

SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH BRIEF: HEALTH IMPACTS OF FAMILY HOUSING INSECURITY

by the Children's Environmental Health Promotion Program and the Maternal, Child & Adolescent Health Section



POPULATION HEALTH DIVISION
SAN FRANCISCO DEPARTMENT OF PUBLIC HEALTH

ENVIRONMENTAL HEALTH



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IMPACT ON CHILDREN

Residential crowding, multiple moves and poor quality housing have all been linked to negative health outcomes among children.

Very young children spend more time at home making them especially prone to the negative effects of housing insecurity.

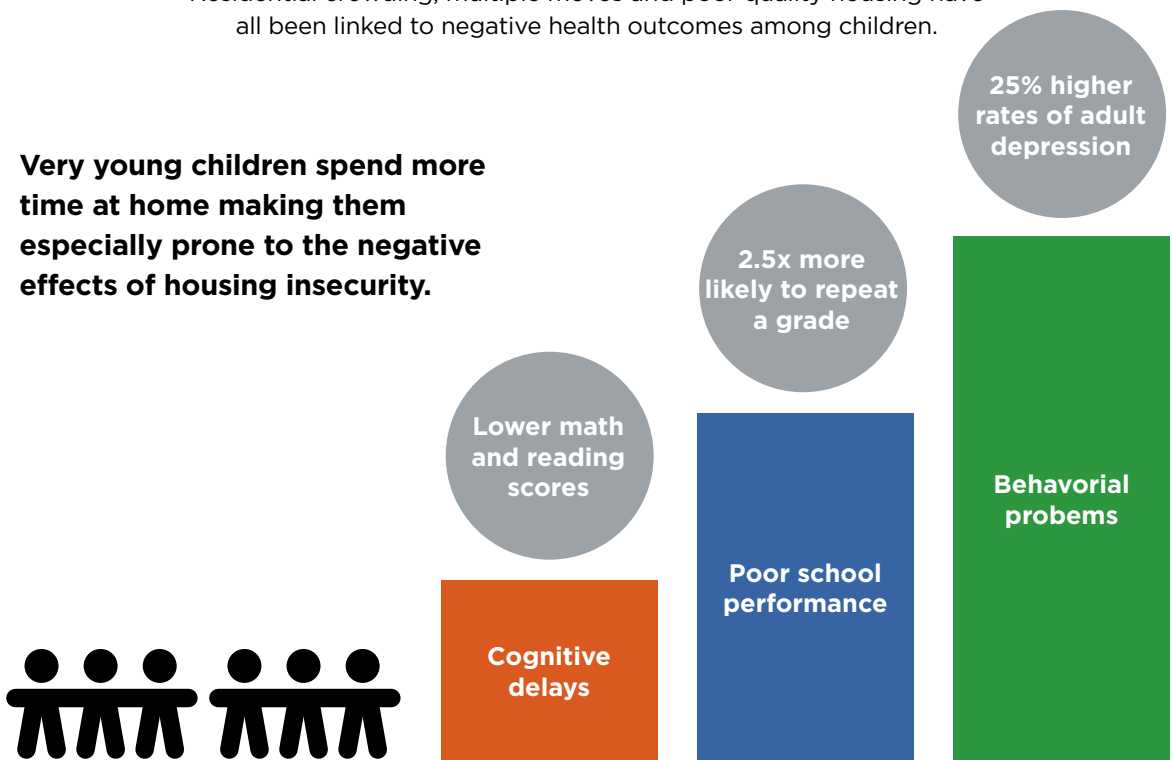


FIGURE 1: IMPACT ON CHILDREN

EXECUTIVE SUMMARY

Relevance

Housing has been well documented as a social determinant of health and wellbeing and was the impetus for the San Francisco Department of Public Health (SFDPH) to initiate its Housing and Urban Health Program many years ago. Some critical determinants of health and housing include housing stability, the affordability of housing and environmental health conditions of the home.

Summary of Brief

While we know that most San Franciscans are affected by the housing crisis, it's important to critically assess how San Francisco's housing situation impacts those at the earliest stage of development, families with infants and young children and pregnant women who experience a lack of stable housing. This brief explains the health impacts of housing insecurity, states factors that perpetuate housing insecurity, describes how some San Franciscan families experience housing insecurity and provides recommendations. Overall, the contents of this brief argue why family housing insecurity requires an urgent civic response.

