CENTER FOR WOMEN'S WELFARE
UNIVERSITY of WASHINGTON
School of Social Work

June 2022

Connecticut Healthcare Affordability Index

Findings from the CHAI Interactive Tool

By Lisa Manzer
University of Washington Center for Women's Welfare

Prepared for the Connecticut Office of Health Strategy the Connecticut Office of State Comptroller

This publication does not express the views of the Connecticut Office of Health Strategy, the Connecticut Office of State Comptroller, or the State of Connecticut. The views and opinions expressed are those of the author. We are grateful for the partnership, expertise, and financial support of the Connecticut Office of Health Strategy, the Connecticut Office of State Comptroller, the Connecticut Health Foundation, and the Universal Health Care Foundation.

Introduction

Healthcare is affordable in Connecticut if a family can reliably secure it to maintain good health and treat illnesses and injuries when they occur without sacrificing the ability to meet all other basic needs including housing, food, transportation, child care, taxes, and personal expenses or without sinking into debilitating debt.

The ***Connecticut Healthcare Affordability Index*** (CHAI) measures the impact of healthcare costs, including premiums and out-of-pocket expenses, on a household's ability to afford all basic needs, like housing, transportation, child care, and groceries. CHAI starts with the Self-Sufficiency Standard for Connecticut and adds in details that influence healthcare costs such as type of insurance coverage, age, health risk, and family composition. CHAI and the *Connecticut Household Healthcare Spending Target* were developed in partnership with the Connecticut Office of Health Strategy (OHS) and the Connecticut Office of the State Comptroller (OSC) with financial support from the Connecticut Health Foundation and the Universal Health Care Foundation.

This brief summarizes findings from data available in the CHAI Interactive Tool. The tool was developed to help policymakers understand the real costs of healthcare and the challenges that Connecticut residents face in meeting their basic expenses. Users can navigate through the tool to explore how different policy levers can redefine the cost of affordable healthcare to estimate how many Connecticut households have income adequate to afford basic needs and predict how many households have affordable healthcare costs.

The goal of the project is to provide a data tool for analyses that can inform policies and practices that will make quality, reliable healthcare affordable to all. We find that:

- Policies increasing the affordability of healthcare can have a substantial impact on the ability of Connecticut households to meet their basic needs—preventing hardships and debilitating debt.
- Modeling the expansion of the premium tax credit under American Rescue Plan Act, the new Covered Connecticut program, and limiting healthcare costs by the Cost Growth Benchmark, reveals that approximately 8,500 additional Connecticut households would have income sufficient to afford their basic needs.
- More than 62,000 additional Connecticut households will have affordable healthcare with the policies modeled in this research. However, without the continuation of the expansion of the premium tax credit implemented in the American Rescue Plan Act, over 31,000 of these Connecticut households are at risk of not having affordable healthcare.

Please visit the CHAI Interactive Tool to explore this data in detail.

Overview

We conducted a three-prong approach to assess healthcare affordability in Connecticut. First, we estimate the cost of all basic needs, including healthcare, in order to calculate the CHAI income (the income a household needs to afford basic needs given their healthcare costs). Second, we estimate the number of households with adequate income to afford their basic needs according to the CHAI income threshold. Finally, we estimate the rate of households with affordable healthcare according to the Connecticut Household Healthcare Spending Target. Each step is summarized below.

Step 1. Estimate the Cost of Basic Needs.

Our first question with each model is "how does the policy model impact the cost of basic needs, including healthcare, for Connecticut households?" We look to the Connecticut Healthcare Affordability Index (CHAI) to measure the cost of basic needs for a given family in a given town. CHAI measures the impact of healthcare costs, including premiums and out-of-pocket expenses, on a household's ability to afford all basic needs, like housing, transportation, child care, and groceries.

CHAI starts with the University of Washington Center for Women's Welfare Self-Sufficiency Standard for Connecticut and substitutes the original Self-Sufficiency Standard healthcare costs with detailed costs to account for factors that impact affordability. This includes differences in (1) type of insurance coverage, (2) age-related premiums, and (3) out-of-pocket costs by health risk score of the householder (low indicates good health; medium signifies chronic diseases that are controlled; high indicates chronic diseases that are uncontrolled or have related complications). For detailed data sources and assumptions, please review the technical documentation in the appendix.

Table 1 provides an example of how CHAI varies by the type of health insurance coverage in Bridgeport for one adult in the 18-34-year-old category with a low health risk score and one preschooler and one school-age child. The cost of non-healthcare basic needs is held constant, while the total healthcare cost varies. Taxes and tax credits are adjusted to reflect the different income that must be earned to afford the total of basic needs.

