Marin Healthy Homes Project: A Health Impact Assessment
July 2012

LEGAL AID of MARIN
Justice for all

HUMAN IMPACT PARTNERS
Primary Authors

Human Impact Partners
Kim Gilhuly
Sara Satinsky
Lili Farhang

Legal Aid of Marin
Paul Cohen

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For more information, please contact:
Kim Gilhuly, Human Impact Partners
www.humanimpact.org 216.633.2603

Paul Cohen, Legal Aid of Marin
www.legalaidmarin.org 415.492.0230
HIA Advisory Committee

Claudio Bluer, Austral Housing Inspections
Dave Coury, Landlord
Raphael Durr, Community Action Marin
Anna Eng, Industrial Areas Foundation
William Enriquez, Parent Services Project
Rochelle Ereman, County of Marin, Health and Human Services, Division of Public Health
Sandra A. Esquivias, Legal Aid of Marin
Vinh Luu, Community Action Marin, Marin Asian Advocacy Project
Gary Najarian, County of Marin, Health and Human Services, Prevention Hub
Bonnie Neer, Tenant
Florencia Parada, Parent Services Project
Maura Prendiville, Legal Aid of Marin
Veronica Reed, Joanne & Peter Haas Foundation
Isaura Resendiz, Novato Human Needs Center
Sparkie Spaeth, County of Marin, Health and Human Services, Child Health Administration
Alicia Suski, Marin Community Clinics
April Talton, Marin City Community Services District
Wendy Todd, Marin Community Foundation
Horace de la Vega, Legal Aid of Marin
Other members who wish to remain anonymous
Table of Contents

Executive Summary .......................................................................................................................... 6
Introduction ........................................................................................................................................ 20
Background ....................................................................................................................................... 22
Assessment Findings: Existing Conditions and Impact Analysis .................................................... 36
Recommendations ............................................................................................................................ 65
Limitations ......................................................................................................................................... 68
Monitoring ......................................................................................................................................... 69
Conclusion ......................................................................................................................................... 71
Appendices ......................................................................................................................................... 72
  Appendix 1: HIA Pathway Diagrams ............................................................................................. 73
  Appendix 2: Final HIA Scope ........................................................................................................ 74
  Appendix 3: Example Timeframes for Hazard Abatement ............................................................. 79
  Appendix 4: Supporting HIA Data Tables .................................................................................... 81
  Appendix 5: Focus Group Guide .................................................................................................... 84

Tables and Maps

Table 1. Current Alignment with Proposed Policy ........................................................................... 29
Table 2. Example Timeframes for Hazard Abatement, by Priority .................................................. 79
Table 3. Budgets and Revenue for Code Enforcement Departments in Marin County .................. 30
Table 4. Population Characteristics in Marin County, 2010 ............................................................ 81
Table 5. Place of Birth and Language Characteristics of Population in Marin County, 2006-2010 ................................................................. 81
Table 6. Race/ethnicity and Descent in Marin County, 2010 ............................................................ 82
Table 7. Median Household Income and Poverty in Marin County, 2006-2010 ............................. 82
Table 8. Gross Rent as a Percentage of Household Income, 2006-2010 ......................................... 82
Table 9. Housing and Overcrowding in Marin County, 2010 .......................................................... 83
Table 10. Lifetime Prevalence of Adult Asthma – Marin County, 2009 ................................................. 83
Table 11. Legal Aid of Marin Property-Owner/Tenant Cases in Marin County, 2010-2012 ..................... 49
Table 12. Complaints made to Code Enforcement about Potential Violations ..................................... 50
Table 13. Complaints made to County Code Enforcement, by Health and Safety Type ................. 51
Table 14. Analysis of Impacts and Benefits ................................................................................................. 58
Table 15. Summary of Impacts Analysis ...................................................................................................... 64

Map 1. Map of Marin County ........................................................................................................................ 22
Map 2. Map of San Rafael ............................................................................................................................... 23
Map 3. Map of Novato .................................................................................................................................... 24
Map 4. Black Population in Marin County, 2010 ....................................................................................... 39
Map 5. Hispanic Population in Marin County, 2010 ................................................................................ 40
Map 6. Estimated Median Household Income in Marin County, 2006-2010 ........................................ 41
Map 7. Poverty Rate in Marin County, 2006-2010 .................................................................................... 42
Map 8. Housing Tenure in Marin County, 2010 ........................................................................................ 43
Map 9. Percent of Vacant Household Units, 2010 ..................................................................................... 44
Map 10. Percent of Residents who Reported Fair or Poor Self-rated Health, Marin County, 2005 ............... 46
EXECUTIVE SUMMARY

1. INTRODUCTION

Habitability means that a home provides a safe and healthy place to live. Yet hundreds of housing-related complaints are filed each year with Code Enforcement agencies in Marin County, Novato, and San Rafael, of which approximately one-quarter relate to health and safety concerns. Notably, only a sliver of the universe of habitability issues that arise for renters turn into complaints filed with Code Enforcement agencies. For example, only 5%-10% of habitability cases that Legal Aid of Marin works on will engage Code Enforcement. Involving a city or county Code Enforcement agency is often used as a last resort, yet it is an important avenue for tenants to use in ensuring the safety of their homes. Often, the populations most impacted by habitability issues are those who less frequently engage with public agencies.

Common habitability complaints made by tenants involve pest infestation, electrical problems, heating malfunction or lack of heating, mold and dampness, and sewage inside of homes. Health outcomes relating to these issues vary. Pests, such as cockroaches and bedbugs, can exacerbate asthma and allergies, increase risk for hospitalization and unscheduled medical visits, and bite children and adults. Electrical problems can cause shocks, injuries, and fires. A lack of heating decreases general health status and increases the use of health services. Exposure to mold and dampness due to improper ventilation or plumbing problems has persistent impacts on allergies and asthma. Finally, exposure to raw sewage can lead to nausea and fever.

Attention to habitability complaints and standards in the U.S. stretches back to the late 1800’s, when the predecessors to modern Code Enforcement agencies originated as an outgrowth of the public health department in New York City. At that time, the aim was to protect tenants from poor living conditions in overcrowded and poorly maintained housing in the city. Today, Code Enforcement agencies are the watchdog for habitability standards. While Code Enforcement agencies safeguard communities from the harms of poor quality housing, there are still opportunities to improve code enforcement practice across the nation.

Legal Aid of Marin (LAM) and Human Impact Partners (HIP) are publishing this report to examine the possible health impacts that could be associated with modifications to Code Enforcement agency policies in Marin County, with the aim of informing public decision-making and agency practice across the County. This Executive Summary describes the background and findings of the Health Impact Assessment (HIA) and proposes recommendations to improve Code Enforcement agency policies and practices.

2. BACKGROUND

Marin County is a study in opposites. An impressively rosy picture for the entire county masks deep inequities that exist for its most vulnerable residents – including low-income or non-English
speaking renters, their children, and elderly tenants, all who may experience negative health outcomes related to habitability issues. While Marin County boasts a Human Development Index score (a composite score that combines health, education, and living standards) of 7.75, which surpasses the United States’ score (5.1) and California’s (5.54), the Canal region of San Rafael has a Human Development Index score of just 3.18.

Renters are exposed to the good faith maintenance efforts of the owners of the homes they live in. By and large, property-owners fulfill their responsibilities. However, data in this HIA suggest that a proportion of habitability cases go unaddressed and/or result in costs to tenants, ongoing exposure to health and safety issues, displacement, and eviction. Though outside the scope of this HIA, these impacts can introduce costs to society via medical care costs associated with treating health impacts.

Low-income tenants of color in Marin County do not have many choices with respect to the housing they live in. In order to be self-sufficient in Marin, meaning able to afford housing and basic necessities, a family of 3 must make at least $68,880 a year. Put differently, the family must work more than 4 full-time minimum wage jobs in CA. More than one-third of Marin households cannot afford the expense of living in the county. Between 50%-60% of renters in the three jurisdictions we studied are considered “housing cost-burdened”, meaning that they pay more than 30% of their income on rent. But they cannot easily move if they want to remain in their communities. Less than 2% of all housing units are vacant in the county overall, in Novato and unincorporated Marin, and just over 2% of all housing units are vacant for San Rafael overall. Yet, these three areas supply over 78% of the rental units in the entire county.

Legal Aid of Marin initiated the Marin Healthy Homes project to promote a discussion of how to improve Code Enforcement agency practices and policies in San Rafael, Novato, and unincorporated Marin County. This stemmed from a realization that tenants experience substantial difficulty in addressing all types of habitability concerns, including for example, hazards such as bedbug infestations that improperly addressed, exposed electrical outlets, headaches or bloody noses related to fumigation, and consistent mold that exacerbates allergies.

3. HIA SCOPE

In developing the HIA scope, relevant stakeholders identified goals for the HIA and prioritized research questions and methods to guide the assessment process. Project partners identified the following goals:

1. Address social determinants of health in low-income Marin communities by reforming and improving Code Enforcement policies and practices.

2. Advocate before a minimum of three jurisdictions (San Rafael, Novato and the County) for implementation of best practices based on the Health Impact Assessment.

Typically in HIA, a policy is already proposed and the HIA assesses the impacts of that policy on a range of health issues. In this HIA, however, there was no proposed policy. Rather, the Advisory Committee developed a proposed policy with five components that they hypothesized could impact habitability-related health and safety and as a result, the health of tenants in Marin County. The plan was for the HIA to assess the impacts of this policy, and based on the identified impacts, for a revised (as needed) policy to be proposed to Code Enforcement agencies for adoption. The following reflects the initial policy as developed by the Advisory Committee:
• Conduct a neutral evaluation upon receiving a tenant complaint (i.e., do not notify property-owner before inspection)
• Conduct inspection within one week of receiving complaint
• Conduct inspection even if the property-owner has begun fixing the problem or has initiated eviction proceedings
• Require owners to complete repairs within a “reasonable” timeframe
• Require that repairs are completed up to standards of the Uniform Housing Code

Currently, Code Enforcement in each of the three jurisdictions focused on in this report currently aligns with many, but not all aspects of the proposed policy, as highlighted in the table below.

### Current Alignment with Proposed Policy

<table>
<thead>
<tr>
<th></th>
<th>Marin County</th>
<th>City of San Rafael</th>
<th>City of Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Neutral evaluation – evaluation of complaint done without contacting the property-owner</td>
<td>✓</td>
<td>✓ / ☢a</td>
<td>✓ *</td>
</tr>
<tr>
<td>2) Evaluation completed within 1 week</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>3) Evaluation completed irrespective of context</td>
<td>✓</td>
<td>☢***</td>
<td>✓</td>
</tr>
<tr>
<td>4) Repairs made within reasonable timeframe</td>
<td>✓</td>
<td>✓</td>
<td>✓ / ☢***</td>
</tr>
<tr>
<td>5) Repairs made up to Uniform Housing Code</td>
<td>Owner can pull permit.</td>
<td>Owner can pull permit.</td>
<td>Owner can pull permit.</td>
</tr>
</tbody>
</table>

*Policy exists but is not holistically implemented at this time
* Unless they have a relationship with the property-owner (all with 3 or more units) due to affirmative program
** Evictions or repairs in progress could stop action
*** Depends on issues

The HIA scope provided an opportunity to assess how adopting each of the proposed policy components might affect health in each of the jurisdictions. To develop the scope of research within the HIA, Human Impact Partners asked experts on the Healthy Homes Advisory Committee (see page 3 for committee members) to detail the most common habitability complaints. They identified pest infestation, electrical problems, heating issues, mold and mildew, and plumbing and exposure to raw sewage as the leading complaints. HIP then developed pathway diagrams that hypothesized the connections between the above policy components, these habitability complaints, and potential health outcomes. These pathways were reviewed and refined by the Advisory Committee.

Based on the finalized pathways (Appendix 1), HIP developed a scope of research (Appendix 2), which was reviewed by Legal Aid of Marin, and further refined, prioritized, and approved by the Advisory Committee. The primary research questions guiding the HIA were:

• What are the health impacts of the five primary complaint categories selected and what changes to health, as well as the complaint process, will the proposed policy bring about?
• How many complaints are made to Code Enforcement agencies? What are the primary types of complaints made? How many are resolved satisfactorily? How will the proposed policy change the number and types of complaints, as well as the resolution?
• What is the current length of time (on average) for property-owners to respond to complaints? What is the average length of time tenants wait before filing complaints? How will the proposed policy change these timeframes?
• To what extent are repairs done up to the standards of the Uniform Housing Code? Done by licensed contractors? How will the proposed policy impact the quality of repairs done?
• To what extent are tenants impacted by Code Enforcement agency practices (when they initiated the complaint, if eviction proceedings are begun, or evictions are completed)? How will the proposed policy impact these outcomes?
• What types of obstacles do Code Enforcement agencies face as they conduct their activities? What are some best practices from other Code Enforcement agencies?

In sum, the HIA aimed to assess the impacts of the proposed policy on the health of tenant populations, with a focus on the following three scoping categories of interest:

1) Exposure to health and safety hazards
2) Length of time exposed to hazards
3) Stress

The HIA focused on assessing impacts for populations served by Legal Aid of Marin, Marin Community Clinics, and the Parent Services Project. These populations include people who have lower incomes, are non-English speakers or communities of color, and may have limited choices about where to live. Many people served by these organizations also are renters. The HIA also focused geographically on Code Enforcement agencies in San Rafael, Novato, and unincorporated Marin County, as rental units are concentrated in these areas.

4. FINDINGS

In this section we describe literature linking habitability and health, and report on the HIA findings related to demographics, health status in the County, housing availability and affordability in Marin County, habitability complaints, complaint response time and resolutions of complaints, and vulnerable populations.

First, we will describe relevant literature, which provides strong evidence of the relationship between health and the common habitability complaints identified by the Advisory Committee for investigation in this HIA.

Water contaminated by raw sewage can cause fever, nausea, vomiting, cancer or even death, and sewage backups in homes may create moisture and mold problems. Damp housing and mold, in turn, are associated with respiratory ailments and asthma. For example, in damp homes, coughing and wheezing symptoms in children are 1.5 – 3.5 times greater than homes that are not damp.

Another category of complaints – disease vectors – includes cockroaches, bedbugs, mice, and rats that can cause asthma, allergies, and bites and result in greater need for medical care. For example,
children sensitive to and exposed to high levels of cockroach allergen have 3.4 times greater risk of hospitalization compared to those who are not sensitive to cockroach allergen. Moreover, exposure varies with demographics; for example, poor children are 4.2 times more likely than non-poor children to be exposed to cockroaches. Similarly, exposure to rats is associated with unscheduled medical visits, hospitalization, and days with diminished activity.

Complaints related to electrical systems were another category identified by the Marin Healthy Homes Advisory Committee. In the U.S. from 2003 to 2007, home electrical fires comprised 13% of total home structure fires, 17% of associated deaths, and 11% of associated injuries. Fires leading to injury and death have been found in houses lacking electricity that turned to candle use. Similarly, households using non-traditional sources of energy have experienced carbon monoxide poisoning.

Electricity often impacts the ability to moderate the temperature in a household, which has clear connections to health. Living in cold housing has been associated with lower general health status, increased use of health services, and worsening of chronic health conditions. By contrast, in high temperatures, the presence of functioning air-conditioning is an important factor in predicting positive health outcomes in summertime, when there are more emergency department visits, hospitalizations, and premature deaths attributed to excessive temperatures. Lack of access to central heating or air-conditioning also is associated with an accumulation of moisture and growth of mold, and higher nitrogen dioxide levels, which worsen childhood asthma symptoms. Yet, access to air conditioning may differ by population, with one study reporting that access accounted for two-thirds of the difference in summer death rates between urban African Americans and urban Whites.

**SUMMARY OF FINDINGS**

**DEMOGRAPHICS**
- Compared to the County, households in the jurisdictions of interest earn less income. Novato, unincorporated Marin, and San Rafael have median household incomes ranging from 11%-23% below the County, and the Canal neighborhood is less than half that of the County.
- The median age in each of the jurisdictions of interest is lower than in the County overall. For example, in the Canal, it is 29 years compared to 44 years for the County.
- Relatively high proportions of residents in the jurisdictions considered were born outside of the U.S.: 16% in unincorporated Marin, 21% in Novato, 27% in San Rafael, and 63% in the Canal.
- The jurisdictions considered in this HIA have substantially higher proportions of non-White populations than the County overall. For example, 59% of the population in the Canal identifies as non-White, and 80% identified as Hispanic.

**HOUSING AVAILABILITY AND AFFORDABILITY**
- Unincorporated Marin County, San Rafael, and Novato provide over 78% of the rental housing in the County, but only about 2% of all housing units are vacant rental units.

**HEALTH STATUS**
- Marin County residents as a whole are fairly healthy; however, there are health inequities between the general population and those in our target areas.
- Self-reported health status was reported as fair or poor for 31% of all County residents compared to 26%—44% of residents in places like the Canal area.
- The County’s overall infant mortality rate of 3.2 deaths per 1,000 live births is well below the California rate and the Healthy People 2020 national benchmark.
• Reported lifetime adult asthma is approximately the same across the County, impacting 13% of the population of the County overall, 12% in San Rafael and Novato, and 14% in the unincorporated areas of Marin.

**HABITABILITY COMPLAINTS** || **EXPOSURE TO HEALTH AND SAFETY HAZARDS AND STRESS**

• Tenant complaints regarding habitability conditions are a proxy measure of exposure to health and safety hazards in the home. Complaints have persisted over the years with a three-year average of 29 health and safety complaints in unincorporated Marin County and 32 in San Rafael. In Novato, the number for just health and safety was unavailable and there were 240 complaints that fell under building, health, safety, or illegal unit categories (i.e., only a proportion of the 240 are health and safety complaints).
• Many habitability issues go unreported by tenants who are fearful of retribution (e.g., increased rents and threatened eviction or deportation).
• Tenants experience stress due to fear of retribution by a property-owner for placing complaints, the length of time to have complaints resolved, and the quality of repairs.

**COMPLAINT RESPONSE TIMES AND RESOLUTIONS** || **TIME EXPOSED TO HAZARDS**

• The longer a tenant is exposed to a health and safety hazard, the more harmful it may be to their health. Code Enforcement agencies typically make an initial reply within the timeframe suggested by the proposed policy of 7 days, and often within 24 hours.
• However, property-owners may take longer to resolve complaints, potentially contributing to poor health outcomes, though more data is needed.
• Tenants reported a range of complaint resolution experiences, including: a repair was made the same day as the request, a property-manager charged the tenant for repairs, a property-manager required the tenant to make the repair, the tenant received an eviction notice or considered moving because the issue was unresolved, or the property-owner was unresponsive or hostile.
• The quality of repairs made – whether or not in response to a formal complaint to Code Enforcement – can also lengthen the time exposed, or the re-occurrence of exposure to a problem. Code Enforcement agencies require that repairs are made to the minimum Uniform Housing Code standard and conduct an inspection after the repair to confirm this; however, tenants report a range of results, including: the tenant made the repair themselves, the property-owner did a quick but substandard job, and the property-owner painted over a problem.

**VULNERABLE POPULATIONS**

• Vulnerable populations in this HIA were defined as tenants/residents who are young children, elderly, undocumented, or low income.
• Many people comprising these populations live in households that pay a high proportion of their incomes to housing, have limited access to affordable housing, experience fair or poor health status, and encounter health and safety hazards.
• Focus group and survey respondents described young children getting sick from issues like fumigation odors or dampness in their housing.
• Respondents stated that property-managers sometimes make comments encouraging low-income tenants to move or threaten undocumented tenants with contacting police. Fear of such actions discouraged some tenants from seeking repairs for habitability issues.
• Past tenant education has been successful according to one respondent; however, almost unanimously, respondents said they were not aware of their rights as tenants.
A. Demographics

Factors such as income level, age, and race/ethnicity can increase the risk of exposure to health and safety hazards and poor health outcomes. Marin County has a number of population groups that may be at increased risk because of various demographic factors. For example, more than half (51%) of the variability in neighborhood life expectancy can be explained by average neighborhood income. In the 2010 Census, the median household income for Marin County is $89,268, but Novato, unincorporated Marin, and San Rafael have median household incomes that range from 11%-23% below the County median. At $39,154, median household income in the Canal neighborhood is less than half that of the County.

While the median age in the County overall is about 44 years, in the jurisdictions of interest it is lower, and in the Canal, the median age is 29 years of age, with one out of every ten residents being under age 5. Children, especially, are at increased risk to the hazards described in this HIA.

Twenty-one percent of the residents of Novato were born outside of the United States, 16% in unincorporated Marin, and 27% in San Rafael. In the Canal, 63% of the residents were not born in the United States. While a majority of Marin County residents are White (80%), of those 15% identify as Hispanic. In the Canal, 59% of the population identifies as non-White, and 80% as Hispanic. In the unincorporated areas there is a smaller proportion of non-White and Hispanic populations, but nearly double the proportion of African Americans as in the County overall (5% v. 3%).

