The Office of the Health Care Advocate advocates for all Vermonters through both individual consumer assistance and systemic advocacy on health care issues. We work to increase access to high-quality, affordable health care for all Vermonters.
Executive Summary

Many Vermonters cannot afford health insurance premiums or the out-of-pocket costs when they get sick. Vermont Health Connect (VHC)\(^1\) insurance costs have grown faster than wages and the cost of living in Vermont. As health insurance and health care costs rise, many Vermonters have to make difficult decisions between paying for health care and paying for necessities like food and shelter. Small businesses also confront difficult decisions in determining whether they can afford to offer employees a meaningful health benefit. The Office of the Health Care Advocate (HCA) has helped Vermonters with health care issues, including affordability, since 1998. Every day, Vermonters tell us stories of struggling to pay health insurance and health care costs.

Health insurance affordability can be measured in several different ways, providing different perspectives on affordability.\(^2\) The HCA recently developed models to quantify Vermont’s health insurance and health care affordability crisis. In this paper, we present three different ways of examining and quantifying affordability.

First, we compare the cost of health insurance to Vermont wage and economic growth. We find that VHC health insurance premium costs are growing faster than the Vermont economy and Vermonters’ wages.

Second, we use a rule-based approach that includes premium affordability standards codified in the Patient Protection and Affordable Care Act (ACA) and the deductible affordability standard used in the Vermont Household Health Insurance Survey (VHHIS). We find that VHC health insurance is unaffordable at a wide range of incomes.

Third, we use a market-based\(^3\) model that evaluates whether Vermont families can afford health insurance and health care and still be able to purchase basic necessities such as food, clothing, transportation, and housing. We find that many households, including some with substantial incomes, do not have enough money to pay for health insurance and other basic necessities.

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\(^1\) Vermont Health Connect (VHC) is Vermont’s health insurance marketplace, or “exchange.” VHC sells health insurance plans that are available to individuals and small businesses in Vermont.


\(^3\) A market-based approach is sometimes referred to as a normative approach as it entails making assumptions about the cost of goods and services necessary to maintain a minimally adequate standard of living.
All three models demonstrate that unaffordability is both quantifiable and measurable, and that health insurance plans offered on VHC are unaffordable to a wide range of Vermonters. Together the models demonstrate the severity of Vermont’s health care affordability crisis.

**Health Insurance Affordability: A Macroeconomic Model**

To understand the context of the rising cost of health insurance, we compared VHC health insurance cost growth to two macroeconomic indicators: Vermont Gross Domestic Product (GDP)\(^4\) and Vermont wage growth (VWG). The data clearly show VHC health insurance premium costs growing faster than the Vermont economy and Vermonters’ wages.\(^5\) This means that Vermonters must spend an increasingly large share of their income on health insurance.\(^6\) Unfortunately, there is no evidence to suggest that this trend will change in the near future, absent policy interventions to address health insurance cost growth.


\(^5\) Between 2014 and 2016, Vermont wages grew 4.8 percent. Over the same period, both BCBSVT’s and MVP’s health insurance rates grew nearly 3 times as much. On average, a Vermont family who earned $50,000 in 2014 earned $52,400 in 2016. A health plan that cost $5000 in 2014 cost $5,680 in 2016. While earning more money, this Vermont family is paying a higher proportion of their income on health insurance premium.


\(^8\) Between 2014 and 2016, Vermont’s GDP grew 5.9 percent. Over the same period, BCBSVT’s and MVP’s average premium for individual and small group health insurance plans grew 14.1 percent and 13.6 percent, respectively. Vermont GDP data is not available post-2016 as of this report’s completion but between 2014 and 2018 BCBSVT and MVP individual and small group health insurance premiums have grown 21.9 percent and 17.8 percent, respectively. It is unlikely that Vermont’s 2017 and 2018 GDP will grow at a rate even roughly equivalent to health insurance premium growth.