- Healthcare costs for this family in Bridgeport are estimated at $645 per month if the family has employer-sponsored coverage. Overall, the CHAI estimates that a total monthly income of $6,544 is needed to cover the family's basic needs with employer-sponsored coverage.
- If this family had insurance through the individual marketplace their healthcare costs would more than double and their monthly income needed increases to $7,766 per month.
- On the other hand, if we estimate the family has zero healthcare expenses, they could meet their basic needs with an income of $5,597 per month—*an annual difference of over $26,000 compared to individual marketplace coverage*.

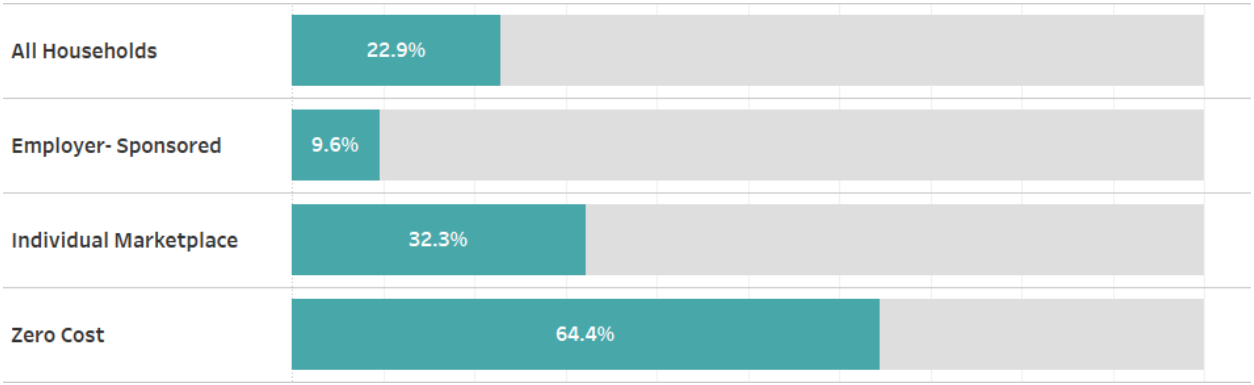
Table 1. Connecticut Healthcare Affordability Index Total Income Needed to Meet Basic Needs: Bridgeport, CT 2019
One Adult (18-34, Low Health Risk Score), One Preschooler, and One School-age Child

	Employer-Sponsored	Individual Marketplace	Zero Cost
Monthly Cost of Basic Needs			
Housing	$1,293	$1,293	$1,293
Child Care	$2,289	$2,289	$2,289
Food	$709	$709	$709
Healthcare	$645	$1,430	$0
Transportation	$70	$70	$70
Miscellaneous	$496	$496	$496
Taxes	$1,475	$1,912	$1,174
Premium Tax Credit (-)	--	$0	--
Earned Income Tax Credit (-)	$0	$0	$0
Child Tax Credit (-)	($333)	($333)	($333)
Child Care Tax Credit (-)	($100)	($100)	($100)
Income Needed to Meet Basic Needs			
Monthly Income	$6,544	$7,766	$5,597
Annual Income	$78,527	$93,189	$67,169

Step 2. Estimate Income Inadequacy Rate

The next step in our approach is to estimate the percentage of households with inadequate income. To estimate the number of households unable to meet their basic expenses, including the cost of healthcare, this study crosswalks the CHAI income threshold, calculated in Step 1, with the 2019 American Community Survey (ACS) Public Use Microdata Sample (PUMS). This results in 22.9% (213,665) of households with working-age householders having incomes below the CHAI income threshold in 2019. However, this masks significant differences in income inadequacy rates by health insurance category (see Figure 1): rates varied from 9.6% of households in the employer-sponsored health insurance category, to 32.3% in the individual marketplace group, to 64.4% among those with zero cost insurance (by definition most of these households are low-income as their income must be below the eligibility threshold for Medicaid).

Figure 1. Percentage of Households with Inadequate Income by Insurance Category: CT 2019



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

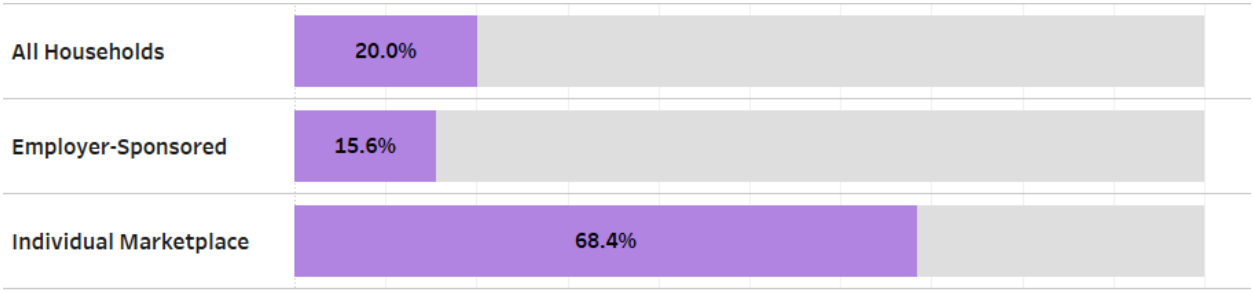
Step 3. Estimate Affordable Healthcare Rates