B. Housing Availability and Affordability

The jurisdictions we considered in this HIA (unincorporated Marin County, City of San Rafael, and City of Novato) provide over 78% of the rental housing in Marin County, and vacancy rates are very low; only about 2% of all the housing units are vacant rental units. This lack of housing creates a situation where the market incentive may not be enough to make property-owners provide quality upkeep of their units. Additionally, housing is, on average, unaffordable in Marin County. A family of 3 must make at least $68,880 a year to support itself, and more than one-third of families in Marin cannot do that. In 2009, the median one-bedroom apartment in Marin was $1,393, nearly four hundred dollars more than the maximum affordable rent of $1,000 for a household earning $40,000 or less.

C. Health Status

As stated above, Marin County residents as a whole are fairly healthy. The Human Development Index is well above the national and state average and Marin residents have lower rates of premature mortality, or dying before the average lifespan, than national rates. However, there are inequities in health outcomes between the general population and those residing in our target areas. For example, self-reported health status is a highly validated indicator of true health status, and more than two-thirds (69%) of Marin County residents report excellent or very good health. In the Canal area, however, 26%-44% of residents rate their health as fair or poor. Slightly fewer residents in Novato and the rest of San Rafael report fair or poor health (15%-25%).

With regard to more specific disease outcomes, the leading causes of death in Marin County are cancer, heart-related diseases, strokes, and chronic conditions such as diabetes or respiratory
illnesses. Lifetime adult asthma is reported among 13% of the population of the County overall, 12% in San Rafael and Novato, and 14% in the unincorporated areas of Marin. Looking at deaths from unintentional injuries, between 2008 and 2009, the rate in Marin County across all ages decreased slightly from 24.3 to 23.3 per 100,000 incidents.1

Another often-cited measure of population health is infant mortality rate – meaning death during the first year of life – is also a measure of population health status. In 2009, the County overall had a rate of 3.2 deaths per 1,000 live births, which was well below the rate both for California, at 4.9 deaths per 1,000 live births, and the Healthy People 2020 national benchmark of 6 deaths per 1,000 live births.

D. Habitability Complaints | Exposure to Health and Safety Hazards and Stress

Tenant complaints regarding habitability conditions are a proxy measure of exposure to health hazards in the home. Data on health complaints collected for the HIA demonstrate that habitability issues persist in the jurisdictions of interest; however, as this report describes, many habitability issues go unreported by tenants who are fearful of retribution.

To understand the volume of annual complaints regarding residential units, we asked Code Enforcement agencies to share data on the numbers of complaints filed in their jurisdictions. The full report provides more detail, but on average over the last three years, there have been about 29 health and safety complaints in unincorporated Marin County, about 32 in San Rafael, and in Novato there were a total of about 240 complaints that fell under either building, health, safety, or illegal unit categories (i.e., only a proportion of the 240 are health and safety complaints). Importantly, regardless of how complaints are categorized, many types of violations can have health and safety implications. For this HIA, we focused specifically on residential habitability complaints for health and safety issues.

Providing another perspective on complaints filed, Legal Aid of Marin (LAM) helps tenants whose property-owners have not provided maintenance for complaints. LAM gets on average about 83 habitability cases per year. Of these, about 40% are addressed through negotiations with litigation, about 50% are addressed through simple negotiation, and only about 5%-10% end up with direct contact with Code Enforcement agencies, or approximately 8 cases a year.

Not all habitability complaints are reported to Code Enforcement or Legal Aid of Marin, however. In focus groups with tenants, participants voiced dissatisfaction with the responsiveness of their property-owners or property-managers. Stress was a frequent result of this, coming alternately from interactions with property-managers or the time taken to make repairs. Other frequently mentioned topics in the focus groups were a lack of trust, demoralization, and fear of speaking up. Both retaliation, through eviction or rent increases, and legal status were mentioned as the basis for this fear.

Of note, the primary habitability complaints described during the focus groups with tenants and through a follow-up survey, overlapped with those identified by the Advisory Committee. Tenants most often described complaints related to vectors such as cockroaches and bed bugs, then mold. Another frequent issue, though not identified in our HIA Scoping, was broken stoves. Many other issues arose, but less often, including: old or dirty carpet, smells caused by gas leaks and coming from the canal waterway, poison left behind after fumigation, broken heaters or insufficient hot water, broken or insufficient laundry machines, workers or property-managers entering units without
notice and with tenants sleeping, drainage issues, water leaks, dirty water, holes in the ceiling or roof, uneven kitchen floor, dysfunctional refrigerator, and although not specific to units, neighborhood safety, and property-managers charging substantially different amounts for what tenants understand are identical units.

Through focus groups conducted for this HIA, tenants shared that they experience stress due to: fear of retribution by a property-owner (e.g., increased rents and threatened eviction or deportation) for bringing up complaints; the length of time it takes to have complaints resolved; and the poor quality of repairs.

Feedback from tenant focus group participants suggested that fear of backlash from management was a key factor in deterring tenants from communicating complaints. Tenants expressed frustration at having inspections with property-managers present, and described health outcomes that included stress, anxiety, and fear around possible repercussions from property-managers or property-owners.

E. Complaint Response Times and Resolutions | | Time Exposed to Hazards

The longer a tenant is exposed to a health hazard, the more harmful it may be to his or her health. The faster a complaint is attended to and resolved, the length of exposure to that potential hazard decreases, and there is less opportunity for people to become ill.

Where available, Code Enforcement agencies from the three jurisdictions shared data on the time it takes for them to make an initial reply to complaints, and the average time for property-owners to respond. In all jurisdictions, data from 2009 through 2011 suggest that Code Enforcement made an initial reply within 7 days, and often within 24 hours depending on the severity of the complaint. It is a different story, however, with respect to how long property-owners take to resolve complaints. In Marin County, problems were resolved, on average, in 28 days in 2009, 14 days in 2010, and 108 days in 2011, though this average was skewed by four cases that took 136-290 days to resolve, while the remaining cases were resolved between 30-90 days. In San Rafael and Novato, actual property-owner response times were not provided.

Legal Aid of Marin data reflects a different viewpoint. LAM estimated that 50%-60% of the habitability cases they see are resolved successfully with action taken to resolve the complaint, but about 20% see eviction proceedings begin against a tenant and, from their experience, about 5% result in a raise in rent. A private inspector interviewed for this HIA stated that in his experience, most often if a complaint originates with a tenant, the tenant ends up moving out.

Echoing all of the information described above, tenants reported a range of complaint resolution experiences, including: a repair was made the same day as the request, a property-manager charged the tenant extra for repairs, a property-manager required the tenant to make the repair, the tenant received an eviction notice or considered moving because the issue was unresolved or the property-owner was unresponsive or hostile. Tenants also reported that property-owners make repairs when they know of a forthcoming inspection, but the repair may not be done properly so the issue is unresolved or occurs again.

The quality of repairs made – whether or not in response to a formal complaint to Code Enforcement – can also lengthen the time exposed, or the re-occurrence of exposure to a problem.
While Code Enforcement agencies require that repairs are made to the minimum Uniform Housing Code standard, and conduct an inspection after the repair is made to confirm this, tenants report a range of results as to the quality of repair, including: the tenant made the repair themselves, the property-owner did a quick but substandard job, and the property-owner painted over a problem. Legal Aid of Marin and a private inspector interviewed for this HIA also report that many of the repairs are made without engaging a licensed contractor or pulling necessary permits.

**F. Vulnerable Populations**

Broadly speaking, vulnerable populations can include the economically disadvantaged, racial/ethnic minorities, uninsured populations, children, the elderly, the homeless, individuals with chronic health conditions including severe mental illness, and those who are in the overlap of more than one of these categories.

For this HIA, focus group and survey respondents defined vulnerable populations as residents/tenants who are young children, undocumented, or low income. Comments from tenants are echoed by the public health literature in suggesting that young children are at risk for adverse health outcomes due to substandard housing environments. Young children could see an improvement in health outcomes, particularly around respiratory disease, from spending less time living in sub-standard conditions, and could suffer less injury if repairs are done up to code with good quality.

Although not mentioned explicitly in focus group or survey respondent feedback, according to the public health literature, elderly tenants also reflect a vulnerable population as they are at increased risk for health impacts resulting from habitability issues. Faster resolution of complaints, particularly if related to repairs that could avoid injury, would likely improve health among older populations.

The neutral evaluation aspect of the policy, in particular, could reduce fear and stress-related health outcomes among undocumented tenants, and encourage those living in sub-standard conditions to contact their property-owners or Code Enforcement about repairs, which would speed repair and resolution of the complaints.

Low-income populations living in sub-standard conditions but who do not have alternative places to move, stand to see great improvements in health from faster resolution of complaints and a reduction in barriers to reporting issues. Tenants described the success of past education efforts; however, almost unanimously, focus group and survey participants said they were not aware of their rights as tenants.

**5. SUMMARY OF IMPACT ANALYSIS FINDINGS**

To reiterate, the following are the proposed policy components developed by the Advisory Committee to propose to Code Enforcement agencies:

- Conduct a neutral evaluation upon receiving a tenant complaint (i.e., do not notify property-owner before inspection)
- Conduct inspection within one week of receiving complaint
- Conduct inspection even if the property-owner has begun fixing the problem or has initiated eviction proceedings
- Require owners to complete repairs within a “reasonable” timeframe
- Require that repairs are completed up to standards of the Uniform Housing Code
Overall, we find that if the five policy components proposed by the Advisory Committee were adopted, we would anticipate a decrease in exposure to health hazards among tenants, the length of time they are exposed, and their stress levels. While all jurisdictions could improve their practices to improve health outcomes, we find that changes in San Rafael could have the most impact. This is due to San Rafael having the largest population, the highest proportion of renters, a deficit with regard to either presence or implementation of several of the policy components identified, and the existing vulnerability of residents due to social and economic issues.

The table below summarizes impacts of the proposed policy on our scoping categories of interest, describing the direction, magnitude, and severity of impacts, and the strength of the evidence.

<table>
<thead>
<tr>
<th>Health Determinants</th>
<th>Direction of Impact</th>
<th>Magnitude of Impact (i.e., how many)</th>
<th>Severity of Impact (i.e., how good or bad)</th>
<th>Strength of Causal Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exposure to health and safety hazards</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Moderate</td>
<td>**</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td>Moderate</td>
<td>**</td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Length of time exposed to hazards</strong></td>
<td></td>
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<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Moderate</td>
<td>♦</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td>♦</td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td>♦</td>
</tr>
<tr>
<td><strong>Stress</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Minor</td>
<td>**</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td>**</td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
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<td>**</td>
</tr>
<tr>
<td><strong>Vulnerable populations (young, elderly, undocumented, low-income)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>+</td>
<td>Moderate</td>
<td>Moderate</td>
<td>**</td>
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<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
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<td>**</td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td>**</td>
</tr>
</tbody>
</table>

**Explanations:**
- *Direction of Impact* refers to whether the policy will positively (+), negatively (-), or not (~) impact health determinants.
- *Magnitude of Impact* reflects a qualitative judgment of the size (i.e., number of people impacted) of the anticipated change in health determinant effect: Negligible, Minor, Moderate, Major.
- *Severity of Impact* reflects the nature of the effect on health determinants and its permanence: High = intense/severe; Mod = Moderate; Low = not intense or severe.
- *Strength of Causal Evidence* refers to the strength of the research/evidence showing causal relationship between the alternatives and the health determinants: • = plausible but insufficient evidence; •• = likely but more evidence needed; ••• = high degree of confidence in causal relationship. A causal effect means that the effect is likely to occur, irrespective of the magnitude and severity.
6. RECOMMENDATIONS

Overall, the goal of these recommendations is to mitigate identified negative impacts such that resident health can be protected and promoted. To the extent possible, recommendations are written to be feasible, actionable, measurable, and able to be monitored.

I. Priority recommendations to Code Enforcement agencies (listed by priority)

1. **Adopt the policy proposed in this HIA.** By Q1 2013, adopt the policy as described in this report, including the components of the policy that are not already practiced in a jurisdiction.

2. **Define reasonable timeframe.** Define what is considered a reasonable timeframe for each category of violations (see an example in Table 2 in Appendix 3). Timeframes should be defined for:
   a. Initial reply by a Code Enforcement agency to a health and safety complaint in residential dwellings
   b. Completed evaluation by Code Enforcement agencies in response to a health and safety complaint
   c. Property-owners to complete a final repair of said complaint once it has been identified for repair by the Code Enforcement agency

3. **Consider tracking information.** By Q2 2013, consider tracking the following information as part of a regular monitoring program, if not already tracked and reported:
   a. Average time for initial reply by Code Enforcement to health and safety complaint
   b. Average time for inspection to be completed by Code Enforcement for health and safety complaint
   c. Average time for results of inspection to be communicated to property-owner
   d. Average time for property-owner completion of repair up to code
   e. Type of repair required for health and safety complaint
   f. Type of repair made for health and safety complaint
   g. Final resolution of health and safety complaint
   h. Subsequent complaints made about a problem that was already repaired

4. **Transparency of policies and fees.** By Q2 2013, Code Enforcement shall track and publish online (e.g., on agency websites) aforementioned policies relevant to property-owners and tenants, timeframes required for different categories of repairs, process for inspections, and the fees charged, if any, to complete Code Enforcement and all inspections.

5. **Annual reporting.** By Q1 2014, begin working to create an annual, publicly available report of data about health and safety complaints, including but not limited to the information listed in the previous bullet. Explore the feasibility of, and if possible, present the report to the City Council or County Board of Supervisors.

6. **Pre-printed inspection checklist.** By Q1 2014, implement the use of a pre-printed inspection checklist that is consistent for all jurisdictions.

7. **Interpreters during inspections.** By Q1 2014, provide interpretation services to any tenant who places a formal complaint with Code Enforcement and requests interpretations. Interpreters shall be available in any languages relevant for tenant populations (e.g., English, Spanish, Vietnamese, or others as appropriate), and tenants shall not be charged for the use of this service.
II. Code Enforcement recommendations for further discussion *(listed by priority)*

1. *Consider re-structuring fee program.* By the start of the next budget cycle, consider re-structuring fees (e.g., cost recovery fees, re-inspection fees, increasing fees overall) to fully fund inspection efforts to be self-sustaining. Also consider feasibility of fees being paid directly for Code Enforcement expenses instead of going into the jurisdiction’s General Fund.

2. *Electronic database.* For the next budget cycle, investigate the fiscal, staff, and time needs to establish and/or expand an electronic database of Code Enforcement data, if one is not already in place. Look to staff at nearby jurisdictions that have recently implemented electronic tracking systems (e.g., Marin County’s Community Development Agency) for guidance and lessons learned.

3. *Mobile data collection and tracking.* Provide inspectors with mobile devices to facilitate data collection and minimize data entry time and cost. These devices could feed directly into the electronic database (#2). Neighboring jurisdictions may be able to provide insight on how to go about streamlining data collection and entry.

4. *Proactive Code Enforcement.* For jurisdictions other than the three under consideration in this report, consider establishing a proactive housing inspection program on a 1–3-year rotating basis. Look to models in neighboring Marin County jurisdictions such as San Rafael and Novato, and nationwide.

5. *Bay Area Code Enforcement listserv.* To facilitate inter-agency communication, establish a listserv for Bay Area Code Enforcement agencies by September 1, 2012. Agencies can share information and tips on best practices. If a listserv already exists, all three agencies should join, if not already members, and participate in the listserv.

III. Recommendations to the Marin Healthy Homes Project *(listed by priority)*

1. *Education campaigns.* By January 1, 2013, begin to determine consistent funding sources, partner organizations, and appropriate groups to take the lead on establishing the following:
   a. *Property-owner education campaign.* A joint campaign of Code Enforcement agencies with either Marin Healthy Homes Project or Legal Aid of Marin to notify and engage property-owners about current Code Enforcement procedure and recent changes to policies.
   b. *Tenant education campaign.* A tenant education campaign on general tenant rights and tenant responsibilities and obligations, the existence of neutral evaluation, and appropriate and inappropriate charges to tenants, to promote knowledge and power among tenants and reduce exposures to health and safety hazards. The campaign should be in any languages relevant for tenant populations (e.g., English, Spanish, Vietnamese, or others as appropriate).

2. *Transparency of charging tenants for repairs.* By September 1, 2012, Legal Aid of Marin shall provide Code Enforcement agencies with a release that tenants can sign to give agencies and LAM the right to discuss the details of their case. Doing so may enable faster communication around issues, for example, if tenants are incorrectly charged by property-owners for repairs.

3. *Mandatory contact of advocates.* By September 1, 2012, Legal Aid of Marin shall establish a system with Code Enforcement agencies where agencies give tenants the contact information for LAM when eviction proceedings have been initiated against them.

4. *Final evaluation.* By Q1 2013, develop a final tenant evaluation that Code Enforcement agencies can use to complement inspector reports of final repairs.
7. CONCLUSION

Legal Aid of Marin and members of the Marin Healthy Homes Advisory Committee have been meeting with the three Code Enforcement agencies about current practices and suggestions to improve future enforcement in their jurisdictions. Our goals for this HIA are:

1. To address social determinants of health in low income Marin communities by reforming and improving code enforcement policies and practices.

2. To advocate before a minimum of three jurisdictions (San Rafael, Novato and the County) for implementation of best practices based on the Health Impact Assessment.

The findings and recommendations of this HIA can be used to further those discussions, to refine the proposed policies based on increased knowledge of practices and barriers in code enforcement, and to engage in better informing Marin County residents of their legal rights and the services available to them. We hope that the HIA can be the beginning of an ongoing dialogue about best practices and accountability related to code enforcement and that eventually Marin County can serve as a model across California for how Code Enforcement agencies can be responsive to and improve the health of its residents.
I. INTRODUCTION

"A healthy home is sited, designed, built, maintained, and renovated in ways that support the health of its residents."
– Surgeon General’s Call to Action to Promote Healthy Homes, 2009

An extensive evidence base links various aspects of housing quality to health. For example, indoor allergens such as pest infestation and damp housing conditions play an important role in the development and exacerbation of respiratory conditions, including asthma. The presence of allergens, moisture, and mildew in homes has been linked to more frequent episodes of wheezing, more frequent night symptoms due to asthma, and a larger number of hospitalizations due to asthma. The associated costs can be great, with exposure to dampness and mold in homes estimated to contribute to approximately 21% of asthma cases in the United States, at an annual cost of $3.5 billion. Old carpeting can also be a reservoir for dust, allergens, and toxic chemicals and exposure to these agents can result in allergic, respiratory, neurological, and hematologic illnesses. Apart from pests and allergens, other housing attributes can be linked to health. Residential exposure to pollutants from heating and cooking with gas, volatile organic compounds and asbestos are all connected to respiratory illness and some types of cancer. A simple change in heating also impacts health. Cold indoor conditions are linked to increased risk of cardiovascular disease, and extreme low and high temperatures are associated with increased mortality.

Importantly, the exposures described here are not distributed equally across all populations. For example, children exposed to higher levels of cockroach allergen can have as much as 36 times the relative risk for doctor-diagnosed asthma as children living in homes with very low levels of the allergen. Mortality related to extreme low and high temperatures is particularly pronounced among the elderly. Broadly speaking, low-income populations and communities of color tend to disproportionately live in poor quality housing, and as a result, have higher rates of many associated illnesses. In 2007, 12% of low-income renters in the U.S. lived in homes with moderate or severe physical problems such as water leaks that can cause mold growth and trigger allergic reactions and asthma attacks.

For all populations, various habitability-related laws aim to protect the health and safety of housing occupants and minimize exposures to health hazards. In California, residential property-owners and tenants each are responsible for certain kinds of repairs, although property-owners ultimately are accountable by law for assuring that their rental units are livable. While a housing unit is rented, the property-owner must repair problems that would otherwise make the rental unit unfit to live in, or uninhabitable, and must ensure compliance with state and local building and health codes. Such habitability-related codes exist to help keep communities in safe and sanitary conditions, and set the rules for basic upkeep and care to achieve decent housing. When property-owners are not responsive to tenant maintenance requests, tenants have the right to complain to regulatory agencies that enforce building and health codes.

Though the majority of housing in Marin County is owner-occupied (63%) and the County is one of the wealthiest in the nation, residential renters in the County face challenges in ensuring that their
housing is safe and habitable. For example, when complaints are made to various Marin County and City Code Enforcement agencies, property-owners are at times notified about the complaint and the identity of the tenant before an inspection can be conducted. Other times, property-owners may be present when inspectors are assessing the complaints. Both of these practices, though seemingly harmless, can actually create an atmosphere whereby a tenant might feel threatened and/or unlikely to be honest about the nature of their complaints.

In this context, a number of organizations from across Marin County came together to form the Marin Healthy Homes Advisory Committee, to consider various ways that local agencies could improve their enforcement activities and ensure that the health of renters is protected. Their goal, as embodied in the Marin Healthy Homes Project, was to document unsafe and unhealthy conditions in rental housing, particularly in low-income neighborhoods, and to use the information as a basis upon which to advocate for changes to housing code enforcement policies and protocols. As part of Marin Healthy Homes, partners also worked with Human Impact Partners to conduct a Health Impact Assessment (HIA) of proposed code enforcement policies.