Figure 1. GDP growth, VTWG, and Blue Cross Blue Shield of Vermont (BCBSVT) and MVP Health Insurance, Inc. (MVP) individual and small group health insurance premiums between 2014 and 2018.10

While the comparison of health insurance costs to macroeconomic indicators provides useful context for Vermont’s affordability crisis, it does not show whether individual Vermont households can afford health insurance and health care. This model also looks at premiums only and does not account for affordability problems related to the cost of care for the consumer (cost-sharing).

To focus on individual Vermont households, we developed two more ways to measure affordability: a rule-based model and a market-based model. These models can be used to explore affordability in both the individual and small group markets in Vermont.

**Health Insurance Affordability: A Rule-Based Model**

Our rule-based model focuses on affordability for Vermont households. This model applies two rules to determine whether a household can afford health insurance and health care:

1. From the ACA: A household should spend no more than 9.69% of income on 2017 health insurance premiums. If the household spends more than that on premiums, the health insurance is unaffordable.11

2. From the VHHIS: A household is financially burdened by medical costs when the deductible is greater than 5% of income.12

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10 2016 is the most recent year for which GDP and VTWG statistics are available as of this report’s completion.


We combine the ACA premium rule and the VHHIS deductible rule to evaluate VHC plan affordability. In our model, if a household’s premium is more than 9.69% of income or the deductible is greater than 5% of income, a plan is unaffordable.13 The model accounts for available subsidies, including Federal and Vermont Cost Sharing Reductions (CSR), Federal Premium Tax Credits (PTC), Vermont Premium Assistance, and Dr. Dynasaur.14 15 16

We use this rule-based model to evaluate whether the lowest cost 2017 VHC silver plans offered by BCBSVT and MVP are affordable. We look at silver plans because PTC amounts are benchmarked against the cost of the second lowest cost VHC silver plan and Vermonters must enroll in a silver plan to receive CSR. The lowest-cost silver plan provides the most conservative view within the set of silver plans.17 18 Many Vermont households with chronic illnesses and high medical costs must purchase more robust Gold or Platinum plans to get the coverage they need. Generally, plans with better coverage are even less affordable.

We demonstrate the affordability of the lowest cost 2017 silver plans for BCBSVT and MVP across a range of household incomes for three different household compositions: single adult (Figure 2), two adults (Figure 3), and two adults, two children (Figure 4). On the x-axis we plot household income as a percentage of the Federal Poverty Level (FPL).19 Green indicates premium and deductible affordability at a particular income, and red indicates unaffordability. This model demonstrates that health insurance and health care are unaffordable at a wide range of incomes.20 BCBSVT plans are unaffordable across a larger range of household incomes than MVP plans. However,

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13 We define income for these calculations the same as for PTC eligibility, namely, we use Modified Adjusted Gross Income (MAGI) as defined by Internal Revenue Code section 36B(d)(2)(B).
14 Federal CSR is available to household with incomes at or below 250% of the Federal Poverty Level. 42 U.S.C. § 18071. Vermont CSR is available to households with incomes at or below 300% of the Federal Poverty Level. 33 V.S.A. § 1812(b). CSRs are a discount that lowers the amount of a household’s deductibles, copayments, and coinsurance. Income-eligible households must enroll in a Silver plan to receive this subsidy. See Vt. Health Connect, Cost-Sharing Reductions (CSR) Frequently Asked Questions (2014), http://info.healthconnect.vermont.gov/sites/hcexchange/files/CSR_FAQ.pdf (last visited Feb. 1 2018).
15 The Federal PTC is a refundable credit that helps households cover the premiums for their health insurance. Households with income between 138% and 400% of the Federal Poverty Level who purchase insurance through VHC may be eligible. 26 U.S.C. § 36B; see also Vt. Law Help, Premium Tax Credits, https://vtlawhelp.org/premium-tax-credits (last visited Feb. 1 2018).
16 Dr. Dynasaur is free or low-cost insurance available to certain eligible populations including children under 19. Vt. Green Mountain Care, Health Plans: Dr. Dynasaur, http://www.greenmountaincare.org/health-plans/dr-dynasaur (last visited Feb. 1 2018).
20 Figures 2 through 4 do not include employer employee premium payments that could be provided by employers for a small group plan. The contribution of a small employer towards employee health costs varies widely and is at the discretion of the employer. However, the results of this rule-based model demonstrate the uphill battle that small employers face if they wish to offer their employees an affordable health insurance benefit.
regardless of insurance company, health insurance premiums and deductibles are unaffordable for many Vermont households. For example, for both companies, health insurance premiums and deductibles are unaffordable for couples with incomes between $48,060 (300% FPL) and $116,645 (727% FPL). The median Vermont household income in 2016 was $56,104.21