In the spring of 2021, in partnership with the OHS and OSC, we developed a spending target or limit to the proportion of household spending on healthcare costs in Connecticut. When the proportion of healthcare expenditures to household income exceeds 6.8% to 9.5% for one-adult households or 7.1% to 10.8% for two-adult households (with the range dependent upon number of children), we estimate that healthcare costs are unaffordable, indicating that the household is unable to afford adequate healthcare and other basic needs.[1]

Using the 2019 American Community Survey, we estimate that one in five working-age households (20.1%) had unaffordable healthcare expenditures in Connecticut. However, this rate drops to 15.6% for households in the employer-sponsored insurance category and increases to 68.4% among the individual marketplace households. By definition, all households in the zero-cost category are within the spending target.

[1] The spending target data produced for OHS/OSC includes the following parameters: calculated statewide, varied by number of adults with or without dependents, independently shows healthcare premiums and out-of-pocket costs, and includes a filter for health risk and insurance type.

Figure 2. Percentage of Households with Healthcare Expenses Exceeding the Connecticut Household Healthcare Spending Target: CT 2019



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

Policy Models

The CHAI is a living tool used to measure the impact of various policy models on Connecticut families' ability to make ends meet. Below is a summary of the models that have been tested with the CHAI tool along with the findings utilizing the three-prong analysis method detailed above. To explore results in more detail, including results by county and demographic categories, please visit the CHAI Interactive Tool.

American Rescue Plan Act (ARPA) *Premium Tax Credit*

The American Rescue Plan Act of 2021 (ARPA), temporarily lowered the monthly premium for insurance purchased on the individual marketplace by removing the income cap for the premium tax credit (PTC) as well as decreasing the percentage of income paid for the benchmark silver plan.[2] Prior to ARPA, households with incomes above 400% of the federal poverty guidelines paid the full cost of the health insurance premium.

1. ARPA PTC Impact on the Cost of Basic Needs

Without the premium tax credit, the cost of health insurance for households in the individual marketplace can be substantial. For example, in 2019 the CHAI healthcare cost for a family with two adults in the 35-49 age category and a low health risk score with one preschool and one school-age child is estimated at $2,187 per month with individual marketplace insurance. Overall, this family would need over $115,000 annually to meet their basic needs. This is about 450% of the federal poverty guideline and the family is not eligible for the premium tax credit at the income level needed to cover the cost of basic needs for this family in Fairfield.

[2] ARPA temporarily increased the 2021 Child Tax Credit, Earned Income Tax Credit, and the Child and Dependent Care Tax Credit. The House passed the Build Back Better bill at the end of 2021 to extend the healthcare cost and tax credit changes in the ARPA. However, the bill has stalled in the Senate, and it does not appear the child tax credit changes will be extended. Thus, this brief focuses only the ARPA premium tax credit changes which are still effective. Explore the CHAI Interactive Tool to view the impact of the full ARPA tax credit changes.

By removing the income cap the on the premium tax credit, this model shows that the temporary ARPA changes have a significant impact on the ability of Connecticut households to meet basic needs. If there was no income cap in 2019, this Fairfield family with insurance purchased in the individual marketplace would be eligible for $1,177 per month with the premium tax credit. This effectively reduces their monthly healthcare costs from $2,187 to $1,011 per month. Overall, the total income needed to meet basic needs for this family drops from $115,831 to $95,050 annually.[3]

Table 2. Impact of Removing the Premium Tax Credit Income Cap on the Connecticut Healthcare Affordability Index: Fairfield, CT 2019
Two Adults (35-49, Low Health Risk Score), One Preschooler, and One School-age Child

	Original CHAI (PTC Income Cap)	**ARPA** (No PTC Income Cap)
Housing	$1,293	$1,293
Child Care	$2,289	$2,289
Food	$953	$953
Healthcare	$2,187	$2,187
Transportation	$559	$559
Miscellaneous	$575	$575
Taxes	$2,230	$1,675
Premium Tax Credit (-)	$0	($1,177)
Earned Income Tax Credit (-)	$0	$0
Child Tax Credit (-)	($333)	($333)
Child Care Tax Credit (-)	($100)	($100)
Total Income Needed to Meet Basic Needs		
Monthly Income	$9,653	$7,921
Annual Income	$115,831	$95,050

