

**Re-energizing the Connections between  
Health and Affordable Housing:  
A Regional Strategy for Coordination and Implementation**

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## Table of Contents

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Introduction	p. 3
Background and Conceptual Framework	p. 3
Study Objectives	p. 8
Methods	p. 9
Document Review	p. 11
Semi-Structured Individual Interviews	p. 11
Observation of Two Lane Livability Consortium Public Meetings	p. 12
Findings	p. 13
Document Review	p. 13
Semi-Structured Individual Interviews	p. 14
Observation of Two Lane Livability Consortium Public Meetings	p. 17
Discussion of Trade-Offs	p. 18
Recommendations	p. 19
Conclusion	p. 23
Citations	p. 24
Appendix A: Health and Housing – Interview Questions	p. 25

# Re-energizing the Connections between Health and Affordable Housing: A Regional Strategy for Coordination and Implementation

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To improve the nation's overall health, we must improve the health of the nation's homes and ensure that safe, healthy, affordable, accessible, and environmentally friendly homes are available to everyone in the United States.

*US Surgeon General's Call to Action (DHHS 2009)*

## Introduction

The Affordable Care Act (ACA) provides a policy framework to enhance local community health and prevention practices through a broad spectrum of community collaborations and partnerships. In 2010, the Center for Disease Control and Prevention (CDC) outlined a guiding strategy to articulate the ACA's goal of enhancing community health outcomes. The resulting document, the National Prevention Strategy (NPS), encompasses a compilation of academic research and best practices promoting the theme "health in all policies."

The NPS uses evidence based findings to reframe the relationship between population health and the built environment as co-reliant. The strategy invites urban planners and public health practitioners to collaborate across disciplines to enhance positive community health outcomes. Housing and health fields share historic links across professions. Even so, adverse health outcomes are linked to poorly planned housing investments. Therefore, getting serious about improving health through better planning of the built environment requires analysis on how federal investments in affordable housing can forward community health goals at a regional level. This research explores how the theme "health in all policies," can be introduced and implemented across the Eugene-Springfield region's affordable housing initiatives and projects. Specifically, this research explores how the Eugene-Springfield Metropolitan region can incorporate health elements and indices into affordable housing plans, initiatives, investment strategies, and planning processes.

The intended outcomes of this research aim to (1) explore the extent that measurable linkages between affordable housing investments and community health outcomes can be implemented through community housing planning initiatives; and, (2) share recommendations on how the region's future Community Development Block Grant (CDBG) and HOME Investment Partnership Grant investment plans and planning efforts can better address community health goals.

## Background and Conceptual Framework

The Eugene-Springfield Metropolitan region receives approximately \$5 million federal funds annually to improve neighborhoods, communities and increase access to affordable housing. Furthermore, the region (Map 1) is well positioned to take advantage of and leverage additional federal and state initiatives.

In 2009 the US Surgeon General issued a Call to Action to Promote Healthy Homes (DHHS 2009). This document initiates interagency action towards developing collaborative efforts that improve housing elements linked to healthy outcomes (Meyers 2010). The ACA now allocates funding towards community prevention efforts such as healthy housing and provides more legislative teeth to the

Surgeon General’s call. Federal initiatives such as those outlined in both the Surgeon General’s Call to Action and the National Prevention Strategies “health in all policies” approach to planning provide the region with opportunities to leverage new ACA funds with existing federal community development and affordable housing dollars.

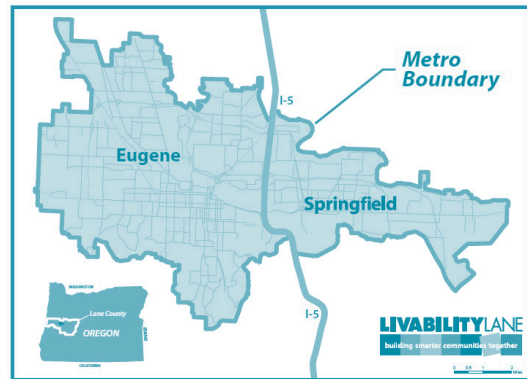
The Eugene-Springfield region is the recipient of a US Housing and Urban Development Sustainable Communities Regional Planning Grant that offers funds to help local jurisdictions better collaborate to align planning outcomes toward a more sustainable and healthy future. This regional approach encourages the

coordination of community development activities among economic development, housing, public health and transportation agencies. Consequently, this report focuses on initiatives and policy tools that can be used to better coordinate public health and affordable housing policies. Recommendations developed in this report aim to reinforce the region’s collaborative planning strengths to further align affordable housing and community health goals and outcomes. The recommendations find support in a growing body of evidence connecting specific housing conditions to specific health conditions and the development of policies aimed at improving the health of people by improving the quality of their homes (Meyers 2010).

## Context

Drawing a connection between quality housing, housing affordability, neighborhood attributes and community health is not a fundamentally new concept. Early housing standards implemented across cities during the industrial revolution concentrated interventions on slum housing around factories (Jacobs et al. 2007). During this era, the public health movement and the planning of urban housing held common roots in improving sanitation to mitigate adverse health outcomes generated through squalid housing conditions (Jacobs et al. 2007) (Fertig and Reingold, 2007) (Meyer, 2010). While early successes in coordinating housing and population health efforts led to the control of diseases like cholera and tuberculosis, the two disciplines now exist as generally separate and uncoordinated (Jacobs et al. 2007).

Early relationships across public health and housing fields slowly diverged as public health officials became more concerned with preventing and treating communicable diseases and housing planners became more interested in dispersing housing density outside of urban areas (Smith 2010). This divide shows encouraging signs of closing as new evidence suggests that a home’s physical features and surrounding neighborhood can have a serious effect on preventing chronic disease. Addressing multiple biological, chemical, structural injury hazards, and neighborhood level interventions can improve quality of life, protect the health and safety of affordable housing residents, and ultimately reduce health care costs (Meyer 2010).



**Map 1:** Eugene-Springfield Metropolitan Area Boundary

Addressing multiple biological, chemical, structural injury hazards and neighborhood level interventions can improve quality of life, protect the health and safety of affordable housing residents, and ultimately reduce health care costs (Meyer 2010).

A renewed interest in determining linkages between community health outcomes and housing quality, affordability and neighborhood influences rises from concerns of ongoing patterns of unsustainable community development (Jacobs et al. 2007). Evidence now supports that housing indicators affect resident health in a number of ways that exceed the traditional emphasis on communicable disease control (Breysse et al. 2004). Housing determinants on health now include lasting effects on mortality, chronic diseases, mental, emotional and developmental health (Jacobs et al. 2009) (Meyers, 2010) (Mason and Brown. 2010). Because sustainability, affordability and health are related and codependent; substandard, unaffordable and confounding neighborhood factors all pose a detriment to the renewed goal of developing healthy and sustainable communities (Jacobs et al. 2007, p. 976).

Consequently, new public health solutions show substantial evidence that developing healthy homes programs through multidisciplinary approaches across health and housing fields support the mutual goals of increasing housing affordability while improving health equity (Smith, 2010) (Meyer, 2010) (Brown et al. 2010). The failure to address preventable public health concerns linked to unhealthy housing determinants comes at considerable economic cost. Current estimates generated by the U.S. Environmental Protection Agency associate indoor pollution with the generation of nearly \$150 to \$200 billion in annual health related costs (Mason and Brown, 2010). Nearly 45 percent of these costs are attributed to avoidable deaths from radon and tobacco smoke, while another 45 percent of costs are due to lost economic activity attributed to poor health, and 10 percent are linked to preventable respiratory diseases (Jacobs et al. 2007) (Mason and Brown, 2010).