Defining Housing Insecurity

Defining housing insecurity, which can be thought of as the opposite of housing stability, is difficult. Scholars, researchers, and policy makers have not yet come to a consensus on a standard definition. What can be said about housing insecurity is that it's multidimensional,

is difficult to assess due to its vulnerability to sudden change and is best understood in terms of threats to housing security (1)(2). Housing security, therefore, can be thought of as the extent to which an individual's customary access to reasonable quality housing is long-lasting (1). Examples of housing insecurity include homelessness, high housing cost, overcrowding, frequent moves, being behind on rent and poor-quality housing. Food insecurity is also associated with housing insecurity.

Health Impacts of Housing Insecurity on Children and Families

Overall, primary findings from a literature search include:

1. Housing insecurity causes toxic stress, which derails normal child growth and development and predisposes children to poor health outcomes in adulthood.
2. Housing insecurity of pregnant women is linked to preterm birth, which contributes to infant mortality and may influence lifelong health outcomes of that child.

A brief issued by the Bay Area Regional Health Inequities Initiative (BARHII) and the Federal Reserve Bank of San Francisco (3) quantifies the scope of housing insecurity affecting young children in the Bay Area: "As a result of rapidly rising housing costs, over 150,000 Bay Area children under five — more than a third — live in families that spend more than they can afford for housing." (Source: BARHII/Alameda County Health Department Analysis of 2016 PUMS Data)

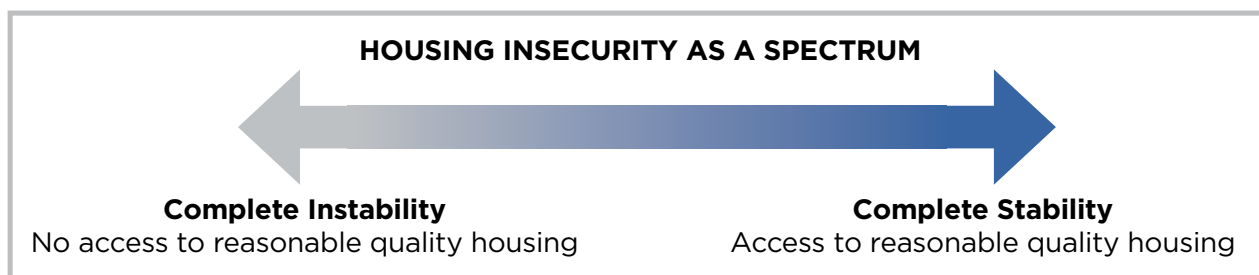


FIGURE 2: HOUSING INSECURITY AS A SPECTRUM

HEALTH IMPACTS OF HOUSING INSECURITY ON BIRTH OUTCOMES, CHILDREN AND FAMILIES

Health effects of housing insecurity have been well documented in the literature. The extent of a person's housing insecurity has the potential to induce a prolonged activation of the stress response system. The prolonged activation of the stress response system in the absence of protective relationships is considered "toxic stress" (4)(5). While toxic stress affects everyone, the impact of toxic stress on fetal and child development has implications over a lifetime.

Birth Outcomes

Poor quality environments are related to negative birth outcomes, including higher preterm birth rates (delivery before 37 weeks gestation) and low birth weight infants. In San Francisco, the instability of the mother's housing is also correlated with adverse health problems during pregnancy and preterm birth outcomes (see Figure 3). African American women, who often experience housing insecurity due to income status and displacement from the Bay Area, are particularly at risk for experiencing these negative birth outcomes (6), and this disparity is evident in San Francisco as well (7).

Preterm birth is a major cause of infant mortality (8)(9). In 2016, the Center for Disease Control (CDC) reported preterm birth and low-birth weight as the second highest causes of infant deaths, the first being birth defects (9). The CDC acknowledges that there are racial and ethnic differences in preterm birth rates (9). In 2016, the rate of preterm birth among African American women was about 50% higher than the rate of preterm birth among white women (9). Preterm infants that survive to adulthood have a 40% increased risk of early death when compared to individuals who were born at term (8). Preterm individuals have future increased health risks including lung, heart and kidney disease, diabetes and psychiatric disorders (8).