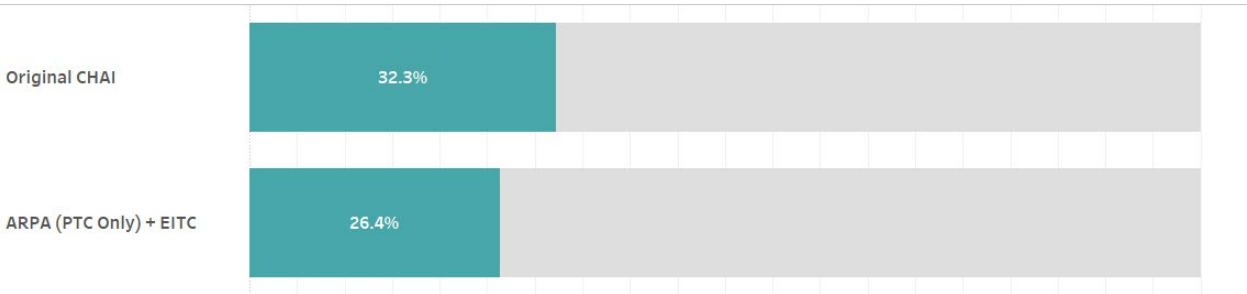
2. ARPA PTC Impact on Income Inadequacy Rates

The next step in the analysis examines how the new income thresholds change the estimate of households with inadequate income for households with insurance purchased through the individual marketplace (see Figure 3). As noted above, without applying any policy levers nearly a third (32.3%) of individual marketplace households were estimated to have income insufficient to cover the market cost of basic needs. Testing the impact of removing the premium tax credit income cap for households reduces the income inadequacy estimate to 26.4%. Overall, removing the premium tax credit income cap for individuals and families purchasing insurance through the individual insurance marketplace

[3] This model also updated the state earned income tax credit to reflect the 2022 increase to 35% of the federal EITC. However, families are typically not eligible for the EITC at the CHAI index level due to the high cost of basic needs.

results in a 5.9 percentage point decrease of income inadequacy rates—a decrease of over 7,500 households estimated to have income insufficient to meet their basic needs.

Figure 3. Impact of Removing the Premium Tax Credit Income Cap on the Percentage of Households with Inadequate Income, 2019
Individual Marketplace Insurance



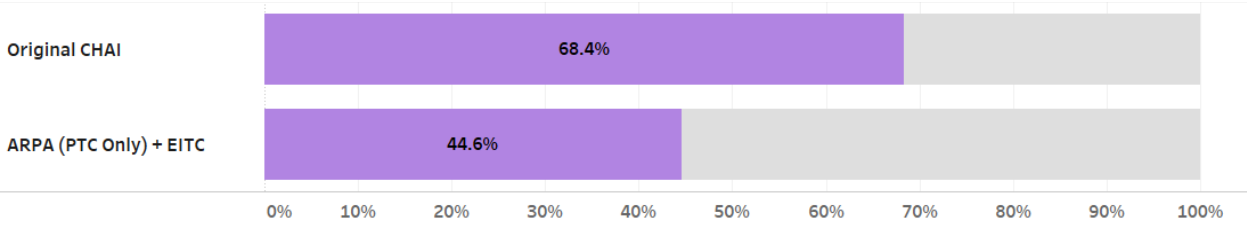
Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

3. ARPA PTC Impact on Affordable Healthcare Rates

Our analysis of the 2019 ACS dataset finds the percentage of households with healthcare costs beyond the spending target drops from 20.0% with no policy levers modeled to 16.7% with the addition of the ARPA removal of the income cap for the premium tax credit. Overall, this model estimates that if the temporary ARPA provision was available in 2019, nearly 31,000 additional households would be defined as having affordable healthcare.

Among households with individual marketplace insurance, the rate of households with unaffordable healthcare costs is reduced by over 20 percentage points when the income threshold is adjusted with the temporary ARPA changes to the premium tax credit. If the ARPA changes are continued, the estimate of households with healthcare costs exceeding the spending target drops from 68.4% without any policy models included to 44.6% with the ARPA premium tax credit reduction assumed.

Figure 4. Impact of Removing the Premium Tax Credit Income Cap on the Percentage of Households with Healthcare Expenses Exceeding the Connecticut Household Healthcare Spending Target: CT 2019
Individual Marketplace



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

Covered Connecticut

The Covered Connecticut Program went into effect July 1st, 2021 and expands the number of Connecticut residents eligible for no cost health insurance coverage. Medicaid eligibility for parents/caretakers typically ends at 160% of the federal poverty guidelines. The Covered Connecticut Program provides no cost health insurance through Access Health CT for parents/caregivers and their dependents, if they are not eligible for Medicaid but are below 175% of the federal poverty guidelines. Additionally, starting after July 1st 2022, Covered Connecticut will be available for all adults with incomes below 175% of the federal poverty guidelines.

