Housing Instability and Maternal & Child Health: Analyzing the Residential Assistance for Families in Transition (RAFT) Program in Massachusetts

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Introduction

Massachusetts faces a crisis in housing availability and affordability. For low-income families with children, the crisis is particularly acute, with wide-ranging consequences for health, education, employment, and economic stability. Pregnant women, mothers, and children are at high risk of adverse health outcomes due to housing instability, which is one of several dimensions of overall housing insecurity driven by the housing crisis. The Residential Assistance for Families in Transition (RAFT) program is one policy intervention that aims to address the unique circumstances of this population. Analyzing the relationship between housing and maternal and child health, the context of housing insecurity in Massachusetts, and the design of the RAFT policy allows for a critical reflection on the policy's effectiveness. To address this important health and social concern with a lens toward social justice and equity, consideration of policy alternatives can illuminate recommendations for action.

The problem: Housing insecurity harms maternal and child health

Housing conditions are a consistent predictor of health outcomes in the U.S. population, and specifically for pregnant women, mothers, and children. In addition to the growing body of research demonstrating the effect of neighborhood environments on health, there are three main pathways through which housing itself affects health (Taylor, 2018). Families may experience multiple combinations of these pathways, resulting in varying magnitudes of housing insecurity.

Housing instability

From chronic homelessness to frequent moving or living "doubled up," housing instability is associated with numerous severe health outcomes. Homeless adults are at three to four times greater risk of premature mortality compared to the general U.S. population, with an average life expectancy of only 42 to 52 years, and they are hospitalized at a four times higher rate (Maness & Khan, 2014). Pregnant women experiencing homelessness are more than twice as likely to have delivery complications compared to women of similar risk profiles who are not homeless, and they are at nearly double the risk of early labor or hemorrhaging. These health risks persist even after adjusting for mental health or substance use disorders (Clark et al., 2019). Young children who experience pre-natal and post-natal homelessness are twice as likely to be in fair or poor health compared to children who never experience homelessness, and they are 60% more likely to experience developmental delays and 40% more likely to be hospitalized (Sandel et al., 2015). Children whose mothers experience homelessness while pregnant, or who experience homeless as infants, are also at increased risk of poor health outcomes, but the stress of pre-natal plus post-natal homelessness has a compounding effect and can lead to life-long increased risk of chronic disease (Shonkoff & Garner, 2012).

Frequent moving is also associated with adverse mental and physical health outcomes, including a nearly 30% increased risk of developmental delays in children, and 3.7 times higher risk of depression among mothers. Families that move multiple times are nearly five times more likely to be food insecure, and 2.7 times more likely to skip necessary health care (Sandel et al.,

2018). Foreclosure, which frequently precipitates housing instability, has been associated with depression, anxiety, increased alcohol use, and suicide (Tsai, 2015). For adults and children who experience housing instability, high stress levels and sense of hopelessness significantly impact their physical and mental well-being (Maqbool et al., 2015).

Quality and safety

The health impacts of poor housing quality and safety can be severe for both women and children. Lead poisoning, asthma, and accidental injury are more likely among adults and children who live in sub-standard housing (Braubach & Fairburn, 2010). African American children and Hispanic children, as well as children those whose families fall below the federal poverty line, are disproportionately likely to be exposed to lead (Schnur & John, 2014). Exposure to lead paint and dust accounts for 70% of elevated blood lead concentration in children, so these racial and socioeconomic disparities are largely explained by the increased likelihood of living in older, poorly maintained housing (Schnur & John, 2014). Lead exposure can result in irreversible damage to children's brains and nervous systems, and is a causal risk factor for cognitive deficits, neurobehavioral conditions such as attention-deficit/hyperactivity disorder, low birth weight (when pregnant women are exposed), and patterns of aggression and violent behavior into adolescence and young adulthood (Lanphear, 2016). Conditions such as poor ventilation, mold, and pest infestations are associated with higher risk of asthma among children and adults (Taylor, 2018). Accidental burns and injuries are also more likely in housing that does not meet building and health codes (Maqbool et al., 2015).