Child Health and Development

Development occurs over one's life course and developmental milestones are universal across infants and young children. Core components include physical (growth), cognitive (language, math, reading and critical thinking) and social and emotional (inter-personal and intra-personal) development. An infant or young child's environmental context (housing, social economic status, policies) highly influences **everything** about their brain development (10).

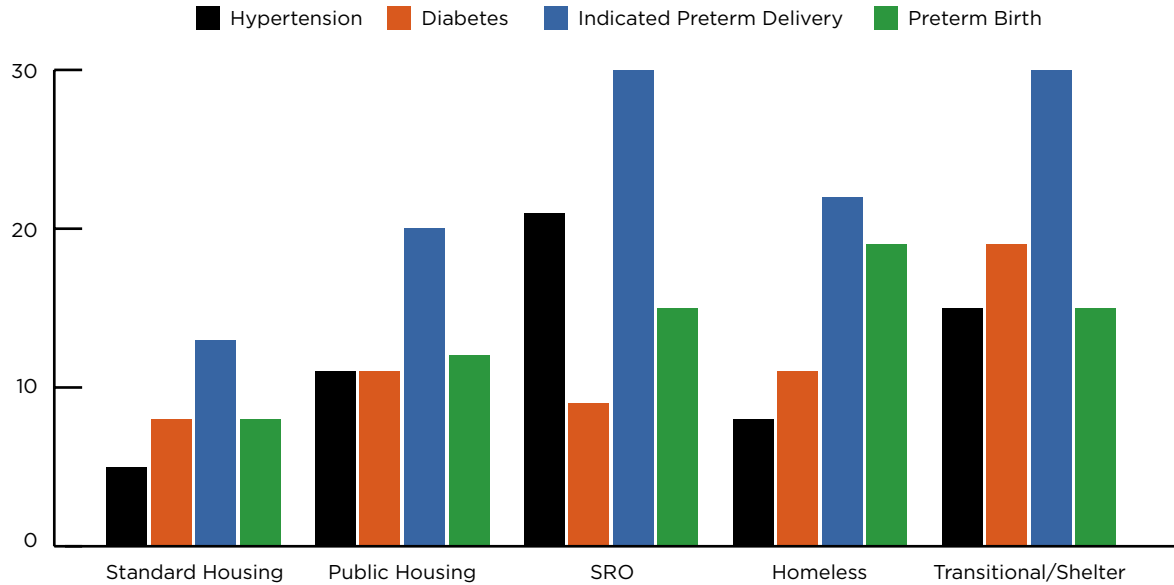
Brain architecture established during the first years of life is the foundation for all future learning, health, and behavior and toxic stress can impact these critical periods of development (Figure 4)(4)(5). Children who experience toxic stress during their critical developmental periods are at risk for damaging the neurologic architecture of their developing brains, leading to life-long problems in learning, behavior, physical (such as cardiovascular disease) and mental health (10). They are also more likely to exhibit health damaging behaviors and adult lifestyles that undermine well-being (11).

Maternal Stress

Child neglect and housing insecurity synergistically add to a child's toxic stress. A research study examining housing instability and unaffordable housing using data from the *Fragile Families and Child Well-being Study* found that housing instability is directly associated with risk for child neglect (12% point increase) (12). By age 5, housing instability and unaffordable housing has indirectly increased the risk for child neglect through maternal stress (< 1% point increase) (12). Children who are at risk for neglect were significantly more likely to have families who are experiencing housing instability and unaffordable housing, with their mothers reporting higher maternal stress when compared to other parent participants (12).