Conducted between August 2011 and May 2012, the goal of the HIA was to assess the potential impacts of changes in code enforcement activities on health and health inequities. The perspective was that code enforcement policy could be a health prevention strategy -- an opportunity to improve health to tenants and provide savings to society overall by reducing related medical costs. This report reflects the findings from that Health Impact Assessment. The report is organized as follows: Section II of the report describes the background of the Marin Healthy Homes project, the proposal being assessed, the screening and scoping process of HIA, and assessment methods employed. Section III describes the HIA assessment findings and impact analysis findings. Section IV presents a set of recommendations to address predicted impacts. Section V briefly describes limitations, while Section VI provides a monitoring plan to track the impacts of this HIA, and Section VII concludes the report.
II. BACKGROUND

In this section we provide background on the geography of Marin, the relationship of housing to health, the Marin Healthy Homes project, the policy components assessed in this HIA, a brief description of relevant habitability laws, and a description of our HIA process.

III.A.1. The Marin Context

Marin County sits on a peninsula in the Bay Area Region that is bordered to the west by the Pacific Ocean, to the east by San Pablo Bay, to the south by the San Francisco Bay, and to the north by the adjacent Sonoma County (see Map 1). It includes 11 incorporated cities and towns that house nearly three-quarters of the county population, with the remaining more than one-quarter of the population living in unincorporated areas. Much of the land in the County is protected from housing development, with more than four-fifths devoted to open space, watersheds, tidelands, parks, and agricultural lands. Accordingly, much of the County population lives in the eastern side of the peninsula along the Bay, with the central section of land reserved for agriculture and land preservation, and more unincorporated communities in the western part of the peninsula.

Map 1. Map of Marin County
This HIA focuses on the following geographic areas that were identified by the Marin Healthy Homes project as important areas of focus: 1) unincorporated areas of the County\(^1\), 2) San Rafael, particularly the historically underserved “Canal” neighborhood\(^2\), and 3) Novato. This report uses the County explanation of unincorporated places, which are any areas outside of the 11 incorporated cities and towns. Unincorporated areas are dispersed throughout the County, though tend to be in the western part of the peninsula. Similarly, the geographical boundaries used to identify San Rafael and Novato are the city limits for each place. San Rafael extends to the shoreline on the Bay, and it is partially divided both east-west by a canal stretching inland from the coastline to the downtown area, and north-south by the U.S. 101 freeway (see Map 2).

### Map 2. Map of San Rafael

Within San Rafael, a neighborhood known as the Canal refers in this report to the physically isolated area south of the canal waterway and east of Highway 101/Interstate 580 that corresponds to Census tract 1122 (including tracts 1122.01 and 1122.02), unless otherwise stated.

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\(^1\) Unincorporated areas are comprised of all areas outside of the 11 incorporated cities and towns in the county.

\(^2\) The Canal neighborhood is defined as Census tract 1122.01 and 1122.02 in the 2010 Census and 2006-2010 American Community Survey, based on recent public agency documents that identify it as 1122; for example: [http://www.co.marin.ca.us/depts/CD/main/comdev/federal/ai/aih2.pdf](http://www.co.marin.ca.us/depts/CD/main/comdev/federal/ai/aih2.pdf) and [http://apps.cityofsanrafael.org/CCDocs/CC20100607/CC17_report.pdf](http://apps.cityofsanrafael.org/CCDocs/CC20100607/CC17_report.pdf)
Just north of San Rafael, the City of Novato also is bounded on one side by the Bay and the interior is segmented by the north-south U.S. 101 freeway. In addition, the City includes State Route 37. However, Novato is known overall for a more rural character, owing in part to its more than 3,000 acres of preserves and open spaces and 27 city parks (see Map 3).\textsuperscript{12}

Map 3. Map of Novato
The connection between housing and health is well documented. Public health literature – including reviews from top-level organizations such as the U.S. Institute of Medicine and the World Health Organization – identify a number of associations between health and housing.

The five common habitability complaint categories identified by the Advisory Committee and focused on in this report are: 1) raw sewage, 2) disease vectors (including cockroaches, mice, rats), 3) electrical issues, 4) heat issues, and 5) dampness and mold. A key takeaway from the literature about vectors, in particular, is that impacts often result from two conditions being present: an individual is sensitive to an allergen and that person has high exposure to the allergen in their environment.

Looking first at water contaminated by raw sewage, health impacts can range from fever, nausea, and vomiting to cancer or even death. Additionally, sewage backups in homes can create moisture and mold problems with additional health impacts discussed below.

Disease vectors, such as cockroaches or cockroach allergen, can influence health by exacerbating asthma symptoms and possibly contributing to the development of asthma. A detectable level of cockroach allergen is found in 63% of dwellings in the U.S. Children sensitive to cockroach allergen and exposed to high levels of it, compared to those who are not exposed, are at 3.4 times greater risk for hospitalization, according to a study of 8 major U.S. inner cities. The same study reported that nearly 37% of children were sensitive to the allergen. The allergen was 4.4 times more present in urban than suburban children, and poor children were 4.2 times more likely than non-poor children to be exposed to cockroaches, in a six-year Baltimore-area study. Data from a national survey found that elevated concentrations of cockroach allergen were associated with high-rise buildings, urban settings, pre-1940 construction, and household incomes less than $20,000.

Mice and rats are other disease vectors that have been associated with decreased health status in humans – mouse allergen with allergy and asthma morbidity, and rat allergen with unscheduled medical visits, hospitalization, and days with diminished activity. Among children, those with greater exposure to mouse allergen were 2.2 times more likely than children with lower exposure to become sensitized to the allergen, which may lead to asthma. One study of nearly 500 children in the U.S. estimated that 18% were allergic to mouse allergen. Among adults, women with mouse allergen sensitization had more than 2 times the odds of asthma diagnosis, as those without the sensitization. Among both children and adults, the potential for exposure is high with detectable levels of mouse allergen found in 82% of dwellings in the U.S.

An additional suggested hazard of cockroach or rodent presence is pesticide exposure. Possible health effects include attention and behavioral problems, but evidence is not conclusive in linking pesticides to the development or exacerbation of asthma. Pesticides are a particularly a concern in low-income neighborhoods, where pests are more common.

A third category of interest in this report, electrical problems, is a risk to health because they can cause fires that may result in injury or death. In the U.S. from 2003 to 2007, home electrical fires comprised 13% of total home structure fires, 17% of associated deaths, and 11% of associated
In these data, "electrical fire" is defined as structure fire that involved some type of electrical failure or malfunction as a factor contributing to ignition. Lack of electricity also is a health issue, since that provides light, running water (if the house requires a pump to provide water), refrigeration, cooling fans and air conditioners, and, during the winter period, most heating sources. Even a household using natural gas or propane heaters requires electricity. It is common for a household without electricity to turn to non-traditional and often dangerous means of providing light and heat in the home. These alternatives may include candles that can result in house fires, and alternative generators or heat sources that can result in death due to carbon monoxide poisoning.

Lack of proper home heating carries additional health consequences that are discussed in the next paragraph. There is no national compilation of deaths due to the use of unsafe methods of providing lighting and heating in a disconnected dwelling, but there are instances reported every year of the deaths of children and adults due to the use of a candle in a dwelling without electricity or heat.

Living in cold housing has been associated with lower general health status, increased use of health services, and worsening of chronic health conditions like asthma or diabetes. Exposure to extreme cold can increase blood pressure and cholesterol levels. It has been linked to heart attack and cardiovascular disease, carries possible adverse links to mental health, and may cause death in the cases of hypothermia. On the other end of the spectrum, adequate cooling in summertime, especially through central air-conditioning, promotes health and safety. Dozens of peer-reviewed studies document elevated levels of emergency department visits, hospitalizations, and premature deaths related to temperature exposure. Central air-conditioning is the single most significant factor predicting positive health outcomes in summertime, in the United States and around the world. Young or advanced age, disabled status (especially a disability that limits mobility), African-American ethnic identity, and social isolation are each indicators of greater vulnerability of adverse impacts related to heat or cold exposure. For example, access to central air-conditioning accounts for two-thirds of the difference in summer death rates between urban African Americans and urban Whites. Heating and cooling also may impact indoor air quality. Lack of access to central heating or air-conditioning is associated with an accumulation of moisture and growth of mold, and higher nitrogen dioxide levels, which make childhood asthma symptoms worse.

Turning to mold, there is substantial evidence of an association with health outcomes. Mold is associated with upper and lower respiratory tract symptoms, asthma, pneumonia, toxic and irritant effects. An estimated 21% of current asthma cases in the U.S. are attributable to dampness and mold exposure in housing. Children in environments with mold growth, compared to those not, were 2.4 times more likely to develop new asthma, in U.S. and international studies. In one Glasgow study, asthma severity correlated with total dampness and mold growth. In addition to asthma, health effects associated with mold include upper and lower respiratory tract symptoms, pneumonia, and toxic and irritant effects.

Damp housing can lead to insomnia, respiratory ailments, cough, headache, allergies, and asthma. Coughing and wheezing symptoms in children are 1.5-3.5 times greater in damp homes than homes that are not damp. In addition, the Glasgow study demonstrated that dampness was significantly associated with nearly double the odds of poorer mental health.

Housing instability, defined as difficulty paying rent or mortgage, paying more than 50% of the
People with housing instability have poorer access to health care and higher rates of acute health care utilization than other populations with stable housing. Housing instability can lead to stress, both financial and emotional, and its associated health impacts. Research suggests that chronic stress is strongly linked to development of hypertension and other chronic diseases, and may cause physical, behavioral, and/or neuropsychiatric manifestations, such as anxiety or depression; cardiovascular phenomena, such as hypertension; metabolic disorders, such as obesity, type-2 diabetes, and cardiovascular disease; osteopenia and osteoporosis; and sleep disorders, such as insomnia or excessive daytime sleepiness. In addition, acute stress has been linked to depression, and may trigger allergic manifestations, such as asthma, different types of pain (such as headaches, abdominal, pelvic and low-back pain), gastrointestinal symptoms (pain, indigestion, diarrhea, constipation), as well as panic attacks and psychotic episodes. Recent research suggests that the body responds to stress, either psychological or physical, with effects on the immune system, and that further impacts may include substance abuse, unhealthy eating, as well as disruption in important social networks and supports. Housing displacement – for example, through eviction – is a stressful life event that similarly can have severe negative impacts on health, such as stress and the associated impacts already described here. Additionally, relocation associated with displacement can have significant impacts on childhood development, and may result in loss of job.

The Marin Healthy Homes Project

Healthy families live in homes where the smell of dampness does not water your eyes at the front door and a light does not send creatures scurrying. The health of many low-income Marin tenants, who tend to be disproportionately African American and Latino, is negatively impacted by unsafe and substandard conditions in their homes, including such hazards as mold and vector/vermin. Toxins and allergens in the home environment have been linked to a number of chronic health conditions, including asthma and other respiratory problems.

For 54 years, Legal Aid of Marin (LAM) has been advocating on behalf of low-income tenants in Marin County to protect them from the poor health outcomes that result from deferred maintenance of their housing units by property-owners. Conservatively, at least one-fifth of LAM’s “property-owner/tenant cases” involve habitability issues, which in 2011 included 79 cases that LAM closed around habitability issues. Of them, approximately 5-10% involve direct contact with Code Enforcement agencies of San Rafael, Novato, and unincorporated Marin County – cases where issues could not be solved through tenant/property-owner negotiations, such that either city or county protectors or LAM had to take the appropriate action for clients.

While individual cases of housing code violations can be addressed through legal action, the systemic problem of unsafe and unhealthy living conditions in poor neighborhoods is more effectively addressed through the reform of local code enforcement policies.

An overarching goal of the Marin Healthy Homes Project is to document unsafe and unhealthy conditions in rental housing, particularly in low-income neighborhoods, and to use this information as the basis upon which to advocate for changes to housing code enforcement policies and protocols. Such policies will improve fairness to tenants and lead to quicker and more thorough remediation of unsafe conditions that impact tenant health.
Specifically, the Marin Healthy Homes project is a two-pronged effort. The first prong is to highlight six to ten specific cases of habitability violations in which a private housing inspector’s documentation of unsafe and unhealthy conditions was compared to the eventual evaluation of a Code Enforcement officer. The effort includes the outcomes of those inspection and violation processes, with the overall goal of assessing outcomes for tenants. The second prong is to conduct a Health Impact Assessment of proposed code enforcement policy in order to ascertain the impact that changes to such policy could have on health in Marin County. The HIA is expected to support the Marin Healthy Homes Project by opening up conversations about code enforcement policies with City and County agencies responsible for protecting the health and safety of tenants in their homes.

A core part of the Healthy Homes project was also to establish the Marin Healthy Homes Advisory Committee that provided input on the overall project. The Committee included Legal Aid of Marin, Marin Community Clinics, Parent Services Project, Novato Human Needs Center, Community Action Marin, the Marin Asian Advocacy Project the Marin County Department of Health & Human Services, tenants, and property-owners. Many of these organizations provide aid to residents of Marin County who are tenants and have habitability issues.

The Proposed Policy

There are three major jurisdictions in Marin: the County, the City of San Rafael, and the City of Novato. In enforcing policies, Code Enforcement staff in the County have jurisdiction depending in part on the location and type of housing. Generally speaking, the County Community Development Agency covers code enforcement for unincorporated areas in Marin County, while the Code Enforcement in the City of San Rafael and the City of Novato will respond to complaints within their city limits. However, there are pockets of housing within places like San Rafael and Novato where the Marin Housing Authority, rather than the respective city, may have jurisdiction if it is public housing or oversight has been transferred to the Housing Authority (e.g., recent dissolution of redevelopment agencies throughout California). Most of the smaller cities and towns in Marin also call County Code Enforcement for mold and pest issues, which either will investigate the issue or involve environmental health staff.

This HIA focuses only on housing overseen by the Code Enforcement agencies within Novato, San Rafael, and unincorporated Marin. It is not intended to apply to housing where Marin Housing Authority has jurisdiction, which includes a number of units. A 2008 inventory suggested the Housing Authority owned and oversaw code enforcement for 573 units of public housing at 11 properties. That number has likely increased given recent statewide dissolution of Redevelopment Agencies, and the temporary transfer of housing previously under their umbrella to the Marin Housing Authority.

As part of this HIA, partners identified five distinct policy changes that could be proposed to the three jurisdictions in Marin County to improve code enforcement practices. The HIA works from the premise that part of the mission of Code Enforcement departments is to promote and protect the public’s health and safety, and utilization of these components of the proposed policy would further their mission. The proposed policy changes state that each jurisdiction should:

- Conduct a neutral evaluation upon receiving a tenant complaint (i.e., do not notify property-owner before inspection)
- Conduct inspection within one week of receiving complaint
• Conduct inspection even if the property-owner has begun fixing the problem or has initiated eviction proceedings
• Require owners to complete repairs within a “reasonable” timeframe
• Require that repairs are completed up to the standards of the Uniform Housing Code

The policy proposal for assessment in this HIA was developed over a series of meetings with the Marin Healthy Homes Advisory Committee. Notably, the policy components have not yet been proposed before an implementing body such as a Board of Supervisors or City Council. However, for the purpose of assessing health impacts, some level of specificity of policy components was defined. HIA participants have used the policy components listed above as baseline talking points with jurisdictions to further discuss code enforcement practice and potential changes to such practices.

The policy components defined above are those noted by the Advisory Committee as: necessary; not implemented in practice; and with the potential to make a large health impact to tenants. This HIA investigated existing conditions regarding implementation of these practices as well as the health impacts that would result if they were implemented in the three geographies identified: San Rafael, Novato, and unincorporated Marin County.

Code enforcement at each of the three geographic areas focused on in this report currently aligns with many, but not all aspects of the proposed policy, as highlighted in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Current Alignment with Proposed Policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marin County</td>
</tr>
<tr>
<td>1) Neutral evaluation – evaluation of complaint done without contacting the property-owner</td>
</tr>
<tr>
<td>2) Evaluation completed within 1 week</td>
</tr>
<tr>
<td>3) Evaluation completed irrespective of context</td>
</tr>
<tr>
<td>4) Repairs made within reasonable timeframe</td>
</tr>
<tr>
<td>5) Repairs made up to Uniform Housing Code</td>
</tr>
</tbody>
</table>

* Policy exists but is not holistically implemented at this time
* Unless they have a relationship with the property-owner (all residential rental properties with 3 or more units) due to an affirmative inspection program
** Evictions or repairs in progress could stop action
*** Depends on a variety of issues at Code Enforcement’s discretion

The current staff and financial resources available to the three Code Enforcement agencies are described in Table 3 below. For more detail about Marin County code enforcement practices, see chapter 3 of this HIA.
Table 3. Budgets and Revenue for Code Enforcement Departments in Marin County

<table>
<thead>
<tr>
<th></th>
<th>Marin County</th>
<th>Novato</th>
<th>San Rafael</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall budget, 2011-2012</td>
<td>General Fund budget:</td>
<td>General Fund budget:</td>
<td>City budget: $82.4M;</td>
</tr>
<tr>
<td></td>
<td>$273.4M</td>
<td>$31.8M</td>
<td>General Fund budget:</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>$54.9M</td>
</tr>
<tr>
<td>General budget environment, 2011-2012</td>
<td>Property tax revenue</td>
<td>Property tax revenue +</td>
<td>Flat property tax</td>
</tr>
<tr>
<td></td>
<td>declined; Cut 60 FTE</td>
<td>sales tax on decline in</td>
<td>revenue + slightly</td>
</tr>
<tr>
<td></td>
<td>General Fund positions</td>
<td>past few years; Cut 34</td>
<td>better sales tax</td>
</tr>
<tr>
<td></td>
<td></td>
<td>positions in past 2 years;</td>
<td>revenue</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cut nearly every</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>department budget by</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>30-35% in past 3 years</td>
<td></td>
</tr>
<tr>
<td>Code Enforcement budget environment,</td>
<td>Personnel allocation:</td>
<td>Personnel allocation:</td>
<td>Personnel allocation: 3</td>
</tr>
<tr>
<td>2011-2012</td>
<td>2.25 FTE; partial time</td>
<td>3.10 FTE; recently fired</td>
<td>Code Enforcement</td>
</tr>
<tr>
<td></td>
<td>from 3 Code Enforcement</td>
<td>1 Code Enforcement officer;</td>
<td>officers; recently</td>
</tr>
<tr>
<td></td>
<td>specialists, 1 senior</td>
<td>reduced to 1 supervising officer, 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Code Enforcement</td>
<td>code compliance officer, 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>specialist</td>
<td>housing inspector,</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>some admin support</td>
<td></td>
</tr>
<tr>
<td>Code Enforcement budget, 2011-2012</td>
<td>$359,074 for all Code Enforcement</td>
<td>$301,674 for all Code Enforcement</td>
<td>Not available, though housing activities are paid from Housing Inspection Fees and Redevelopment Housing Fund.</td>
</tr>
<tr>
<td>Anticipated revenue, 2011-2012</td>
<td>$50,000</td>
<td>$38,079</td>
<td>Not available</td>
</tr>
<tr>
<td>Anticipated revenue from residential</td>
<td>Not available</td>
<td>$191,000</td>
<td>No total provided so far*</td>
</tr>
<tr>
<td>inspection fees, 2011-2012</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Novato 2011-2012 budget, San Rafael 2011-2012 budget and related documents, Marin County 2011-2012 budget

* Total revenue is not available at this time. Revenue from apartment inspections is as follows: charge for a first inspection of an apartment is $316.00 per site plus $22.00 per unit over two on site, and charge for a second re-inspection and noticing is $135 per hour with a 1 hour minimum calculated to the nearest 25 minutes.

In addition to budgetary constraints, Code Enforcement staff face other challenges including safety on the job, issues with property-owners, non-Code Enforcement complaints and changes in who conducts inspections. Excerpts from an interview with a private inspector in Marin County provided information about some of these additional challenges.
Relevant Habitation Laws

Habitability code enforcement represents an early example of a public health intervention in the U.S. Poor sanitation, filthy streets, overcrowded tenement housing, and disease outbreaks led to the establishment of the New York City Metropolitan Board of Health in 1866, the first modern municipal public health authority in the United States. In 1865, citizens urging for oversight by the City wrote, “We believe that housing, politics, morals and health are all intertwined and without one, we would be quite at a loss.” The Board of Health encouraged scientists and doctors to help cure diseases as well as join reformers in bringing attention to tenement and work laws. By 1915, many of the powers originally possessed by the health department regarding tenement houses had been transferred to the tenement-house department, which was charged with enforcing the tenement-house law in all flats and apartments.72,73

In California, a state law to protect tenants came about in 1941 by imposing a duty on property-owners to maintain their premises in a habitable condition. The protection is implemented both under the California Civil Code and California Health and Safety Code.