Affordability

Unaffordable costs of housing can directly and indirectly impact health outcomes. Households that pay more than 30% of their income towards housing costs are considered to be "cost-burdened," and those that pay more than 50% of their income towards housing are considered to be "severely cost-burdened" (Allbee & Lubell, 2015). Renters who face a severe cost burden are 23% more likely to be unable to purchase adequate food for their family, and low-income families who are cost-burdened are less likely to have a regular source of health care and to access needed treatment (Taylor, 2018). Unaffordable housing costs can force families to make impossible choices between these necessities, directly threatening their health outcomes.

In response to rising costs, families may consolidate households, leading to overcrowding, or move multiple times, including to less safe (but lower-cost) neighborhoods (Allbee & Lubell, 2015). Indirectly, the lack of affordability drives negative health outcomes that can result from these strategies. Residential overcrowding has been linked to higher rates of infectious disease, psychological distress, and poor academic performance among children (Solari & Mare, 2012). As noted previously, frequent moving is associated with numerous adverse physical and mental health outcomes among mothers and children.

Housing instability among low-income mothers and children in Massachusetts

In Massachusetts, housing is increasingly unaffordable for low-income families, whose income has been outpaced by rising housing costs and higher cost of living overall. This lack of affordability is a key driver of housing instability.

Quantifying the burden in Massachusetts

More than 25% of all renter households in Massachusetts are severely cost burdened, meaning they pay more than 50% of their income toward housing, and nearly half of all renter households are cost burdened, paying more than 30% of their income toward housing (Joint Center for Housing Studies, 2017). Furthermore, 32% of renter households in Massachusetts are extremely low-income (ELI), meaning their income is less than 30% of Area Median Income (AMI); among these households, three out of four are cost burdened. There is a shortage of over 169,000 homes that would be affordable for these families in Massachusetts (NLIHC, 2019). Importantly, families with a head of household who is Black or Hispanic are disproportionately more likely to experience housing cost burdens compared to whites (Poblacion et al., 2019).

While AMI is calculated by region, the average threshold for 30% AMI in Massachusetts is $30,742. In order to afford a two-bedroom rental home at the Fair Market Rent (FMR) of $1,758 per month, annual income would need to be $70,333 – more than double the maximum income for the 313,000 households that are extremely low-income. Working full-time, year-round at state minimum wage ($12), a single-earner household would need to work 113 hours per week to afford a modest two-bedroom apartment – or, would need to find a job paying $33.81 per hour (NLIHC, 2019).

In Massachusetts overall, the child poverty rate is 13.3%, and 28% of single-parent families with children face poverty. As context, for a family of three in 2017, the federal poverty level was $25,520 in annual income. Among women, 11.6% face poverty (Spotlight, 2019). Of the 494,800 people in renter households that pay more than half of their income towards housing, 28% are children, and 35% are working adults, including parents (CBPP, 2019). For women and children in this demographic, high monthly rent bills force families to cut expenses on healthcare, food, and other needs, and they are at risk of experiencing financial shocks that can precipitate missed rent payments, leading to eviction or homelessness (Chiumenti, 2019).

In the ten years since the start of the Great Recession, homelessness among families with children in Massachusetts increased by 75%, reaching 11,300 parents and children by 2017. Across the state, 3,600 families with children and pregnant women were housed in state Emergency Assistance (EA) shelter in 2017, and there were over 21,000 homeless children enrolled in Massachusetts public schools (Means, Rorie, & Mehta, 2019). The consequences of homelessness and housing instability for maternal and child health – from high levels of stress and poor mental health, to lack of adequate nutrition and health care access, to pregnancy complications, to higher risk of infectious and chronic illness – demonstrate the central importance of promoting housing stability from a public health and social policy perspective.

Social, Economic, and Political Drivers

In Massachusetts, the problem of housing unaffordability is shaped by numerous factors, including an inadequate supply of housing (both market rate and subsidized), rising income inequality, local zoning restrictions and exclusionary land use regulation, gentrification and displacement, and a long history of residential racial segregation.