Evidence now supports that housing indicators affect resident health in a number of ways that exceed the traditional emphasis on communicable disease control (Breysse et al. 2004)

Furthermore, unhealthy housing determinants that affect resident health present predominantly among low-income and other at risk populations such as children and the elderly (Meyer, 2010) (Smith, 2010). These factors indicate serious implications for health and housing inequities in outcomes across sub-populations. Getting serious about addressing poor health outcomes linked to substandard housing and housing environments requires concentration and intervention into a set of key housing determinants. These determinants aim to focus on predominantly affected populations by developing policies and assessment tools that measure key housing and health indicators.

## Key Determinants

Three overarching categories summarize the key housing determinants that adversely affect health outcomes. Lubell et al. (2010) outlines these key determinants according to the following attributes: (1) housing quality, (2) affordability, instability, and crowding, and (3) neighborhood effects. The following sections draw from additional evidence-based research to support the significance of each category's potential to adversely impact health outcomes. Furthermore, these three categories inform the development and structure of this report's recommendations. Successful solutions must account for the accumulative affects presented by each individual category by addressing a comprehensive and holistic approach that meets the combined needs of all three.

### Housing Quality

The average U.S. Citizen spends 90 percent of their time indoors and 70 percent of that time is within their home (Jacobs et al. 2007). This finding, when compounded by evidence that indoor levels of pollutants resulting from unhealthy and substandard housing may be two to five times higher than outside levels, encourages a thorough review of how housing quality impacts resident health (Jacobs et

al. 2007, p. 977). The driving factors of adverse health outcomes stemming from poor housing quality are linked to unacceptable levels of exposure to lead, radon, asbestos and mold (Jacobs et al. 2007) (Jacobs et al. 2009) (Mason and Brown, 2010) (Howell et al. 2005). Surprisingly, while exorbitant health care costs are linked to care for diseases attributable to preventable environmental determinants such as poor housing quality; few coordinated acts of intervention target these concerns (Jacobs et al. 2007). Again, exposure to lead, radon, asbestos and mold are not ubiquitous and predominantly effect low-income families, children and the elderly (Jacobs et al. 2009).

The literature on housing quality suggests that interventions targeting the clean-up and mitigation of exposure to lead, radon, asbestos and mold will improve health equity among low-income families, children, and older adults, and will likely produce billions of dollars in savings to our nation's health care systems (Jacobs et al. 2009) (Mason and Brown, 2010).

### **Affordability, Instability, and Crowding**

Housing affordability shares a link with health outcomes (Howell et al. 2005) (Lindberg et al. 2010). In extreme poverty neighborhoods where 40 percent of residents live at or below the Federal Poverty Level (FPL) mortality, poor health outcomes, poor child and adult mental health, and negative health behaviors are all attributed to stressors generated by housing cost burdens (Lindberg et al. 2010). Furthermore, housing instability is linked to higher rates of crime and unaddressed mental health issues.

The three dimensions of housing affordability, residential stability and crowding are interrelated as households struggling to pay rent are more likely to move due to eviction and high housing cost burdens often lead to residential crowding. Accordingly, low-income families are more likely to describe themselves as less healthy than peers in affordable housing (Lubell et al. 2010). Lacking access to an affordable home, many individuals and families face the trade-off of foregoing necessary medical care (Lindberg et al. 2010). Housing instability impacts the health of at-risk and transitioning foster care youth with particularly negative health outcomes correlated with long bouts of depression and decreased access to a stable medical home (Lubell et al. 2010). Finally, crowding is associated with increased rates of all forms of physical and domestic violence within the home.

When poor children and families have access to healthy stable homes, their mental and physical health improves. Lindberg et al. (2010) and Howell et al. (2005) indicate that increased access to HUD housing choice vouchers share a significant link with improved mental health outcomes among children and adults in high poverty areas. These studies indicate access to affordable housing shares a positive correlation with increases in positive health outcomes. Increased interagency collaboration is necessary to improve access and availability of these affordable housing alternatives (Howell et al. 2005) (Lindberg et al. 2010).

### **Neighborhood Effects**

While the quality of housing shares an effect on health outcomes, simply moving into affordable housing with a higher quality design does not regularly show significant impacts on health if other neighborhood effects play a role in influencing those outcomes (Fertig and Reingold, 2007)(Howell et al, 2005). Fertig and Reingold (2007) found that relocating low-income families into family based low-income housing is not a predominant lever in shaping health behaviors and outcomes. If family based low-income housing is located in high poverty neighborhoods, residents will likely continue to suffer adverse health outcomes (Fertig and Reingold, 2007) (Howell et al, 2005).

Quality and affordable housing is still subject to neighborhood influences that might impact access to health facilities, share peer effects that influence negative behavioral outcomes, and remain isolated

due to higher crime and failed infrastructure (Fertig and Reingold, 2007) (Lindberg et al, 2010) (Howell et al, 2005). A call to action to address healthy homes and livable neighborhoods supports multiple and interrelated neighborhood level interventions to improve housing quality while mitigating negative neighborhood effects that influence community health outcomes (Meyer, 2010). Plainly stated, increasing the community's stock of healthy homes requires coordinated efforts to address housing quality, affordability, stability and crowding, and neighborhood effects simultaneously.

### **At Risk Populations: Low-Income Families, Children, and Older Adults**

The importance of linking housing and health outcomes is especially pronounced when addressing populations at risk. Breyse et al. (2004) found that children encounter the greatest and most preventable health exposures based on indoor pollutants. Cost estimates suggest that environmentally based diseases developed through poor housing factors such as exposure to lead poisoning, asthma, cancer derived from radon exposure, and other development disabilities generate \$54.9 billion in costs to the nation's health care system annually. This cost figure highlights the importance of improving housing quality through targeted interventions that mitigate exposure to the key environmentally based diseases highlighted above (Breyse et al. 2004) (Brown et al. 2010) (Mason and Brown, 2010).

In addition to children, older adults and low-income families share the inequitable brunt of poor health outcomes related to substandard housing and negative neighborhood effects (Howell et al. 2005) (Jacobs et al. 2007) (Jacobs et al. 2009). Therefore, future research might target interventions that bring positive health impacts to low-income families, children and older adults. These targeted interventions stand to generate positive impacts on health equity and provide economic benefits based on lowering the cost of intervention (Jacobs et al. 2009).

### **Targeted Interventions, Cost Savings and Health Equity**

As national initiatives grow increasing momentum in redefining the relationship between health outcomes and housing quality, affordability and neighborhood effects, the Eugene-Springfield Region stands well positioned to promote healthy homes programs and interventions (Meyer, 2010) (Brown et al. 2010). The literature suggests that addressing multiple and integrated neighborhood level interventions are a positive first step in addressing housing and health related challenges.

Addressing health equity implications also affects the economic impacts of poor health outcomes. By accessing creative financial alternatives to intervention, developing a systems thinking approach to preventing substandard housing, and formalizing a community coalition approach to addressing health inequities, the community can move towards a goal of ensuring affordable healthy housing for all (Smith, 2010) (Lindberg et al, 2010). These actions, while improving the health outcomes of the community and reducing the economic burden placed on local health systems, also stand to relieve health inequalities experienced by low-income families, children and older adults (Smith, 2010).

Table 1 provides a literature review summary of the key housing determinants categorized by Lubell et al. (2010). This table provides the baseline for developing this report's recommendation criteria. The document review process carried out in the completion of this report further informs and expands upon the baseline criteria provided in Table 1. Evidence-based research indicates that positive health and housing outcomes result from combined interventions that cumulatively addressing the three categories of key determinants. In meeting this challenge, this report adopts a mixed methods approach aimed at addressing the research questions described below.

