹

Housing Affordability

Housing affordability refers to a household's ability to afford its housing costs—rent, mortgage, insurance, utility bills, taxes, etc—while also being able to afford other basic needs. When a household is unable to cover housing costs and other basic needs, their health can be adversely impacted in three basic ways. First, households that are forced to use excessive proportions (often defined as more than 30%) of their income for housing costs are not able to meet other basic needs such as transportation, heating, food, and medical care. Multiple studies have demonstrated that excessive housing cost burdens lead to a variety of negative physical and mental health outcomes related to poor nutrition, cancelled utility services, and delayed or avoided health care services. 10,22

Second, households that can't afford to meet their own housing costs often experience residential instability, which refers to their ability to control when and where it can move. Frequent moves, particularly when triggered by eviction, cause stress, disrupt social networks, education, and medical or social service programs. At its extreme, residential instability can push households into homelessness. Even if this homelessness is temporary, it is a condition that is associated with multiple temporary and chronic negative health outcomes ranging from stress to increased susceptibility to communicable diseases to heart disease.^{7,10}

Third, when housing becomes unaffordable, households often move in with others. In some cases, particularly when this leads to extended families living together in housing adequate for accommodating everyone, this can increase available resources and supportive relationships. However, in many cases, when households double-up, crowding occurs and the housing cannot adequately accommodate everyone. Research on crowding resulting from unaffordable housing has found that these conditions produce multiple negative health outcomes such as stress, physical abuse, and increased risk of contracting respiratory and other infectious diseases.^{7,10}

As with many other health-related housing issues, children are particularly vulnerable to the health impacts of unaffordable housing. Children living in low-income households that do not receive subsidies are more likely to suffer from poor nutrition, exhibit developmental concerns, and have poorer self-reported overall health.⁷ Children experiencing residential instability, including homeless, experience numerous temporary and permanent health issues resulting both from the instability itself, and from the household dysfunction that often results from the instability. These health issues include: temporary and permanent stress and depression, increased teenage pregnancy rates, physical abuse, and higher rates of substance abuse and suicide. In addition, because instability also disrupts schooling educational and access to health case, children in unstable households are more likely to suffer lifelong health effects associated with lower education attainment and delayed or foregone medical care.^{23–25} Finally, in crowded and



unstable houses, children are more likely to be victims of physical abuse and suffer other "adverse childhood experiences" that contribute to long-term mental and physical health problems.^{24,26,27,28}

Housing Affordability in Eugene and Springfield

Housing affordability in Eugene and Springfield is discussed in detail in the "Equity and Opportunity Assessment" report recently developed by the Lane Livability Consortium.³ Below is the *Housing Accessibility and Affordability* summary provided in this report. Additional detail for each of these findings, including maps, can be found in the report itself.

- Overall, about 50% of renters and 25% of homeowners in Eugene and Springfield live in housing that not affordable to them. This means they pay more than 30% of their income for rent and utilities making it difficult to pay for other basic needs such as food, transportation, and health care.
- Housing is more affordable in core areas although subsidized affordable housing and manufactured home parks are scattered throughout the region. Renter housing cost burden indicators are quite high, but are strongly impacted by the presence of many college students. Even for those living in subsidized affordable housing, these costs remain a significant challenge.
- Areas with greater housing affordability are not necessarily areas without housing hardship.
- Areas with more housing affordability tend to have more economically and demographically vulnerable populations. These areas also tend to have lower priced units, older housing stock, and a greater percentage of rental units and renter households. These are all centrally located with more access to public transportation, services, and jobs.
- Renter households make up 45% of occupied housing and are concentrated in downtown
 and midcentral Eugene, including the University and Hwy 99 areas. The area around the
 University of Oregon has the highest percentage of rental units with many developments
 that cater to college students.
- Areas with less housing affordability are also areas with fewer demographically and
 economically vulnerable populations. These areas have high percentages of youth and
 older populations, but low percentages of Minority, Latino, populations with disabilities,
 and single headed households. These areas tend to have less access to public
 transportation, services, and jobs but greater education opportunity, and more positive
 health and wellness influences.
- Renter housing affordability is an issue. There are not any tracts with characteristics of affordable rental housing in the Assessment area. These characteristics include lower



monthly rental housing costs and low percentages (less than 25%) of renter households experiencing housing cost burdens.