1. Covered CT Impact on the Cost of Basic Needs

For households now eligible for Covered Connecticut, the CHAI income threshold switches from the individual insurance category to the zero-cost category. This results in a change in the calculation of the annual income needed to meet basic needs. For example, a young and healthy parent (18-34, low health risk) of a preschooler living in Bridgeport required $70,626 annually to adequately meet basic needs if health insurance was purchased on the individual marketplace (see Table 2). However, if healthcare costs are reduced from over $1,000 per month to zero, the annual CHAI income threshold drops to $54,278. In another example, a Hartford family with two adults (aged 35-49 with medium health risks) and two school-age children has an annual income needed to meet their basic needs that drops from $59,801 to $41,096 with no cost healthcare.

Table 3. Connecticut Healthcare Affordability Index Total Income Needed to Meet Basic Needs: Bridgeport and Hartford, CT 2019
Individual Marketplace & Zero Cost Healthcare

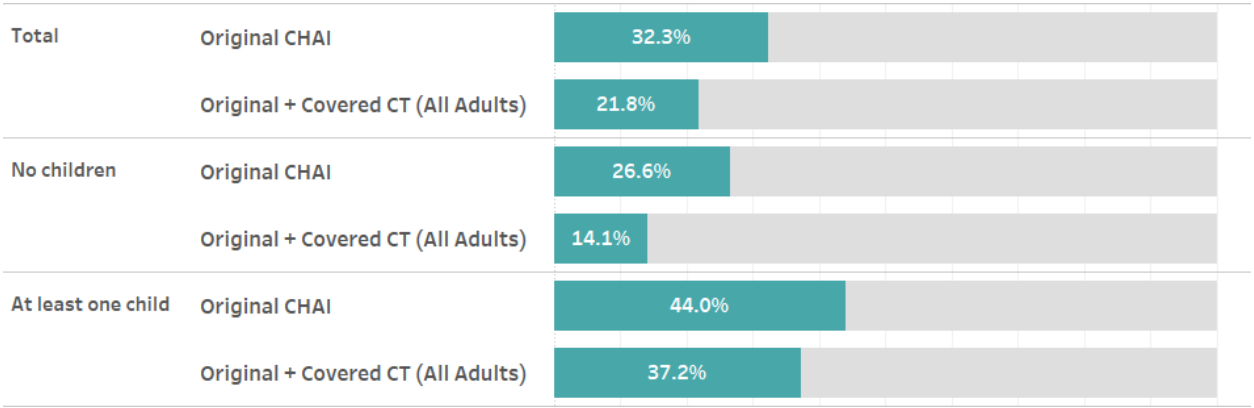
	Bridgeport One Adult (18-34, Low Health Risk) and One Preschooler		Hartford Two Adults (35-49, Medium Health Risk) and Two School-age Children	
	Individual Marketplace	**Zero Cost Healthcare**	**Individual Marketplace**	**Zero Cost Healthcare**
Monthly Costs				
Housing	$1,293	$1,293	$1,185	$1,185
Child Care	$1,610	$1,610	$988	$988
Food	$470	$470	$899	$899
Healthcare	**$1,018**	**$0**	**$1,977**	**$0**
Transportation	$70	$70	$126	$126
Miscellaneous	$402	$402	$377	$377
Taxes	$1,239	$895	$894	$468
Premium Tax Credit (-)	**$0**	--	**($1,029)**	--
Earned Income Tax Credit (-)	$0	$0	$0	($246)
Child Tax Credit (-)	($167)	($167)	($333)	($267)
Child Care Tax Credit (-)	($50)	($50)	($100)	($105)
Total Income Needed to Meet Basic Needs				
Monthly	$5,885	$4,523	$4,983	$3,425
Annual	**$70,626**	**$54,278**	**$59,801**	**$41,096**

2. Covered CT Impact on Income Inadequacy Rates

As the CHAI income threshold is above 175% of the federal poverty guidelines throughout Connecticut, the Covered Connecticut program does not change the overall count of households with incomes below the CHAI income threshold. However, recategorizing Covered Connecticut income eligible households from individual marketplace insurance to zero cost healthcare decreases the estimate of households with inadequate income from 32.3% to 29.8% when initially expanded to caregivers only and then to 21.8% when all adults are eligible.

Figure 5 details the impact of the rate of inadequate income among households in the individual marketplace by the presence of children. For example, as the lowest income households in the individual marketplace category are moved to Covered Connecticut, the income inadequacy rate among households *without* children drops from 26.6% to 14.1%. Likewise, 44.0% of households with children present and individual marketplace insurance were identified as having inadequate income. However, after parents are eligible for no cost healthcare through Covered Connecticut, the income inadequacy rate drops to 37.2%.