**Table 1: Summary of Affordable Housing Interventions for Improved Health Outcomes**

<b>Housing Quality</b>	<b>Affordability, Residential Stability and Crowding</b>	<b>Neighborhood Effects</b>
<i>Safety</i> - (prevent falls, fires, poisoning, and gun deaths).	<i>Housing affordability</i> - (Unaffordable housing is linked to poor health outcomes among children, less attention to medical care, and stress related illness.)	<i>Physical Neighborhood Attributes</i> - (Lower proximity to motor vehicle traffic, increase access to parks, enhance walkability, and encourage mixed-use development.)
<i>Retrofitting Old Homes</i> - (Assist older adults and people with disabilities with accessibility features).	<i>Residential Stability</i> - (Impacts mental health stability and includes links to physical health problems such as hypertension, heart disease, and anxiety and depression.)	<i>Social and Community Attributes</i> - (Increase neighborhood security, enhance social cohesion, eliminate residential segregation and concentrated poverty, and improve inclusionary housing policies.)
<i>Physiological Health</i> - (Prevent pesticide, lead, radon, carbon monoxide, and mold exposure and provide ventilation and climate control).	<i>Crowding</i> – (Increases levels of stress, hypertension, domestic abuse, and exposure to preventable infectious disease.)	
<i>Psychological Health</i> - (Increase access to good lighting, and prevent noise pollution).		

*Source: Lubell et al. 2010*

## Study Objectives

As increasing connections between housing and health fields demonstrate strong linkages with resident health outcomes, new federal attention recognizes the importance of funding healthy homes interventions. Federal preventive health initiatives, affordable housing efforts, and new Affordable Care Act goals are driving national policies toward realizing healthy homes in all communities. However, local communities require strategies to link the two fields that have remained isolated for decades.

Communities generally need a better understanding of how housing and neighborhood interventions can significantly improve health outcomes before committing community resources to the challenge (Jacobs et al. 2010). Therefore, this study explores the Eugene-Springfield area’s opportunities to realign affordable housing and community health goals. A series of questions framed the conceptual development and alignment of recommendations within this report. These questions are provided below. By exploring answers to these questions, this report aims to steer the community’s attention to the importance of leveraging and aligning resources that drive an effective healthy homes agenda.

### The general question:

How can the Eugene-Springfield Metropolitan region incorporate health elements and indices into affordable housing plans, initiatives, and investment strategies?



## Specific questions that inform the general question:

1. To what extent do regional housing plans, initiatives, and strategies identify measurable linkages between affordable housing investments and community health outcomes?
2. How can the region's affordable housing planning processes incorporate measurable community health indicators?
3. How can future Community Development Block Grant (CDBG) and HOME investment partnership grant investments address community health goals?

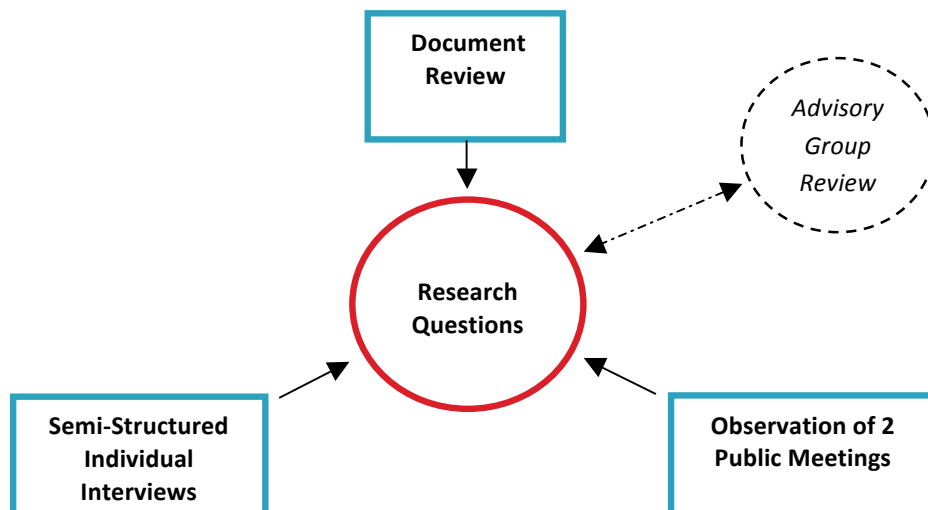
## Methods

This study answered the primary research question and sub-questions through a mixed methods approach that borrowed from qualitative and quantitative methods. The research combined an exploratory and subjective approach to gaining the knowledge and experience of practitioners engaged in the affordable housing and community health fields. The analysis generated recommendations through the triangulation of findings established through a document review of regional comprehensive plans, semi-structured individual interviews, and by observing key themes generated during public meetings convened and facilitated independently by the Lane Livability Consortium (LLC).

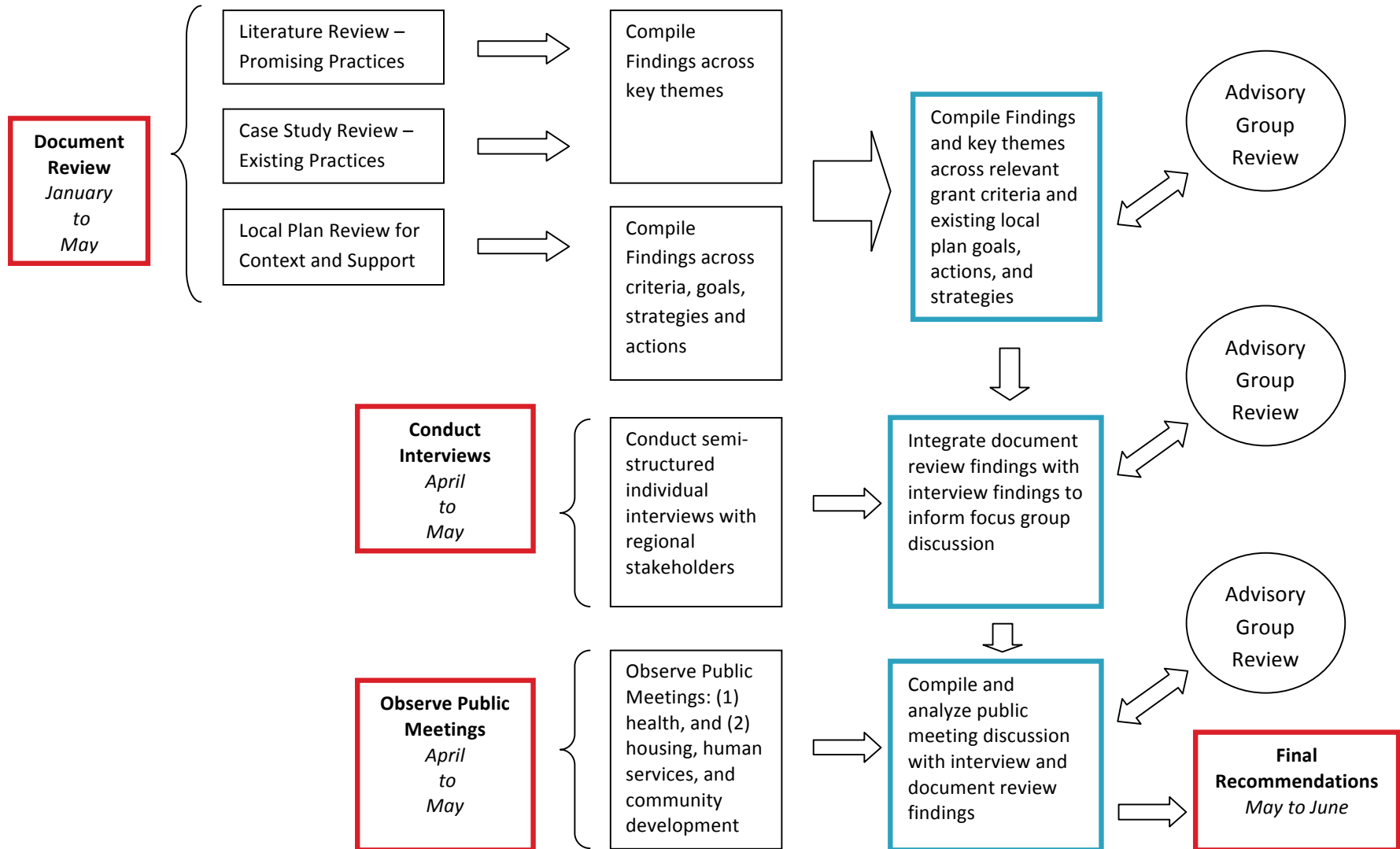
The qualitative aspect of the study constructed meaning by providing a local response to the feasibility of recommendation implantation versus planned intent. Method's used throughout the study borrowed from Stake's (1975) responsive evaluation approach (Figure 1). The responsive method provided a formative approach to implementing this exploratory case study design (Figure 2).