HOUSING & PRETERM RISK

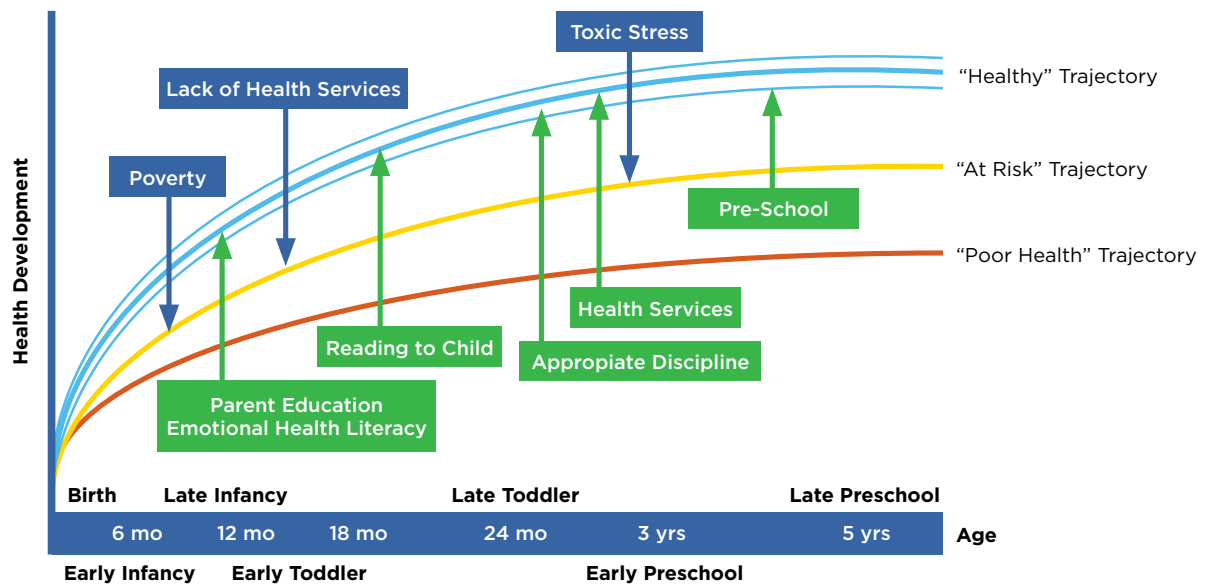
Women living in public housing, single room occupancy (SRO) hotels, and shelters have higher risks of health problems during pregnancy and preterm birth than women in standard housing



Source: Jodi Stookey, PhD, Epidemiologist, MCAH Section, SFDPH, from CDPH Birth Statistical Master File, 2012. Estimates reflect chronic or gestational hypertension, chronic or gestational diabetes, induced labor, and gestational age at birth less than 37 weeks, respectively.

FIGURE 3: HOUSING & PRETERM RISK

LIFECOURSE HEALTH DEVELOPMENT - VARIABLE TRAJECTORIES



Source: Halfon N, et al PubMed PMID: 23975451

FIGURE 4: LIFECOURSE HEALTH DEVELOPMENT



Mi pequeño hogar

Este es el cuarto de mi familia. Aquí duermen seis personas: yo, mi esposo y mis cuatro niños. En la cuna duermen dos niños — mis niños de 7 años y un año y medio, en la cama de abajo duermen yo y mis dos otros niños de edades 4 años y 6 meses, y mi esposo duerme en la cama de arriba. También tenemos todos nuestros objetos personales guardados en este cuarto. El espacio es pequeño y vivimos cansados de tener que estar amontonados. Nos sentimos agobiados y estresados. Constantemente me pregunto cómo puedo organizar el cuarto para hacer más espacio pero no es posible. La salud mental, emocional y física de mi familia está afectada por la mala ventilación, la infestación de cucarachas y ratas, y la falta de privacidad y seguridad. Este estilo de vida es causa de lo difícil que es obtener lo básico para sobrevivir en estas incomodidades.

Por medio de estas fotos, yo intento a comunicar las injusticias de vivienda y educar a la comunidad lo que está pasando en los hogares de sus vecinos.

—Melissa

My Small Home

Here is my family's quarters. Six people sleep here: my husband, my four children, and me. Two children sleep in the crib — my seven year old and my one and a half year old. On the lower bed, I sleep with my two other children, ages 4 years and 6 months, and my husband sleeps in the bed above. We also have all of our personal belongings stored in this room. The space is very small and we are tired of having to live stacked together. We feel overwhelmed and stressed. I constantly think about how I can organize the room to make more space, but it is not possible. The poor ventilation, the infestation of cockroaches and rats, and the lack of privacy and security all affect the mental, emotional, and physical health of my family. The way that we live, in this discomfort, is the result of how difficult it is get the basics to survive.

Through these pictures, I tried to communicate the injustices of housing in order to educate the community about what is happening in the homes of their neighbors.