- The majority of tracts have over 25% of renter or owner households with a cost burden.
- Regionally, the growth of housing costs has exceeded the growth of incomes.
- About 3.6% (4,040) of housing are affordable subsidized housing units in the MPO. In the 3 tracts with the highest percentages, affordable subsidized housing makes up 18% to 27.3% of housing units. In these tracts, 25% of affordable subsidized housing units are found. There are 23 tracts with no subsidized affordable housing developments.
- About 5% (5,540 units) of housing units are located in manufactured home parks. These
 developments vary in size and unit quality and are located throughout the MPO with
 concentrations in West Eugene, Glenwood, and East Springfield.
- Homelessness is a prevalent issue in the community, with a one night winter count in 2013 finding 1,751 people on the streets or in emergency shelters in the County. In the 2011-12 school year, Lane County schools reported 2,262 children homeless.

Location and Neighborhood Effects

An increasing body of research has identified a wide variety of a neighborhood's physical and social attributes that can directly and indirectly impact the health of neighborhood residents. Key attributes that have been identified as contributing to the good health of a neighborhood's residents include good air, water, and soil quality, opportunities for physical activity, availability of healthy or unhealthy foods, low crime rates, access to quality childcare and educational opportunities, access to neighborhood amenities and resources such as parks, community centers, and public libraries that support social cohesion, and access to transit service and other transportation options that can improve access to employment, medical care, and other health supportive resources. Predominantly low income and segregated neighborhoods often lack many of these attributes, and as a result, research has found that people who live in such neighborhoods are at higher risk of multiple negative health outcomes, including asthma, obesity, diabetes, stress, depression, cancer, and physical injury.²⁹⁻³⁴

As with housing quality and affordability, children and youth are often more susceptible to suffering the ill health effects of poor neighborhood conditions in part because they are still developing physically and cognitively, but also because they are more likely to suffer additional life-long health effects related to lost opportunities for education and the trauma resulting from adverse childhood experiences.^{29,32,35}



Location and Neighborhood Effects in Eugene and Springfield

The LLC Equity and Opportunity Assessment³ shows that Eugene and Springfield have low levels of racial and ethnic segregation but there are some areas where 20% or more of residents live in poverty. These areas tend to be in more central areas that also have greater housing affordability and lower housing quality. These areas tend to have greater access to transportation and employment opportunities but have less access to educational opportunities and positive health and wellness factors.

The Equity and Opportunity Assessment also provides maps and of other health-related neighborhood features including access to opportunities for physical activity, potential exposure to noise, employment access, neighborhood crime rates, and proximity to environmental hazards. The report provides the following summary description of these issues in Eugene and Springfield:

- The core areas [in each city] have less positive health and wellness influences, including downtown Eugene, the areas along Highway 99 and West 11th Avenue in Eugene, and along Main Street in Springfield. Most of the less positive health and wellness influences in the core areas include greater need for emergency services and greater potential exposure to pollutants. In comparison, the regions outside these core areas have lower percentages of vulnerable populations in the south, southwest, and northeast Eugene, and in East and south Springfield. These are all locations, with the exception for the University area, that also have lower economic stress and vulnerability.
- Areas with less positive health influences have more economically and demographically vulnerable populations and are located in West Eugene around the Hwy 99 corridor and in mid-central Springfield.
- In Springfield, areas with less positive health and wellness influences have less employment opportunities.
- Areas with more positive health and wellness influences have greater educational opportunities and are located in south Eugene, northeast Eugene, and north Springfield.
- The accessibility of parks and recreation is a positive influence on the health and wellbeing of residents in a community. Most of the area's households (97%) have some form of parks and recreation available within a 1/2 mile.
- About 38% of households have a major grocery store within a 1/2 mile.
- Overall, most of adults in the region have a high mean body mass index (BMI) of over 25, indicating a more overweight population, with the highest BMI (27-28.3) in West Eugene, northwest Eugene, and along Main Street and Pioneer Parkway in Springfield.



- About 45% of households live in areas where noise pollution from transit and rail could be impacting their lives.
- In the Assessment area, almost 2/3 or 65% of housing was built before 1980.

Health Outcomes Related to Housing Quality, Affordability, and Neighborhood Effects

What follows is a summary of what is known about the prevalence of housing-related health outcomes. Where possible, the prevalence of particular issues for Eugene and Springfield or Lane County residents and for youth will also be noted, although for many health outcomes data is not available for different age groups or at the city or county geographic scale. It should also be noted that, while research has clearly demonstrated multiple connections between health and housing, it is difficult to get local level data that illustrate the particular dimensions of the connections in between health and housing. This is in part because data for many housing-related health conditions are available only at the county, state, or national level, but also because there are few systematically collected datasets that track people's health based on the type of housing in which they live. In this section, we review the prevalence of various housing-related health issues with as much specificity as is permitted by the data that are available, with a specific focus on information about health outcomes for children and youth.