Specifically, the responsive evaluation approach provided a triage of multiple methods used to enrich the collection of experiences (Stake 1975). The mixed design informed the uniqueness of the local situation by responding to evolving local challenges. This method is particularly adaptive in allowing for the redefinition of problems and possible alternative solutions. Finally, Stake's (1975) method enabled the researcher to act as the facilitator. As facilitator, the researcher informed a reciprocal learning exchange among participants.

Figure 1: Triangulation of Mixed Methods



**Figure 2: Research Study Design Model**



## Document Review

The quantitative portion of this study is generated from a document review. The document review research included a literature review, a case study review, and a review of local comprehensive and strategic plans related to health and affordable housing. All documents reviewed are public documents available on local municipal websites. A content analysis allowed the researcher to quickly aggregate and summarize key themes across documents.

Table 2 lists the documents that actively shape affordable housing and community health planning efforts in the Eugene-Springfield region. Key goal and strategy areas were compiled from each plan and aggregated into like themes. All compiled themes were then compared with goals and strategies found and compiled across national evidence-based healthy homes strategies.

Table 2: Plans and Initiatives Used to Address Housing and Community Health within the Region	
HOUSING	COMMUNITY HEALTH
Envision Eugene	Lane County Public Health Authority Comprehensive Plan
Springfield 2030	National Prevention Strategy
Eugene-Springfield Consolidated Plan 2010	National Public Health Performance Standards
Eugene-Springfield 2010 Fair Housing Plan	Oregon Health Improvement Plan
A Community Climate and Energy Action Plan for Eugene	
Housing and Community Services Agency of Lane County Strategic Plan 2011-2015	
Human Services Plan for Lane County	

The documents that inform national healthy homes strategies are found in Table 3. After compiling goals and strategies from Table 3 documents into a separate set of aggregated themes, the key themes from each set of Table 2 and Table 3 documents were cross-referenced to identify opportunity areas. The process exposed potential opportunity areas for linking healthy housing initiatives with the region's affordable housing planning efforts.

Table 3: Recognized Best Practices	
Document	Year Published
Advancing Healthy Housing: A Strategy for Action	2013
Housing and Health: New Opportunities for Dialogue and Action	2012
National Prevention Strategy	2010
The Surgeon General's Call to Action To Promote Healthy Homes	2009

## Semi-Structured Interviews

Findings derived from the document review were contextualized through findings generated from a series of semi-structured interviews. Several criteria guided the interview selection process. First, ideal interviewees worked as programmatic decision makers within their agency or organization. As decision makers, interviewees are more likely to share an interest in engaging the findings of this report. Second, interviewees worked with the region's affordable housing and community health agencies. Third, the preferred interviewee represented an organization that works for the health and housing stability of

children, low-income families, and older adults. Fourth, interviewees influencing policy that affects affordable housing, public health, community health, and vulnerable populations were selected. Lastly, interviewee participants were chosen if they represented stakeholder agencies in the Lane Livability Consortium (LLC) regional planning effort. The LLC’s work is driven by funding from the U.S. Department of Housing and Urban Development’s office of Sustainable Communities. The LCC strives to integrate the work of economic development, housing, public health and transportation fields to generate more sustainable communities.

**Table 4: Agency Participation in Semi-Structured Individual Interviews**

HOUSING	HEALTH and SERVICES
City of Eugene	Eugene Water and Electric Board (EWEB)
City of Springfield	Lane County Health and Human Services
Enterprise Community Partners	Lane County Public Health
Oregon Housing and Community Development (OHCD)	Oregon Public Health Institute
Housing and Community Services Agency of Lane County (HACSA)	Peace Health
Mainstream Housing, Inc.	United Way of Lane County
Metropolitan Affordable Housing Corporation	

Each interviewee responded to a series of eight questions (Attachment A). The interview questions provide specific insight into addressing this report’s research questions. Interview question responses were aggregated into themes and analyzed with respect to support of relevant research questions. No individual names or direct interview quotes are used in this report. Of the 21 agencies selected for the interview process, 16 completed interviews, prompting a 76 percent agency response rate (Table 5). A total of 30 individuals across the 16 agencies completed the interview process.

**Table 5: Agency Participation - 76 Percent Response Rate**

Agencies Invited	<b>21</b>
Agencies Participating	<b>16</b>
Interviews Completed	<b>18</b>
Individuals Interviewed	<b>30</b>
Interview Questions Each	<b>8</b>

### Observation of Two Lane Livability Consortium Public Meetings

This report’s research design also required the observation of two LLC public working group meetings. During the course of this study, the researcher observed key themes generated during open public meetings convened and facilitated independently by the LLC’s Equity and Opportunity Assessment (EOA) working groups. The two meetings focused on the topics of health and housing. The LLC conducted these meetings to determine how federal investments can better target gaps in access to geographic sites of opportunity. Specifically, the EOA equity mapping exercises informed future investment and public participation strategies by evaluating trends across 40 socioeconomic maps and indicators. Participants used this information to inform regional health and housing decision making processes that address regional: (1) Plans, (2) Policies, (3) Investments, and (4) Public participation strategies.

The first LLC public meeting provided a forum for discussing regional efforts to further collaborate across the disciplinary fields of housing, community development, and human services. The second LCC

meeting focused on regional coordination towards improved community health outcomes. These meetings allowed the researcher to observe key themes generated during the public meetings and verify them against document review and semi-structured interview findings. Public meeting discussion themes are aggregated into key themes responsive to the outcomes of the research questions.

## Findings

The following section indicates key findings relevant to each of the applied methods. First, key themes exposed from the completion of the document review reveal opportunities to enhance linkages across regional housing and community health related plans. Second, an analysis of semi-structured interview themes is compiled according to each interview question. And third, this report provides findings observed from participant interactions at two LLC meetings related to health and housing.

## Document Review

The divide between planners and community health practitioners means that few planners are actively addressing long-term community health goals (APA 2011). Currently, less than 30 percent of the nation's local comprehensive plans address community health components while only three percent of the nation's sustainability plans address community health issues (APA 2011).

The concern that few regional plans address or promote community health goals prompts the origin of this analysis. New federal strategies promote a healthy homes approach to bridging the historic gaps between the fields. As indicated, a review of four national health and housing policy strategies (Table 3) support best practices in implementing healthy housing interventions. Furthermore, opportunities to enhance regional planning linkages between the two fields emerge when federal best practices overlay and expose regional themes.

## Opportunities to Enhance Links between Health and Housing Plans

First, general themes emerge from a content analysis of federal best practices. The following findings present themes consistent with goals, actions and strategies within each of the four documents listed in Table 3.