—Melissa

FAMILY HOUSING INSECURITY AS WITNESSED IN SAN FRANCISCO

Illustrating Housing Insecurity

Mi Pequeño Hogar graphically illustrates housing insecurity in San Francisco. In fact, staff of SFDPH programs, such as the Maternal, Child and Adolescent Health Section (MCAH) and the Children’s Environmental Health Promotion Program (CEHP), daily witness living conditions such as Melissa’s in many of their home visits.

In San Francisco, the interplay of conditions threatening housing security increases a family’s risk of experiencing housing insecurity. For example, to pay the high rent for a flat with four bedrooms, one pantry, a living room and a dining room, several families and/or single persons will live together by making bedrooms out of the seven rooms. A family of four may occupy one of the bedrooms, and one or two unrelated persons sleep in the pantry without a window and without heat. Living rooms and dining rooms often are further subdivided by curtains, creating additional sleeping areas. All the occupants share the bathroom and kitchen. Often, there would be one master-tenant, the one who is on the lease, while the other occupants are subtenants who may be “unknown” to the property owner. Since living habits are different, and collaboration between household members is often difficult to obtain and maintain, unsanitary and unsafe

conditions result, such as conditions promoting mold growth, pest infestation, and fire. In other words, overcrowding may produce poor housing quality. Overcrowding also creates tension and stress due to differences in living styles, relating to housemates who are not family members and who might be from different cultures, master-tenant threats or actual evictions, threats related to the vulnerability of undocumented immigration status, etc.

In Melissa’s case, she is less fortunate, because her family does not even live in a unit that is licensed for occupancy. Her family of six lives in a 9’ by 10’ room, formerly used for hooking up a washer and dryer, one of the four unlicensed living spaces created in the garage/crawl space of a single-family home, where a total of 26 adults and 10 children are in residence. In this unfinished crawl space, roof rats had free access and the utility room’s hot water heater and abundant rat feces were accessible to her children, prior to SFDPH code enforcement. She was caught between living in unhealthy and unsafe conditions or being homeless. These are the untold and unseen living environments surrounding thousands of families that SFDPH serves. SFDPH staff receive frequent client requests for assistance in finding housing better suited to their family’s needs.

RACIAL INEQUITIES IN HOUSING ACCESS

Families of color in San Francisco experience an additional contributor of housing insecurity — institutional racism. The San Francisco Department of Public Health, Black/African American Health Initiative, *2018 Black/African American Health Report* (7) details how, “The legacy of systemic and institutional racism resulted in racial inequities in housing access. For example, the African American population in

San Francisco surged in the 1940’s as shipyard workers arrived during WWII. Redlining by lenders and restrictive covenants segregated these new arriving Black residents to the Fillmore and Bayview-Hunters Point neighborhoods.” In subsequent decades, under the guise of ‘Urban Renewal’ the San Francisco Redevelopment Agency demolished most of the Black-occupied housing and businesses in the Fillmore area

and many residents moved into public housing developments in Sunnyside, Potrero Hill, and Bayview-Hunters Point, where they remain today. As housing access and quality are proven social determinants of health, it is understood that those conditions contribute to the racial disparities seen in health status (13).

The Mission Economic Development Agency (MEDA) Community Real Estate (CRE) program was launched in summer 2014 as an urgent response to combat the loss of low-income and working-class families in the Mission District, primarily Latino. This program implements strategies for tenant protection, preserving existing housing as permanently affordable, as well as production of new affordable housing with partner agencies. The California Housing Partnership and the University of California Berkeley Urban Displacement Project (14) have shown the disproportionate housing displacement of households of color in the Bay Area:

- Large increases in the number of low-income people of color living in areas that became newly segregated and high-poverty between 2000 and 2015 are evidence that rising housing costs and migration patterns have contributed to new concentrations of segregation and poverty in the region.
- Low-income households of color were much more vulnerable than low-income white households to the impact of rapid increases in housing prices. In the Bay Area, a 30% tract-level increase in median rent paid between 2000 and 2015 was associated with a 21% decrease in low-income households of color but was not associated with a change in low-income white households.

In summary, housing insecurity is a condition for many San Franciscans, but for pregnant women and families of color, the situation is even more acute.

HOUSING INSECURITY INTERVENTIONS

Current State

The following resources are intended for those who are homeless.