**Figure 2.** Rule-based affordability of lowest-cost 2017 BCBSVT and MVP silver plans for single adult household.22 23

**Figure 3.** Rule-based affordability of lowest-cost 2017 BCBSVT and MVP silver plans for a two-adult household.24 25

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21 The median Vermont family household income is $71,465 and the median non-family household income is $33,129. U.S. Census Bureau, 5-year American Community Survey (2016), Table S1903, https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml (last visited Feb. 1 2018).

22 The lowest cost single person BCBSVT 2017 silver plan, accounting for subsidies, is affordable for individuals with incomes equal to or lower than $23,760 (200% FPL) and equal to or greater than $64,508 (543% FPL). The plan’s premium is affordable for individuals with incomes equal to or lower than $35,640 (300% FPL) and equal to or greater than $64,508 (543% FPL). The plan’s deductible is affordable for individuals with incomes equal to or lower than $23,760 (200% FPL) and greater than $41,580 (350% FPL).

23 The lowest-cost single person MVP 2017 silver plan, accounting for subsidies, is affordable for individuals with incomes equal to or less than $35,640 (300% FPL), between $45,967 (387% FPL) and $47,520 (400% FPL), and greater than $58,331 (490% FPL). The premium is affordable for individuals with incomes equal to or less than $47,520 (400% FPL) and equal to or greater than $58,217 (490% FPL). The plan’s deductible is affordable for individuals with incomes equal to or less than $35,640 (300% FPL) and equal to or more than $45,861 (386% FPL).

24 The lowest-cost couple BCBSVT 2017 silver plan, accounting for subsidies, is affordable for couples with incomes equal to or less than $32,000 (200% FPL) and greater than $125,444 (783% FPL). The plan’s premium is affordable for couples with incomes equal to or lower than $48,060 (300% FPL) and greater than $125,444 (783% FPL). The plan’s deductible is affordable for couples with incomes equal to or lower than $32,000 (200% FPL) and equal to or greater than $80,100 (500% FPL).

25 The lowest cost couple MVP 2017 silver plan, accounting for subsidies, is affordable for couples with incomes equal to or less than $48,060 (300% FPL) and greater than $116,645 (727% FPL). The premium is affordable for couples with incomes equal to or less than $64,080 (400% FPL) and greater than $116,645 (727% FPL). The plan’s deductible is affordable for couples with incomes equal to or lower than $48,060 (300% FPL) and equal to or more than $71,930 (449% FPL).
Figure 4. Rule-based affordability of lowest-cost 2017 BCBSVT and MVP silver plans for a two-adult, two-child household.  

Health Insurance Affordability: A Market-Based Model

Our last method looks at whether Vermont households can buy health insurance and still have enough money to pay for necessities such as food and rent. Unlike the macroeconomic and rule-based models, this model allows us to identify scenarios when Vermonters must choose between purchasing health care and other necessities.

The market-based model makes assumptions about what expenses Vermonters must pay to maintain a minimally adequate quality of life. Vermont’s Basic Needs Budget, produced by the Legislative Joint Fiscal Office (JFO), provides a reasonable standard for the minimum costs a Vermont family must be able to pay. Our model uses the Basic Needs Budget for 2017, federal and state income tax rules for 2017, federal and state PTC and CSR rules for 2017, and 2017 Vermont Health Connect individual and small-group insurance rates to evaluate whether a Vermont household can afford to pay for health insurance, health care, and other basic necessities.