The Civil Code covers rental property specifically, and deems a building “uninhabitable” if it lacks at least one of the following nine standard characteristics:

1. Effective waterproofing of the roof and exterior walls;
2. Plumbing or gas fixtures maintained in good working order;
3. Adequate sewage disposal and hot and cold running water;
4. Heating facilities maintained in good working order;
5. Functional electrical lighting, wiring, and related equipment;
6. Presentation of clean and sanitary dwelling at the beginning of a lease and maintenance of common areas in a condition that is clean, safe, sanitary, and free of rubbish and vermin;
7. Adequate facilities for building refuse disposal;
8. Maintenance of floors, stairways, and railings in good repair; and
9. Provision of a locking mail receptacle.
At the state level, the Health and Safety Code has a lengthy definition of substandard buildings that includes a list of possible defective conditions that will qualify a building accordingly. Enforcement of state housing law is delegated to local agencies, such as building, code enforcement, or health and safety departments at the county or municipal level.

County and municipal jurisdictions differ in how they handle housing habitability issues, though a common process is a reactive one where receiving a complaint about housing violations triggers investigation in a timely fashion, and evaluation and documentation of the problems. Subsequent steps often include issuing a requirement that property-owners fix documented problems in a certain timeframe, after which Code Enforcement re-inspects the dwelling to ensure that violations were corrected. If no progress is made, Code Enforcement agencies can levy a fine, or in worst-case scenarios, agencies can place a lien on the property. In addition to this reactive process, some jurisdictions address habitability issues pro-actively by implementing affirmative programs where multi-unit dwellings are inspected, for example, annually or every few years and property-owners are expected to address identified concerns.

**About HIA**

Health Impact Assessment (HIA) is a research and public engagement tool that can be used to assess planning and policy proposals, and make recommendations to improve health outcomes associated with those proposals. The fundamental goal of an HIA is to ensure that health and health inequities are considered in decision-making processes using an objective and scientific approach, and engaging stakeholders in the process.

As public policy is often decided based on economic impacts, health impacts are generally not considered in the decision-making process. As a result, there are often unintended health consequences that disproportionately impact already vulnerable communities such as those who are low-income, communities of color, children, and seniors. HIA is a tool that tries to respond to this gap in the policy process – specifically by conducting research to identify potential impacts and making targeted recommendations to alleviate impacts and improve health. The use of HIA to inform policy decisions has grown in the last ten years in the United States.

HIA is a flexible research process that typically involves six steps:

1. **Screening** involves determining whether or not an HIA is warranted and would be useful in the decision-making process;
2. **Scoping** collaboratively determines which health impacts to evaluate, the methods for analysis, and the work plan for completing the assessment;
3. **Assessment** includes gathering existing conditions data and predicting future health impacts using qualitative and quantitative research methods;
4. **Developing recommendations** engages partners by prioritizing evidence-based proposals to mitigate negative while elevating positive health outcomes of the proposal;
5. **Reporting** communicates findings; and
6. **Monitoring** evaluates the effects of an HIA on the decision and its implementation as well as on health determinants and health status.
Screening: Deciding to Conduct the Healthy Homes HIA

Screening, the first step in HIA, establishes the value and feasibility of the assessment for a particular decision-making context. Screening informs the decision to conduct an HIA by asking whether the decision-maker might otherwise consider health impacts, if it is feasible to conduct a timely HIA analysis, and if the decision-making process will be receptive to the findings and recommendations. Members of the Advisory Committee completed the screening step for this HIA in October 2011.

Overall, the Advisory Committee determined that Code Enforcement agencies are under many of the same pressures as other municipal agencies (e.g., budget shortfalls, reduced staff resources) and that an HIA might help to build support for expanded code enforcement practices. In many places, budget limitations have contributed to fewer services being provided and ultimately, fewer protections for the most vulnerable populations. Even though Code Enforcement agencies are faced with decreased funding and increased demand for services (for example, due to increases in blighted and vacant properties resulting from the foreclosure crisis), they continue to operate under a mission to protect health, ensure safety and maintenance of buildings, maintain quality of life, decrease blight, avoid nuisances, and protect the environment. The Advisory Committee determined that the HIA might help to provide the evidence and support necessary to widen code enforcement practices in such a way that would protect vulnerable populations in Marin County.

In terms of ability to conduct the HIA in a timely fashion, because the policy components had yet to be proposed, Marin Healthy Homes participants felt there was sufficient time to conduct the HIA and convey findings to potential decision-makers. In addition, decision-makers illustrated a willingness to discuss the HIA and its findings – in other words, they were open to the process.

Another important factor in conducting an HIA is resources, both human and financial. The Marin Community Foundation provided funding for an HIA within the Marin Healthy Homes Project, enabling Legal Aid of Marin to subcontract with Human Impact Partners to conduct the HIA.

Given this context, and the ongoing observation by Legal Aid of Marin and the Advisory Committee members that habitability standards for tenants of Marin County had not been protected equitably, that health concerns ensued for tenants, and that there was a need to create a dialogue with Code Enforcement agencies about how better to protect Marin’s most vulnerable populations, Legal Aid of Marin decided to move forward with the HIA.

What is Health Impact Assessment?

A systematic process that uses an array of data sources and analytic methods and considers input from stakeholders to determine the potential effects of a proposed policy, plan, program or project on the health of a population and the distribution of those effects within the population. HIA provides recommendations on monitoring and managing those effects.

- National Research Council of the National Academies, 2011
Scoping: Issues to Consider in the HIA

In the Scoping stage of HIA, relevant stakeholders develop goals for the HIA and prioritize research questions and methods to guide the assessment. Project partners identified the following goals:

1. To address social determinants of health in low-income Marin communities by reforming and improving code enforcement policies and practices.

2. To advocate before a minimum of three jurisdictions (San Rafael, Novato, and the County) for implementation of best practices based on the Health Impact Assessment.

To advance the HIA, Human Impact Partners developed pathway diagrams that hypothesized the connections between the policy components and potential health outcomes, which were reviewed and refined by the Marin Healthy Homes Advisory Committee. Based on the finalized pathways (Appendix 1), HIP then developed a scope of research, which was reviewed by Legal Aid of Marin, and further refined, prioritized, and approved by the Advisory Committee. The primary research questions guiding the HIA were defined as:

- What are the health impacts of the five primary complaint categories selected and what changes to health, as well as the complaint process, will the proposed policy bring about?
- How many complaints are made to Code Enforcement agencies? What are the primary types of complaints made? How many are resolved satisfactorily? How will the proposed policy change the number and types of complaints, as well as the resolution?
- What is the current length of time (on average) for property-owners to respond to complaints? What is the average length of time tenants wait before filing complaints? How will the proposed policy change these timeframes?
- To what extent are repairs done up to the standards of the Uniform Housing Code? Done by licensed contractors? How will the proposed policy impact the quality of repairs done?
- To what extent are tenants impacted by Code Enforcement agency practices (when they initiated the complaint, if eviction proceedings are begun, or evictions are completed)? How will the proposed policy impact these outcomes?
- What types of obstacles do Code Enforcement agencies face as they conduct their activities? What are some best practices from other Code Enforcement agencies?

After developing the above research questions, indicators, data sources, and analytical methods to answer research questions were identified. The final scope is included as Appendix 2. Overall, the HIA aimed to assess the impacts of the proposed policy on the health of tenant populations, with a focus on the following three scoping categories of interest:

1) Exposure to health and safety hazards
2) Length of time exposed to hazards
3) Stress

The HIA focused on assessing impacts for populations served by Legal Aid of Marin, Marin Community Clinics, and the Parent Services Project. These populations include people who have lower incomes, are non-English speakers or communities of color, and may have limited choices about where to live. Many people served by these organizations also are renters. The HIA also focused geographically on Code Enforcement agencies in San Rafael, Novato, and unincorporated Marin County, as rental units are concentrated in these areas.
Assessment Methods: Determining the Impacts of the Policy

This HIA used a mixed method approach to assess the prioritized research questions. Specific methods included:

Literature review. Scientific evidence on the relationships between housing and health were gathered from the following databases: PubMed, ISI Web of Science, and Google Scholar. In addition, we obtained information from websites, reports, and through conversations with staff from the National Center for Healthy Housing. Other grey literature sources included websites of the former Alliance for Healthy Homes, the National Housing Conference and Center for Housing Policy, Harvard’s Joint Center for Housing Studies, and previous HIAs on housing-related topics.

Focus groups, key informant interviews, and surveys. To gather evidence on how housing impacts tenants, Parent Services Project coordinated a focus group with current tenants of Marin County on March 26, 2012. Focus group participants were promotoras, or community health workers, who live and work in the Canal region of San Rafael. The focus group was conducted in both English and Spanish, with a total of 7 participants. In addition, the promotoras collected 36 surveys of tenants living at a multi-unit dwelling in San Rafael. Both the focus group and the survey asked questions about housing quality, the types of challenges experienced in getting housing repaired, and interactions with property-owners and Code Enforcement agencies.

Last, information on various scope questions was obtained through key informant interviews: one with a private housing inspector, and two interviews of Code Enforcement staff from the City of San Mateo and Redwood City.

Quantitative data. Data on various housing and demographic indicators were gathered from the following sources: 2010 Census, 2006-2010 American Community Survey, Marin County Community Development Agency, Live Local Marin, County Health Rankings & Roadmaps project, and a report titled “Portrait of Marin 2012.” In addition, the Marin County, Department of Health & Human Services, Division of Public Health provided health data. Data requests made prior to and during meetings with Code Enforcement agencies of the three jurisdictions – Marin County, City of Novato, and City of San Rafael – provided additional information about tenant complaints in those areas. Of note, boundaries within Marin County changed between the 2000 and 2010 Census, affecting places like the Canal, so that a place referred to by the same name in different reports may pertain to somewhat different boundaries.

Using these methods, we first describe baseline conditions related to our research questions, and then assess the predicted impacts of the proposed policy on: 1) exposure to health and safety hazards, 2) length of time exposed to hazards, and 3) stress.
III. ASSESSMENT FINDINGS: EXISTING CONDITIONS AND IMPACT ANALYSIS

In this section of the HIA, we describe our existing conditions and impact analysis findings. Part A describes baseline conditions related to our health determinants of interest. Part B is a qualitative assessment of the impacts and benefits of the proposed policy on the following health determinant domains: 1) exposure to health and safety hazards, 2) length of time exposed to hazards, and 3) stress. For each of the three domains, we describe how the elements of the proposed policy would impact the domain among tenants, and we make an overall statement about predicted impacts on their health. We also describe impacts to vulnerable populations.

III.A. EXISTING CONDITIONS

<table>
<thead>
<tr>
<th>SUMMARY OF FINDINGS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEMOGRAPHICS</strong></td>
</tr>
<tr>
<td>• Compared to the County, households in the jurisdictions of interest earn less income. Novato, unincorporated Marin, and San Rafael have median household incomes ranging from 11%-23% below the County, and the Canal neighborhood is less than half that of the County.</td>
</tr>
<tr>
<td>• The median age in each of the jurisdictions of interest is lower than in the County overall. For example, in the Canal, it is 29 years compared to 44 years for the County.</td>
</tr>
<tr>
<td>• Relatively high proportions of residents in the jurisdictions considered were born outside of the U.S.: 16% in unincorporated Marin, 21% in Novato, 27% in San Rafael, and 63% in the Canal.</td>
</tr>
<tr>
<td>• The jurisdictions considered in this HIA have substantially higher proportions of non-White populations than the County overall. For example, 59% of the population in the Canal identifies as non-White, and 80% identified as Hispanic.</td>
</tr>
<tr>
<td><strong>HOUSING AVAILABILITY AND AFFORDABILITY</strong></td>
</tr>
<tr>
<td>• Unincorporated Marin County, San Rafael, and Novato provide over 78% of the rental housing in the County, but only about 2% of all housing units are vacant rental units.</td>
</tr>
<tr>
<td><strong>HEALTH STATUS</strong></td>
</tr>
<tr>
<td>• Marin County residents as a whole are fairly healthy; however, there are health inequities between the general population and those in our target areas.</td>
</tr>
<tr>
<td>• Self-reported health status was reported as fair or poor for 31% of all County residents compared to 26%-44% of residents in places like the Canal area.</td>
</tr>
<tr>
<td>• The County’s overall infant mortality rate of 3.2 deaths per 1,000 live births is well below the California rate and the Healthy People 2020 national benchmark.</td>
</tr>
<tr>
<td>• Reported lifetime adult asthma is approximately the same across the County, impacting 13% of the population of the County overall, 12% in San Rafael and Novato, and 14% in the unincorporated areas of Marin.</td>
</tr>
</tbody>
</table>
III.A.1. Current Demographics: Who lives in Marin County?

Both health in general and the impacts of housing on health vary across populations. The Centers for Disease Control and Prevention (CDC) report that despite improvements in recent years, substantial disparities in unhealthy housing persist at the national level by demographic categories such as race/ethnicity and socioeconomic status. Nationally, in 2009, non-Hispanic Blacks had the highest percentage of householders living in inadequate, unhealthy housing, followed by Hispanics and American Indians/Alaska Natives. Below is a brief discussion of links between demographics – such as age, race/ethnicity, and income – housing, and health, followed by a description of the current demographic composition of Marin County.

Age is a key demographic factor when discussing health and housing; youth and seniors are particularly vulnerable populations when it comes to housing quality. Children spend up to 90% of their time indoors, in places like homes and schools where environmental health hazards can create a range of health conditions such as asthma, lead poisoning, neurological disorders, and behavioral or mental dysfunction. Similarly linked to environmental conditions, health among seniors is influenced by aspects of housing, such as conditions that lead to injury and those that influence mental health. Additionally, both young children and seniors are more vulnerable to temperature-related ailments, which can be strongly influenced by housing conditions.

Race/ethnicity and foreign-born status have demonstrated links to health that often are associated with neighborhood environments. In the U.S., many people of color experience a wide range of health conditions at higher rates than Whites, including heart disease, stroke, diabetes, hypertension, respiratory illness, and pain-related problems. On average, African Americans, Native Americans, Pacific Islanders, and some Asian American groups live shorter lives and have poorer health outcomes than Whites. According to the CDC, African-American men die on average 5.1 years sooner than White men (69.6 vs. 75.7 years), while African-American women die 4.3 years sooner than White women (76.5 vs. 80.8 years). People of color are more likely to: be less wealthy, have lower levels of formal education, and live in segregated communities with underfunded schools, insufficient services, poor transportation and housing, and higher levels of exposure to toxic and environmental hazards. It is also well documented that minorities are disproportionately exposed to substandard housing conditions, regardless of whether the household owns or rents its unit. Looking at renters specifically, one study that used 2001 American Housing Survey data to examine connections between race, ethnicity, and housing, reported that foreign- and native-born minority renter households were more likely than all White renter households to experience the poorest housing quality conditions. These housing conditions can have very real impacts on a variety of health outcomes influenced by the environment, including respiratory diseases such as asthma, and mental health status.

Income has a strong and consistent relationship with health. Poorer adults are three times as likely as wealthier counterparts to have a chronic disease that limits their activity, twice as likely to have diabetes, and are nearly 50% more likely to die of

To be self-sufficient in Marin County, a family of three people needs $68,880 per year – the equivalent of more than 4 full-time minimum wage jobs in CA – to cover basic expenses.

Yet, more than 1/3 of households cannot afford to pay for these expenses.
heart disease. Additionally being low-income is a risk factor for low birth weight, injuries and violence, and most cancers. Children in low-income families are seven times as likely to be in poor or fair health as compared to those in high-income families.

Lack of income with which to pay for adequate housing can lead to adverse health outcomes associated with homelessness, overcrowding, and/or living in sub-standard housing. Housing insecurity has been associated with stress and there are significant associations between high housing costs and hunger, inadequate childhood nutrition, and poor childhood growth. Nationally, individuals with average family incomes of $15,000-$20,000 are three times more likely to die prematurely than those with family incomes greater than $70,000. The national picture is reflected in Marin County, where researchers report that life expectancy overall is strongly correlated with average neighborhood income. More than half (51%) of the variability in neighborhood life expectancy could be explained by the average neighborhood income. Many households simply cannot afford the cost of living. In 2009, the median one-bedroom apartment in Marin was $1,393, nearly four hundred dollars more than the maximum affordable rent of $1,000 for a household earning $40,000 or less.

With these key linkages between demographics, housing, and health in mind, we turn now to describe the population living in Marin County. The County taken in its entirety is home to a predominantly White, middle-aged, and high-income population. However, demographic characteristics vary within the County, including among the geographic areas focused on in this report.

Population: The County houses more than 250,000 people with a median age of 44.5 years (see Table 4 in Appendix 4), based on 2010 data. By comparison, the other geographic areas focused on here – unincorporated Marin, San Rafael (including the Canal area), and Novato – all have lower median ages, particularly the Canal area where the median age is substantially lower at 29.4 years. Further highlighting the notably younger population in the Canal, nearly one-tenth of residents are under age 5. There has been a small change in population numbers during the past decade, although the composition of the population has changed substantially with respect to race/ethnicity and place of birth.

Place of birth and language: Approximately four-fifths of residents in Marin County overall (81%), unincorporated areas of the County (84%), and Novato (79%) were born in the U.S. (see Table 5 in Appendix 4). In San Rafael overall, the proportion is slightly smaller at an estimated 73%, but in the city’s Canal neighborhood in particular there is a substantially smaller native born population, estimated at 37% of residents. Also of interest, the population in the Canal that speaks a language other than English at home is notably larger than in the other areas of interest in this report. In the Canal, an estimated 14% of residents use English at home, compared to between 65% and 80% across the County overall, unincorporated areas, San Rafael overall, and Novato. Spanish is predominant, particularly in the Canal where 76% of residents use it in the home.

Race/ethnicity: The 2010 Census reports that the majority of County residents are White (80%) and more than 15% identify as of Hispanic descent (Table 6 in Appendix 4). Other geographic areas of focus in this report have larger proportions of racial and ethnic minority populations (see Maps 4-5). Areas of note include the Canal, where a substantial proportion of the population identifies as non-White (59%) and Hispanic (80%), and unincorporated areas where there are smaller proportions of non-White and Hispanic descent populations, but nearly double the proportion of African Americans as in the County overall (5% v. 3%). Looking at demographic changes between 2000 and
2010, there were large decreases in the population of Whites and African Americans in the 25-49 year age groups, but increases in older populations. Additionally during this time, the populations of Asians and Latinos in most age groups have increased substantially.

Map 4. Black Population in Marin County, 2010
Map 5. Hispanic Population in Marin County, 2010
Median household income and poverty: According to data from 2010, the median household income for the County is $89,268 (Table 7 in Appendix 4).\textsuperscript{97} Novato, unincorporated Marin, and San Rafael have estimated median household incomes that range from 11%-23% below the County median (see Map 6).

Map 6. Estimated Median Household Income in Marin County, 2006-2010

At $39,154, the estimated median household income in the Canal neighborhood is less than half that of the County.\textsuperscript{98} Compared to the County overall, a smaller proportion of residents from unincorporated areas of Marin live below the federal poverty level, whereas the opposite is true in both San Rafael and Novato (see Map 7).\textsuperscript{99} The contrast is particularly notable in the Canal area of San Rafael, where the proportion of residents living in poverty is more than three times greater than in the County overall.\textsuperscript{100}
Map 7. Poverty Rate in Marin County, 2006-2010
III.A.2. Housing Availability & Affordability: High Demand & Short Supply

Across the County overall, the majority of occupied housing units (63%) are owner-occupied, with the remaining 37% occupied by renters (see Map 8). Unincorporated Marin and Novato each have lower proportions of renter-occupied housing (31% and 33%, respectively) than the County overall, while in San Rafael the percentage is higher (48%). In the Canal area, the percentage is highest, with three-quarters of housing being renter-occupied. Available rental housing is in short supply in Marin County. A recent report estimated a shortage of 25,000 homes for workers seeking an affordable rental option costing less than $1,500 per month. A separate report identified that the County, San Rafael, and Novato reportedly provide more than 78% of affordable rental housing units in the county. Together, these suggest that affordable housing is concentrated in these areas, but in high demand and short supply.

Map 8. Housing Tenure in Marin County, 2010

The proportion of all housing that is vacant is less than 2% in the County overall, unincorporated areas of the County, and Novato (see Map 9), and the proportion is just over 2% for San Rafael overall and in the Canal region. Because the demand is so high and landlords can charge higher rates, this lack of housing may translate into tenants paying a larger proportion of their incomes toward rent. The accepted standard is that a household should not pay more than 30% of income toward rent and those spending a greater amount are considered housing cost burdened. Among
renters, more than half in Marin County overall (54%), San Rafael (56%), and unincorporated areas (58%) are considered housing cost burdened (see Table 8 in Appendix 4). The proportions are even greater in Novato (60%) and the Canal area (72%), where many households pay more than one-third of their income toward rent.