- **Locate healthy housing in healthy neighborhoods with safe community environments.** Each document acknowledges that neighborhoods face cycles of investment and disinvestment. However, successful health outcomes are aligned with housing sited in sustained and recognized healthy communities that promote access to preventive health services and active living environments (NPS 2010).
- **Support the implementation of innovative community-based preventive services and enhance low-income housing residents' access to clinical care and primary care providers.** Programs supporting home-based interventions show successes in limiting asthma attacks and mitigating preventable adverse health outcomes. Also, community health workers can provide low-cost home based health interventions to vulnerable populations at greatest risk (NPS 2010) (HUD 2013).
- **Incorporate health criteria into health and housing decision-making criteria and planning documents where appropriate.** Stable housing improves health outcomes and housing improvements generate increased positive health outcomes while promoting an affordable housing agenda. The "health in all policies" philosophy is uniquely fit to integrate health and housing goals across disciplines (Lubell et al. 2010) (NPS 2010) (HUD 2013).

- **Formulate deep cross-sector collaboration between health and housing fields to prioritize service delivery needs and to optimize the leveraging of federal, state, local and private resources.** Structured and organized partnerships promote mission alignment and stand to leverage flexible funding resources for innovative health and housing efforts (Lubell et al. 2010) (NPS 2010) (HUD 2013).
- **Preserve housing for older adults to live and age in place.** The health of older populations finds support in independent living (Lubell et al. 2010). Furthermore, dramatic health care costs are driven by costly nursing home care needs among older adult populations. Successful healthy housing efforts reduce nursing costs and act to sustain the senior population’s ability to age in place.

Second, Eugene-Springfield regional housing plans do not explicitly address health outcomes. The suggested list above provides the Eugene-Springfield region with a guiding set of strategies that can be adopted across affordable housing and community health documents. The themes address multi-disciplinary goals designed to enhance community health outcomes through cross-sector collaboration. Furthermore, Table 6 provides additional programmatic themes that can better inform plans seeking to address critical elements across key housing determinant categories.

**Table 6: Programmatic Themes to Address Key Housing Determinants of Health**

<b>Housing Quality</b>	<b>Affordability, Residential Stability and Crowding</b>	<b>Neighborhood Effects</b>
<i>Safety</i> (Increase access to low-cost accessibility safety features)	<i>Violence Free Living</i> (Address the housing needs of victims of physical violence)	<i>Encourage Active Living and Access to Healthy Food</i> (Foster conditions promoting good health)
<i>Retrofitting Old Homes</i> (Target upgrades to older low-income housing stock)	<i>Mental and Emotional Wellbeing</i> (Improve access to case management service resources)	<i>Access to Preventive Health Care to Eliminate Health Disparities</i> (Link to Community Health Workers)
<i>Physiological Health</i> (Prevent pesticide, carbon monoxide, and mold exposure and provide ventilation, and climate control features)	<i>Affordable Housing and Job Development Alignment</i> (Coordinate home sighting with expanding job opportunity areas)	<i>Empowerment and Community Engagement</i> (Promote health equality across plans and with community leaders)
<i>Access to a Safe Home</i> (Consider access to a safe affordable home as a health determinant)	<i>Transitional Youth Housing</i> (Require healthy housing linked to primary and preventive care)	<i>Promote Mixed-income/ Mixed-use Neighborhoods</i> (Link with local land banking efforts)

*Source: (DHHS 2009) (Lubell et al. 2010) (NPS 2010) (HUD 2013)*

## **Semi Structured Interviews**

Each interviewee responded to a set of questions. Each question set incorporated a theme that guided the course of the interview discussion. Once the interview process concluded, sets of all 30 responses were synthesized and aggregated into themes supporting the overarching question. Interview question themes are summarized below. Response themes relevant to each question were tallied and prioritized in order of numerical responses received. Priority response themes are described beneath each question theme.

## **Key Themes Compiled from Interview Question Responses**

### ***Most significant health and housing concerns facing the region***

Both health and housing professionals view a lack of access to safe and affordable housing as the greatest overarching adverse impact on the health of low-income children, families, and older adults. Interviewees also acknowledge that a historic lack of coordination between health and housing fields prevents the development of stronger interagency collaborative efforts needed to implement innovative policies and programs.

Both housing and health agencies find frustration in acquiring the necessary operational funds to adequately finance needed case management services. Housing is a conduit to services but the region lacks sustained service funding for the case management needed to support health interventions. Finally, many interviewees were concerned that the region struggles to link low-income and affordable homes with adequate access to healthy foods.

### ***Effective and existing regional healthy housing efforts***

Interviewees shared positive praise for several regional programs currently working to bridge the gaps between health and housing fields. The Community Health Workers program, in particular, received praise for offering low-cost health interventions to vulnerable communities lacking access to clinical and primary care services. The program trains community-based volunteers to check on patient needs in low-income neighborhoods and housing complexes. The program offers prevention based interventions and ultimately lowers the cost of emergency care.

Current efforts to develop a Homeless Medical Respite Program also enjoyed praise among interviewees. This program aims to serve the needs of vulnerable and medically indigent hospital and emergency room users by providing them with a temporary shelter to heal and take care of their wounds.

Interviewees hoped to gain more knowledge of the City of Eugene's 20 Minute Neighborhood analysis and would like to use the analysis to inform housing sighting efforts. Additionally, Lane County's partnership with St. Vincent De Paul and the Housing and Community Services Agency of Lane County enforces a Smoke Free Housing Program that successfully bans smoking in multi-family subsidized apartments.

### ***Identifying those at risk: children, low-income families, and older adults***

The majority of interviewees strongly agreed that targeted health and housing interventions should prioritize the needs of children, low-income families, and older adults. However, discussion revealed a number of other low-income, at-risk, and vulnerable populations that should be considered when planning healthy housing related interventions. In particular, interviewees noted that the region should evaluate the needs of racial and ethnic minority populations – particularly Latinos.

At risk, homeless, and transitioning foster care youth too often fall victim to an overwhelming number of preventable health ailments. Interviewees agreed that this sub-population of children should be prioritized to receive targeted healthy housing interventions linked to health services. Additionally, dually diagnosed mental health and alcohol and other drug users require particular housing and supportive service needs. Finally, many housing and health service agencies are particularly concerned about the needs of returning veterans and veterans with families. Interviewees were also concerned with supporting the following vulnerable populations:

- Developmentally disabled individuals,
- People who are homeless and medically indigent,
- Ex-offenders and individuals with a criminal history, and
- Victims of domestic violence.

### ***Defining the constructs of a healthy home: housing quality, affordability, instability, and crowding, and neighborhood effects***

As noted above, interviewees overwhelmingly addressed affordability as the key determinant impacting health outcomes. Specifically, interviewees suggested using “access to affordable housing” as an indicator of individual and family health. The “access to affordable housing” indicator can be used across community health and housing plans to actively promote housing interventions.

Neighborhood effects are prioritized as a second key determinant to housing related health outcomes. Neighborhood interventions were viewed as important but should not be prioritized over efforts to fund increased access to affordable housing. The majority of interviewees would like to include access to health care and health related services as key determinants of housing and health outcomes.

Finally, while housing quality was not seen as the strongest threat to health determinants, many agreed that programs must address adverse health effects associated with mold, poor weatherization, aesthetic improvements, and pest removal. Accordingly, sufficient evidence suggests that integrated pest management programs, and the combined elimination of moisture intrusion and removal of mold, act to improve health outcomes among low-income homes (Jacobs et al. 2010).