For decades, permitting for new housing development has been insufficient to meet the demands of a growing and demographically shifting population, as the Baby Boomer generation has aged and international immigration has become the predominant driver of population growth. In the 1980s, an average of 28,000 new housing units were produced each year in Greater Boston, representing about half of all new housing permitted across Massachusetts. Thereafter, permitting has steadily declined across the state and has been increasingly concentrated in Greater Boston. In 2017, only 13,000 new units were permitted in Greater Boston, representing 75% of all new housing in the state. This is a significant increase from 2009, when only about 5,000 units were produced in Greater Boston, but in the rest of the state, housing production has not recovered and is still less than half of pre-Great Recession levels (Sasser Modestino et al., 2019).

Even with a strong economy and low unemployment, driven by high performance in technology, life sciences, and knowledge industries in the Greater Boston region, income inequality has grown and economic gains have not been distributed evenly across the state. In Suffolk County, where the city of Boston is located, the average income of the top 1% of households ($2.8 million) was 53.6 times the average income of the bottom 99% ($52,149) in 2015, placing it as the 17th most unequal county in the nation. In comparison, in Plymouth County, the top 1% of households (average income of $1.5 million) earned 22.7 times the bottom 99% ($67,213 average income). Furthermore, poverty rates have increased across the state since the start of the 21st century, as high-wage industries have become a larger share of the economy and stagnating wages in lower-paying industries have hollowed out the middle class and driven more residents into poverty (Sasser Modestino et al., 2019).

Exclusionary zoning practices in outer suburbs and in the central and western parts of the state have prevented the growth of multi-family and affordable housing. Multi-family housing is increasingly concentrated in a small number of cities and towns. Of the 13,000 units permitted in Greater Boston in 2017, about three-quarters were multi-family units, and since 2014, 43% of all multi-family housing constructed across the entire state has been in the city of Boston (Sasser Modestino et al., 2019). While denying homeownership and business loans in non-white, poor communities through redlining and other explicitly racially discriminatory housing practices is no longer legal, Massachusetts has followed a “home rule” policy since 1966, which means local cities and towns are allowed to set their own zoning and housing policies. More affluent municipalities have tended to protect zoning ordinances that prohibit dense development, effectively keeping these communities predominantly white and excluding low-income households. The state is limited in what interventions it can implement to diversify housing density across municipalities, and thereby begin to reverse the legacy of racial and income segregation in housing. Two state-level policies – Chapter 40B, which stipulates that all

Massachusetts municipalities must maintain at least 10% of their housing stock as affordable to families earning no more than 80% AMI; and Chapter 40R, which incentivizes communities to waive zoning ordinances in areas near public transit and town centers to allow greater housing density – have helped to mitigate segregation and displacement, but the Greater Boston metro area is still one of the most segregated in the nation (Dain, 2019).

Addressing the Problem

There is no single solution to the problem of housing insecurity's impact on maternal and child health. Cost-effective, impactful, and equitable solutions must involve policy change across multiple sectors, including housing, health care, employment, education, and transportation, and must take into account differences in risk and protective factors across different populations. Solutions must also address multiple points along prevention and intervention pathways.

One approach is to focus on families with near-term risk of housing insecurity, for whom negative health outcomes could be entirely prevented with conditional, time-limited support: a safety net for vulnerable families. Taking preventive action at critical junctures could reduce the number of women and children for whom a single missed rent payment, emergency expense, or other short-term crisis precipitates a spiral into eviction or homelessness. Short-term financial assistance is one policy mechanism for addressing this specific form of housing insecurity.

The Residential Assistance for Families in Transition (RAFT) Program

Residential Assistance for Families in Transition (RAFT) is a homelessness prevention program for low-income households experiencing a housing crisis. It is funded annually as a line item in the Commonwealth of Massachusetts budget. RAFT is administered by the Department of Housing and Community Development (DHCD) via eleven regional agencies, including Metro Housing Boston for the Greater Boston region (RHN, 2019).

Policy Goals and Objectives

From a policy perspective, RAFT was developed in 2005 in response to the rising demand and costs for emergency assistance (EA) shelter in Massachusetts. Begun as a pilot program with a $2 million budget, RAFT posited that a one-time cash infusion could prevent entry into the shelter system among low-income families at risk of imminent homelessness due to certain crises, such as eviction due to rental arrears, or lack of resources for a security deposit or moving expenses necessary to enter a stable housing situation from homelessness or unsafe housing (RHN, 2016).