Substance abuse

There are many factors that contribute to substance abuse. Key among them is stress, access to alcohol and other drugs, and knowledge and awareness of the risks related to substance use and abuse. Access to safe affordable housing can help address each of these issues. It can help reduce household stress stemming from housing instability, poor housing conditions and the financial strain of not having enough money to pay for basic needs after paying for rent. It can enable people to move out of areas of concentrated poverty that are often well-served by convenience and liquor stores that make alcohol and unhealthy foods easily available. It can also help stabilize families with school-age children and improve school attendance and performance, which in turn can reduce the risk of substance abuse through education. 57,10,24,27,28,36

According to the Lane County Community Health Assessment, alcohol is the most commonly used and abused drug among youth in Lane County and the United States. Preventing underage drinking, particularly binge drinking, is important because of the consequences associated with underage drinking. These consequences include accidents, unplanned or unwanted sexual activity, effects on brain development, injury, violence, chronic substance abuse and the potential for developing other lifelong mental and physical health problems. People who start drinking before the age 15 are five times more likely to develop abuse or dependence later in life than those who start after age 21. People who binge drink are 14 times more likely to report drinking and driving than those who do not.²



Marijuana

According to the Lane County Community Health Assessment, use of marijuana among youth in Lane County is higher than the rates of the state. Over 26% of Lane County 11th graders report smoking marijuana in the past 30 days compared to 21.8% of Oregon teens on average.²

Suicide

Safe, affordable housing can reduce the risk of suicide by reducing stressors such as depression and family discord that are associated with suicide. Safe affordable housing can also support greater social stability and stronger connections with family and community that can reduce the likelihood of suicide.

Approximately 75 Oregon youths die by suicide each year, making it the second leading cause of death among those aged 10 to 24 years. Even greater numbers of youth are treated in Oregon's emergency rooms for attempts they survive. In Oregon, over 750 suicide attempts are reported each year. The rates of suicide attempts for Lane County youth is slightly higher than the state average, with 10.4% of eighth graders reported attempting suicide at least once within the past year, compared with 7.9% of eighth grader statewide. For eleventh graders, however, the Lane County rate was slightly lower than the state average, with 3.6% reporting having attempted suicide at least once within the past year, compared with 4.9% statewide.³⁷

Stress/Depression

Access to safe affordable housing can reduce risk for stress and depression by reducing stressors related to poor housing quality, unsafe neighborhoods, unstable housing, homelessness, crowding, and lack of resources for other basic needs.^{7,10,36,38}

Stress and depression can also contribute to other negative health outcomes such as overweight and obesity, social isolation, increased use and abuse of alcohol and other drugs and increased suicidal tendencies. 64.1% of In Lane County, 64.1% adults reported that they had no poor mental health in the past 30 days, compared to 66.4% of Oregon adults, while 25% of Lane County adults reported limitations in their usual activities due to poor physical or mental health.²

Unlike adults, Lane County youth experience depression at a higher rate than the state average. According to the 2011 Student Wellness Survey, 21.3% of 6th graders, 24% of 8th graders and 29% of 11th graders answered 'Yes' to the question: 'During the past 12 months, did you ever feel so sad or hopeless almost every day for two weeks or more in a row that you stopped doing some usual activities?'²

Poorer individuals are more likely to experience depression than others. As a result, it has been identified as a top priority for Trillium, Lane County's Coordinated Care Organization, which primarily serves low-income individuals on Medicaid. Depression is the most common condition



for which Trillium members seek care, with 9% of Trillium members being treated for depression between August 2011 and August 2012.²

Obesity

Housing can influence a person's risk of being overweight or obese primarily through location and proximity to resources such as parks and full service grocery stores that support good nutrition and active living.³ In addition, housing features such as adequate food storage and preparation areas, on-site play areas and on-site pathways that connect with surrounding developments can also impact food choices and physical activity rates for residents.¹⁷

Overweight and obesity together are the second leading cause of preventable death in Oregon. Obesity is not only a poor health outcome by itself, it is also a major contributing factor to other chronic illnesses such as diabetes, heart disease, and mobility problems. As with the rest of the nation, obesity rates in Lane County have increased dramatically over the past two decades. Over half of adults in Lane County are obese or overweight, and these rates are projected to continue to increase in the future.²

People who have low income or mental illnesses such as major depressive disorder, and bipolar disorder, are more likely to obese or overweight than others. Members of certain minority groups, particularly Latinos, African Americans, and Native Americans, are also more likely than others to be overweight or obese. Approximately 25% of Lane county youth in both 8th and 11th grades are either overweight or obese.²

Asthma

Many aspects of a home can affect indoor air quality, which contributes to respiratory diseases, especially asthma, as a result of airways being irritated by mold, dust, fragrances, cleaners, smoke, and animal dander. Nationally, the proportion of asthma cases attributable to in-home allergens is estimated to be at least 21%.⁵ Residents can be exposed to poisonous gases, such as carbon monoxide produced by substandard heating systems, appliances, and ventilation. In addition, low-income households are more likely to be located near pollutant sources such as highways and factories that emit allergens, and are also likely to be in poorer condition.