### ***Integrating health metrics into affordable housing plans, initiatives and strategies***

As indicated above, the incorporation of health criteria into health and housing decision-making improves health outcomes while promoting an affordable housing agenda. However, while the “health in all policies” philosophy provides a unique opportunity to integrate health and housing goals across disciplines, the act of implementing the approach raised questions among interviewees. Specifically, interviewees shared skepticism that the costs of tracking additional metrics would outweigh associated programmatic impacts. In an environment where funding is scarce, new efforts to evaluate across disciplines must be met with compatible resources. Interviewees acknowledged that healthy housing data would benefit regional efforts to plan for integrated healthy housing outcomes if funding could be secured to sustain the tracking of high impact housing and health metrics overtime.

The majority of interviewees agreed that evaluation measures linking health to key housing determinants would likely encourage a regional effort to improve the integration of housing and health efforts. Specifically, interviewees supported tracking metrics that measure the relationship between access to health care and self-reported health status after accessing affordable housing. Agencies were also interested in tracking the use of health care services among newly housed individuals and families overtime. These metrics may include hospital stays, emergency department use, and access to a primary medical home.

Interviewees would also like to inform investment criteria by reviewing affordable and low-income housing access to community space, parks, recreation, and playgrounds. This interest is shared among interviewees hoping to measure housing proximity to full-service grocery stores.



### ***Challenges and barriers to coordinating and implementing a healthy homes agenda***

A lack of sustained funding resources for innovative programs coupled with a lack of coordination between health and housing fields prevents the successful implementation of innovative policies and programs. Furthermore, historically unstable levels of operating capital tend to draw down the financial feasibility of operating service based programs.

Interviewees also noted the difficult nature of quantifying the benefits of housing interventions on health outcomes. Without an inexpensive and effective means of tracking programmatic outcomes, funding resources remain scarce. Furthermore, low-income families also face the challenge of securing adequate access to child care in order to hold a steady job that meets housing demands.

### ***Defining healthy homes***

Interviewees were asked to review the U.S. Surgeon General's statement that "A healthy home is sited, designed, built, maintained, and renovated in ways that support the health of its residents" (DHHS 2009). Based on acquired experience, each interviewee provided an explanation of whether or not the definition met their perceived characteristics of an affordable healthy home. In general, interviewees approved of the definition but also agreed the definition is too focused on the physical and structural aspects of the home.

Interviewees were less concerned with the physical components of the home largely because Oregon's housing development codes exceed national standards. Furthermore, lead abatement efforts have slowly decreased the presence of lead in older homes. Lane County health officials agree that few children ever exhibit elevated lead levels in their blood. It is important to note that interviewees did not ignore the fact that interior aspects of the home impact health outcomes. Many are concerned with mold and pest infestations in older low-income homes and encourage the development of programs to decrease mold and pest impacts in low-income neighborhoods.

However, interviewees shared more concern with insuring that affordable homes provide access to health care, services, and jobs. All interviewees agreed that any definition of a healthy home should incorporate the theme of "access." The term access should include access to affordable child care, and should be sited within adequate access to a community of opportunity. Future planning efforts can plan access to communities of opportunity by incorporating the results derived from the LLC's regional Equity and Opportunity Assessment process.

## **Observation of Two Lane Livability Consortium Public Meetings**

The LLC's Equity and Opportunity Assessment mapping exercises inform this study by corroborating future investment and public participation strategies. Table 7 shares a brief frame of results relevant to this study. The two LLC meetings focused on the topics of health and housing. Workshop exercises inform future investment and public participation strategies by evaluating trends across 40 socioeconomic maps and indicators. Participants used this information to inform regional health and housing decision making processes that address regional: (1) Plans, (2) Policies, (3) Investments, and (4) Public participation strategies. The following findings inform this report's overarching recommendations.

**Table 7: Key Observed Responses from the LLC’s Public Health and Housing Workshops**

<b>Public Participation</b>	<b>Plans</b>	<b>Policies</b>	<b>Investments</b>
Use EOA data to promote direct outreach to target communities	EOA mapping can inform planning for service delivery and affordable housing sighting	Identify barriers associated with housing and access to basic services	Identify target neighborhoods for investment opportunities
Encourage story telling as a method of engagement and data collection	Data assists municipalities in planning for development of healthy communities	Inform housing dispersal policy and community development priorities	Coordinate and leverage multidisciplinary approach to leverage investments
Address target populations in outreach and extension of health coverage	Establish “degrees of health” metric to identify areas with health disparities	Align missions and policies across disciplines to impact health outcomes	Focus investments on comprehensive family support and supportive health resources
Use EOA data as tool in addressing social determinants of health across fields	Use data to address metrics associated with Promise Neighborhoods	Use data to site services in reach of target populations	Invest in healthy community infrastructure

## Discussion of Trade-Offs

A discussion of policy alternatives suggests that the Eugene-Springfield region should apply a series of targeted approaches to improving health outcomes through deliberate housing interventions. The National Center for Healthy Housing outlines a series of evidence based actions to advance shared goals across public health and affordable housing outcomes. Table 6 provides an outline of specific areas for action where action might realize improved community health outcomes through targeted affordable housing interventions.

However, no one housing agency can address all of the necessary housing interventions needed to significantly improve the region’s health outcomes. Consequently, interventions that meet the needs of older adults, affordability, walkable communities, residential stability, healthy housing and healthy neighborhoods, and other forms of supportive housing are often fragmented and lack the full funding necessary to be affective.

Furthermore, this study’s recommendations do not attempt to solve the region’s affordable housing challenges. Rather, the recommendations suggest low-cost alternatives conducted through innovative partnerships that stand to better link existing and emerging health services with low-income and affordable housing residents.

Targeted housing interventions can go a long way to improve the community’s health. However, these policies and tools are often cumbersome to implement, financially difficult to secure, and remain disjointed if not approached through a thoroughly collaborative process. Because no one agency within the region has the financial means or incentive to coordinate healthy housing interventions fully on their own, the region must initiate a process of interagency collaboration to build a systems approach to attaining a more holistic community based model of intervention. By pooling resources and

collaborating to maximize opportunities to leverage funding, community health and affordable housing agencies can maximize the extent of their interventions.

The goal of this report is to provide recommendations for policies that best integrate emerging healthy homes programs into community planning decisions. The successful recommendations will achieve the goal of integrating healthy housing best practices with collaborative decision making processes that lead to increased community health outcomes.

## Recommendations

The interactions between affordable housing and community health fields provide a timely opportunity to implement low-cost and innovative healthy homes interventions. The recommendations below aim to incorporate evidence-based practices and community knowledge to increase the connections between housing and health fields. Because new federal attention recognizes the importance of funding healthy homes interventions, these recommendations align with preventive health initiatives, affordable housing efforts, and new Affordable Care Act goals driving national policies.

Furthermore, recommendations acknowledge two strong community identified barriers to enhancing a healthy homes agenda including: (1) lack of multi-disciplinary agency coordination, and (2) lack of funding to align the resources necessary to achieve healthy homes outcomes. The recommendations do not propose to alleviate the funding challenges facing health and housing agencies. Rather they propose innovative alternatives to leverage emerging federal and state initiatives aligned with the healthy homes vision. Recommendations are themed around the research questions that frame the conceptual framework of this report.

### *How can the Eugene-Springfield Metropolitan region incorporate health elements and indices into affordable housing plans, initiatives, and investment strategies?*

The Eugene-Springfield region's housing and health agencies can develop working groups to integrate health criteria into planning and decision making processes. Where possible, these agencies should engage and promote cross-sector information exchanges (NPS 2010).