This market-based model adds up the costs that a household must satisfy and then subtracts this number from the household’s gross income. If the result is negative, the household does not have enough money to cover the

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26 The lowest cost family BCBSVT 2017 silver plan, accounting for subsidies, is affordable (premium and deductible) for families with incomes equal to or lower than $72,900 (300% FPL) and equal to or greater than $176,522 (726% FPL). The plan’s premium is affordable for families with incomes equal to or lower than $72,900 (300% FPL) and equal to or greater than $176,522 (726% FPL). The plan’s deductible is affordable for families with incomes equal to or lower than $72,900 (300% FPL) and equal to or more than $92,097 (379% FPL).

27 The lowest cost family MVP 2017 silver plan, accounting for subsidies, is affordable (premium and deductible) for families with incomes equal to or less than $72,900 (300% FPL), between $92,000 (379% FPL) and $97,200 (400% FPL), and equal to or greater than $163,693 (674% FPL). The plan’s premium is affordable for families with incomes equal to or less than $47,520 (400% FPL), between $78,000 (320% FPL) and $97,200 (400% FPL), and equal to or greater than $163,693 (674% FPL). The plan’s deductible is affordable for families with incomes equal to or less than $72,900 (300% FPL) and equal to or more than $92,000 (379% FPL).

The Cost of Health Insurance: Quantifying the Vermont Affordability Crisis

The Cost of Health Insurance: Quantifying the Vermont Affordability Crisis

necessities included in the model. If the result is zero or positive, the household has adequate funds to cover these necessities.\textsuperscript{29} 30 31 32 33

We have not incorporated potential contributions from small employers, as these vary widely and are set at the discretion of each employer. Small employers can use this market-based model to see what they would need to contribute to ensure that their health insurance benefit is affordable for their employees.

In Figures 5, 6, and 7, we demonstrate the affordability of health insurance and health care costs for specific households purchasing the lowest cost VHC silver plan, with different levels of use (percent of the plan deductible spent). We account for the fact that households will not pay out-of-pocket costs for children with Dr. Dynasaur.

The out-of-pocket medical costs in the scenarios we present were selected to reflect realistic possibilities for Vermonters. Figure 5 shows affordability for a single adult who spends 10\% of her deductible. For a single person who earns $36,000 per year, 10\% of the deductible for the lowest cost MVP VHC silver plan is $180 (approximately the cost of one urgent care visit).\textsuperscript{34} Figure 6 shows affordability for a single parent with one child, who spends 40\% of the deductible on health care, half of which is for the child. If the parent earns $44,000 per year, 20\% of the deductible for the lowest cost MVP VHC silver plan is $160 (approximately the cost of one 15-minute office visit with a doctor). Figure 7 shows affordability for a couple with two children, who spend their entire deductible on health care for the children. If the couple earns $85,000 per year, 100\% of the deductible for the lowest cost MVP VHC silver plan is $4,600 (approximately the cost of treating a broken arm and managing diabetes).\textsuperscript{35}

\textsuperscript{29} Cost items in the model include these elements from the 2017 JFO Basic Needs Budget: food, housing, transportation, dental care/insurance, childcare, clothing and household expenses, personal expenses and telecommunications. These elements vary by household composition. Cost elements related to income tax liability, FICA withholding, and Medicare withholding are based on federal and Vermont statutes and regulations applicable in 2017. These elements vary by household income and composition. Cost elements related to health insurance and health care are drawn from the 2017 VHC plan designs. The cost items for health care costs as a percentage of plan deductible is a user-inputted value. This item varies by applicable plan design, household composition, and available subsidies.

\textsuperscript{30} The model includes the following 2017 federal income tax items: the standard deduction, personal exemptions, PTC, the dependent care credit, the earned income credit, and the child tax credit. The model includes the following 2017 Vermont income tax items: the earned income credit, the dependent care credit, and the renter rebate. The model includes the federal CSR subsidy. The model includes the following Vermont subsidies: CSR, Vermont Premium Assistance, and Dr. Dynasaur.