About 10% of Oregonians currently have asthma, but there are significant disparities with how asthma burden is distributed within the population. As with many chronic health issues, low-income and certain minority groups, particularly African Americans and Native Americans, are more likely to have asthma than others.³⁹ Asthma prevalence in the low income adult Medicaid population is more than double that of adults with private insurance. Not only is asthma more common among low income Oregonians, but is also appears to be more severe, with Adult Medicaid recipients reporting more frequent asthma symptoms, more visits to the emergency department for asthma, and poorer overall health status. While much of this is due to the fact that



low income Oregonians are more likely to smoke, it is also likely due in part to lower quality housing.

Among Oregon children and youth (0-17), 9% (more than 78,000) currently have asthma. In 2006, children and youth were hospitalized for asthma more than 550 times and 14% of eighth graders and 9% of eleventh graders with asthma missed at least one day of school because of asthma in the 30 days prior to being surveyed. As with many chronic conditions, asthma can also exacerbate other health and health related issues. In 2006, 48% of eighth graders with asthma and 39% of eleventh graders with asthma had difficulty sleeping due to asthma for at least one night in the 30 days prior to being surveyed.⁴⁰

In Lane County, 11.7% of adults have asthma, compared to 9.9% statewide. Similarly, Lane County youth have higher rates of asthma than Oregon as a whole, with 16.1% of eighth graders and 12.7% of 11th graders having asthma compared to 12.6% and 11.5%, respectively, statewide.³⁷

Physical injuries from poor housing conditions

Physical hazards

Nationally, residential injuries lead to thousands of deaths and millions of emergency department visits each year. In 2003, one-third of all deaths stemming from injuries resulted from injuries in the home, with children and seniors accounting for most of these deaths. Adults over the age of 75 have the highest death rate due to unintentional home injury, and account for a third of the total unintentional injury deaths across all age groups. It is not known how many home-based injuries are the results of poor housing conditions. The primary injury-causing physical hazards related to substandard housing conditions are generated by faulty flooring, stairs, and lack of safety infrastructure such as hand rails and window guards that can lead to falls, and faulty electrical systems that can lead to electrocution and fires.⁵

Falls

Falls are the leading cause of nonfatal injuries for infants, children, youth, and seniors, and account for 45% of all injuries nationwide in the home that require medical attention.⁵ Data on falls among Oregonians indicates a similar age distribution. While data for the state of Oregon does not specify where falls occurred, it is likely that they account for a similar proportion of residential injuries in Oregon.¹¹ Nationally, the most commonly reported causes of home-based falls are falls on steps or stairs, slipping, stumbling, or tripping on same-level flooring, and falls from or out of a building. Structural hazards associated with falls include lack of handrails on stairs, slippery, uneven, or damaged flooring and steps, inadequate lighting, the presence of tripping hazards such as electrical or telephone cords in walkways, and a lack of safety devices such as grab bars in bathrooms, safety gates, and window guards. Individual behaviors and factors such as poor physical ability and not maintaining uncluttered floors and walkways are also primary causes of falls.⁵



Electrical fires

In 2009, about 45,000 home electrical fires that involved some type of electrical failure or malfunction were reported in the U. S. These fires resulted in 472 deaths, 1,500 injuries, and \$1.6 billion in property damage.⁴¹ Four of the primary causes of such fires are age-deteriorated wiring and related electrical components, damaged components of the electrical system due to proper or improper use, outdated products that are not as effective as newer products in preventing fires, and use of products in ways other than their intended use.⁴¹ Similar data was not available at a state or local level.

Most fire-related injuries and deaths result from inhalation of smoke or toxic gases produced by the fire, rather than burns. As with falls, national data suggests that youth and seniors are at highest risk for fire-related injuries and deaths. Other groups with increased risk for fire-related injuries and deaths include African-Americans, American Indians, low-income households, and people living in manufactured homes and substandard housing.⁵

Other structural issues related to electrical fire injuries and deaths are the presence of functional, properly located smoke alarms and emergency exits.