Map 9. Percent of Vacant Household Units, 2010

Overcrowding: Overcrowding is defined as more than one person per room. Nearly 6% of rental housing in the County overall is estimated to be overcrowded, but the number drops to 3% when looking only at unincorporated areas of the County (see Table 9 in Appendix 4). By comparison, Novato, San Rafael, and the Canal all have larger proportions of overcrowding in rental housing, at 7%, 12% and 35%, respectively.104
In 2012, Marin County ranked number one among all California counties for overall health outcomes (i.e., morbidity and mortality) and for factors that influence health, which include individual health behaviors, clinical care, social and economic factors, and physical environment. Put differently, the County is among the top in the nation in terms of human development, which can be measured by a single score that combines health, education, and living standards. The County’s Human Development Index score of 7.75 exceeds that of California (5.54) and the nation (5.10). However, a picture of the County overall can mask inequities that affect pockets of populations living within it. For example, the Canal area of San Rafael scored 3.18, on par with historically underserved states like West Virginia. Therefore, examining health data at smaller geographic areas, where possible, can provide insight into health disparities among populations of interest in this HIA.

Overall health status: More than two-thirds (69%) of County respondents to the California Health Interview Survey from 2005 reported excellent or very good health. However, a greater proportion of respondents rated their health as fair or poor in the Canal (26%-44%), shown in the map below as the area shaded dark brown that is east of the 580 freeway (Map 10). Slightly fewer residents in Novato and the rest of San Rafael reported fair or poor health (15%-25%). Self-rated health is important not only in reflecting perceptions about health, but also in predicting health outcomes and mortality.

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3 In determining these index scores, the report referenced here used American Community Survey 2005-2009 data that were based on Census 2000 boundaries.
Map 10. Percent of Residents who Reported Fair or Poor Self-rated Health, Marin County, 2005

Source: Healthy Marin Partnership, 2011.
Leading causes of death: The most recent data available, from 2007, report that the leading causes of death for the County overall are cancer, heart-related diseases, strokes, and chronic conditions such as diabetes or respiratory illnesses.\textsuperscript{110}

Premature mortality: Premature mortality is an often-cited measure of population health because it assesses the deaths that occur before a person reaches an expected age, in this case 75 years; in other words, it gives a snapshot of deaths that likely could have been prevented. There are several measures of premature mortality, one of which is the number of years of life lost due to early deaths. The rate for years of potential life lost for Marin County was well below both that for California overall and the national benchmark, according to the 2012 County Health Rankings.\textsuperscript{111} The most recent data available, from 2006-2008, yield a rate of 3,846 years of potential life lost before age 75 per 100,000 population, compared to 5,922 years for California overall and the national benchmark of 5,466 years.\textsuperscript{112} On the other end of the age spectrum, the infant mortality rate – meaning death during the first year of life – is also a measure of population health. In 2009, the County overall had a rate of 3.2 deaths per 1,000 live births, which was well below the rate both for California that year, at 4.9 deaths per 1,000 live births, and the Healthy People 2020 national benchmark of 6 deaths per 1,000 live births.\textsuperscript{113}

Unintentional injuries and unintentional deaths: In 2009, non-fatal emergency room department visits in the County for people of all ages occurred at a rate of 5,394.9 per 100,000 incidents.\textsuperscript{114} That same year, there were 686.7 hospitalizations per 100,000 incidents for the County overall across people of all ages, an increase from 677.9 hospitalizations during the previous year.\textsuperscript{115} Looking at deaths that occurred from unintentional injuries, between 2008 and 2009, the rate in Marin County across all ages decreased slightly from 24.3 to 23.3 per 100,000 incidents.\textsuperscript{116}

Asthma: Asthma is a chronic respiratory disease that can cause shortness of breath, wheezing, coughing, and tightness in the chest.\textsuperscript{117} Nationally, there are large disparities in asthma prevalence, including by income, geography, race/ethnicity, and age, as it is both increasingly prevalent and the most common chronic disease among children.\textsuperscript{118,119,120} The CDC regularly collects two measures of asthma – lifetime prevalence and current prevalence. Lifetime prevalence helps determine how many people have been affected by the disease at any point in their life. It is useful in helping estimate the resources that may be needed because a higher rate of lifetime asthma will lead to higher medical costs.\textsuperscript{121} Current prevalence gives a sense of how many people are affected at a given point in time. Both measures are described below for the areas of interest in this HIA.

The reported lifetime prevalence of adult asthma, meaning a person age 18 or older who has ever been told by a health professional that he or she has asthma, is 12\% in Marin County overall, Novato, and San Rafael (see Table 10 in Appendix 4).\textsuperscript{122} In the Canal, the proportion is smaller, reportedly at 5\% of residents, but prevalence is higher in unincorporated areas of Marin, at 14\%. Among children ages 0-17, data are available only at the County level, where 11\% of children have ever been told they have asthma. The low rate of asthma could reflect a lack of reporting among populations with substandard access to medical care.

Current adult asthma is at 6\% for the County overall.\textsuperscript{123} Proportions are approximately the same in Novato at 6\%, San Rafael at 7\%, and unincorporated areas at 6\%. Approximately 6\% of children in the County currently have asthma. Again, due to small numbers, data for children are not available at smaller geographic levels.
III.A.4. HIA Research Scope: Habitability Complaints and Resolution

SUMMARY OF FINDINGS

HABITABILITY COMPLAINTS || EXPOSURE TO HEALTH AND SAFETY HAZARDS AND STRESS

• Tenant complaints regarding habitability conditions are a proxy measure of exposure to health and safety hazards in the home. Complaints have persisted over the years with a three-year average of 29 health and safety complaints in unincorporated Marin County and 32 in San Rafael. In Novato, the number for just health and safety was unavailable and there were 240 complaints that fell under building, health, safety, or illegal unit categories (i.e., only a proportion of the 240 are health and safety complaints).

• Many habitability issues go unreported by tenants who are fearful of retribution (e.g., increased rents and threatened eviction or deportation).

• Tenants experience stress due to fear of retribution by a property-owner for placing complaints, the length of time to have complaints resolved, and the quality of repairs.

COMPLAINT RESPONSE TIMES AND RESOLUTIONS || TIME EXPOSED TO HAZARDS

• The longer a tenant is exposed to a health and safety hazard, the more harmful it may be to their health. Code Enforcement agencies typically make an initial reply within the timeframe suggested by the proposed policy of 7 days, and often within 24 hours.

• However, property-owners may take longer to resolve complaints, potentially contributing to poor health outcomes, though more data is needed.

• Tenants reported a range of complaint resolution experiences, including: a repair was made the same day as the request, a property-manager charged the tenant for repairs, a property-manager required the tenant to make the repair, the tenant received an eviction notice or considered moving because the issue was unresolved, or the property-owner was unresponsive or hostile.

• The quality of repairs made – whether or not in response to a formal complaint to Code Enforcement – can lengthen the time exposed, or the re-occurrence of exposure to a problem. Code Enforcement agencies require that repairs are made to the minimum Uniform Housing Code and conduct an inspection after the repair is made to confirm this; however, tenants report a range of results, including: the tenant made the repair themselves, the property-owner did a quick but substandard job, and the property-owner painted over a problem.

VULNERABLE POPULATIONS

• Vulnerable populations in this HIA were defined as tenants/residents who are young children, elderly, undocumented, or low income.

• Many people comprising these populations live in households that pay a high proportion of their incomes to housing, have limited access to affordable housing, experience fair or poor health status, and encounter health and safety hazards.

• Focus group and survey respondents described young children getting sick from issues like fumigation odors or dampness in their housing.

• Respondents stated that property-managers sometimes make comments encouraging low-income tenants to move or threaten undocumented tenants with contacting police. Fear of such actions discouraged some tenants from seeking repairs for habitability issues.

• Past tenant education has been successful according to one respondent; however, almost unanimously, respondents said they were not aware of their rights as tenants.
III.A.4.1. Habitability Complaints | Exposure to Health and Safety Hazards and Stress

Legal Aid of Marin (LAM) tracks the number of cases they process around habitability issues, which are recorded as part of a larger category called “property-owner/tenant cases” described in Table 11. Conservatively, at least one-fifth of LAM’s “property-owner/tenant cases” involve habitability issues, with others pertaining to foreclosure, failure to pay rent, and discrimination.

| Table 11. Legal Aid of Marin Property-Owner/Tenant Cases in Marin County, 2010-2012 |
|-----------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|                                   | Closed Cases    | Cases that Remain Open |
| All property-owner/tenant cases   | 438  | 396  | 86   | 3    | 18   | 36    |
| Approximate # habitability cases  | 87   | 79   | 17   | --   | --   | --    |

LAM’s property-owner/tenant cases, which include habitability complaints, can take a number of routes. Habitability cases frequently involve issues around conditions that are not up to code. LAM uses a mix of approaches in working with property-managers and apartment owners to address complaints. They may include negotiations with litigation (approximately 40% of cases), negotiation without litigation, and sometimes, albeit infrequently (5-10% of cases), involve directly contacting Code Enforcement. Typically, if LAM looks to involve Code Enforcement it is when the property-owner is unresponsive, in their opinion, to working out a resolution.

Complaint data from Code Enforcement agencies demonstrates that habitability issues persist across all jurisdictions, and that the complaints made represent only a fraction of the problem, as tenants may be fearful of repercussions. Importantly, regardless of how complaints are categorized, many types of violations can have health and safety implications. For this HIA, we collected data on different types of habitability complaints, and specifically those related to health and safety. In data provided by the agencies (see Table 12), the number of complaints about potential health and safety violations made from all sources to Marin County Code Enforcement increased most recently, while those made to Code Enforcement in San Rafael decreased. In Novato, Code Enforcement staff suggested that the number stayed approximately the same during recent years.

Apart from the absolute number of health and safety complaints, the proportion that comprise all residential complaints is informative in painting the bigger picture of Code Enforcement complaints over time. They were as follows:

- Marin County: The proportion of all residential complaints that are for health and safety issues decreased between 2009 and 2010, from 38% of residential complaints to 22%. Information for 2011 was not provided for this report.
- San Rafael: From 2009-2011, there was a slight increase in the proportion of residential complaints for health and safety, then a decrease, at 13%, 18%, and 15%, respectively.
Novato: Information is not available for complaints about health and safety issues alone. Together, potential health and safety issues, building issues, and illegal unit complaints, comprised approximately 10% of all complaints (not just residential) made to Code Enforcement from 2009-2011. This totals up to 240 complaints annually for the combined category of health and safety, building, and illegal unit issues.

Table 12. Complaints made to Code Enforcement about Potential Violations

<table>
<thead>
<tr>
<th></th>
<th>Marin County</th>
<th>San Rafael</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential complaints to Code Enforcement</td>
<td>81</td>
<td>88</td>
<td>b</td>
</tr>
<tr>
<td>Property maintenance</td>
<td>54</td>
<td>50</td>
<td>66</td>
</tr>
<tr>
<td>Building</td>
<td>11</td>
<td>3</td>
<td>14</td>
</tr>
<tr>
<td>Illegal units</td>
<td>b</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Housing</td>
<td>b</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Zoning</td>
<td>b</td>
<td>b</td>
<td>b</td>
</tr>
<tr>
<td>Health &amp; safety</td>
<td>31</td>
<td>20</td>
<td>35</td>
</tr>
<tr>
<td>Other</td>
<td>b</td>
<td>b</td>
<td>b</td>
</tr>
</tbody>
</table>

a sub-categories do not equal the number of total residential complaints to Code Enforcement. In some Code Enforcement departments, for example at the County, this is due to cases being cancelled by complainant, or being unable to contact the complainant.
b information was not provided.
c of the up to 2,400 requests made annually to Code Enforcement (not only residential), 10% are for illegal units, building, and health & safety combined.
d of the up to 2,400 requests made annually to Code Enforcement (not only residential), 55% are for inoperable vehicles, animals, parking, graffiti combined, which includes these categories.
e Regardless of how complaints are categorized, many types of violations can have health and safety implications. For this HIA, we collected data on different types of habitability complaints, and specifically those related to health and safety, which included the five common habitability complaint categories identified by the Advisory Committee and focused on in this report.

Sources: Staff at Code Enforcement agencies in Marin County, San Rafael, Novato, 2012.
Code Enforcement staff for Marin County also collect health and safety data by sub-category, and were able to provide information about the common complaint areas focused on in this report (see Table 13). In recent years, of the health issues queried for this report, mold and vector issues have been the most common, followed by plumbing/heat/electric, and sewage problems.

Table 13. Complaints made to County Code Enforcement, by Health and Safety Type

<table>
<thead>
<tr>
<th>Health and safety</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mold</td>
<td>28</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Plumbing / heat / electric</td>
<td>21</td>
<td>8</td>
<td>17</td>
</tr>
<tr>
<td>Sewage</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Vector</td>
<td>21</td>
<td>14</td>
<td>22</td>
</tr>
</tbody>
</table>

* sub-categories do not equal the number of total residential complaints to Code Enforcement, due to cases being cancelled by complainant, or being unable to contact the complainant.

Sources: Staff at Code Enforcement agencies in Marin County, 2012.

**KEY FINDINGS:** Tenant complaints regarding habitability conditions are a proxy measure of exposure to health hazards in the home. Complaints persist over the years in each of the three jurisdictions, based on available data, the collection of which could be improved.

However, not all complaints reach Code Enforcement departments. A department often will ask a tenant registering a complaint if they have contacted the property-manager and/or property-owner about the issue. If the answer is no, the tenant will be advised to do so before completing registration of a formal complaint with the department. To corroborate the information collected by departments, and to provide examples of housing issues experienced or heard about from tenants – information that may not reach Code Enforcement departments – we held focus groups with tenants. These tenants, who were also community health educators or “promotoras”, also collected data from the community through a survey. In those focus groups, vectors were mentioned most often (in particular cockroaches) and, although less frequent, bed bugs.

Another common complaint was mold on walls throughout the homes and in bathrooms. Other frequently voiced complaints were an unresponsive or very slow to respond property-manager and broken stoves. Although mentioned less often, additional complaints included: old or dirty carpet, smells caused by gas leaks and coming from the canal waterway, poison left behind after fumigation, broken heaters or lacking hot water, broken or insufficient laundry machines, workers or property-managers entering units without notice and with tenants sleeping, drainage issues, water leaks, dirty water, holes in the ceiling or roof, uneven kitchen floor, broken refrigerator, and although not specific to units, neighborhood safety.

Two hindrances to seeking Code Enforcement help were the presence of a property-manager during an inspection process, and an inspector and tenant speaking different languages. Tenants stated that when there is an inspection, the manager is next to the inspectors more often than not. Also tenants
noted that when the manager knows there will be an inspection, he or she may quickly do the necessary repairs, but may do them shoddily, potentially not solving the problem. Tenants also stated that they do not feel comfortable talking to the inspectors because the manager is present; also the inspectors may not speak Spanish. Property-managers may also steer the inspector only to certain units without significant problems as part of an affirmative program.

**KEY FINDINGS:** Potential barriers to the Code Enforcement inspection process during reactive complaint-based inspections include presence of a property-manager, language differences between the inspector and tenant, and efforts by property-managers to hide issues. In proactive inspection programs, some property-managers may selectively show inspectors units, hiding those with potential habitability issues that contribute to adverse health outcomes.

Focus group participants and survey respondents described a range of health impacts caused by living with health and safety issues in their homes, time taken to get repairs, and interactions with property-managers, property-owners, and sometimes Code Enforcement staff. The impact most frequently described was stress, which related to a lack of trust, demoralization, and fear of speaking up. Other frequently mentioned health impacts were emotional issues, respiratory issues, and sickness, as well as allergy or asthma, and various types of illness, including headaches or bloody noses related to fumigation, skin rashes, and persistent sickness.

In this context, fear and the associated stress also have indirect health impacts in terms of tenant willingness – or lack thereof – to request a repair and therefore continue living in substandard conditions. Some tenants described notifying a property-manager immediately of any needed repairs, while others described reluctance or said they no longer contact the property-manager in anticipation of a negative response. Barriers to contacting management that tenants identified often focused on a fear of retribution for a complaint, as severe as a threat to their legal status or eviction. One tenant described a property-manager who said he would call the police if the tenant complained again. Another tenant explained, “[The property-manager] said that if we do not like how we live we can move to another place.” Additional reasons tenants described for not contacting management included the perception that management was slow or unresponsive and past experience that the management was not knowledgeable about how to make the repair and/or was hesitant to allow an outside contractor to fix it.

Focus group participants and survey respondents also described stress and indirect health impacts related both to costs associated with making repairs and barriers in communicating with property-managers or property-owners about a need for repairs. With respect to costs, tenants described paying for repairs out-of-pocket in a number of examples, using money that otherwise could be used to support health-promoting behaviors. One focus group participant said, “With the roach problem, we fumigated out of our own pocket. We have been complaining for over a year and a half now.” A survey respondent describing a response to vectors said, “I had to look out for my kids in the wee hours, had to look through every inch of my apartment and I fumigated the apartment – it cost me $100.” Also on the topic of cost, a focus group participant explained that the property-manager often increases rent or other monthly costs because of a repair. The participant said, “When a repair is needed, our rent usually goes up $25.00 or we have to start paying water and garbage.”

With respect to communication, focus group and survey participants described barriers to communication with property-managers or property-owners. One tenant described that it was not a language issue saying, “The manager is Latino and he doesn’t care for his own people,” and another
tenant responding to a question about obstacles in housing offered, “Maybe because the manager is from Chile.” These comments suggest that language alone does not account for gaps in communication between tenants and their property-managers or property-owners.

**KEY FINDINGS:** Tenants experience stress due to fear of retribution for placing complaints. Retribution may include increased rents, charges for repairs, and threats of eviction or deportation by the property-manager or property-owner.

### III.A.4.2. Complaint Response Times and Resolutions | Time Exposed to Hazards

The longer a person is exposed to substandard housing conditions, the greater the impact on their health. Therefore, it is important to understand how long it takes for each of the following: Code Enforcement inspectors to make an initial reply to a complaint, inspectors to conduct an evaluation, and property-managers or property-owners to take action around issues confirmed by the inspectors.

The average length of time for inspectors to make an initial inquiry into complaints varies by jurisdiction, based on the information provided by Code Enforcement offices and the key informant inspector interviewed for this report. Overall, the three jurisdictions make an initial inquiry into a complaint within seven days for non-emergency health and safety complaints and either the same day or within 24 hours for emergency situations, some averaging as quickly as within 7 hours. Specifically:

- **Marin County:** Took 1.4 days on average for an initial reply in both 2009 and 2010; and 7 hours on average in 2011.
- **City of San Rafael:** Initial reply within 24 hours to all calls or emails.
- **City of Novato:** Initial reply within 24 hours for high priority complaints that are critical to health and safety (e.g., fire hazard or lack of heating), and generally within 7 calendar days for health and safety complaints that are lower priority (e.g., inoperable vehicles or illegal signs).

Agency responsiveness indicates an acknowledgment of receipt of the complaint and intention to evaluate. Discussions with Code Enforcement agencies suggest that the actual evaluation is done soon after the acknowledgment, and most often within the 7-day timeframe proposed under the policy in this HIA.

However, an initial inquiry into a complaint by Code Enforcement staff does not equal its resolution, which can take considerably more time and exacerbate consequences to health. There is substantial variation across Marin in terms of average times for property-owners to complete repairs.

On average, property-owners respond to defects cited by Code Enforcement staff as follows:

- **Marin County:** Resolved in an average of 28 days in 2009; 14 days in 2010; 108 days in 2011 (though this average was skewed by four cases that took 136-290 days to resolve, while the remaining cases were resolved between 30-90 days).
- **San Rafael:** Actual property-owner response times were not provided, although the required time is up to 90 days, depending on the repair that is needed.
- **Novato:** Exact response times also are not available, and Code Enforcement officials describe that most respond quickly within 7 days, depending on availability of the unit.
Code Enforcement staff generally described that all cases requiring repair are left open until resolved through a repair made up to code. Marin County closed all cases from 2009 through 2011 where a repair was needed for a health or safety violation. In San Rafael, specific data were not available, but the Code Enforcement staff stated that a case is left open until repairs are completed, which is monitored through the city’s review and permitting process. For Novato, staff described that all cases with repairs required would be closed eventually, noting that approximately 20 cases with repairs needed were still open at the end of the 2011 calendar year.

Providing an additional perspective, Legal Aid of Marin staff described that somewhere between 50-60% of their habitability cases are resolved successfully from their viewpoint, with action starting toward fixing the problem in approximately 60% of cases. Up to 20% of cases see eviction proceedings against the tenant, and in approximately 5% of cases the tenant sees their rent raised. LAM staff suggested that a core element contributing to successful resolution has been a reasonable level of communication between all parties and a discussion of possible consequences.

The key informant inspector described that typically a person in his role is not involved in the process long enough to see the final outcome. However, from what the inspector has seen, the most common outcome is the tenant and property-owner coming to terms and most issues being fixed, with only some situations ending in a tenant moving out due to eviction or a home being removed from the market for an issue (e.g., an illegal in-law unit). In the smaller subset of cases where a formal complaint to Code Enforcement originates with the tenant, the key informant said that typically the tenant will move out in the end, though it may take a year and a half to get to settlement through the legal system. If there is an eviction originating with the property-owner, based on habitability grounds, the inspector’s experience has been that the tenant will win and stay in the dwelling in the short term, though may move out a short time later.