Importantly, Massachusetts is one of only three "right to shelter" jurisdictions in the nation, meaning EA shelter is a legally entitled benefit for families who qualify. This means the state must provide emergency shelter in motels or other housing if more families apply and are determined to be eligible than there are DHCD shelter placements available. There are strict eligibility and compliance requirements for EA: it is limited to pregnant women and parents with children under age 21; income must be no more than 115% of federal poverty, including cash assistance benefits (TAFDC, EAEDC, SSI, etc.) but excluding SNAP; the family must provide

evidence that they have no safe place stay, including with family or friends; and the family must not have been evicted for criminal conduct, nor for not paying rent in public housing or Section 8. Furthermore, families must agree to be sheltered anywhere in the state, unless and until a shelter placement opens within 20 miles of their hometown, creating significant challenges for children's education, parents' employment, and connection to resources and community (Bourquin, 2011). Even with these strict requirements, demand and costs can skyrocket during economic recessions, and in general as families experience economic turbulence, creating an incentive for the state to prevent entry into the shelter system without further restricting eligibility.

Now in its 15th fiscal year of operation, today RAFT provides flexible financial assistance to help eligible households with a variety of homelessness prevention expenses, including but not limited to payment of rent, utility, and mortgage arrears, monthly rent stipends, security deposits, childcare, transportation, basic furniture, and moving expenses. Households must meet criteria for a housing crisis that puts the family at risk of imminent homelessness, as well as income criteria and other risk factor criteria. Households can receive up to $4,000 per fiscal year in benefits for approved uses (RHN, 2019).

While improving maternal and child health outcomes is not an explicit objective of RAFT, the evidence on the adverse health impacts of housing insecurity provides a compelling case that prevention of homelessness is a health intervention. Furthermore, the evidence on the magnitude of housing insecurity among pregnant women, mothers, and children in Massachusetts demands attention. By targeting household-stabilizing financial assistance to pregnant women and mothers with children, RAFT is well positioned to impact maternal and child health outcomes in Massachusetts.

Target Population and Service Eligibility

RAFT focuses on assisting families with children whose income is at or below 50% of Area Median Income (AMI), and who are most at risk of becoming homeless and needing EA shelter. In FY 2017, eligibility was expanded from pregnant women and parents with dependent children (the EA shelter eligible population) to include single adults, elders, persons with disabilities, and unaccompanied youth, but funding was limited for this expanded population to continue prioritizing shelter-eligible households (RHN, 2019). In FY 2018, a total of 4,793 households received RAFT funding. More than 87% of families receiving RAFT funds were female-headed households, and the average recipient family was a mother with two children. The median household income for RAFT recipients was $18,504 (a decrease of $1,250 compared to FY 2017), and 527 households (11% of all RAFT recipients) reported having no cash income at all. In comparison, median income for a three-person household in Massachusetts overall was $96,788 (RHN, 2019). While the majority (59%) of RAFT recipients were non-Hispanic and white, African-American and Latino households were over-represented in proportion to the state population: over 37% of RAFT recipients had an African-American head of household, compared to 6% statewide, and 36% of RAFT recipients identified as Latino, compared to 11% statewide (RHN, 2019).

To apply for RAFT funds, households may walk into or call the DHCD regional agency serving their location and complete an intake assessment. Importantly, households are eligible for RAFT regardless of immigration status. Following preliminary approval, RAFT staff will conduct a screening, which includes questions about the triggering event or crisis, the family's income, and additional risk factors. The family must provide:

- Proof of a housing crisis that meets RAFT criteria for imminent (within 30 days) risk of homelessness, such as a notice of rent arrears, an eviction Summary Process Summons and Complaint, a letter from a primary tenant or landlord where a family is staying doubled up verifying they must leave, a Board of Health condemnation letter or failed inspection report, a utility shut-off notice, or other documentation.

- Proof of income below 30% AMI, or between 30 and 50% AMI in combination with a significant reduction in income or increase in expenses.

- Information about the risk factors they face. Each risk factor is assigned a point value, and the family must score a certain risk level in order to be eligible (RAFT FY20 Administrative Plan & Scope of Services, 2019).