Carbon monoxide poisoning

While there are limited data on the extent of carbon monoxide poisoning, the Oregon Health Authority reports 18 hospital stays caused by carbon monoxide poisoning in 2007, for an age-adjusted rate of .5 per 100,000 population.⁴² Research conducted in neighboring Washington State found that, "The black and Hispanic populations of Washington State had higher relative risks for severe, acute, unintentional CO poisoning than the non-Hispanic white population," and hypothesized that people of color are less likely to receive treatment for carbon monoxide poisoning. The authors also emphasized the importance of socioeconomic context to risk for poisoning (i.e., different groups have different housing environments and behaviors), though the dataset they used did not provide enough information to empirically prove the connections.⁴³

Brain and nerve damage from lead poisoning

Lead poisoning is especially dangerous in children, whose sensitive nervous systems are rapidly developing, and who are more likely to ingest lead in a household setting. In addition to increasing the risk of permanent brain and nerve damage, Lead poisoning can also contribute to reduced IQ levels, reading and learning disabilities, decreased attention span, seizures, hyperactivity and aggressive behavior, and, in extreme cases, death.^{7,8} As indicated above, more than half of the housing stock in Eugene and Springfield was built before 1980. Since lead paint was used until 1978, many of the homes in the area are at risk of having lead paint, the primary source of childhood lead poisoning. Based on local numbers and national estimates, about 27% of the homes in Eugene and Springfield that were built before 1980 likely have lead paint.^{21,44}



The Oregon Department of Human Services Lead Poisoning Prevention Program recorded a total of 22 cases of lead poisoning in Lane County between 2003 and 2008. Of those, 10 cases involved children under the age of 18, and 77% of the cases were people who lived in Eugene. There are ethnic and racial disparities in blood lead levels. In Oregon from 2005-2010 the median blood lead levels of tested children aged 0-5 were: 1.1 μ g/dL in American Indian/Alaska Native children, 1.8 for mixed race children, 2.0 for Blacks, 2.1 for Whites and Asians/Pacific Islanders, 2.74 for Hispanics, and 1.73 for children of other races.

Finding #2: By addressing the statutory goals of HUDs HOME and CDBG programs, the current Consolidated Plan's Affordable Housing Strategic Plan seeks to improve each of the three primary health-related housing issues (affordability, quality, and location and neighborhood effects), and thus positively impacts the various health determinants and health outcomes related to these three primary issues. Because the updated Affordable Housing Strategic Plan will also have to address the same HOME and CDBG goals, it will also likely improve the broad set of health determinants and outcomes related to housing affordability, quality, and location and neighborhood effects (Table 3).

Table 3. Health impacts of the current Affordable Housing Strategic Plan, and likely health impacts of the 2015 Affordable Housing Strategic Plan

Impacted Health Determinants:

- decreased rates of homelessness
- increase in disposable household income
- decreased likelihood and severity of household dysfunction
- improved access to schools and quality childcare
- reduced rates of adverse childhood experiences
- reduced exposure to crime
- increased opportunities for social cohesion
- increased opportunities for physical activity

- increased access to healthy food
- increased ability to acquire basic need such as heating and water
- reduced exposure to physical hazards
- reduced exposure to toxic materials
- improved sanitary conditions
- reduced exposure to noise
- access to health care

Impacted Health Outcomes: Reduced Rates of...

- substance abuse
- suicide
- stress and depression
- diabetes
- obesity
- heart disease
- physical injuries

- reduced lung function
- allergies
- asthma
- brain and nerve damage
- cancer
- bacterial illnesses
- communicable diseases



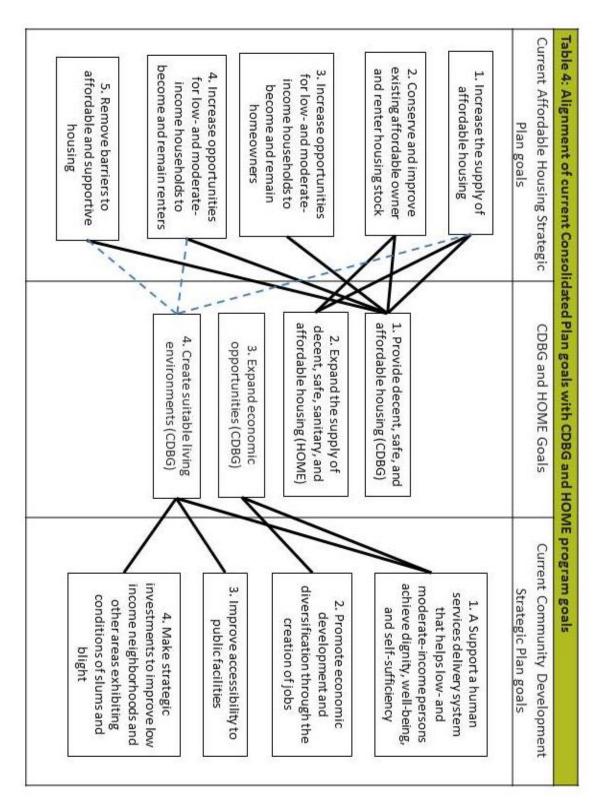
As noted earlier, a primary requirement for any Consolidated Plan is that it supports the statutory goals of HUDs Community Development Block Grant (CDBG) and HOME Investment Partnership programs, which serve extremely low-income, low-income, and moderate-income residents. The HOME and CDBG goals are listed in Table 4, along with the goals of both the Affordable Housing Strategic Plan and the Community Development elements of the current Plan.