1. Homeless women who are in their last trimester of pregnancy, receive services and resources through the Family Coordinated Entry System of the City's Department of Homelessness and Supportive Housing (DHS). Before the third trimester, women can apply through the DHS Adult Coordinated Entry System, which does not guarantee private lodging.
2. San Francisco Unified School District school-age children and youth are screened for conditions of homelessness, and once identified, are served by rapid re-housing programs.

New Interventions Recommended

Since ALL children have the right to achieve healthy growth and development, the City needs to ensure that all children are guaranteed safe and stable housing conditions that promote these outcomes. In 2016, there were close to 39 thousand children under five years of age (4.6% of the total population) in San Francisco (15). There is no centralized mechanism for assessing the housing security of these families. Rather than paying for the inevitably costly developmental and health impacts that result from housing insecurity, SFDPH would like to see investment in the following:

1. Establish a centralized mechanism for quantifying and describing the housing insecurity status of pregnant women and families with young children, and use to inform City housing policies and resource allocations.

2. Establish transparent tracking and accountability for affordable housing agencies, to ensure that units are developed and equitably allocated to pregnant women and families with young children. For example, there should be tracking of the proportion of housing created for families and additionally, whether these

opportunities have allowed us to retain those who have been disproportionately displaced.

3. Support homeless pregnant women at an earlier stage of their pregnancy by extending DSHS Family Coordinated Entry to these women before the third trimester of pregnancy.

SYSTEM CHANGE: INCLUSION OF PUBLIC HEALTH IN HOUSING POLICY & PLANNING

As a system change, we recommend the inclusion of Public Health in the processes that inform the City's housing security policies, programs and resource allocation. Housing insecurity affects health of caregivers and children (16). Our mission is to protect and promote the health of all San Franciscans, thus stable housing is an integral component of how SFDPH can protect public health.

SFDPH is in a unique position to be a key contributor to the development and implementation of housing insecurity interventions:

1. Many SFDPH programs serve children, families and pregnant women, including but not limited to the Children's Environmental Health Promotion Program and Maternal Child and Adolescent Health (MCAH) Section Programs: CalWORKS, Child Care Health, Child Health and Disability Prevention, Field Public Health Nursing, Nurse Family Partnership, Women, Infant, and Children Supplemental Nutrition, Black Infant Health, and others. **These combined programs reach more than 15,000 pregnant women, young children, and families, and several include home visiting components. Many additional pregnant women, children and families are provided medical care by the SFDPH San Francisco Health Network.**
2. SFDPH has routine access to those affected by housing insecurity and staff is well versed

in the struggles and the resiliencies of their clients. Therefore, SFDPH can provide insights into the workability of policies and plans.

3. SFDPH can provide data analysis for the needs assessment, formulation, and evaluation of policies. For example, SFDPH data scientists have performed health impact assessments of housing, minimum wage and transportation policies. SFDPH and the San Francisco Health Improvement Partnership (SFHIP) produces the Community Health Needs Assessment, which includes data reflecting the impact of the housing crisis on community health.
4. Additionally, SFDPH has established a collaborative relationship with the First5 San Francisco agency and the UCSF Preterm Birth Initiative to foster community voices that can advocate for the housing security of low-income pregnant women and families with young children in San Francisco.

In short, housing is more than a planning, economic, or political issue; it is a health issue as well. The future of the City depends on achieving the lifelong health potential of pregnant women and young children today. SFDPH can add the health lens through which the City can begin to increase housing stability for pregnant women and families with young children. Together, SFDPH and the City and County of San Francisco can intervene to eliminate housing insecurity and strive to attain equity for all San Franciscans.