In FY 2018, eviction was the most common reason that households sought assistance from RAFT, accounting for 48% of recipients. The second most common reason was being asked to leave a "doubled up" situation, accounting for 28% of recipients. As noted previously, given that the median income of RAFT households is slightly less than a third of what is required to afford rent and utilities in Massachusetts, it is hardly surprising that eviction and "doubling up" are the most common crises facing applicant households (RHN, 2019).

Benefits Provided

In terms of the usage of RAFT funds, RAFT agency staff determine which of the family's barriers or expense are most important to address in order to prevent homelessness. RAFT agencies approve funds for "those items that will provide the most stability up to the $4,000/year limit and will provide only what is necessary for the family to avoid homelessness by resolving the identified housing crisis" (RAFT FY20 Administrative Plan & Scope of Services, 2019).

In FY 2018, the average benefit provided to RAFT households was $2,595. 40% of RAFT funds distributed were used to pay rent arrears, followed by 24% for first and last months' rent, and 28% for security deposits (RHN, 2019). DHCD provides guidelines for determining benefit levels and approved uses, but agency staff have discretion over the final decision for any given applicant. A process for requesting administrative review is outlined for applicants who are denied eligibility or who disagree with RAFT decisions (RAFT FY20 Administrative Plan & Scope of Services, 2019).

Resource Distribution

At the state level, RAFT funding is subject to the Commonwealth of Massachusetts' annual budget process. Advocates including the Massachusetts Coalition for the Homeless

(MCH) are active in legislative and policy campaigns to secure and expand RAFT funding. Based on state funding levels, allocation of RAFT funds regional agencies is determined by DHCD, based on anticipate demand data from EA shelters and past year performance. DHCD also sets aside a reserve fund that can be distributed based on unanticipated high demand. Regional agencies also receive a monthly fee of 18.95% of all service dollars paid in that month, in order to administer the program (RAFT FY20 Administrative Plan & Scope of Services, 2019).

At the individual level, each regional agency can set its own processes for screening and application but must have a mechanism for prioritizing emergency cases. Staff also have some discretion over the point system and can waive the threshold if they feel other risk factors justify approval. The rationale must be documented in the applicant's case file in Housing Pro, the software used across agencies for RAFT screening, applications, management, and reporting (RAFT FY20 Administrative Plan & Scope of Services, 2019).

Payments are made to vendors directly from the RAFT agency, not to families themselves. Per DHCD regulation, half off all agency RAFT funds must be provided to households below 30% AMI. It is the responsibility of regional agencies to ensure their overall distribution of RAFT funds aligns with this requirement (RAFT FY20 Administrative Plan & Scope of Services, 2019).

Equity Lens

RAFT promotes equity in several ways, but the policy is also limited in its capacity to advance equity across the state and across populations.

First, there is substantial flexibility in how funds can be used, which allows each family's unique circumstances to be taken into consideration. Allowing for funds to be used for moving costs, transportation, and childcare related to homelessness prevention acknowledges that housing instability involves more complex factors than simply being behind on rent. At the same time, the discretion that regional agency staff have in overriding the "point" value assigned to each family, and in determining how funds can be used, raises the possibility that decisions could favor certain groups over others. It is important that reviews of RAFT funding applications and allocations are assessed by demographic factors to illuminate and interrogate any disparities. For example, the average amount of RAFT assistance approved in 2018 ranged from $2,047 per family in Hampden and Hampshire Counties, and $3,206 per family in Bristol, Norfolk, and Plymouth Counties (RHN, 2019). The reason for this variation between the regional agencies responsible for administering RAFT funding is not clear. Further, while Black and Hispanic households are over-represented among RAFT recipients compared to the total population, it is not clear if there are racial and ethnic variations in the amount of funds received.

Second, RAFT accommodates a wide range of unstable housing situations. Whereas other homelessness prevention programs may have strict requirements for the definition of imminent homelessness, RAFT seeks to interrupt potential crises before they reach dire levels – for example, allowing a letter from a primary tenant hosting a "doubled up" family, as opposed to requiring a formal Summary Process Summons and Complaint for eviction from a landlord.