Perhaps the most important thing to note about the CDBG and HOME goals is that, although they do not explicitly mention health, they directly seek to improve the three primary health-related housing issues discussed above. CDBG/HOME goals 1 and 2 are directly concerned with both expanding the supply of affordable housing and improving the quality of affordable housing. CDBG/HOME goal 3 also seeks to improve housing affordability by increasing the amount of money people have to spend on housing. CDBG goal 4 seeks to improve neighborhood effects. Thus, even though none of the CDBG/HOME goals mention health, they are directly impacting health by seeking to improve the three primary health-related housing issues. Because the Plan's goals also support the CDBG goals, they are also directly impacting these health issues in a positive way. Similarly, while only one of the current Plan goals references health (Community Development Goal 1 mentions "well-being"), all of the goals directly align with the three health-related housing issues discussed above.

By themselves, the Plan's Affordable Housing Strategic Plan goals also align with the three main health-related housing issues. All five Affordable Housing Strategic Plan goals support CDBG goals 1 and 2, which focus on improving housing affordability and quality. In addition, Housing goals 1, 4, and 5 also address location and neighborhood effects by aligning affordable housing units with suitable living environments. This connection is displayed in Figure 1 with a dotted line because, while the wording of the goals themselves do not mention alignment of affordable housing with suitable neighborhoods, this alignment occurs as a result of the guidelines contained in the City of Eugene's Land Acquisition for Affordable Housing Program, as well as in Eugene's standard Request for Proposals for Affordable Housing and Development and Acquisition (Housing RFP), both of which help ensure that newly built and acquired affordable housing units are located in suitable living environments and minimize residents' exposure to neighborhood-related health impacts.

It is worth noting that while the Affordable Housing Strategic Plan goals address health issues, its impacts are limited by the anticipated funding to be received through the CDBG and HOME programs as well as other funds used to support affordable housing. Program staff observe that the gap between the needed housing and the funds received have grown larger over time. Functionally, this has resulted in increasingly difficult decisions about how to target limited resources among a number of special needs populations, programs, and projects.







The selection guidelines in the Land Acquisition Program help ensure that potential sites for the construction of new affordable housing units are assessed according to:

- Location related to a variety of health-supportive resources such as jobs, services, parks, schools, public transportation and other amenities.
- Compliance with the City of Eugene's Housing Dispersal Policy, which seeks to improve neighborhood choice for low-income renters by discouraging the development of subsidized housing in neighborhoods with relatively high concentrations of either subsidized housing or low-income households. Because investments in new affordable housing that are guided by the Plan must comply with this policy, they are in effect addressing, to some degree, alignment of affordable housing with suitable living environments.
- Site environmental conditions, assessment of which is required by HUD and is based on a detailed set of environmental assessment guidelines that require consideration of multiple social and natural environmental issues linked to health, such as:
 - Air, soil, and water quality
 - Noise
 - Risk of hazards such as floods and mudslides.
 - A wide variety of community facilities and services such as schools, neighborhood retail (including grocery stores), medical and social services, recreation and cultural facilities, and transportation options

Similarly, the Housing RFP also requires developers to conduct the same environmental assessment required for the Land Acquisition Program. In addition, it also requires applicants to identify the target population that the new or rehabilitated units will be designed for (e.g., elderly, disabled, and families with children), what their specific needs are, and how the project and location can help meet their specific needs.

Finding #3: While the current Affordable Housing Strategic plan was developed and implemented with minimal input from public health professionals, both the Consolidated Plan update and implementation processes allow for greater involvement of the public health community. As a result of recent efforts, particularly those related to the Lane Livability Coalition, LCPH staff and other members of Lane County's public health community now have the knowledge, capacity, and relationships necessary for effectively participating in the Consolidate Plan update process, including the development of the Affordable Housing Strategic Plan.



HUD suggests that the Consolidated Plan update process and subsequent implementation and evaluation activities be conducted with input from citizens and consultation with relevant public and private agencies. Accordingly, the Consolidated Plan contains a required "Consultation and Citizen Participation" chapter which describes how residents and agencies were involved in the development of the current Plan, and how citizens and agencies will be able to provide input as the Plan is implemented and evaluated.