- **Existing health and housing advisory bodies should share an awareness of the linkages between health and housing outcomes.** Coordination starts with understanding and there is a need to improve the understanding of connections between the home and health. Knowledge of healthy homes concepts encourages actions that foster healthy homes and vibrant communities (DHHS 2009).
- **Form a regional healthy homes working group.** Agencies can align respective program goals to prioritize and implement strategies that prevent adverse housing related health outcomes (HUD 2013).
- **Establish a comprehensive regional strategy to promote healthy homes.** Key agencies identified in this research should consider developing a consensus-based model for healthy housing. Efforts should prioritize linking low-income homes with access to health care and health services.

- **Identify regional opportunities for cross-sector mission alignment among policies, programs, and stakeholders to enhance community health impacts within the community.** Creative partnerships can leverage resources and use housing as a means to reduce barriers to accessing clinical and community prevention based services, especially among populations at greatest risk.
- **Collaborate with key state and federal agencies to leverage emerging health related funding sources linked to the ACA.** These funds can be used to enhance the coordination and integration of housing, clinical, behavioral, and complementary health based services promising to reduce disparities in access to health care over the long-run.
- **Incorporate language in health and housing plans that supports pilot projects aimed at incorporating healthy homes concepts.** Both HUD and the ACA are looking to encourage pilot projects that demonstrate a commitment to programs that support healthy homes outcomes (HUD 2013).
- **Obtain commitments from agencies to advance healthy housing (HUD 2013).** Actions supporting healthy homes initiatives require community champions. The healthy homes regional working group should obtain commitments to promote the integration of activities linking health and housing objectives over the long-term. Extensive community commitments increase the region's competitive advantage in acquiring additional funding supports (HUD 2013).

*To what extent do regional housing plans, initiatives, and strategies identify measurable linkages between affordable housing investments and community health outcomes?*

Currently, the region's health and housing plans do not explicitly evaluate the relationship between health and affordable housing. No measurable linkages are used to address the acknowledged relationships between the two fields. Furthermore, Plans do not address strategic or targeted interventions that can quantify positive individual or community health impacts. Without the full consideration of the interrelationships between policy and planning efforts, the region stands to miss opportunities to strengthen mutual goals (Lubell et al. 2010).

Community planning documents articulate the community's vision and priorities for attaining a healthy future. The Eugene-Springfield area's health and housing plans also articulate the actionable steps that key agencies are willing to take over the next three to five-year horizon. Because plans pronounce the actions a community is willing to take to address a challenge, the housing and health disciplines should begin drawing explicit connections between relevant plans, initiatives, and strategies to best incorporate healthy homes outcomes into future planning goals. Without an intentional planned effort to cross-pollinate desired health and housing goals, agencies may act at cross-purposes or fail to recognize actionable steps that can lead to better health and housing outcomes.

Cross-disciplinary cooperation also encourages funding alignment and opens opportunities to seek new funding sources. For example, the Department of Housing and Urban Development (HUD) is currently coordinating program opportunities with ACA efforts to improve access to health care and support services for vulnerable populations. The ACA is working with HUD to provide access to new funding sources aimed at expanding health care coverage to low- and extremely-low income residents living in HUD funded homes. Access to these integrated funding sources is predicated on the intentional alignment of health and housing outcomes (HUD 2013).

As indicated in the findings derived from the document review, the Eugene-Springfield region should, at a minimum, act to integrate the following themes across affordable housing and community health plans to enable and leverage paired resources:

- **Locate healthy housing in healthy neighborhoods with safe community environments.** Future planning efforts should incorporate findings from the LLC's Equity and Opportunity Assessment to link housing interventions with communities of opportunity.
- **Support the implementation of innovative community-based preventive services and enhance low-income housing residents' access to clinical care and primary care providers.** Housing programs can plan to mitigate preventable adverse health outcomes by linking community health workers with the needs of low-income households.
- **Incorporate health criteria into health and housing decision-making criteria.** The "health in all policies" philosophy can align the *Community Health Improvement Plan* goals with future housing plans and initiatives.
- **Formulate deep cross-sector collaboration between health and housing fields to prioritize service delivery needs and to optimize the leveraging of federal, state, local and private resources.** The region should structure partnerships to promote mission alignment through language embedded in relevant sections of health and housing planning documents.

### ***How can the region's affordable housing planning processes incorporate measurable community health indicators?***

The literature suggests that healthy housing interventions produce significant savings to regional health care systems while improving health outcomes (Jacobs et al. 2009). Therefore, efforts developed to achieve improved health outcomes require monitoring changes in community health performance overtime. Performance-based indicators provide guideposts to manage long-term healthy homes interventions (HUD 2013) (Lubel et al. 2010) (DHHS 2009). Supportive program evaluations should regularly identify cost-effective healthy homes practices that meet regional needs (HUD 2013).

First, housing and health providers should work to cross reference existing planning efforts that incorporate strategies to measure regional affordable housing and community health indicators. The LLC's Equity and Opportunity Assessment provides a unique opportunity to incorporate the analysis of over 40 socioeconomic and demographic maps into housing and health planning analysis. Specifically, each map represents a baseline for future analysis in targeting areas for healthy housing interventions.

- **Particular attention should be paid to maps and indicators addressing the cost burden of housing.** Cost burden is a significant indicator of housing stability and shares links with adverse health outcomes. Cost burden maps highlight census tracts and block groups where healthy housing interventions should be targeted to provide enduring measurable impacts.
- **Healthy housing indicators should identify and target health interventions in areas with high foreclosure rates.** Adults undergoing foreclosure have a significantly higher likelihood of developing hypertension, heart disease, and anxiety and depression (Lubell et al. 2010). Therefore, future housing and health plans should coordinate to identify foreclosure prone areas in need of preventive health screening.

Second, table 8 provides measurable indicators that inform metrics addressing the three key categories of housing determinants. This compilation of findings is derived from each applied method explored throughout the development of this report. The results offer recommended metrics for evaluating the success of future healthy housing initiatives and agendas.

<b>Table 8: A Review of Measurable Community Health Indicators Addressing Key Housing Determinants</b>		
<b>Housing Quality</b>	<b>Affordability, Residential Stability and Crowding</b>	<b>Neighborhood Effects</b>
Review number of tobacco free multi-family units	Use and track Homeless Management Information Systems (HMIS) data in coordination with homeless street count data	Track data on housing type and location in relation to healthy foods and full service grocery stores
Mitigate pest prevalence in agency homes	Qualitative: Review prevalence of social isolation among housing programs	Access to community gardens
Track health outcomes pre and post mold and weatherization interventions	Track availability and access to health care and prevention based services	Track health outcomes in relation to safe and walkable communities
Track health outcomes pre and post housing intervention.	Review heavy users and over utilization of health care services	Access to community space, parks, recreation, and play grounds
Target measures: Blood pressure, asthma, diabetes and obesity	Review housing and case management outcomes that move residents towards self sufficiency	Access to affordable child care

***How can future Community Development Block Grant (CDBG) and HOME investment partnership grant investments address community health goals?***

This study’s interview process revealed that existing CDBG and HOME funds are already stretched to meet increasing demands for affordable housing. Therefore, the recommendations below do not intend to dilute the already shallow pool of federal funds, but aim to design leverage points for increasing access to additional state and federal health dollars. The recommendations aim to link investment opportunities that connect existing affordable housing and low-income homes with direct access to health care services

The region should identify funding criteria that further supports the development of community clinics and health facilities accessible to affordable and low-income neighborhoods. A key opportunity to enhance neighborhood effects on healthy homes is developing communities where low-income households maintain access to preventive care and health services. Interviewees stated that affordable homes and low-income homes lack access to routine primary care providers and prevention-based health clinics. Accordingly, the region should consider using CDBG funds to support Community Health Worker programs. These programs have effectively trained community-based volunteers to identify the health concerns of children, low-incomes families, and older adults living in low-income neighborhoods. The program offers access to prevention based interventions and ultimately lowers the costs of emergency care by intercepting routine health care needs at the home.