Notably, FY 2020 is the first year in which being behind on rent or mortgage payments can be considered a qualifying circumstance even without a formal eviction notice, via the "Upstream Arrears" pilot, further expanding the criteria for families (RAFT FY20 Administrative Plan & Scope of Services, 2019). However, it is essential to note that RAFT still serves only a tiny proportion of households who are at risk of housing instability: according to census data, of the 461,000 total renter households in Massachusetts that are cost-burdened, RAFT reaches approximately one percent (RHN, 2019). Furthermore, there are geographic disparities in the proportion of cost-burdened households served, with 3.3% of all cost-burdened households in Franklin County receiving RAFT funds, versus 0.4% in adjacent Hampshire County (RHN, 2019).

Third, RAFT has no requirements with regard to immigration status. Massachusetts is one of the more progressive states with regard to immigration-related eligibility for public (state-funded) benefits, but undocumented immigrants still face many barriers to wellbeing. At the same time, the expansion of the eligible population for RAFT to include elders, single adults, and youth could potentially draw resources away from the target population of pregnant women, mothers, and children. Continued advocacy for sustained and increased levels of funding to meet demand are essential in order to avoid the risk of restricting eligibility by immigration status – or by other criteria, such as lowering the income threshold.

Gaps, Barriers, and Unintended Consequences

Although RAFT is a critical lifeline for thousands of families at risk of homelessness, it barely makes a dent in the total number of families experiencing housing cost burdens. By targeting the most vulnerable families, there is also the potential that the funds are a "Band-Aid" solution to more systemic issues in household financial circumstances that will eventually, without more structural changes, result in homelessness. Lastly, as the program grows and expands eligibility, there is risk that the Massachusetts state legislature will not continue to fund RAFT at necessary levels. For example, RAFT funding was cut to an annual low of $160,000 from 2010 to 2012, resulting in costs of EA shelter exploding from $91 million in 2009 to $161 million in 2011 (RHN, 2016).

In addition, RAFT is partly funded by the Moving To Work (MTW) demonstration project, which allows states to redirect federal Housing Choice Voucher (HCV) funds and public housing funds to innovative, locally-tailored strategies for achieving greater cost effectiveness in federal expenditures for housing, incentivizing work and economic self-sufficiency, and increasing housing choices for low-income families (Commonwealth of Massachusetts Department of Housing & Community Development, 2017). While only 375 additional families are served with MTW re-directed funds through RAFT in 2018, it is possible that this redirection could restrict the availability of permanent vouchers.

Evaluating Policy Alternatives

To interrupt the pathway between housing instability and health outcomes among pregnant women, mothers, and children, there are numerous policy alternatives to the current

RAFT program. Among these, three promising options include expanding RAFT eligibility to reach families with more upstream risk factors; combining RAFT with expansion of the Earned Income Tax Credit (EITC) and access to childcare vouchers; and targeting the most at-risk families with intensive health care and housing case management services. There are several criteria that ought to be prioritized in evaluating these alternatives.

With all options, expanding the evaluation framework to specifically measure health outcomes among pregnant women and children, including longitudinally, would be essential in making the case for health impact – and potentially cost savings due to averted health problems. While the research discussed previously makes a strong case for the adverse health impacts of housing instability driven by unaffordability among pregnant women, mothers, and children, it is essential to demonstrate the positive health impacts of averting instability by directly assessing the health outcomes of the adults and children who benefit from these policies.

Cost-Effectiveness

In FY 2018, RAFT was funded at $15 million, an increase of $2 million from FY 2017. The program provided $12,437,486 in assistance to 4,793 households, for an average benefit of $2,595 per family. The average cost of the program overall was $3,130 per family, while the state spent an average of $46,450 for each household that entered EA shelter. In shelter costs alone, this represents an average savings of $43,320 for each family that avoided homelessness through the RAFT program (RHN, 2019).