For the development of the current Consolidated Plan, city staff gathered resident input on community needs and priorities through numerous public involvement activities such as surveys, focus groups, public meetings, public hearings, and document comment periods. Consultation and feedback from agencies regarding community needs and priorities was gathered primarily through engagement with established advisory committees and consultation with specific agencies on specific issues. The key advisory committees and agencies involved in the development of the current Plan include:

- Lane County Human Services Commission, which coordinates human services, antipoverty programs, and homeless services in Lane County
- Housing and Community Services Agency of Lane County, Lane County's housing authority
- City of Eugene Community Development Block Grant Advisory Committee
- City of Springfield Community Development Advisory Committee
- City of Eugene Human Rights Commission and Human Rights Commission Advisory Committee
- Intergovernmental Housing Policy Board

In addition, city staff consulted with a wide variety of other agencies, including health and social service providers, local school districts, parks providers, police departments, legal aid services, and libraries. The Lane County Health Department was also consulted. However, this consultation was limited to the issue of lead poisoning due to exposure to lead-based paint.

While it is possible that public health representation could have been included in the key commissions and advisory committees listed above, this was not the case according to city staff involved in the update process as those relationships, programs and staff positions were not developed at the time. Since the last Consolidated Plan update, there has been a tremendous amount of work in the community to increase cross-sector coordination and collaboration through specific program development, strategic planning and shifting agency priorities. Several new opportunities for future public health involvement have been created by: increased numbers of staff focused on health promotion through planning and policy work, an active Public Health



Advisory Committee and the creation of a community-wide Community Health Assessment and Community Health Improvement Plan with support from the Trillium Community Health Plan, Lane County's newly created Coordinated Care Organization that serves low-income residents, and PeaceHealth, Lane County's largest health care provider. Additionally, there have been new agency relationships established through connections that were create were created through the Lane Livability Consortium (LLC) development process. This has built the foundation for future collaborative efforts and cooperation among partner agencies.

Once the plan is developed, there are additional opportunities for LCPH involvement as the Consolidated Plan is implemented. Residents are provided with the opportunity to comment on drafts of the one-year action plans that city staff develop to provide details on the specific programs and projects that will be funded to help meet the Consolidated Plans goals. If significant changes to the action plans are made, then residents will also be provided with a public comment period. As with the Consolidated Plan itself, city staff solicits input from multiple agencies as the annual action plans are developed and projects and programs are funded and implemented, particularly the commissions and advisory committees listed above. There are also opportunities for health stakeholder involvement in funding implementation through the Housing Policy Board or CDGB Advisory Committees.

Finding #4: While city staff and participating stakeholders already rely on a great deal of quantitative and qualitative data in order to identify community housing heeds and priorities, additional data on health determinants and outcomes exist that could be useful in determining housing needs and priorities.

When determining the needs and priorities that guided the development of the Affordable Housing Strategic Plan and Community Development Strategic Plan for the current Consolidated Plan, city staff and participating stakeholders reviewed a great deal of quantitative and qualitative information. In addition to a great deal of Census-based information on demographics, housing stock, and income that HUD requires local jurisdictions to consider, the people who produced the current Consolidated Plan also considered:

- The 2009 United Way Community Assessment Report
 - Income/financial stability
 - Health
 - Education/children and families
- The 2010 Eugene-Springfield Fair Housing Plan
 - Fair Housing Law
 - Community and demographics
 - Fair Housing Complaints
 - o Identification of Impediments to Fair Housing
- Existing Housing and Human Services and Programs
- School district data on Minority enrollment, free and reduced meals participation, incidence of homelessness



- Existing local housing policies such as Eugene's Housing Dispersal Policy and local land use and transportation plans
- Input from affordable housing residents, developers and other stakeholders

While the information was useful for characterizing many health-related housing issues faced by youth and others as well as the demographic characteristics of the population served by affordable housing and community development investments, additional data on housing-related health issues is provided by both the "Lane County Community Health Assessment" recently completed (2013) by LCPH and the "Equity and Opportunity Assessment" report recently completed by the LLC.

The Lane County Community Health Assessment provides both a summary of a wide variety of health issues facing Lane County residents, and a set of priority areas for community health improvement based on both an analysis of existing data as well as input from community members. Consideration of this information could help staff and stakeholders working on the update of the Affordable Housing Strategic Plan determine whether to include goals, strategies, and objectives designed to ensure that subsequent housing investments most effectively address key health issues in the community.

As indicated above, the Equity and Opportunity Assessment provides a great deal of information on multiple housing related health determinants, including access to grocery stores, access to parks and recreation, and potential exposure to noise and environmental hazards. As discussed above, many of these issues receive consideration when sites are being selected and designed for development. However, consideration of them during the update process might help identify community needs and priorities that can be addressed in the update process. In addition, the Equity and Opportunity Assessment presents the findings of an extensive survey of affordable housing residents and resident focus groups. While the survey and focus group results indicate that most residents feel that gaining access to their current affordable housing units resulted in improved housing quality and affordability and neighborhood quality, it also highlights continuing challenges faced by residents. As with the Community Health Assessment, consideration of this information could help staff and stakeholders determine whether the Affordable Housing Strategic Plan can be updated in a way that more effectively addresses the specific issues identified in the Equity and Opportunity Assessment report.