Figure 5. Percentage of Households with Inadequate Income by Children Present: CT 2019
Individual Marketplace Insurance



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

3. Covered CT Impact on Affordable Healthcare Rates

This model estimates that the overall estimate of households with healthcare costs exceeding the spending target drops from 20.1% to 18.2% with the Covered Connecticut program. Overall, 4,611 new caregiver households and 12,742 adult only households would have had affordable healthcare costs within the Connecticut Household Healthcare Spending Target with the Covered Connecticut program. This means that *over 17,000 additional households will be defined as having affordable healthcare costs as a result of the expanded eligibility of the Covered Connecticut program.*

Combined Impact: American Rescue Plan Act (ARPA) *Premium Tax Credit* and Covered CT

This model combines the previous two models, the ARPA changes to the premium tax credit as well as the income eligibility assumptions for the Covered Connecticut program.

1. ARPA PTC & Covered CT Impact on the Cost of Basic Needs

The model combining the premium tax credit changes and the new Covered CT program utilizes the same income thresholds calculated in the individual examples above. To further demonstrate the impact of these policy changes on the definition of adequate income, Figure 6 shows the cost of meeting basic needs for a Waterbury family with two adults, one school-age child, and one teenager. Assuming this family has insurance purchased through the individual marketplace, before adjusting for any policy models, the net healthcare cost after the premium tax credit is $777 per month and the family needs over $57,000 annually to meet all their basic needs.

Above in Table 3 we highlighted the dramatic impact that occurs with the removal of the premium tax credit income cap. For households with incomes below 400% of the FPG, ARPA expanded the premium tax credit for those already eligible. Considering the expanded ARPA subsidy, net healthcare costs

decrease to $544 per month and overall the family would need to earn $4,000 less to cover the cost of their basic needs.

Without the cost of healthcare, the adults need to earn $41,001 annually to meet the cost of all other basic needs—over $16,000 less per year than with the full cost of healthcare. This is more than the difference in healthcare alone as taxes decrease with lower earnings plus they are now eligible for the federal and state Earned Income Tax Credit. With earnings at 160% of the federal poverty guideline, the family is eligible for zero healthcare through the new Covered CT program.

Figure 6. Connecticut Healthcare Affordability Index Total Income Needed to Meet Basic Needs: Waterbury, CT 2019
Two Adults (35-49, Low Health Risk), One school-age Child, and One Teenager

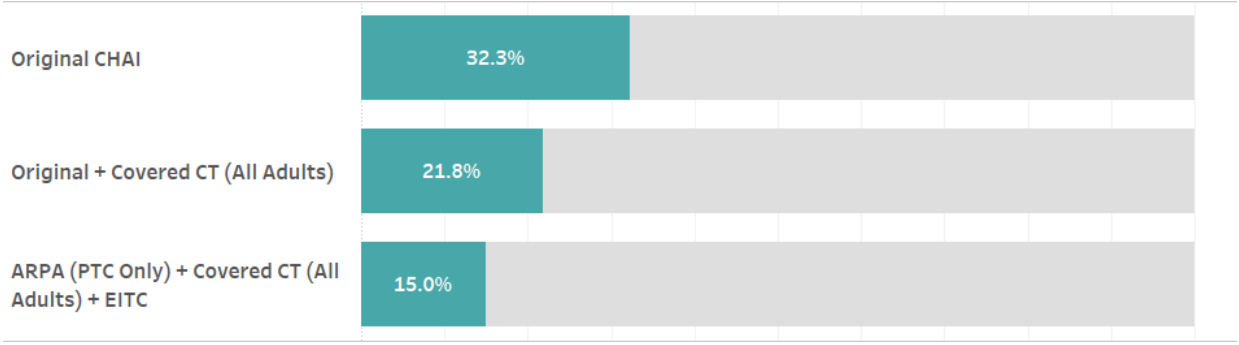
	Original CHAI	**ARPA (PTC Only) + State EITC + Covered CT**	
	Individual Marketplace	Individual Marketplace	Zero Cost Healthcare
Monthly Costs			
Housing	$1,110	$1,110	$1,110
Child Care	$607	$607	$607
Food	$909	$909	$909
Healthcare	$2,038	$2,038	$0
Transportation	$574	$574	$574
Miscellaneous	$384	$384	$384
Taxes	$826	$728	$467
Premium Tax Credit (-)	($1,261)	($1,483)	$0
Earned Income Tax Credit (-)	$0	$0	($263)
Child Tax Credit (-)	($333)	($333)	($267)
Child Care Tax Credit (-)	($100)	($100)	($105)
Total Income Needed to Meet Basic Needs			
Monthly	$4,754	$4,434	$3,417
Annual	$57,048	$53,204	$41,001