Moving onto the quality of repairs made when needed, according to LAM, few owners or property managers involved in their habitability cases used a licensed contractor to make repairs, and often the work was not done up to code or was a temporary fix that required repair again in a short timeframe. This idea was echoed by the inspector who was a key informant for the HIA. The inspector explained that issues for repair can run the spectrum from relatively fast fixes to get a window lock that latches, place a protective cover plate on an electrical outlet, or fix caulking around a sink, to more time and resource intensive structural corrections, such as remedying mold growth in the walls of an apartment or a crack in a foundation. The most reasonable and proactive approach has been demonstrated by rental owners that maintain a reserve for repairs as a percentage of all rent received or avoiding deferred maintenance well in advance of an affirmative inspection program.

The inspector suggested that the quality of a repair is a subjective part of the process that goes on a case-by-case basis, adding that the Code Enforcement inspector typically oversees the process if owners make the repairs. In this inspector’s experience, generally, repairs done by owners are not of the same quality as those by licensed contractors. Tenant feedback reiterated that repairs are not always made properly. Responses often included that a problem was not fixed at all, only partially fixed or seemed fixed but soon thereafter needed repair again. Legal Aid of Marin has heard reports of property-owners using unlicensed contractors to make repairs, and that these repairs are not always the best quality. Repair issues being painted over instead of addressed properly, such as recurring mold, were frequently reported. Tenants in our focus group and the survey reported a
range of experiences with the quality of repairs: some are suitable, some are not done properly, some are partially fixed, and some seemed fixed but needed repairs again soon after.

**KEY FINDINGS:** Collectively, these findings illustrate variation in the length of time tenants are exposed to hazards, particularly depending on how long it takes for a repair to be made and the quality of that repair. A perspective offered by the inspector’s experience about tenants moving out as a resolution of a complaint suggest data collected by Code Enforcement agencies may not capture the range of outcomes to a habitability complaint.

Currently, none of the three Code Enforcement departments initiates evictions of tenants, but they differ in whether an ongoing eviction proceeding influences the inspection process. For example, the County and Novato will proceed with the inspection process regardless of eviction context, while San Rafael will suspend the process if an eviction process has commenced.

Given the shortage of housing in the County, how complaints are resolved and whether the housing remains part of the housing stock is an important question. Removal of a unit from the market due to habitability issues is rare. Code Enforcement staff reported the following on removal of units from the market due to habitability issues:

- Marin County: 0 units removed from the market in 2009-2011.
- San Rafael: Data on units removed from the market in 2009-2011 were unavailable.
- Novato: 1 unit removed from the market in 2011.

Similarly, LAM did not have any cases that involved housing removed from the market due to habitability issues.

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**Comparison Cases: The Cities of San Mateo & Redwood City**

In conversations with staff from Marin County and City Code Enforcement departments, agency staff expressed interest in understanding whether fellow departments of similar sizes follow the practices being recommended in this report. Accordingly, below is information based on interviews with staff from relevant agencies in the cities of San Mateo and Redwood City in California, which provide good comparison points for various Marin Code Enforcement agencies.

**Habitability:** Both San Mateo and Redwood City staff use a documented decision tree to determine the habitability of a unit. In the City of San Mateo it is based on Chapter 10 of the 1997 Uniform Housing Code. In Redwood City, staff uses the International Property Maintenance Code 2009 and the municipal code as their guides for when to get involved around habitability. For staff to get involved, the complaint must be about one of the following issues: vermin, heat, water or sewage, illegal units, and trash. For all other issues, tenants receive an information sheet about San Mateo County Health services, which has a housing program, and the State of California Department of Consumer Affairs’ guide on renter/owner rights.

**Staffing:** The City of San Mateo Code Enforcement staff includes one supervisor and three officers. Redwood City has fewer staff, with one Code Enforcement Officer and one Community Service Officer, but more people are involved overall thanks to additional efforts from six participants of a yearly volunteer program.

**Budget:** The budget in the City of San Mateo for 2012 is considerably higher than Marin County or
Novato (information was not available from San Rafael), at approximately $740,000 for 2012. Previously, the City of San Mateo received one-quarter of their Code Enforcement budget from the Redevelopment Agency, which like all others in the state has since been dissolved so. Budget information for Redwood City was not provided.

**Income:** Code Enforcement in the City of San Mateo collects fees that are sent to the General Fund, not the Code Enforcement department, although the recent addition of a compliance order may change that practice. Currently, San Mateo does not charge to do inspections.

**Code Enforcement response time:** The goal for the City of San Mateo Code Enforcement is to respond within 24-48 hours and that is met for more than 80% of cases the city addresses. Staff noted that it can be difficult to meet the timeframe if there is an absentee property-owner and a tenant isn’t available to give staff access to the unit. In Redwood City, a similar timeframe is adhered to, where emergency situations are responded to within 24 hours, and non-emergency situations within 48 hours both for response and inspection.

**Property-owner response time:** In the City of San Mateo the standard varies by violation, but for pressing health and safety issues is expected to be immediate. Information was unavailable for Redwood City.

**Eviction:** In the City of San Mateo, staff responds immediately for health and safety issues and requires the property-owner to correct violations accordingly; however, for other issues, if a tenant is being evicted in 30 days, staff will wait until the tenant vacates the unit to complete the inspection. In Redwood City, a correction must be made regardless of the status of the dwelling (e.g., occupied or unoccupied).

**Repair standards:** In both the City of San Mateo and Redwood City, timelines for repairs vary and ultimately are working toward compliance.

**Information tracked:** The City of San Mateo provides quarterly reports for City Council and regularly tracks the following pieces of information: time to send a letter, time to open a case and complete an inspection, time until repair is complete, and length of time a case is open. Redwood City tracks the property parcel and any information on the property history to work on cases.

**Proactive v. reactive inspections:** In the City of San Mateo, inspection is mostly reactive, though there are some instances of proactive inspection. In addition, the fire department previously handled apartment inspections but likely staff cuts may shift some of the responsibility back to Code Enforcement staff. Redwood City inspections are entirely reactive and complaint driven.

**Alignment with proposed policy:** Currently, the City of San Mateo may notify property-owners of a complaint at different junctures in the process: a) if it is about something inside the house that cannot be seen and requires additional information (e.g., redoing a kitchen without a permit), b) to send an abatement letter describing the remedy needed for a violation, c) to issue a citation or compliance order, if needed, when abatement has not been completed, d) an owner who has not remedied a situation must attend a hearing with the Community Improvement Commission. Similarly, Redwood City may notify property-owners at the following times: a) if responding to a complaint and the property-owner is there to grant permission to enter the property (though, as in San Mateo, a renter can give permission as well), b) to send notification to the owner or responsible party to make all corrections when a violation has been noted.
III.A.4.3. Vulnerable Populations

Broadly speaking, vulnerable populations can include the economically disadvantaged, racial/ethnic minorities, uninsured populations, children, the elderly, the homeless, individuals with chronic health conditions including severe mental illness, and those who are in the overlap of more than one of these categories. Interwoven with the existing conditions described earlier in this section is discussion of impacts to certain sub-populations particularly vulnerable to habitability issues.

For this HIA, focus group and survey respondents defined vulnerable populations as young children, undocumented tenants, and low-income populations. Tenants made comments about impacts to children that included, “Our children are the most vulnerable and they are breathing the poison from the fumigation,” or “My 1.5 year old got sick when the water came in through the ceiling and the carpet got wet.” The public health literature supports the idea that children are at risk, noting that children are particularly sensitive receptors who spend as much as 90% of their time indoors and suggesting the possible origins of many health risks can be traced to homes, schools, and other indoor environments.

Other respondents described vulnerability based on income status and based on documentation status. One tenant described, “There isn’t rent control. As Latinos we have no jobs, we need cheap rent so we need to put up with these living conditions.” Another described a barrier to reporting issues that needed repair saying, “Fear, the manager tells us we don’t have papers and we are afraid something may happen.” A tenant described the success of past education efforts saying, “Once we knew our rights as tenants we felt more confident to complain.” However, almost unanimously, focus group and survey participants said they were not aware of their rights as tenants.

Although not mentioned explicitly in focus group or survey respondent feedback, according to the public health literature, elderly tenants also reflect a vulnerable population as they are at increased risk for health impacts resulting from habitability issues.

**KEY FINDINGS:** Certain sub-populations that are particularly vulnerable to health issues and have a substantial presence in the jurisdictions of interest in this HIA could see improved health outcomes if the proposed policy were adopted.
III.B. IMPACT ANALYSIS FINDINGS

The table below summarizes the impacts of the proposed policy on following health determinant domains: 1) exposure to health and safety hazards, 2) length of times exposed to hazards, and 3) stress. For each of the three domains, we describe how the elements of the proposed policy would impact the domain among tenants, and we make an overall statement about predicted impacts on their health. We also describe impacts to vulnerable populations. To reiterate, the proposed policy contains the following elements targeted to Code Enforcement agencies:

- Conduct a neutral evaluation upon receiving a tenant complaint (i.e., do not notify property-owner before inspection)
- Conduct inspection within one week of receiving complaint
- Conduct inspection even if the property-owner has begun fixing the problem or has initiated eviction proceedings
- Require owners to complete repairs within a “reasonable” timeframe
- Require that repairs are completed up to standards of the Uniform Housing Code

Overall, we find that if the five policy components proposed by the Advisory Committee were adopted, we would anticipate a decrease in exposure to health hazards among tenants, the length of time they are exposed, and their stress levels. While all jurisdictions could improve their practices to improve health outcomes, we find that changes in San Rafael could have the most impact. This is due to San Rafael having the largest population, the highest proportion of renters, a deficit with regard to either presence or implementation of several of the policy components identified, and the existing vulnerability of residents due to social and economic issues.

Table 14. Analysis of Impacts and Benefits

<table>
<thead>
<tr>
<th>Health Determinant</th>
<th>Impacts and Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to health and safety hazards</td>
<td>Tenant complaints regarding habitability conditions are a proxy measure of exposure to health hazards in the home. Such hazards may include raw sewage, disease vectors (including cockroaches, mice, rats), electrical issues, heat issues, and dampness and mold.</td>
</tr>
<tr>
<td>Indicator: Number of complaints (complaint is a proxy for exposure)</td>
<td>Data from the three Code Enforcement agencies illustrate that housing quality and exposure to health hazards are persistent issues for tenants in Marin. Data for the past three years show that the number of complaints made to Code Enforcement about habitability-related health and safety conditions increased for the County, decreased in San Rafael, and stayed the same in Novato. Overall, approximately 46 to 84 health and safety complaints were made annually in the three jurisdictions, illustrating that tenant families throughout the county were potentially being exposed to health hazards in their homes.</td>
</tr>
<tr>
<td>Overall, we find that multiple components of the proposed policy would reduce tenant exposure to health and safety hazards. Primarily, by Code Enforcement staff conducting neutral evaluations (i.e., without the property-owner present or by being informed prior), tenants may be encouraged to disclose other potential health and safety issues to staff during the initial inspections, thereby identifying potential</td>
<td></td>
</tr>
</tbody>
</table>
hazards and reducing the likelihood of exposure. This is supported by anecdotal evidence from staff at the County Code Enforcement who described that when an informal policy was put in place to inspect any complaint it led to a higher number of complaints. From the perspective of this HIA, a tenant making a complaint about an issue unaddressed by a property-owner or property-manager is a step toward ensuring less exposure to the potential health hazard.

An even greater impact could be recognized if two supplementary actions are taken to support the neutral evaluations: 1) provide interpretation during inspections as needed, and 2) promote the neutral evaluation process among tenants. These actions could address language and knowledge barriers described during tenant focus groups and surveys.

| Length of time exposed to hazards | Exposure to a health hazard can be more deleterious to health the longer the length of exposure. Continued exposure to mold, vectors such as cockroaches and bedbugs, HVAC issues, and faulty infrastructure can lead to increased asthma, allergies, injuries, bites, and general sickness. If a complaint is attended to and resolved more quickly, there is less opportunity for the people exposed to become ill. For example, research shows that children with asthma who are allergic to cockroaches and exposed to high levels of cockroach allergen are at 3.4 times higher risk for hospitalization compared to those who are not, and one study reported that an estimated 37% of children are sensitive to the allergen. These children, when exposed for longer periods of time, run the risk of repeated asthma attacks. The additional hospitalization and care bring an associated cost in money and time for caregivers who take time from work or other activities to help get care for a sick child. While we have used allergies to cockroaches as an example, the same holds true of time exposed to a variety of complaints – the longer electrical systems are substandard, the more likelihood of a fire; the longer sewage outflows take place, the greater the likelihood of infection. |
| Indicators: | We find that the proposed policy components could decrease the length of exposure to a hazard by decreasing the amount of time it would take to conduct the initial Code Enforcement inspection, by requiring owners to complete repairs within a “reasonable” timeframe, and by requiring repairs irrespective of repair status or eviction proceedings. |
| Length of time before Code Enforcement evaluation is done | First, with respect to decreasing the amount of time to conduct the initial inspection, the proposed policy encourages Code Enforcement staff to conduct their evaluations within one week of receiving a complaint, regardless of property-owner action to start fixing the problem or if an eviction proceeding is in progress. Currently, the Code Enforcement agencies of the three jurisdictions all receive and confirm a health and safety complaint within that timeframe. For example: |
| Length of time before owner fixes the problem | • **County:** On average, Code Enforcement responded to complaints in 1.4 days in 2009 and 2010, and 0.3 days in 2011. Staff completes an evaluation regardless of context. |
| Quality of repair, i.e., will it recur and increase length of time exposed | • **San Rafael:** Code Enforcement responds within 24 hours to all calls or emails. However, evictions or repairs in progress could stop the evaluation process. |
• **Novato**: Code Enforcement responds within 24 hours for high-priority health and safety complaints and generally within 7 calendar days for lower priority complaints. They will complete an evaluation regardless of context.

More information is needed to clarify whether the initial reply by Code Enforcement signifies only an acknowledgement of receipt of the complaint or if it means an evaluation was done. If Code Enforcement agency data means the time it takes before an evaluation is done, then the component of the policy targeting response times at Code Enforcement agencies is unlikely to have an impact on the length of exposure to health hazards once a complaint has been made by a tenant. The exception would be for San Rafael, where inspections might not take place if repairs or eviction proceedings are underway. However, if the response times supplied indicate only when the agency acknowledges receipt of the complaint, this component of the policy would potentially have a positive impact on length of exposure to the complaint in all three jurisdictions.

Second, with respect to requiring owners to complete repairs within a “reasonable” timeframe, the policy could also impact length of time exposed to health hazards for tenants. All three jurisdictions require repairs to be made within a specified timeframe – though the range varied. Data on current property-owner response times were as follows:

- **County**: County staff reported that property-owners responded to complaints on average within 28 days in 2009, 14 days in 2010 and 108 days in 2011 (though this average was skewed; all but 4 cases were resolved between 30 - 90 days and 4 cases took 136 - 320 days).
- **San Rafael**: Property-owner response times were not provided.
- **Novato**: Exact response times are not available; however, Code Enforcement officials describe that most make an initial response quickly within 7 days.

Code Enforcement staff in the three jurisdictions described that all cases requiring repair were left open until resolved through a repair made up to code. All jurisdictions do a post-evaluation inspection to judge if the repair is up to code, and at that time will close the case. More specific data from the three jurisdictions about how cases were resolved would be helpful in understanding the resolution of complaints, and how many of those were duplicate complaints about an issue that previously was considered resolved. However, available data illustrate that:

- **County**: Marin County closed all cases from 2009 through 2011 where a repair was needed for a health or safety violation.
- **San Rafael**: Specific numbers were not available. Required times for resolution ranged from 30 to 90 days, depending on the repair needed. A case was left open until repairs were completed, which is monitored through the city’ review and permitting process.
- **Novato**: All cases with repairs required will be closed eventually. Approximately 20 cases with repairs to be made were open at the end of the 2011 calendar year.
Requiring repairs to be completed within a specified timeframe creates the largest potential benefit to decreasing the length of exposure to health hazards. By creating a definition of “reasonable” and using it to hold property-owners accountable, the length of time that tenants are being exposed to a health hazard could decrease most significantly.

The quality of the repairs made by property-owners can impact health by increasing the length of time and recurrence of exposure to the complaint. A substandard repair to an elevator is likely to break again; painting over mold does not decrease tenant exposure to it; using low-quality materials or rushing through a repair to a roof increases the likelihood that the “fix” won’t hold and tenants will be re-exposed at some point. Repeated exposure is equivalent to lengthening the exposure. While all three jurisdictions require that repairs are made up to Uniform Housing Code, anecdotal evidence from tenants and Legal Aid of Marin suggests that the quality of repairs runs the spectrum from repairs not being made at all to those made but not up to code to repairs completed that are up to code. Tenants collectively described a range of resolutions to the issues described, including that a property-owner made the repair the same day it was requested, tenants fixed the issue themselves, the issue was fixed but tenants were charged for it, tenants considered moving, that the issue remained unresolved, and that the tenant was threatened with eviction. Feedback from the key informant inspector suggested that repairs made by owners typically are not done to the same quality as those made by contractors, though that is not always the case. However, the written policy of each jurisdiction is that repairs are made up to code. Therefore, the component of the policy that requires that all repairs are done up to standards of the code and, where possible, made by a contractor is unlikely to impact enforcement in each of the three jurisdictions. In practice, enforcement includes a level of judgment about the context of a given situation, and there can be variation in what passes code.¹²⁶

Last, the component of the policy related to conducting an inspection even if the property-owner has begun fixing the problem or has initiated eviction proceedings may also influence length of exposure to health hazards – particularly in San Rafael, where it appears that inspections are not conducted if a property-owner has begun repairs or an eviction proceeding is ongoing. With respect to evictions, tenants may still reside in the home and may be exposed to a hazard during the proceedings. By conducting an inspection irrespective of the eviction, tenant exposures may be addressed more quickly. Similarly, if an inspection has not been conducted, and a property-owner has begun repairs, the property-owner may not understand the extent of repairs necessary and may not address the root of the hazard. Combined with the component that would require the property-owner to address the complaint within a reasonable time frame, conducting an inspection even if the property-owner has initiated repairs would ensure that the repairs are documented and finished, Finally, even if the current tenant is evicted for legitimate reasons, the next tenant would be exposed to the problem if there has been no action by Code Enforcement.
Stress Indicator: Perceptions of stress

Tenants shared that they experience stress due to: fear of retribution by a property-owner for bringing up complaints such as increased costs and threatened eviction or deportation, length of time it takes to have the complaints resolved, and poor quality of repairs.

The neutral evaluation aspect of the proposed policy provides that property-owners are not immediately contacted when a complaint is placed to Code Enforcement. The current practice with respect to neutral evaluations is as follows:

- **County:** Marin County conducts neutral evaluations after receiving tenant complaints.
- **San Rafael:** Code Enforcement practice, as perceived through tenant and LAM experience, is to notify property-owners upon receiving a tenant complaint; however, stated policy is to conduct neutral evaluation. Property-owners are invited to be present at inspections, but are not required to be present in order for the inspection to take place.
- **Novato:** Code Enforcement notifies known property-owners upon receiving a tenant complaint if they participate in the City’s affirmative inspection program. Those property-owners are invited to be present at inspections, but are not required to be present in order for the inspection to take place.

Overall, we anticipate that the neutral evaluation component of the policy, if implemented in all three jurisdictions, would serve to alleviate stress among tenants. However, it is noteworthy that the neutral evaluation aspect of the proposed policy targets only Code Enforcement and would not impact property-manager or property-owner response time – a key source of stress.

Feedback from tenant focus groups suggested fear of backlash from property-managers was a key factor in deterring tenants from placing complaints. Tenants expressed frustration at having inspections with property-managers present, and described health outcomes that included stress, anxiety, and fear around possible repercussions from property-managers or property-owners. Threats have included actions as severe as eviction, which can have far-reaching impacts on physical, mental, and emotional health if a tenant or family is without a place to live, or continues to live in sub-standard housing. The policy component of conducting neutral evaluation would allay some of those fears and could reduce the associated health outcomes by providing tenants with a level of protection against property-owner or property-manager backlash. With decreased fear of retribution and eviction, more tenants may feel comfortable filing complaints and thus not live with ongoing exposure to habitability hazards.

The policy component requiring that repairs be made within a reasonable timeframe would decrease the stress of living with poorly maintained units for an extended period of time, and reduce struggles tenants have holding property-owners accountable. The policy component requiring that repairs be made up to code would decrease stress caused by the re-occurrence of maintenance problems that tenants already fought to have addressed.
Vulnerable populations are those who are more sensitive to the impacts of a policy, either because they have some underlying health condition or because they are unable to control their exposure to health hazards when compared to the general population. The proposed policy could have the following impacts on vulnerable populations:

**Young children:** Young children who spend substantial amounts of time indoors and are considered sensitive receptors for respiratory disease could see an improvement in health outcomes from spending less time living in sub-standard conditions, particularly those related to allergies to disease vectors and mold growth, due to implementation of the policy components. Young children could also suffer less injury if repairs are done up to code with good quality.