Among RAFT recipients, after excluding those who would not be categorically eligible for EA shelter, 63% (2,651) of families met the income threshold for EA shelter. By preventing homelessness among those families, RAFT saved the state of Massachusetts over $87.4 million in FY 2018. According to the Regional Housing Network of Massachusetts, the actual savings are likely much higher, because “adults that enter the family shelter system often lose employment and require public assistance, school systems incur additional costs for busing children from shelters to their regular school, and families in shelter experience high stress that may result in increased medical costs” (RHN, 2019).

As noted previously, in FY 2020, RAFT is expanding the definition of qualifying circumstances to include rental and mortgage arrears without a formal eviction notice, known as the “Upstream Arrears” pilot. In addition to averting the costs of emergency shelter, targeting funds to families with upstream risk factors like arrears may be cost effective in other ways. For example, by avoiding eviction proceedings, the pilot may free up resources for legal services attorneys and other cases on the Court’s docket (MCH, 2019).

Combining RAFT with an expanded EITC and access to childcare vouchers may also be cost-effective. For low-income mothers in particular, the EITC can provide a valuable cash infusion, and vouchers can help to offset the often prohibitively expensive costs of childcare, freeing up funds for other necessities and enabling continued employment. In an analysis of the impact of such a combined program in Massachusetts, researchers simulated a single-parent

household with two children with income at 130% of the federal poverty level ($26,076 annually) paying more than 50% of their income towards rent. The cost of childcare payments was estimated at $3,510 annually. By adjusting the childcare subsidy sliding scale so that qualifying families would pay no more than 7% of their income, and by increasing the state EITC from 30% to 50% of the federal EITC level, researchers found that the combined federal and state EITC would fully offset the simulated family's marginal rent burden. This policy would not eliminate the ongoing rent burden, as it would not actually reduce rent to less than 30% of income. However, if RAFT funds were leveraged to avoid rent arrears precipitated by an unexpected expense or income swings, thereby preventing eviction, homelessness, and the associated health consequences for mothers and children, the researchers calculated total savings up to $739,000 per family in health care costs alone, depending on the county the family lives in (Poblacion et al., 2019). Additionally, leveraging existing policies and infrastructure, rather than creating new benefits, can help to minimize administrative costs.

Finally, targeting the most at-risk families with intensive health care and housing case management services was an approach tested in the Health Start in Housing (HSiH) pilot program. HSiH was a collaboration between the Boston Housing Authority (BHA) and Boston Public Health Commission (BPHC), started in 2011. The program prioritized access to public housing for homeless and housing-insecure women who had medical risk factors for adverse birth outcomes, such as a pre-existing medical condition, mental health condition, or prior adverse birth outcomes. In addition to BHA housing, HSiH provided intensive case management services related to housing retention, health behaviors, and economic stability for up to three years. An initial evaluation found a statistically significant 20% reduction in the proportion of participating women with depression symptoms after one year in the program, compared to a control group, but no differences in infant health outcomes (Payton Scally et al., 2017). There was no cost-effectiveness study of the program, which would be important considering that 75 BHA units were set aside for the program, and both BHA and BPHC staff time and resources were dedicated to administering the program and providing case management. It is also possible that longer-term effects on health would be detectable, but the study only lasted three years. Furthermore, it is possible that the intervention itself is cost-effective, but the challenge of implementation was apparent in that HSiH only successfully housed 30 women, out of 168 referrals and 104 eligible women (Feinberg et al., 2013).

Sustainable Impact

Only 6.5% of families that avoided homelessness thanks to RAFT in FY 2017 required continued assistance again in FY 2018, suggesting the program had a sustainable effect on preventing homelessness and promoting housing stability (RHN, 2019). As the program expands with the Upstream Arrears pilot, there is evidence of sustainability as well. A previous rent arrearage program administered by the state's Department of Transitional Assistance was evaluated in 2003. Researchers followed recipients for 12 months following receipt of rent arrearage assistance, and found that 96% of recipients maintained stable housing and averted EA shelter, and 75% of recipients did not require additional rent arrearage assistance (MCH, 2019). However, it is not clear if impact is sustained after that first year. It is also important to

consider that families may have sought assistance from other sources; a comprehensive assessment of each family's economic situation was not part of these analyses.