2. ARPA PTC & Covered CT Impact on Income Inadequacy Rates

The next step in the analysis examines how the new income thresholds change the estimate of households with inadequate income for households with insurance purchased through the individual marketplace (see Figure 7). As noted above, without applying any policy levers nearly a third (32.3%) of individual marketplace households were estimated to have income insufficient to cover the market cost of basic needs. We then estimated that the Covered Connecticut program would decrease the income

inadequacy rate to 21.8% for households in the individual marketplace. Testing the impact of removing the premium tax credit income cap for households reduces the income inadequacy estimate to 15.0%. Overall, with the Covered Connecticut program and the income cap changes to the premium tax credit, we estimate that these changes *half* the percentage of individual marketplace households with inadequate income to meet their basic needs, including healthcare.

Figure 7. Impact of Policy Changes on the Percentage of Households with Inadequate Income, 2019
Individual Marketplace Insurance | Connecticut Healthcare Affordability Index



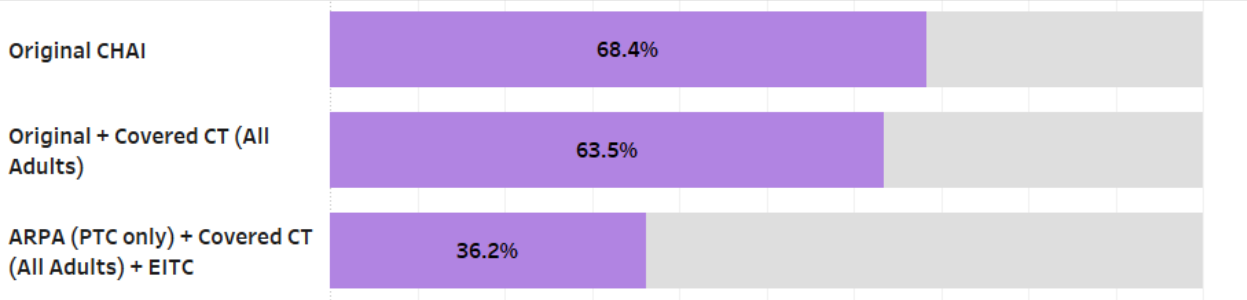
Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

3. ARPA PTC & Covered CT Impact on Affordable Healthcare Rates

Our analysis of the 2019 ACS dataset finds the percentage of households with healthcare costs beyond the spending target drops from 20.0% with no policy levers modeled, to 18.2% after incorporating the full Covered Connecticut program, and then to 14.9% with the addition of the ARPA premium tax credit expansion. Overall, this model estimates that if the temporary ARPA provision was available in 2019, over 30,000 additional households would be defined as having affordable healthcare.

Among households with individual marketplace insurance, the rate of households with unaffordable healthcare costs is reduced by nearly half when the income threshold is adjusted with the temporary ARPA changes to the premium tax credit. If the ARPA changes are continued, the estimate of households with healthcare costs exceeding the spending target drops from 68.4% without any policy models included, to 63.5% with Covered Connecticut, and then to 36.2% with the ARPA premium tax credit reduction assumed. Overall, the combination of the Covered Connecticut program and the premium tax credit income cap removal reduces the percentage of households with healthcare costs beyond the spending target by 34 percentage points.

Figure 8. Percentage of Households with Healthcare Expenses Exceeding the Connecticut Household Healthcare Spending Target: CT 2019
Individual Marketplace



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

Cost Growth Benchmark

While the Covered Connecticut program and the ARPA premium tax credit models reflect actual recent policy changes, the cost growth benchmark model applies a hypothetical scenario that estimates the impact on affordability if hospital inpatient and outpatient spending increased at the average Connecticut cost growth benchmark value. Using hospital commercial spending data prepared by Bailit Health, analysts at OSC and OHS projected that if commercial rates had grown at the cost growth benchmark level, healthcare costs would decline by 5.5% in the employer-sponsored market and 5.2% in the individual market. We applied those cost reductions to our three-prong approach to estimating healthcare affordability utilizing the model that has incorporated the Covered Connecticut program and the ARPA premium tax credit changes.

1. Cost Growth Benchmark Impact on the Cost of Basic Needs

If healthcare costs are reduced by 5.5% and 5.2% in the employer-sponsored and individual marketplace, how much would the overall cost of basic needs decrease for Connecticut households? For a family with two adults and two school-age children with employer-sponsored insurance living in New London, their total healthcare costs reduced from $618 to $584 per month. The net effect of this after taxes would be a $45 per month or $541 annual reduction in the total income this family would need to meet basic needs. A similar impact occurs if this same family type had individual marketplace insurance. Healthcare costs would decrease from $2,008 to $1,904 per month and the premium tax credit amount would also decrease from $1,350 to $1,276 per month. The net effect on the total income needed to meet basic needs is a decrease of $40 per month or $477 annually.