\textsuperscript{31} Our method makes two explicit assumptions that the JFO Basic Needs Budget did not make. These assumptions were necessary since we were interested in estimating affordability across a range of household incomes whereas the Basic Needs Budget is essentially a point estimate of the minimum amount of money a household needs to live. Our first assumption is that all household income is earned income and that adjusted gross income for the household equals modified adjusted gross income. This assumption was necessary to allow for the calculation of tax liability and various subsidies across household income values. Second, we assumed that a household’s basic needs costs varied only by household composition and not by household income. For instance, we assumed that a single adult will have lower basic needs costs than a four person household but a single adult who earns $30,000 a year will have the same basic needs as one who earns $70,000 a year.

\textsuperscript{32} Necessary expenses only capture the minimum money necessary to adequately meet the household’s needs as established by the JFO’s Basic Needs Budget. To make our model more conservative, we excluded three items that are included in the Basic Needs Budget: (1) contribution to savings, (2) renters insurance, and (3) life insurance.

\textsuperscript{33} The market-based model looks at necessary costs for Vermont households to maintain a minimally adequate standard of living. Health insurance and health care are not the only drivers of unaffordability.

\textsuperscript{34} Healthcare Bluebook, https://healthcarebluebook.com (last visited Feb. 1, 2018). The cost estimates in this paper are based on the fair price of services for persons who seek care in Montpelier, VT.

\textsuperscript{35} Services included in this estimate: x-ray ($67), short arm cast ($209), ER visit ($1,602), initial physical therapy evaluation ($193), and five 15-minute physical therapy sessions ($395), for a total of $2,520. Healthcare Bluebook,
Figure 5. Affordability of 2017 lowest-cost silver plan for single adult urban and rural households that use 10% of the deductible.

Table 1. Income ranges and ability to cover basic needs for urban and rural single adult households whose health care costs are 10% of their deductible (2017 VHC lowest-cost silver plan).

<table>
<thead>
<tr>
<th>Urban Household</th>
<th>Affordable?</th>
<th>Rural Household</th>
<th>Affordable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $35,100</td>
<td>No</td>
<td>Less than $35,500</td>
<td>No</td>
</tr>
<tr>
<td>Between $35,100 and $35,600</td>
<td>Yes</td>
<td>More than $35,500</td>
<td>Yes</td>
</tr>
<tr>
<td>Between $35,600 and $36,250</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than $36,250</td>
<td>Yes</td>
<td></td>
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</tbody>
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36 In Vermont, only households in Chittenden County are considered urban (approximately 25% of the population). Per the JFO Basic Needs Budget, basic needs cost more in urban settings.
Figure 6. Affordability of the 2017 lowest-cost silver plan for one adult, one child urban and rural households that use 40% of the deductible, half of which is attributable to the child.

![Graph showing affordability of health insurance plans for different income levels.](image)

Table 2. Income ranges and ability to cover basic needs for one adult, one child urban and rural households using 40% of the deductible, half of which is attributable to the child (2017 VHC lowest-cost silver plan).

<table>
<thead>
<tr>
<th>Urban Household</th>
<th>Affordable?</th>
<th>Rural Household</th>
<th>Affordable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income</td>
<td></td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Less than $62,400</td>
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<td>Less than $52,450</td>
<td>No</td>
</tr>
<tr>
<td>Between $62,300 and $64,050</td>
<td>Yes</td>
<td>More than $52,450</td>
<td>Yes</td>
</tr>
<tr>
<td>Between $64,050 and $70,100</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than $70,100</td>
<td>Yes</td>
<td></td>
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</tbody>
</table>
**Figure 7.** Affordability of the 2017 lowest cost silver plan for two adult, two child urban and rural households that use 100% of the deductible, all of which is attributable to the children.

![Graph showing affordability of the 2017 lowest cost silver plan for urban and rural households.]

**Table 3.** Income ranges and ability to cover basic needs for two adult, two child urban and rural households with two wage earners using 100% of the deductible, all of which is attributable to the child (2017 VHC lowest-cost silver plan).