REFERENCES

1. Frederick, T. J., Chwalek, M., Hughes, J., Karabanow, J., & Kidd, S. (2014). How Stable is Stable? Defining and Measuring Housing Stability. *Journal of Community Psychology*, 42(8), 964-979. doi:10.1002/jcop.21665
2. Office of Disease Prevention and Health promotion. (2018). Housing Instability. Retrieved from: www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-health/interventions-resources/housing-instability.
3. Bay Area Regional Health Inequities Initiative (BARHII) and Federal Reserve Bank of San Francisco, Housing Stability and Family Health: An Issue Brief, The Untold Story of High Cost Housing. Retrieved from: barhii.org/housing-stability-and-family-health-an-issue-brief
4. Center on the Developing Child, Harvard University. (2018a). Brain Architecture. Retrieved from: developingchild.harvard.edu/science/key-concepts/brain-architecture
Key Concepts: Toxic Stress. Retrieved from: developingchild.harvard.edu/science/key-concepts/toxic-stress
5. Center on the Developing Child, Harvard University. (2018b). The Science of Early Childhood Development. Retrieved from: developingchild.harvard.edu/resources/inbrief-science-of-ecc
6. Nowak, A. L., & Giurgescu, C. (2017). The Built Environment and Birth Outcomes: A Systematic Review. *MCN: The American Journal of Maternal/Child Nursing*, 42(1), 14-20.
7. San Francisco Department of Public Health (SFDPH), Black/African American Health Initiative, 2018 Black/African American Health Report. Retrieved from: www.sfdph.org/dph/hc/HCAgen/HCAgen2018/Oct_16/SFDPH_BAAH1a.pdf
8. Crump, C., Sundquist, K., & Sundquist, J. (2016). Fragile Families and Child Well-being Study. Adult outcomes of preterm birth. *Preventive Medicine*, 91, 400-401. Retrieved from: doi.org/10.1016/j.ypmed.2016.08.024
9. Center for Disease Control. (2018). Infant Mortality. Retrieved from: www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm.
10. Blum, R. (2011). *Language and Conceptual Framework for Early Child Development*. Robert Blum, Johns Hopkins University, Baltimore, Maryland.
11. National Scientific Council on the Developing Child (2007). *The Science of Early Childhood Development: Closing the Gap Between What We Know and What We Do*. Retrieved from: www.developingchild.harvard.edu.
12. Warren E.J., Font S.A. Housing Insecurity, Maternal Stress, and Child Maltreatment: An Application of the Family Stress Model. *Social Service Review*. 2015; 89:9-39.
13. San Francisco Health Improvement Project (SFHIP), *Community Health Needs Assessment*, 2016. Retrieved from: at www.sfhip.org.
14. The California Housing Partnership and the University of California Berkeley Urban Displacement Project, 2018. Retrieved from: www.urbandisplacement.org/research
15. U.S. Census Bureau, 2012-2016 American Community Survey (ACS)
16. Sandel, M. et.al. (2018). *Unstable Housing and Caregiver and Child Health in Renter Families*. *Pediatrics*, January 22, 2018, doi: 10.1542/peds.2017-2199, PubMed 29358482

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La fría realidad

Este es el garaje donde vivíamos. Mi hija está cubierta en su cobija sentada al lado de un calentador. Hemos sufrido mucho de frío porque había varios huecos abiertos en los que el viento entraba. Mi hija siempre se estremecía y se quejaba de que sus huesos se estaban dañando. Los lamentos de mi niña era la razón por que yo la ponía al lado del calentador para que se calentara. Mi familia y yo nos quedamos sin hogar y no teníamos a donde ir debido al alto costo de la renta. Nuestra única opción era vivir en el garaje de la casa de un amigo en lugar de dormir en las calles. Sin embargo, el garaje no era adecuado para vivir. Me puse muy preocupada por la salud de mi hija porque ella desarrolló problemas pulmonares y alergias en la piel. Me sentía desamparada de ver a mi hija sufrir tanto el sufrimiento de nuestra condición de vida. Yo y mi esposo fuimos en busca de ayuda a las organizaciones de la comunidad y logramos una vivienda en un albergue de familia.

Tenemos que dejar el miedo atrás con el fin de demostrar algo que se debe demostrar con acciones no silencio.

—Deyser

The Cold Reality

This is the garage where we were living. My daughter is sitting next to the heater, covered in her blanket. We suffered a lot from the cold because the wind blew through several open gaps in the garage. My daughter always shuddered and complained that her bones hurt. Her cries were why I put her next to the heater to be warm. My family and I were homeless and had nowhere to go because of the high cost of rent. Our only alternative to sleeping on the streets was to live in the garage of a friend's house. However, the garage was not suitable for living. I became very concerned about the health of my daughter because she developed lung problems and skin allergies. I felt helpless seeing my daughter suffer so much because of our living conditions. My husband and I went to community organizations for help, and managed to find a home in a family shelter.

We must leave our complacency behind in order to prove something with actions rather than staying silent.

—Deyser