Draft Recommendations

The recommendations below are intended to help city staff and stakeholders determine who to involve and what data to consider in the update process for the Affordable Housing Strategic Plan. They are based on the findings and were developed by members of the HIA Team. Because of the short timeline for this project, no stakeholder input has been garnered for the development of these recommendations. Because such input can be very crucial for ensuring the development of effective recommendations, it is possible that these recommendations will be revised before the



Consolidated Plan update process begins if opportunities for getting such feedback arise. Currently, city and county staff are planning on holding a half day workshop in September for affordable housing and public health stakeholders to review the HIA findings and discuss and potential revise the recommendations. It is also possible that city staff will share the recommendations with key stakeholder groups such as the Intergovernmental Housing Policy Board and the Lane County Public Health Advisory Committee to get additional input on the recommendations.

Recommendation #1: Eugene and Springfield city staff should work with LCPH staff and others to increase involvement of public health staff in the development and implementation of the next Consolidated Plan. While staff affordable housing and human services organizations generally participated in the development of the current Consolidated Plan, public health agency involvement was limited to lead-based paint hazards. There are many opportunities for additional engagement as a result of recent changes in the structure of the Lane County Public Health Department, completion of the Community Health Improvement Plan, launch of the new Coordinated Care Organization, and increased recognition of the critical relationships of housing on health. Involvement of public health along with affordable housing and human services organizations in the development of the Affordable Housing strategic Plan could help identify health related data and trends, guide development of strategies and objectives captured in the Affordable Housing Strategic Plan, and identify opportunities for collaboration and partnership to maximize positive health impacts.

Recommendation #2: Eugene and Springfield city staff should include information from the Lane County Community Health Assessment and the Equity and Opportunity Assessment when determining community needs and priorities.

As discussed above in Finding #5, both of these documents contain information on housing-related health issues that has not typically been considered in development of previous Consolidated Plans. Consideration of this information could help determine community needs and priorities.

Recommendation #3: Eugene and Springfield city staff and stakeholders should consider how health could be more explicitly recognized as a desired outcome of housing strategies in the next Affordable Housing Strategic Plan.

As discussed above, by addressing the goals of HUDs CDBG and HOME programs, the Affordable Housing Strategic Plan already directly and indirectly addresses many housing-related health determinants. Even if the stakeholders involved in the update of the Affordable Housing strategic Plan determine that addressing a similar set of issues in the new plan is the best way to improve health through the housing investments informed by the Plan, a goal that explicitly identifies



community health improvement could help ensure that health issues and impacts are more explicitly addressed in the annual action plans and captured in the annual Consolidated Plan evaluation process. It could also help ensure on-going participation of LCPH staff and other public health stakeholders in implementing the Consolidated Plan.

Recommendation #4: Consider identifying children and youth as a special needs population.

Since children and youth are particularly susceptible to housing-related health impacts, consider identifying them as a special needs population to ensure that their needs and priorities receive explicit consideration in the Consolidated Plan update and implementation processes.

Recommendation #5: Work with LCPH, local hospitals, health systems, affordable housing providers, and health and human services organizations to identify needs and opportunities for evaluating the health impacts of affordable housing investments in Lane County.

While the annual Consolidated Plan evaluation reports that HUD requires the cities of Eugene and Springfield to conduct could be expanded to include an evaluation of the impacts of the Consolidated Plan's actions on a wide variety of health determinants and outcomes, it is currently not clear which health data and metrics would be appropriate and useful to include in the annual evaluation, or whether the annual evaluation reports are the best place to evaluate these impacts. As with the Consolidated Plan itself, the annual evaluation reports focus solely on activities funded by HUDs CDBG and HOME programs. Since these programs fund only a small proportion of the affordable housing and community development efforts in Eugene and Springfield, an evaluation of the impact of these investments on a broad set of health determinants and outcomes, while helpful, would likely provide an incomplete picture of the impacts of affordable housing unless the evaluation was coordinated with other efforts. In addition, much of the publicly available data on health outcomes is currently available only at the county level at best. This, combined with the fact that many of the housing related health outcomes are also influenced by many other nonhousing related factors, would make it difficult to use existing publicly available health outcomes datasets to evaluate the impacts that the Consolidated Plan might be having on health outcomes. While it is possible that the datasets maintained by hospitals and health systems might be useful for measuring impacts, or that other data gathering processes such as the occasional resident surveys conducted by the United Way might provide an opportunity to get useful data, multiple issues would need to be worked through before they could be used in the annual evaluations.



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