**Elderly:** Like young children, many elderly tenants spend substantial amounts of time indoors. Faster resolution of complaints, particularly those related to repairs that could avoid injury, would likely improve health among older populations.

**Undocumented tenants:** The neutral evaluation aspect of the policy, in particular, could reduce fear and stress-related health outcomes among undocumented tenants. It could also encourage those living in sub-standard conditions to contact their property-owners about repairs, and if necessary Code Enforcement departments, which would speed repair and resolution of the complaints.

**Low-income population:** Across the County, there is more demand than available housing supply. Low-income populations living in sub-standard conditions but who do not have alternative places to move, stand to see great improvements in health from faster resolution of complaints.
Summary of Impact Analysis Findings

The table below summarizes impacts of the proposed policy on our scoping categories of interest, and describes the direction, magnitude, and severity of impacts, as well as the strength of the evidence.

Table 15. Summary of Impacts Analysis

<table>
<thead>
<tr>
<th>Health Determinants</th>
<th>Direction of Impact</th>
<th>Magnitude of Impact (i.e., how many)</th>
<th>Severity of Impact (i.e., how good or bad)</th>
<th>Strength of Causal Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exposure to health and safety hazards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Moderate</td>
<td>♦♦</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of time exposed to hazards</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Moderate</td>
<td>♦</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stress</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>~</td>
<td>N/A</td>
<td>Minor</td>
<td>♦♦</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vulnerable populations (young, elderly, undocumented, low-income)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marin County</td>
<td>+</td>
<td>Moderate</td>
<td>Moderate</td>
<td>♦♦</td>
</tr>
<tr>
<td>San Rafael</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Novato</td>
<td>+</td>
<td>Moderate</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Explanations:
- **Direction of Impact** refers to whether the policy will positively (+), negatively (-), or not (~) impact health determinants.
- **Magnitude of Impact** reflects a qualitative judgment of the size (i.e., number of people impacted) of the anticipated change in health determinant effect: Negligible, Minor, Moderate, Major.
- **Severity of Impact** reflects the nature of the effect on health determinants and its permanence: High = intense/severe; Mod = Moderate; Low = not intense or severe.
- **Strength of Causal Evidence** refers to the strength of the research/evidence showing causal relationship between the alternatives and the health determinants: • = plausible but insufficient evidence; •• = likely but more evidence needed; ••• = high degree of confidence in causal relationship. A causal effect means that the effect is likely to occur, irrespective of the magnitude and severity.
IV. RECOMMENDATIONS

As described above, while some aspects of the proposed policy already are being met, there are other opportunities to improve health through Code Enforcement activities. In addition, though not included in the proposed policy components assessed in the HIA, there are a number of missed opportunities to improve communication between tenants and both Code Enforcement staff and property-managers or property-owners. To address these gaps, based on the research findings and impacts described above, we identify and suggest recommendations of changes to improve the policy proposed here. The final recommendations included below were reviewed and modified by the Advisory Committee.

Overall, the goal of these recommendations is to mitigate identified negative impacts such that resident health can be protected and promoted. To the extent possible, recommendations are written to be feasible, actionable, measurable, able to be monitored, and preferably agreeable.

The recommendations are divided into three groups: a set of priority recommendations for adoption by Code Enforcement agencies, a second tier that describes potentially useful but less urgent actions Code Enforcement agencies can take, and a third set of recommendations for Marin Healthy Homes Project partners to undertake while Code Enforcement agencies work on Tiers I and II. Within each tier, the report authors prioritized the recommendations by importance.

I. Priority recommendations to Code Enforcement agencies (listed by priority)

1. **Adopt the policy proposed in this HLA.** By Q1 2013, adopt the policy as described in this report, including the components of the policy that are not already practiced in a jurisdiction.

2. **Define reasonable timeframe.** Define what is considered a reasonable timeframe for each category of violations (see an example Table 2 in Appendix 3). Timeframes should be defined for:
   a. Initial reply by a Code Enforcement agency to a health and safety complaint in residential dwellings
   b. Completed evaluation by Code Enforcement agencies in response to a health and safety complaint
   c. Property-owners to complete a final repair of said complaint once it has been identified for repair by the Code Enforcement agency

3. **Consider tracking information.** By Q2 2013, consider tracking the following information as part of a regular monitoring program, if not already tracked and reported:
   a. Average time for initial reply by Code Enforcement to health and safety complaint
   b. Average time for inspection to be completed by Code Enforcement for health and safety complaint
   c. Average time for results of inspection to be communicated to property-owner
   d. Average time for property-owner completion of repair up to code
   e. Type of repair required for health and safety complaint
   f. Type of repair made for health and safety complaint
   g. Final resolution of health and safety complaint
   h. Subsequent complaints made about a problem that was already repaired

4. **Transparency of policies and fees.** By Q2 2013, Code Enforcement shall track and publish online (e.g., on agency websites) aforementioned policies relevant to property-owners and tenants,
timeframes required for different categories of repairs, process for inspections, and the fees charged, if any, to complete Code Enforcement and all inspections.

5. **Annual reporting.** By Q1 2014, begin working to create an annual, publicly available report of data about health and safety complaints, including but not limited to the information listed in the previous bullet. Explore the feasibility of, and if possible, present the report to the City Council or County Board of Supervisors.

6. **Pre-printed inspection checklist.** By Q1 2014, implement the use of a pre-printed inspection checklist that is consistent for all jurisdictions.

7. **Interpreters during inspections.** By Q1 2014, provide interpretation services to any tenant who places a formal complaint with Code Enforcement and requests interpretations. Interpreters shall be available in any languages relevant for tenant populations (e.g., English, Spanish, Vietnamese, or others as appropriate), and tenants shall not be charged for the use of this service.

II. **Code Enforcement recommendations for further discussion (listed by priority)**

1. **Consider re-structuring fee program.** By the start of the next budget cycle, consider re-structuring fees (e.g., cost recovery fees, re-inspection fees, increasing fees overall) to fully fund inspection efforts to be self-sustaining. Also consider feasibility of fees being paid directly for Code Enforcement expenses instead of going into the jurisdiction’s General Fund.

2. **Electronic database.** For the next budget cycle, investigate the fiscal, staff, and time needs to establish and/or expand an electronic database of Code Enforcement data, if one is not already in place. Look to staff at nearby jurisdictions that have recently implemented electronic tracking systems (e.g., Marin County’s Community Development Agency) for guidance and lessons learned.

3. **Mobile data collection and tracking.** Provide inspectors with mobile devices to facilitate data collection and minimize data entry time and cost. These devices could feed directly into the electronic database (#2). Neighboring jurisdictions may be able to provide insight on how to go about streamlining data collection and entry.

4. **Proactive Code Enforcement.** For jurisdictions other than the three under consideration in this report, consider establishing a proactive housing inspection program on a 1–3 year rotating basis. Look to models in neighboring Marin County jurisdictions such as San Rafael and Novato, and nationwide.

5. **Bay Area Code Enforcement listserv.** To facilitate inter-agency communication, establish a listserv for Bay Area Code Enforcement agencies by September 1, 2012. Agencies can share information and tips on best practices. If a listserv already exists, all three agencies should join, if not already members, and participate in the listserv.

III. **Recommendations to the Marin Healthy Homes Project (listed by priority)**

1. **Education campaigns.** By January 1, 2013, begin to determine consistent funding sources, partner organizations, and appropriate groups to take the lead on establishing the following:
   a. **Property-owner education campaign.** A joint campaign of Code Enforcement agencies with either Marin Healthy Homes Project or Legal Aid of Marin to notify and engage property-owners about current Code Enforcement procedure and recent changes to policies.
   b. **Tenant education campaign.** A tenant education campaign on general tenant rights and tenant responsibilities and obligations, the existence of neutral evaluation, and
appropriate and inappropriate charges to tenants, to promote knowledge and power among tenants and reduce exposures to health and safety hazards. The campaign should be in any languages relevant for tenant populations (e.g., English, Spanish, Vietnamese, or others as appropriate).

2. *Transparency of charging tenants for repairs.* By September 1, 2012, Legal Aid of Marin shall provide Code Enforcement agencies with a release that tenants can sign to give agencies and LAM the right to discuss the details of their case. Doing so may enable faster communication around issues, for example, if tenants are incorrectly charged by property-owners for repairs.

3. *Mandatory contact of advocates.* By September 1, 2012, Legal Aid of Marin shall establish a system with Code Enforcement agencies where agencies give tenants the contact information for LAM when eviction proceedings have been initiated against them.

4. *Final evaluation.* By Q1 2013, develop a final tenant evaluation that Code Enforcement agencies can use to complement inspector reports of final repairs.
V. LIMITATIONS

There were a variety of limitations to this HIA, including a lack of available data and resources to conduct the HIA.

Available data. Often data that were readily available, for example on health conditions, were not at a geographic level to enable making predictions about changes for a specific community. For example, unintentional injury data were available for the County, but not easily available for specific jurisdictions, or were not disaggregated by pest bites, falls, and other types of injuries that result from habitability complaints. Code Enforcement agencies collect data; however, they each collect slightly different information, which makes comparisons between jurisdictions a challenge. Finally, data that would have been valuable to this HIA are not yet collected by agencies. For this reason, the HIA recommends improvements in data tracking by Code Enforcement agencies.

HIA resources. Working within the available funding, the team developed a “limited scope” HIA that focused on answering a narrow number of research questions and precluded more intensive primary data collection. For example, our focus group and subsequent informal survey centered on tenants living in only one of our jurisdictions. While the information provided was invaluable, with more resources, this could have been expanded to include tenants living in other relevant areas, where we may have learned of additional issues or gathered information to contrast and compare experiences of tenants across jurisdictions.

Despite these limitations, we received substantial cooperation from Code Enforcement officials in data collection as well as from other agencies, community organizations, tenants, and Legal Aid of Marin in discussions around the policy components and in creating recommendations that are appropriate to the Marin County context.
VI. MONITORING

The purpose of a Health Impact Assessment is to use research and recommendations to actually have an impact on decisions under review and on health and health determinants. Too often, research is conducted in such a way that it is unclear whether there are any resulting impacts. To that end, HIA includes a step – monitoring – to track: 1) the impact of the HIA on the decision in question, 2) the implementation of the decision, and 3) any determinants of health that may change as a result of decision implementation.

In the case of Code Enforcement policy in Marin County, we propose the following monitoring activities:

Monitoring the impact of this HIA on the decision: Legal Aid of Marin will be responsible for tracking any changes in policy or practice within the three jurisdictions that come as a result of the Healthy Homes project, and how much impact the HIA had on policy and practice changes.

Monitoring decision implementation: The indicators to monitor how any decisions are implemented will depend on the specific changes that each jurisdiction decides to make to their Code Enforcement policies. Examples include presence or absence of the property-owner or property-manager in Code Enforcement inspections, or contact with the property-owner prior to the first inspections.

Monitoring determinants of health: Many of the elements described in this HIA actually impact if tenants have negative or positive health outcomes. For example, whether a person is evicted, has to spend more money on their housing, has habitability complaints, is able to have those complaints resolved in a reasonable timeframe, or is not threatened or hassled when they complain – all are experiences that may directly or indirectly influence health. It will help to continue tracking basic information used in this HIA, such as the number of health and safety complaints, which could increase as a result of the policy encouraging tenants currently fearful or otherwise hesitant to report possible habitability violations.

The table below highlights a series of specific indicators that could be tracked, including the responsible agency to gather the data, how often the indicator should be tracked, and the data source. There are a myriad of confounding policies, practices, and behaviors that ultimately impact health outcomes. As such, it is beyond the scope of this HIA to track actual changes in health outcomes, such as asthma hospitalizations and injuries due to habitability complaints. With more time and substantially more funding, monitoring at this level could be done.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Responsible agency/ organization for gathering info</th>
<th>How often tracked</th>
<th>Data source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of health and safety complaints</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Annually</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Average length of time before initial reply to health and safety complaint by Code Enforcement staff</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Annually</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Measure</td>
<td>Reporting Organization</td>
<td>Frequency</td>
<td>Responsible Entities</td>
</tr>
<tr>
<td>------------------------------------------------------------------------</td>
<td>-------------------------------------------------------------</td>
<td>------------</td>
<td>-----------------------------------------------------------</td>
</tr>
<tr>
<td>Average length of time before first inspection of health and safety complaint by Code Enforcement staff</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Annually</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Average length of time before property-owner or property-manager repair approved by Code Enforcement</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Annually</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Proportion of inspections for health and safety complaint with property-owner or property-manager present</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Quarterly</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Number of retaliatory evictions initiated following health and safety complaint</td>
<td>Legal Aid of Marin</td>
<td>Annually</td>
<td>Code Enforcement agencies; Planning departments</td>
</tr>
<tr>
<td>Number of complaints that were reported again after repair</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Annually</td>
<td>Code Enforcement agencies</td>
</tr>
<tr>
<td>Proportion of inspections where inspector and tenant did not speak the same language</td>
<td>Legal Aid of Marin/Healthy Homes Project</td>
<td>Quarterly</td>
<td>Code Enforcement agencies; tenant interviews</td>
</tr>
</tbody>
</table>
VII. CONCLUSION

The history of Code Enforcement illustrates that the duties of these agencies arose out of a concern to protect public health from disease passed through overcrowded conditions, injuries due to poor maintenance, and illness due to vectors such as vermin and pests. These protections arose due to extreme negligence on the part of property-owners at the turn of the 20th century. In general, tenants who are most exposed to these conditions are those least able to speak up for themselves. In the context of modern day Marin County, Legal Aid of Marin speaks for them, promotoras speak for them, and community agencies speak for them.

Legal Aid of Marin and members of the Marin Healthy Homes Advisory Committee have been meeting with the three Code Enforcement agencies about ways to improve Code Enforcement policies and practices, with the ultimate goal to improve tenant health in the three jurisdictions. Our goals for this HIA are:

1. To address social determinants of health in low income Marin communities by reforming and improving code enforcement policies and practices.

2. To advocate before a minimum of three jurisdictions (San Rafael, Novato, and the County) for implementation of best practices based on the Health Impact Assessment.

We believe the findings and recommendations of this HIA can be used to further those discussions. Our research has shown that in the three jurisdictions we studied, Code Enforcement officials consider on a daily basis the issues that we raised. They work to respond quickly to complaints, do not serve as conduits for eviction, and are concerned about the most vulnerable tenants in their communities – the young and elderly, low-income communities of color, the undocumented – all who often experience ongoing health disparities. Our research also illustrates that the agencies could go farther in protecting the health of these tenants by facilitating communication between tenants and inspectors, protecting tenants from retaliation by property-owners, and ensuring that necessary repairs are made without financial punishment and in a reasonable time frame. The component of a new Marin Healthy Homes policy that would go the farthest toward this goal is establishing a practice of neutral evaluations.

The proposed policy components that were the subject of this HIA were chosen based on the experience of Legal Aid of Marin and the Marin Healthy Homes Advisory Committee members of living in and working with tenants in low-income portions of Marin County. The HIA found that components of the proposed policy were already being practiced and even exceeded expectations, while other components could be newly adopted based on information generated through this HIA. We hope that the HIA will serve as an ongoing tool for discussion with Code Enforcement agencies not only in the three jurisdictions in Marin County, but throughout all Marin County jurisdictions.
APPENDICES

Appendix 1: HIA Pathway Diagrams

Appendix 2: Final HIA Scope

Appendix 3: Example Timeframes for Hazard Abatement

Appendix 4: Relevant HIA Data Tables

   Table 4. Population Characteristics in Marin County, 2010
   Table 5. Place of Birth and Language Characteristics of Population in Marin County, 2006-2010
   Table 6. Race/ethnicity and Descent in Marin County, 2010
   Table 7. Median Household Income and Poverty in Marin County, 2010
   Table 8. Gross Rent as a Percentage of Household Income, 2006-2010
   Table 9. Housing and Overcrowding in Marin County, 2010
   Table 10. Lifetime Prevalence of Adult Asthma – Marin County, 2009

Appendix 5: Focus Group Guide
Appendix 1: HIA Pathway Diagrams

Code Enforcement Policy Pathways to Health

- Neutral evaluation
  - Δ eviction / fear of eviction
  - Δ residents’ transience
  - Δ premature mortality

- Evaluation done within 1 week of complaint
  - Δ scope of issues addressed
  - Δ property owner response to complaint
  - Δ social cohesion & educational outcomes
  - Δ injuries, disabilities, and death

- Evaluation done regardless of status of tenancy
  - Δ cost to tenants
  - Δ number of units w/ substandard repairs
  - Δ asthma, allergies

- Repairs must be finished in reasonable timeframe
  - Δ quality of repairs
  - Δ stress
  - Δ obesity and chronic disease (hypertension, diabetes, stroke)

- Repairs done to Code
  - Δ $ available for other health needs
  - Δ nutrition, access to health care and medicine
## Appendix 2: Final HIA Scope

<table>
<thead>
<tr>
<th>Project:</th>
<th>Marin Code Enforcement HIA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Geographic Scope:</strong></td>
<td>County of Marin, Cities of Novato and San Rafael</td>
</tr>
<tr>
<td><strong>Existing Conditions</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Research Questions</strong></td>
<td></td>
</tr>
</tbody>
</table>
| What are the health impacts of the 5 primary complaint categories selected? | How will the proposed policies impact exposure and these health outcomes? | List out the specific complaint categories (e.g., raw sewage, bugs or rats, electrical problems, heating issues, mold) | **Method:** Literature review  
**Data sources:** Peer-reviewed grey literature  
**Notes:** Include limited discussion of 1) how carpet relates to/exacerbates complaint categories 2) multiplicative effect of mold and pests 3) how pesticides used to deal with pests impacts complaint categories and 4) injuries/falls related to carpets, linoleum, fire escapes, railings, steps, elevators |
| What is the efficacy of current code enforcement in dealing with the 5 complaint categories? | How will the proposed policies impact that efficacy? | | **Method:** Literature review  
**Data sources:** Peer-reviewed grey literature  
**Notes:** The HIA also looks at the impact of the policies on tenant actions, in addition to code enforcement efficacy. Review literature to see what are the most effective interventions are and see how they line up with ours |
<table>
<thead>
<tr>
<th>Existing Conditions Research Questions</th>
<th>Impact Research Questions</th>
<th>Indicators</th>
<th>Methods, Data Sources, Notes</th>
</tr>
</thead>
</table>
| How many complaints are made to code enforcement agencies? | How would the proposed policies (and especially evaluations completed within 1 week) impact the number of complaints to code enforcement agencies? | Number of complaints by complaint type (e.g., raw sewage, bugs or rats, electrical problems, heating issues, mold) | Method: Quantitative data  
Data sources: Data from Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid |
| How many complaints that are made to code enforcement agencies are resolved? | How would the proposed policies impact the resolution of complaints to code enforcement agencies? How would the proposed policies impact the number of repairs made to the housing stock? | Number of inspections; Number of citations issued; Number of repairs recommended by complaint type; Number of findings where housing unit is deemed "uninhabitable" | Method: Quantitative data  
Data sources: Data from Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid |
| How many units are removed from the rental market due to habitability issues? | How would the proposed policies impact the removal of units from the rental market? | Number of findings where housing unit is deemed "uninhabitable"; Number of units deemed not habitable by code enforcement agencies | Method: Quantitative data  
Data sources: Data from Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid |
| What is the current length of time (on average) for inspectors to respond to complaints? | How will the proposed policies impact the length of time it takes for code enforcement to respond? | Average length of response time | Method: Quantitative data  
Data sources: Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid; Focus groups with tenants |
<table>
<thead>
<tr>
<th>Existing Conditions Research Questions</th>
<th>Impact Research Questions</th>
<th>Indicators</th>
<th>Methods, Data Sources, Notes</th>
</tr>
</thead>
</table>
| What is the current length of time (on average) for property-owners to respond to complaints? | How will the proposed policies (especially the threat of the evaluation) impact the length of time it takes for property-owners to respond? Will more property-owners be responsive and will more repairs be made? | Average length of response time | Methods: Quantitative data and focus groups  
Data sources: Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid; Focus groups with tenants |
| What is the current length of time (on average) for tenants to wait before placing complaints with property-owners? | How will the proposed policies impact the length of time it takes for tenants to place complaints? | Average length of time before complaint placed | Methods: Focus groups and interviews  
Data sources: Focus groups with tenants |
| To what extent are repairs done up to the Uniform Housing Code? Done by licensed contractors? How do repairs done by licensed contractors compare to those done by others, in terms of their code compliance? | How would the proposed policies impact whether repairs are done in compliance with the Uniform Housing Code and/or by a licensed contractor? How would the proposed policies impact the quality of repairs and the length of time they might last? |  | Methods: Quantitative data, focus groups, interviews  
Data sources: Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid; Focus groups with tenants; Interviews with contractors; Literature review |
<table>
<thead>
<tr>
<th>Existing Conditions Research Questions</th>
<th>Impact Research Questions</th>
<th>Indicators</th>
<th>Methods, Data Sources, Notes</th>
</tr>
</thead>
</table>
| To what extent are tenants cited by code enforcement for habitability issues? What are the main reasons for citations? What does it cost to tenants to make repairs? | How will the proposed policies impact whether tenants are cited, for what reasons, and at what costs? | Number of tenants citations, Categories of citations, Cost of repair for citations | Methods: Quantitative data and focus groups  
Data sources: Code Enforcement agencies from County of Marin, City of Novato, City of San Rafael; Marin Legal Aid |
| To what extent are renters evicted from housing because of habitability issues? | How would the proposed policies impact the number of evictions? | Number of evictions and reason for evictions | Methods: Quantitative data  
Data sources: Marin housing agencies?, Marin Legal Aid |
| What type of obstacles do code enforcement agencies face as they conduct their activities? | How would the proposed policies impact how code enforcement agencies conduct their activities?  
How would the proposed policies impact the fairness, transparency, and equity of code enforcement activities? | | Methods: Interviews and literature review  
Data sources: Interviews with code enforcement agencies; Peer-reviewed grey literature |
<table>
<thead>
<tr>
<th>Existing Conditions Research Questions</th>
<th>Impact Research Questions</th>
<th>Indicators</th>
<th>Methods, Data Sources, Notes</th>
</tr>
</thead>
</table>
| What resources do Code Enforcement agencies have to implement their activities? | How will the proposed policies impact code enforcement agencies' range of activities if the budget remained the same? | Budgets of Code Enforcement agencies; Number of staff; time each policy activity takes | Methods: Interviews w/ Marin CE agencies; review 4 county report - follow up with those agencies for comparison / guidance  
Data sources: Code Enforcement agencies; city/county documents online [NOTE: adopted 2012 budgets are online] |
| How many tenants relocate annually because of housing conditions? | How will the proposed policies impact the number of tenants who relocate annually due to issues with housing conditions? | Number of tenants who relocate | Methods: Quantitative data  
Data source: Code Enforcement agencies  
Note: This was raised during an Advisory Committee meeting. |
Appendix 3: Example Timeframes for Hazard Abatement

Table 2 below provides examples of prioritization categories for abatement of major hazard conditions. The prioritization is based on feedback from the private housing inspector interviewed for this HIA and staff at Legal Aid of Marin. The hazards in blue font indicate the most frequent habitability complaints reported to Legal Aid of Marin.