Regarding the combination of RAFT, EITC, and childcare vouchers, there is potential for this combination of policies to achieve long-term, sustainable impact. The EITC is already known to be highly effective in reducing poverty, including with intergenerational effects: children in families who receive the EITC are more likely to earn higher incomes as adults. Furthermore, research has found the EITC is associated with improvements in premature birth, low birthweight, and maternal birth outcomes (Marr et al., 2015). EITC and vouchers are qualified annual benefits, and both are tied to employment, thereby enabling and promoting economic stability. By providing supplemental income supports that enable and incentivize workforce participation, and by ensuring access to RAFT as a safety net for emergencies, this combination of policies addresses underlying causes of financial precarity while also acknowledging that unexpected emergencies do happen (Poblacion et al., 2019).

Policies modeled on HSiH could have sustainable impact as well, but it would be important to follow participants over time (both mothers and children) to understand how to best craft the policy to enable access, retention, and results.

Equity

As discussed previously, RAFT promotes equity in multiple ways, but also has limitations. Regarding the Upstream Arrears pilot specifically, it would be important to assess the demographics of applicants and recipients to ensure those most likely to be affected by housing instability are accessing the program funds. Targeting outreach and support accordingly, and connecting people to longer-term services to promote economic stability if warranted, would also help to ensure RAFT procedures, implementation, and outcomes are equitable.

By freeing up existing income, EITC and childcare vouchers allow families to make their own decisions about how to manage their budgets and meet their needs without sacrificing necessities like health care, housing, and food. Low-income people are often subject to strict rules and oversight of their financial decisions as a condition of receiving assistance, unlike their higher-income peers. These policy mechanisms treat low-income people more equitably by trusting their decision-making.

With HSiH, it is notable that only 34% of applicants who were initially found to be eligible were ultimately placed in BHA housing. Researchers found that this was due to confusion about a requirement that participants' last permanent residence, before displacement, have been within Boston city limits (Payton Scally et al., 2017). Denying access based on past geographic factors would need to be justified in order to assess whether its impact is equitable or not, especially considering the lack of affordable housing in the cities and towns surrounding Boston (Sasser Modestino et al., 2019).

Recommendations and Conclusion

Today, housing insecurity and maternal and child health remain pressing priorities in Massachusetts. This analysis suggests several recommendations for action.

1. *Promote long-term financial security for families through living-wage employment and income supports like childcare vouchers and expanded EITC.* Comprehensive policies that promote overall economic well-being among low-income families can buffer pregnant women, mothers, and children from the financial shocks that can precipitate housing crises. Such policies therefore indirectly prevent the adverse health outcomes associated with housing instability and homelessness.

2. *Expand access to short-term financial assistance.* Without promoting economic security overall, providing financial assistance to stabilize a precarious housing situation may not be sustainable over the long term. However, emergency assistance like RAFT continues to play an important safety net role in preventing temporary or unforeseen circumstances from becoming long-term crises for vulnerable families.

3. *Increase housing production and ensure affordability for low-income households through complementary policies.* Adopting inclusionary zoning policies, promoting higher density residential zoning ordinances, and expanding affordable housing access through developer incentives and rental subsidy vouchers are all necessary to address the broader crisis in housing affordability and segregation across the state. Recent state legislative efforts have focused on the component of "home rule" that allows municipalities to require a two-thirds supermajority to adopt zoning changes related to housing affordability and production. The governor's "Housing Choices" bill would change that component to a simple majority vote. While not sufficient on its own, this bill would make it significantly easier for municipalities to adopt more progressive policies.

4. *Promote partnerships between housing agencies and health care providers, especially for women and children.* It is clear that housing conditions are a determinant of health outcomes, but there are few policies that intentionally integrate across sectors and disciplines in Massachusetts. Building on the HSiH pilot to focus on the circumstances of vulnerable pregnant women could help to remove barriers to stable housing and promote equity in health and housing outcomes.

A continued commitment to measuring health outcomes among pregnant women, mothers, and children alongside policy changes in housing production, affordability, and emergency assistance requires civic leadership and advocacy. In Massachusetts, to promote health among the state's most vulnerable residents, policy makers and advocates in health care, housing, economic development, and planning must bring a social justice and equity lens to their decision making. The recommendations provided here serve as a starting point to ensure the well-being of families across the state.

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