



ENERGY INSECURITY AND HEALTH: REDUCING AND AVOIDING DISCONNECTIONS

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ALAMEDA COUNTY DEPARTMENT OF PUBLIC HEALTH

Energy insecurity impacts an estimated 25 percent of California families and is on the rise as disconnection rates are increasing. Residential disconnections for nonpayment by major gas and electric investor-owned utilities rose from 547,000 in 2010 to 816,000 in 2015.ⁱ This brief is intended to share initial findings from Alameda County Public Health Department about the implications of rising disconnection rates and energy insecurity for the health of residents in our county.

As a local public health department, ACPHD is statutorily responsible for the health of all our county's residents. Our department has long been working to monitor and address health inequities and has found large and persistent gaps in health between population groups based on income, race/racism, and place in our county.

These wide differences in health outcomes by and large are determined by social, economic and environmental factors. For example, there is a 14-year life expectancy gap between an African American in East Oakland and a White from the Oakland Hills. This health inequity is linked to long-standing inequities in exposure to harmful conditions such as air pollution and in access to essential social goods like housing, education, and employment. Being exposed to multiple environmental, social, and economic risk factors over the course of a lifetime significantly shape how long and how well people can live. Emerging research has found that energy insecurity can have serious health consequences. Significant, negative health impacts on individuals and families, include a) financial distress; b) hazardous exposures to unsafe alternative heating or lighting; c) children more prone to food insecurity, hospitalizations, and developmental concerns; d) disruptions to health care and prescription medications; e) exacerbation of chronic illnesses; and f) direct impacts on mental and physiological wellbeing.^{iiiiiv}

Energy insecurity is closely linked to housing, through factors such as housing quality, housing tenure (renters having less control over energy efficiency upgrades and heating/cooling systems), and housing cost burden. The majority of Americans spend, on average, 90 percent of their time indoors with two-thirds of that time spent in the home.^v In light of that, the quality of the environment inside the home, including energy access, is critical to good health. The Bay Area continues to experience a housing affordability crisis in which over half of our neighborhoods are undergoing displacement.^{vi} Local Health Departments across the state have identified affordable housing as a key determinant of health and vitally important to addressing health inequities. As the housing crisis deepens in Alameda County and throughout the Bay Area, tenants are at greater risk of exposure to deteriorating housing conditions, hardship from severe household cost burdens, including high energy costs, and the threat of displacement.

Vulnerable populations such as young children, older adults, and persons with chronic illness bear some of the highest health burdens from energy insecurity.^{vii} Rather than experiencing their home as a supportive and protective anchor, children in energy insecure homes may face anxiety, depression, and challenges with school performance, along with early learning and developmental problems. Adverse

experiences in early childhood are especially critical because they can affect health throughout the life course.^{viii} Ensuring children have stable and healthy housing now is prevention for the public health problems we will see in the future. Alameda County's older adult population (age 65+) is projected to grow by 3.5 times, meaning that by 2060, older adults will make up over 26 percent of the county's population, compared to just 11 percent in 2010. The largest growth will be in the 85 and older population. As aging seniors increasingly face greater housing vulnerability, cognitive decline, and functional impairment, along with complex medical needs often requiring energy access to manage, this expanding population also represents a growing concern for public health practitioners.

Energy and Poor Housing Conditions

Energy insecurity has affected the health and well-being of many clients I have worked with. For example, one of my clients is an elderly woman living in a single-family home in Oakland. Her home is rented through section 8, and the building was built in the 1950s. The quality of her housing is poor because the appliances are out of date and do not heat or cool her home appropriately. The temperature of her home runs at the extremes, hot in the summer and cold in the winter. As a result, my client often has asthma flare ups and pain from arthritis that cause her to go in and out of the hospital. Since we are entering the winter season, my client has been experiencing more wheezing and coughing because of the cold, dry air in her home and dust particles. My client's poor health causes her to stay home because she feels afraid to go outside because of her asthma. She has become very socially isolated because of her poor health. My client's rent recently increased, so she struggled to find a way to pay for her rent, utilities, and food. She receives an energy discount via LIHEAP, but still struggles to pay her utility bills because it runs high. When I visit her home, it is dark and she does not usually have the lights on. Her heating/cooling system in the home is old, so she relies on space heaters or fans. She often runs out of money at the end of the month because her only source of income is social security disability benefits, and she relies on Meals on Wheels or food banks to access nutritious foods.