Furthermore, the region should explore the use of CDBG funds to leverage service dollars to support case management services. New opportunities to leverage resources toward innovative health based programs exist within the development of Oregon’s Community Care Organization (CCO). The CCO

structure encourages the innovative use of Oregon’s Medicaid funds. Health agencies can now use Medicaid funds with increased flexibility to meet ACA goals and objectives. Therefore, the region’s housing agencies should develop structured and organized communications with the region’s CCO to explore Medicaid waiver flexibility in supporting healthy housing interventions.

## Conclusion

The Patient Protection and Affordable Care Act of 2010 will continue to enhance federal direction across local prevention and community health efforts. Specifically, the Affordable Care Act provides a policy framework for local prevention practices through the National Prevention Strategy. Furthermore, the Act incorporates the development of a Prevention and Public Health Fund to assist states and local jurisdictions to address the underlying drivers of chronic disease. The recommendations developed from this research will inform, at a minimum, the following processes:

**Eugene-Springfield Consolidated Planning Update** – This plan addresses federal Community Development Block Grant and affordable housing grant criteria requirements. Local agencies and stakeholders will begin updating this plan within the next year. Recommendations taken from this report will inform and hopefully influence this important update process.

**Community Health Assessment** – The Eugene-Springfield area is currently completing a community-wide health impacts assessment. This research can support recommendations to address health outcomes as they relate to housing quality, affordability and access.

**Rethinking Health and Housing Investments** – This research can offer local agencies, partners, stakeholders, advisory bodies and advocates a new means of looking at targeted health interventions through healthy housing policies.

Locally, agencies lack a unified community health comprehensive plan to guide the work of multiple agencies. With multiple organizations confronting the myriad of community health issues, there is a fragmented system in which the various health issues are addressed. This leads to a lack of coordination and organization in the work of community health and affordable housing providers.

Consequently, this report recommends that the Eugene-Springfield region’s community health and affordable housing agencies design a systems approach to building broad-based collaborations aimed at increasing community health outcomes. Dramatic changes in federal and state health care delivery systems have opened new doors to addressing community health interventions. The ACA now provides a powerful national framework for advancing community health-based prevention practices and Oregon’s new CCO structure provides flexibility in the use of Medicaid funds. Regional healthy housing efforts should harness these new flexible resources to leverage traditional CDBG funds. Successful efforts to leverage these funds into innovative health and housing interventions will require extensive interagency collaboration at local, state and federal levels. Through a policy of interagency collaboration, the region can better leverage a blend of health, housing and community development funds to meet prioritized needs compiled through evidence-based housing interventions. Well-developed partnerships will position the region to equitably meet the need for healthy, affordable, and accessible housing outlined by the US Surgeon General and the ACA’s National Prevention Strategy.



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## Appendix A: Health and Housing - Interview Questions

### Interview Methods

Interviews are semi-structured allowing for follow-up questions related to the research question. Each interview will last no more than one hour. No audio or video recordings will be taken at any time during interviews. All conversations will be recorded by handwritten notation. Unique identifiers will not be linked to interview responses and responses will remain anonymous and confidential unless interviewees provide verbal consent. Interviews may take the form of in-person or phone interviews.

### Background and Context

Housing and health form an integral and historic link across professions. Even so, adverse health outcomes are still linked to housing quality, affordability and stability, and other neighborhood effects. Therefore, improving health through better planning of the built environment requires analysis on how federal investments in affordable housing can forward community health goals at a regional level. This research explores how the theme “health in all policies,” can be introduced and implemented across the Eugene-Springfield region’s affordable housing initiatives and projects.

### The Primary Research Question and Supporting Questions:

How can the Eugene-Springfield Metropolitan region incorporate health elements and indices into affordable housing plans, initiatives, and investment strategies?

1. To what extent do regional housing plans, initiatives, and strategies identify measurable linkages between affordable housing investments and community health outcomes?
2. How can the region’s affordable housing planning processes incorporate measurable community health indicators?
3. How can future Community Development Block Grant (CDBG) and HOME investment partnership grant investments address community health goals?

### Interview Questions

1. **Significance:** What are the most significant health and housing issues/concerns facing this region?
2. **Existing Healthy Housing Efforts:** Healthy homes are associated with improved health outcomes among residents.
  - a. How does your organization currently work to bridge the gap between health and housing outcomes among the clients you serve (or within your programs)?
  - b. Can you share examples of successful programs and practices?
  - c. How do you measure success?
  - d. Do you know of other successful healthy housing efforts in the region?

3. **Identifying those at risk:** Studies indicate that unhealthy homes predominantly affect the health outcomes of (1) children, (2) low-income families, and (3) older adults.
  - a. Based on your experience, should other population groups be included among those deemed at risk of poor health outcomes due to poor quality housing?
  - b. What other groups should be identified?
  - c. What targeted housing interventions could best address the adverse health outcomes experienced by these groups?
4. **Constructs of a Healthy Home:** Identifying the elements of a healthy home is an evolving process. Research suggests that homes meeting the following group of characteristics are more likely to provide safe and healthy environments for residents when they consider: (1) Physical Space: dry, clean, pest free, safe, contaminant free, well ventilated, well maintained, and thermally controlled. (2) Affordability, stability and crowding, and (3) neighborhood effects.
  - a. Based on your experience, are any key constructs of a healthy home missing from these characteristics? And which are most important based on your work?
  - b. What metrics can be addressed to account for these missing characteristics?
5. **Integrating Metrics:** The region's Consolidated Plan reviews a variety of data and metrics to guide strategies. Should the region support the incorporation of health elements and indices into the region's affordable housing plans, initiatives, and investment strategies over the next 5-10 years?
  - a. How can the region's affordable housing planning processes incorporate measurable community health indicators into plans, policies, initiatives and strategies?
  - b. What indicators should be included to address health and housing challenges versus those that must address program outcomes (measuring diagnosis of problem versus solution based impacts)?
  - c. What sources of available data can be used to track those indicators?
  - d. How should success be measured at a regional level?
6. **Challenges:** Can you identify any barriers that might impede or complicate potential efforts to implement a healthy homes agenda across relevant regional plans and initiatives?
  - a. How would you like to coordinate with outside agencies in addressing opportunities related to healthy housing concerns?
  - b. What challenges might (or currently) keep your organization or agency from coordinating across health and housing programs and services (political, financial, collaborative, knowledge gap, etc.)?

7. **Investing in Health and Affordable Housing Planning:** The region’s consolidated planning process is the process used to identify and prioritize the use of federal Community Development Block Grant and HOME Investment Partnership grants over a five year period. Currently, the federal government is taking an increasing interest in supporting efforts that promote healthy housing. Furthermore, the State of Oregon is increasingly looking at create ways to mitigate poor health outcomes through community wide prevention strategies.
- a. Has your organization been a recipient on CDBG or HOME funds?
  - b. Are there any projects that you know of that have used CDBG and HOME funds to address health impacts?
  - c. How can CDBG and HOME investments be best used to support the advancement of healthy housing strategies?
  - d. Given the opportunity, could you prioritize three actions or interventions you would invest in to promote healthy housing and mitigate adverse health outcomes throughout the region?
  - e. What key partnerships would be necessary to link health and housing investment strategies at the regional level?
8. **Defining Healthy Homes:** In 2009 the U.S. Surgeon General stated “A healthy home is sited, designed, built, maintained, and renovated in ways that support the health of its residents.”
- a. Based on your experience, does this definition meet the necessary characteristics of an affordable healthy home?
  - b. If not, how would you refine or expand upon this definition?