**Priority 1** Must be abated immediately (within 24 hours). A notice to abate will always be issued.
**Priority 2** Must be abated within 48 hours. A notice to abate will always be issued.
**Priority 3** Must be abated within 30 days.

<table>
<thead>
<tr>
<th>MECHANICAL</th>
<th>Priority 1 (abated within 24 hours)</th>
<th>Priority 2 (abated within 48 hours)</th>
<th>Priority 3 (abated within 30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Open gas lines, open flame heaters</td>
<td>• No heat</td>
<td>• Crimped gas lines, rubber gas connections</td>
</tr>
<tr>
<td></td>
<td>• Unvented heaters</td>
<td></td>
<td>• Damaged gas appliance</td>
</tr>
<tr>
<td></td>
<td>• Water heaters in sleeping rooms, bathrooms</td>
<td></td>
<td>• Flame impingement, soot</td>
</tr>
<tr>
<td></td>
<td>• No combustion chamber fire or vent hazard</td>
<td></td>
<td>• Dampers in gas heater vent pipes, no separation or clearance through or near combustible surfaces</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Water heater on garage floor</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PLUMBING</th>
<th>Priority 1 (abated within 24 hours)</th>
<th>Priority 2 (abated within 48 hours)</th>
<th>Priority 3 (abated within 30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Sewage overflow on surface</td>
<td>• Open sewers or waste lines</td>
<td>• Insanitary, inoperative fixtures; leaking toilets</td>
</tr>
<tr>
<td></td>
<td>• No hot water</td>
<td></td>
<td>• Leaks</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ELECTRICAL</th>
<th>Priority 1 (abated within 24 hours)</th>
<th>Priority 2 (abated within 48 hours)</th>
<th>Priority 3 (abated within 30 days)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Bare wiring, open splices, unprotected knife switches, exposed energized electrical parts</td>
<td>• Evidence of overheated conductors, including extension cords</td>
<td>• Improperly added wiring</td>
</tr>
<tr>
<td></td>
<td>• Evidence of overheated conductors, including extension cords</td>
<td>• Extension cords under rugs</td>
<td>• Open junction boxes, switches, outlets</td>
</tr>
<tr>
<td></td>
<td>• Extension cords under rugs</td>
<td></td>
<td>• Over-fused circuits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Stapled, cord wiring</td>
</tr>
</tbody>
</table>
### STRUCTURAL

<table>
<thead>
<tr>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(abated within 24 hours)</td>
<td>(abated within 48 hours)</td>
<td>(abated within 30 days)</td>
</tr>
<tr>
<td>• Collapsing structure</td>
<td>• Cracked glass, leaking roof, missing exterior doors or windows</td>
<td>• Exit egress requirements; fire safety</td>
</tr>
<tr>
<td>• Absence of handrail, loose, weakly-supported handrail</td>
<td></td>
<td>• Uneven walks, floors; tripping hazards</td>
</tr>
<tr>
<td>• Broken glass, posing threat of immediate injury</td>
<td></td>
<td>• Loose or insufficient supporting structural members</td>
</tr>
<tr>
<td>• Hazardous stairs</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### OTHER

<table>
<thead>
<tr>
<th>Priority 1</th>
<th>Priority 2</th>
<th>Priority 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(abated within 24 hours)</td>
<td>(abated within 48 hours)</td>
<td>(abated within 30 days)</td>
</tr>
<tr>
<td>• Wet garbage, rodent infestation, fecal materials on surface</td>
<td>• Black mold in sleeping areas</td>
<td>• Black mold in bathrooms</td>
</tr>
<tr>
<td>• Bedbug or cockroach infestation</td>
<td>• Standing water underneath building</td>
<td>• Broken-down fences or retaining walls</td>
</tr>
<tr>
<td>• Open wells or unattended swimming pools</td>
<td>• Significant quantity of debris</td>
<td>• Carpets constituting trip hazards or unsanitary carpets</td>
</tr>
<tr>
<td>• Abandoned refrigerators</td>
<td>• High, dry weeds next to combustible surfaces</td>
<td>• Abandoned vehicles</td>
</tr>
<tr>
<td>• Any items considered by inspector to constitute an immediate hazard</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Supporting HIA Data Tables

Table 4. Population Characteristics in Marin County, 2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael - all</th>
<th>San Rafael - Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>252,409</td>
<td>67,427</td>
<td>57,713</td>
<td>12,026</td>
<td>51,904</td>
</tr>
<tr>
<td>Under age 5</td>
<td>5.5%</td>
<td>4.7%</td>
<td>6.2%</td>
<td>9.9%</td>
<td>5.9%</td>
</tr>
<tr>
<td>Under age 15</td>
<td>17.3%</td>
<td>16.2%</td>
<td>16.4%</td>
<td>23.0%</td>
<td>18.8%</td>
</tr>
<tr>
<td>Age 65+</td>
<td>16.7%</td>
<td>16.6%</td>
<td>15.8%</td>
<td>4.4%</td>
<td>15.7%</td>
</tr>
<tr>
<td>Median age</td>
<td>44.5</td>
<td>42.5</td>
<td>40.2</td>
<td>29.4</td>
<td>42.6</td>
</tr>
</tbody>
</table>

Source: U.S. Census 2010.

Table 5. Place of Birth and Language Characteristics of Population in Marin County, 2006-2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael - all</th>
<th>San Rafael - Canal</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
<tr>
<td>Native born</td>
<td>201,756</td>
<td>81.2</td>
<td>56,616</td>
<td>84.3</td>
<td>41,348</td>
</tr>
<tr>
<td>Foreign born</td>
<td>46,845</td>
<td>18.8</td>
<td>10,545</td>
<td>15.7</td>
<td>15,582</td>
</tr>
<tr>
<td>Language spoken at home - English</td>
<td>180,329</td>
<td>76.9</td>
<td>50,646</td>
<td>79.8</td>
<td>34,770</td>
</tr>
<tr>
<td>Language spoken at home - other than English</td>
<td>54,154</td>
<td>23.1</td>
<td>12,823</td>
<td>20.2</td>
<td>18,419</td>
</tr>
<tr>
<td>Language spoken at home - other than English (Spanish)</td>
<td>28,630</td>
<td>12.2</td>
<td>6,002</td>
<td>9.5</td>
<td>13,048</td>
</tr>
<tr>
<td>Language spoken at home - other than English (other Indo-European)</td>
<td>16,249</td>
<td>6.9</td>
<td>4,731</td>
<td>7.5</td>
<td>2,807</td>
</tr>
<tr>
<td>Language spoken at home - other than English (Asian and Pacific Islander)</td>
<td>8,097</td>
<td>3.5</td>
<td>1,775</td>
<td>2.8</td>
<td>2,407</td>
</tr>
<tr>
<td>Language spoken at home - other than English (other languages)</td>
<td>1,178</td>
<td>0.5</td>
<td>315</td>
<td>0.5</td>
<td>157</td>
</tr>
</tbody>
</table>

Table 6. Race/ethnicity and Descent in Marin County, 2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael – all</th>
<th>San Rafael – Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>80.0%</td>
<td>81.7%</td>
<td>70.6%</td>
<td>41.0%</td>
<td>76.0%</td>
</tr>
<tr>
<td>African American</td>
<td>2.8%</td>
<td>5.4%</td>
<td>2.0%</td>
<td>1.8%</td>
<td>2.7%</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>0.6%</td>
<td>1.5%</td>
<td>1.2%</td>
<td>2.5%</td>
<td>0.6%</td>
</tr>
<tr>
<td>Asian</td>
<td>5.5%</td>
<td>4.9%</td>
<td>6.1%</td>
<td>5.5%</td>
<td>6.6%</td>
</tr>
<tr>
<td>Native Hawaiian and other Pacific Islander</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>0.2%</td>
</tr>
<tr>
<td>Other race</td>
<td>6.7%</td>
<td>3.7%</td>
<td>14.8%</td>
<td>42.0%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Two or more races</td>
<td>4.2%</td>
<td>3.6%</td>
<td>5.1%</td>
<td>6.9%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>15.5%</td>
<td>9.4%</td>
<td>30.0%</td>
<td>80.3%</td>
<td>21.3%</td>
</tr>
<tr>
<td>Total non-White</td>
<td>20.0%</td>
<td>18.3%</td>
<td>29.4%</td>
<td>59.0%</td>
<td>24.0%</td>
</tr>
</tbody>
</table>

Source: U.S. Census 2010.

Table 7. Median Household Income and Poverty in Marin County, 2006-2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael – all</th>
<th>San Rafael – Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median household income ($2010)</td>
<td>89,268</td>
<td>74,077</td>
<td>72,326</td>
<td>39,154</td>
<td>80,250</td>
</tr>
<tr>
<td>Population below poverty</td>
<td>7.0%</td>
<td>6.3%</td>
<td>10.3%</td>
<td>21.7%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Source: American Community Survey 2006-2010.

Table 8. Gross Rent as a Percentage of Household Income, 2006-2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael – all</th>
<th>San Rafael – Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occupied housing units paying rent</td>
<td>(n)</td>
<td>(%)</td>
<td>(n)</td>
<td>(%)</td>
<td>(n)</td>
</tr>
<tr>
<td>Less than 15%</td>
<td>4,068</td>
<td>11.4</td>
<td>854</td>
<td>11.9</td>
<td>1,127</td>
</tr>
<tr>
<td>15-19.9%</td>
<td>4,464</td>
<td>12.5</td>
<td>680</td>
<td>9.4</td>
<td>1,041</td>
</tr>
<tr>
<td>20.0-24.9%</td>
<td>4,043</td>
<td>11.3</td>
<td>804</td>
<td>11.2</td>
<td>1,157</td>
</tr>
<tr>
<td>25.0-29.9%</td>
<td>3,764</td>
<td>10.6</td>
<td>669</td>
<td>9.3</td>
<td>1,235</td>
</tr>
<tr>
<td>Less than 30%</td>
<td>16,339</td>
<td>45.9</td>
<td>3,007</td>
<td>41.7</td>
<td>4,560</td>
</tr>
<tr>
<td>30.0-34.9%</td>
<td>2,949</td>
<td>8.3</td>
<td>738</td>
<td>10.2</td>
<td>903</td>
</tr>
<tr>
<td>35.0% or more</td>
<td>16,335</td>
<td>45.9</td>
<td>3,459</td>
<td>48</td>
<td>4,955</td>
</tr>
<tr>
<td>More than 30%</td>
<td>19,284</td>
<td>54.1</td>
<td>4,197</td>
<td>58.3</td>
<td>5,858</td>
</tr>
</tbody>
</table>

Table 9. Housing and Overcrowding in Marin County, 2010

<table>
<thead>
<tr>
<th></th>
<th>Marin County – all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael - all</th>
<th>San Rafael – Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vacant or unoccupied rental housing (% of all occupied housing)</td>
<td>2.1%</td>
<td>1.7%</td>
<td>2.6%</td>
<td>0.6%</td>
<td>1.7%</td>
</tr>
<tr>
<td>Renter housing (% of all housing)</td>
<td>37.4%</td>
<td>31.2%</td>
<td>47.7%</td>
<td>75.6%</td>
<td>33.0%</td>
</tr>
<tr>
<td>Overcrowding (% renter-occupied housing units with 1+ person per room)</td>
<td>5.8%</td>
<td>2.6%</td>
<td>12.4%</td>
<td>34.9%</td>
<td>7.3%</td>
</tr>
</tbody>
</table>


Table 10. Lifetime Prevalence of Adult Asthma – Marin County, 2009

<table>
<thead>
<tr>
<th></th>
<th>Marin County - all</th>
<th>Marin County - unincorporated</th>
<th>San Rafael - all</th>
<th>San Rafael – Canal area</th>
<th>Novato</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult asthma lifetime prevalence</td>
<td>11.6%</td>
<td>14.3%</td>
<td>11.7%</td>
<td>4.7%</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

Source: County of Marin, Department of Health & Human Services, 2012.
Appendix 5: Focus Group Guide

Marin Code Enforcement – Focus Groups with Tenants
Moderator’s Guide and Questions

Location: 79 Belvedere Road, San Rafael; park in the adjacent lot
Time: 6-8pm; arrive at 5:30pm to set-up the recorder, can get there anytime before this and work in the conference room; has wireless Internet

Introduction
- Thank you for agreeing to participate in this focus group.
- Purpose – We want to talk about your experience renting. In particular, we’re interested in any issues around your landlord’s maintenance of your home that have impacted your health and safety. The bigger picture is that we are working on suggestions for ways to improve housing conditions in Marin through making Code Enforcement policies better for health. Code Enforcement is the city or county office that inspects houses if there are complaints made because a landlord has not fixed something.
- Why you? You were invited because you live in an apartment or housing complex that has had complaints made in the past, or because you have shared your story about having these kinds of problems.
- Our goal – to create a story from renters about how being unable to file complaints or get your housing problems fixed impacts their health. We also will talk with healthcare providers, and the opinions and feedback from both groups will be used in a report that will feed into a local campaign to change how Code Enforcement agencies address health issues.

Logistics
Confidentiality
- Participation is completely voluntary – folks can leave or choose not to participate at any time
- Discussion is totally confidential - will not report/describe comments by name - will not keep records of participants’ names/addresses
- Do not need to state full name or real name

Discussion
- There are no right or wrong answers so please feel free to be totally honest. We appreciate your input, and want to hear from all of you about experiences at work and how those experiences might relate to your health
- We hope the information can help identify ways to make city and county agencies more responsive to these daily concerns of tenants.

Process
- We will ask a few broad questions, but really are looking to hear from you
- My role is to guide the discussion – focus on some questions and let folks tell their stories
- Sometimes might have to move folks onto another question so we can get through it – or to give everyone a chance to speak - Please don’t take it personally!
- Not everyone has had the same experience, which is why this is so valuable to us, but also why we want to remind everyone to respect others’ experiences
- We will be talking together for about two hours
• Permission to audiotape? Want an accurate description of what was said; will also take notes, if that’s ok with folks.
• If folks agree to audiotape, will start recording after introductions
• Handing out information sheet with my contact information

Questions before starting?

Group introductions
Let’s go around the room and introduce ourselves.
  • My name is X.
  • I live in X (what apartment complex or neighborhood?)
  • One thing I like about the place I live is:
  • One thing I don’t like as much about the place I live is:

We would like to hear about your experiences trying to get your landlord to fix something in your home, and how this problem impacted your life.

1. Have you ever had anything wrong with your home that you tried to get your landlord to fix? What was the problem?
   
   Probe: If no, have you heard of others living in your area or apartment complex who have had a problem they tried to get the landlord to fix? Please describe.

2. Would you say that this problem impacted your health or the health of others living in the home, in any way? If so, how? Please describe whether related health problems have been resolved, and if so, what you had to do to resolve them.

3. How long did it take between when you noticed the problem and when you notified your landlord? Did you have obstacles to doing that, and if so what were they? How many times did you notify your landlord of the problem?

4. Has your landlord ever threatened to evict you because you asked him/her to make a repair? If more than once, how many times? Have you ever experienced any other repercussions from asking for repairs?

5. How long did it take before your landlord fixed the problem? Please describe any actions you or others took to get that to happen.

6. Have you ever filed a complaint with a Code Enforcement agency? If so, please describe your experience. Who helped you file the complaint, if anyone? In your opinion, was the complaint sufficiently resolved?

7. What was the process you went through with the Code Enforcement agency? Did they come and do an inspection? Did it take a long time before they came? Did you feel they were fair? Do you know if they communicated with the landlord?
8. What are some of the obstacles to complaining to Code Enforcement? Or knowing what your rights are?

9. If a landlord fixed your home, how was the quality of the repairs? Do you know if they hired a licensed contractor to make the repairs?

10. What knowledge do you have about housing resources in the community? Where do you go for information?

11. As we wrap up, what other information do you think it would be helpful for us to know about tenants who have had complaints with the conditions of their apartments or homes?

The information from this group will be used in our report on housing and health and to make recommendations to Code Enforcement agencies in Marin. Thank you for your participation.
REFERENCES

6 Krieger & Higgins, ibid.
8 Krieger & Higgins, ibid.
17 American Rivers. (n.d.) The health risks of untreated sewage. Washington, DC.
20 Jacobs & Baeder, ibid.
23 Sandel, et al., ibid.
24 Jacobs & Baeder, ibid.
20 Jacobs & Baeder, ibid.
21 Jacobs & Baeder, ibid.
22 Jacobs & Baeder, ibid.
23 Jacobs & Baeder, ibid.
24 Jacobs & Baeder, ibid.
25 Jacobs & Baeder, ibid.

26 University of California Health Impact Group. 2009. HOPE VI to HOPE SF: San Francisco public housing development, a health impact assessment. Available at: http://www.humanimpact.org/doc-lib/finish/7/96
27 University of California Health Impact Group, ibid.
29 Hall Jr., ibid.
31 National Center for Medical-Legal Partnership, ibid.
32 National Center for Medical-Legal Partnership, ibid.
33 National Center for Medical-Legal Partnership, ibid.
34 Krieger & Higgins, ibid.
35 World Health Organization, ibid.
37 World Health Organization, ibid.
41 Reid, et al., ibid.
64 Garrido, et al., ibid.
65 Chrousos, ibid.
67 Burgard, et al., ibid.
69 Guzman, et al., ibid.
77 Meredith, ibid.
79 California Newsreel, ibid.
80 California Newsreel, ibid.
81 California Newsreel, ibid.
84 Friedman & Rosenbaum, ibid.
85 California Newsreel, ibid.
87 California Newsreel, ibid.
89 Human Impact Partners (2012), ibid.
92 Levin EM, et al., ibid.
94 Census 2010. Table DP-01: Profile of general population and housing characteristics. Available at: factfinder2.census.gov.
96 Census 2010. Table DP-01, ibid.
97 American Community Survey 2006-2010. Table DP-03: Selected economic characteristics. Available at: factfinder2.census.gov.
98 American Community Survey 2006-2010. Table DP-03, ibid.
99 American Community Survey 2006-2010. Table DP-03, ibid
100 American Community Survey 2006-2010. Table DP-03, ibid
101 Hickey R, ibid.
102 Marin County Community Development Agency (2008), ibid.
103 U.S. Census 2010. Table DP-01, ibid.
104 U.S. Census 2010. Table B25014: Tenure by occupants per room. Available at: www.factfinder2.census.gov
110 Healthy Marin Partnership, ibid.
111 Robert Wood Johnson Foundation & University of Wisconsin Population Health Institute, ibid.
112 Healthy Marin Partnership, ibid.
114 California Department of Public Health (2012), ibid.
115 California Department of Public Health (2012), ibid.
116 California Department of Public Health (2012), ibid.
118 U.S. Centers for Disease Control and Prevention (2012), ibid.
120 Robert Wood Johnson Foundation, ibid.
123 California Health Interview Survey, ibid.