—Public Health Nurse, ACPHD

Choosing Between an Affordable Home and Children Getting Sick

Juana and her husband live in a one-bedroom apartment in East Oakland with their two children, ages eight and three. Sharon, the eight-year-old, was diagnosed with asthma at age two and continues to suffer severe asthma attacks and allergies, which have landed her in the emergency department multiple times. She frequently misses school, and Juana is unable to hold a job due to the many health appointments she must take her daughter to. As a result, they can barely afford the \$1,000 rent for the unit, which has a broken heater, broken windows, and extensive mold on the walls as a result of leaks in the bathroom ceiling and poor insulation. The extreme temperatures—hot in the summer, cold and drafty in the winter—along with the mold and dampness contribute to the children's poor health. Recently, the three-year-old boy has begun to wheeze and cough when he plays, and has been admitted to ACPHD's asthma home visiting program along with his sister.

When Juana’s old stove broke, the landlord took two weeks to replace it, during which time she could not cook for her family and they had to eat canned and convenience food. When the replacement stove was installed, it broke again, due to the faulty wiring throughout the unit. The family is constantly juggling the costs of utilities, rent, and basic necessities, in order to remain in Oakland and close to Juana’s husband’s job. However, with the children growing sicker, they are considering giving up their fight to stay and moving an hour away to Stockton.

—Asthma program case manager

Declining Function, Complex Medical Needs

One of the ways we see declining function in people is when they stop paying their bills. When there’s a decline or longstanding neglect is people stop paying bills. Frequently we’re working with people who’ve had utility shutoffs. We see a lot of functional decline in energy and utility access. Mailed notices are totally inadequate. People who declining are not opening mail, you’ll see stacks of unopened mail.

When the heat’s not on, it can impact a variety of things. Say you have a nebulizer, or an oxygen concentrator and you need to be able to plug it in. When it’s cold, you can’t turn the heat on; for older people, their circulation isn’t as good. The dampness, mold, contribute to exacerbation of respiratory conditions. Poor lighting or lack of lighting make it hard to manage any chronic disease, like glucose monitoring, or blood testing and complicated medications. If you can’t see what you’re doing, and your eyesight is already declining...

When people aren’t paying their bills, it’s not that they’re trying to duck out. It’s often related to their overall capacity and functioning. For policymakers if we could think about how we maintain these critical kinds of basic services for people while we’re trying to work with them to make changes with them, that would make a difference.

—Supervising Public Health Nurse

ⁱ Stats of 2017, ch.362 at Section 1.

ⁱⁱ Children’s Sentinel Nutrition Assessment Program. Balancing Acts: Energy Insecurity among Low-Income Babies and Toddlers of Color Increases Food Insecurity and Harmful Health Effects. March 2007.

ⁱⁱⁱ Hernandez, Diana, Yumiko Aratani, and Yang Jiang. Energy Insecurity Among Families with Children. National Center for Children in Poverty, 2014.

^{iv} Hernandez, Diana, Douglas Phillips, and Eva Laura Siegel. Exploring the Housing and Household Energy Pathways to Stress: A Mixed Methods Study. International Journal of Environmental Research and Public Health 13, no.9 September 14, 2016.

^v Benfer, Emily A. and Gold, Allyson E. There’s No Place Like Home: Reshaping Community Interventions and Policies to Eliminate Environmental Hazards and Improve Population Health for Low-Income and Minority Communities. Harvard Law & Policy Review. 2017.

^{vi} BARHII and San Francisco Federal Reserve Bank. Housing stability and family health: An issue brief. The untold story of high cost of housing. Retrieved on October 30, 2018, http://barhii.org/wp-content/uploads/2018/09/Housing_Stability_and_Family_Health.pdf

^{viii} Association of Maternal & Child Health Programs, Life Course webpage. Available at <http://www.amchp.org/programsandtopics/LifecourseFinal/Pages/default.aspx>