<table>
<thead>
<tr>
<th>Urban Household Income Range</th>
<th>Affordable?</th>
<th>Rural Household Income Range</th>
<th>Affordable?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than $93,300</td>
<td>No</td>
<td>Less than $85,850</td>
<td>No</td>
</tr>
<tr>
<td>Between $93,300 and $97,250</td>
<td>Yes</td>
<td>More than $85,850</td>
<td>Yes</td>
</tr>
<tr>
<td>Between $97,250 and $104,000</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More than $104,000</td>
<td>Yes</td>
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The results of the market-based model support the general results of the rule-based model, namely, that health insurance and health care are unaffordable for many households, even those with substantial incomes. For instance, an average two-adult, two-child family earning less than $93,300 per year lacks sufficient income to afford their necessities when they have a moderately sick child.

The results of the market-based model suggest two additional conclusions. First, sharp drops in net money available occur when income eligibility thresholds are crossed. There are particularly pronounced drops at the limits of CSR and PTC eligibility. These eligibility “cliffs” present Vermonters with a perverse set of incentives: accepting a raise can cost more money than it earns if an eligibility threshold is crossed and the new pay does not offset the loss of subsidy. For example, a family of four whose income increases from $97,000 to $98,000 experiences a roughly $6,500 net loss due to ineligibility for PTC.

Second, the results of this model highlight the fact that low-income Vermonters live on substantially less money than is required to meet their basic needs. Although the rule-based model indicates that households at lower incomes spend an acceptable amount on premium and deductible, the market-based model demonstrates that such households face a substantial struggle to pay for health insurance, health care, and other basic necessities. For instance, a two-adult, two-child family in Chittenden County making $50,000 and purchasing the second lowest-cost silver plan faces a bleak financial situation, even if they spend a relatively small amount on health care (15% of plan deductible, attributable to the adults). Although the family qualifies for CSR, near free insurance for the children, PTC, and various additional federal and Vermont tax credits, the family comes up nearly $22,000 short compared to its total basic needs. The interpretation of such values is clear even though other factors such as rent and childcare contribute to the family’s deficit. The family cannot afford health insurance, health care, and the other necessities of life and is faced with the nearly impossible task of choosing which basic necessities to forego.

**Conclusion: VHC Health Insurance Affordability**

Affordability of health insurance and health care is a substantial problem in Vermont. Many households have to choose between paying for food, for shelter, for health insurance, or for health care. Some households earn tens of thousands of dollars less than they need to meet these basic needs.

This paper’s methods of measuring affordability demonstrate three main points. First, VHC health insurance and health care costs are increasing at an unsustainable rate. Second, Vermonters with low and moderate incomes cannot currently afford VHC health insurance, regardless of the plan they select. Even some higher income Vermont households struggle to afford health insurance, health care, and the basic necessities of life. Third, subsidy thresholds produce eligibility “cliffs” that lead to drastic drops in net money available, and in some cases, perverse incentives for working Vermonters.

We know Vermont’s affordability crisis is not solely the result of VHC health insurance costs or health care costs in general. As the market-based model demonstrates, additional factors such as food, rent, and childcare significantly contribute to Vermont’s affordability crisis. However, the rapidly increasing costs of health insurance and health care indicate that health expenses are accounting for a larger and larger proportion of Vermonters’ basic needs.

State and federal subsidy programs like PTC, VPA, CSR, and Dr. Dynasaur make health insurance more affordable. In light of our findings, we recommend that these programs continue to be funded and that programs to improve affordability be expanded over time. Additionally, policy decisions like subsidy eligibility cliffs should be examined and gradual subsidy phase-outs should be implemented when possible.
The complex and systemic nature of Vermont’s affordability crisis creates substantial opportunity for Vermont policy efforts to improve VHC health insurance affordability. Vermont needs to approach health insurance and health care from a broad perspective that looks holistically at people’s needs. For instance, integrating subsidy supports to ameliorate health insurance and health care costs, as well as social determinants of health, might be a cost-effective means of improving affordability for Vermonters.

We encourage policymakers to consider the affordability crisis when making policy changes and to continue to develop interventions to address this crisis with the Office of the Health Care Advocate.

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**Office of the Health Care Advocate**

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