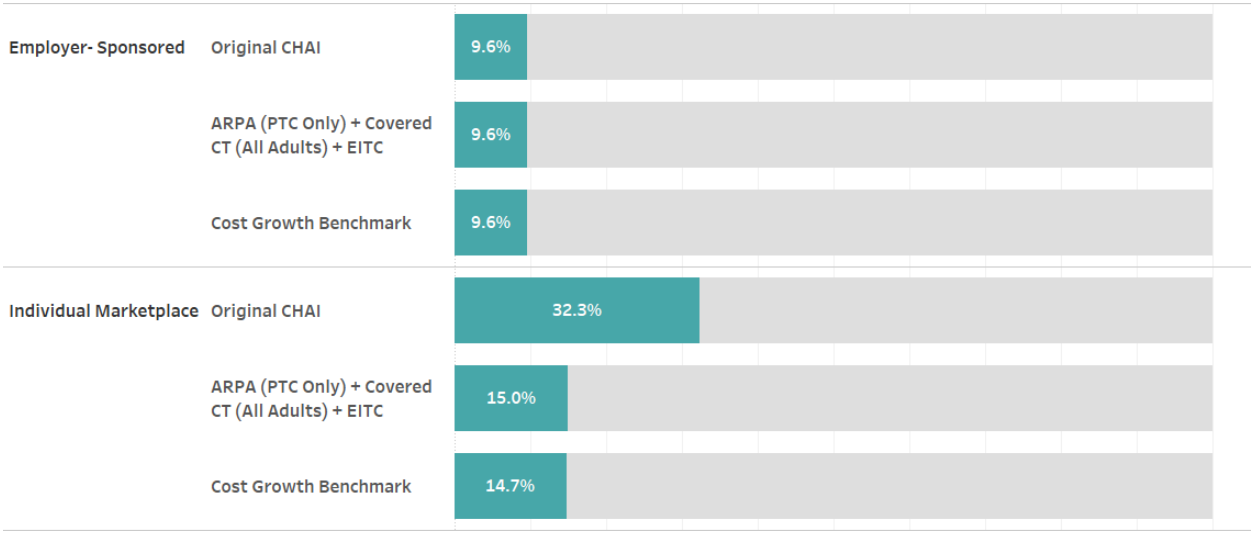
Table 4. Connecticut Healthcare Affordability Index Total Income Needed to Meet Basic Needs: New London, CT 2019
Individual Marketplace Insurance & Zero Cost Healthcare |
Two Adults (35-49, Low Health Risk) and Two School-age Children

	Employer-Sponsored		Individual Marketplace	
	Original CHAI	**Cost Growth Benchmark**	**ARPA (No PTC income cap)**	**Cost Growth Benchmark**
Monthly Costs				
Housing	$1,143	$1,143	$1,143	$1,143
Child Care	$771	$771	$771	$771
Food	$1,002	$1,002	$1,002	$1,002
Healthcare	$618	$584	$2,008	$1,904
Transportation	$537	$537	$537	$537
Miscellaneous	$405	$405	$405	$405
Taxes	$867	$856	$886	$876
Premium Tax Credit (-)	$0	$0	($1,350)	($1,276)
Earned Income Tax Credit (-)	$0	$0	$0	$0
Child Tax Credit (-)	($333)	($333)	($333)	($333)
Child Care Tax Credit (-)	($100)	($100)	($100)	($100)
Total Income Needed to Meet Basic Needs				
Monthly	$4,909	$4,864	$4,969	$4,929
Annual	$58,908	$58,367	$59,627	$59,150

2. Cost Growth Benchmark Impact on Income Inadequacy Rates

Despite the relatively smaller share that healthcare costs have within most family budgets, reducing the costs by 5.5% and 5.2% had a positive change in the rate of households with inadequate income. Incorporating the cost growth benchmark model into the previous policy models (no PTC income cap, Covered Connecticut, and the expanded state EITC), over 400 less employer-sponsored insurance households are estimated to have inadequate income. Additionally, over 300 households in the individual marketplace are estimated to have adequate income if the overall healthcare cost had been limited by the cost growth benchmark, decreasing the income inadequacy rate from 15.0% to 14.7%. Overall, this model estimates that if healthcare costs were reduced by the cost growth benchmark percentage in 2019, over 700 additional households would have adequate income to meet their basic needs.

Figure 9. Impact of Policy Changes on the Percentage of Households with Inadequate Income: CT 2019
Employer-Sponsored & Individual Marketplace Insurance | Connecticut Healthcare Affordability Index

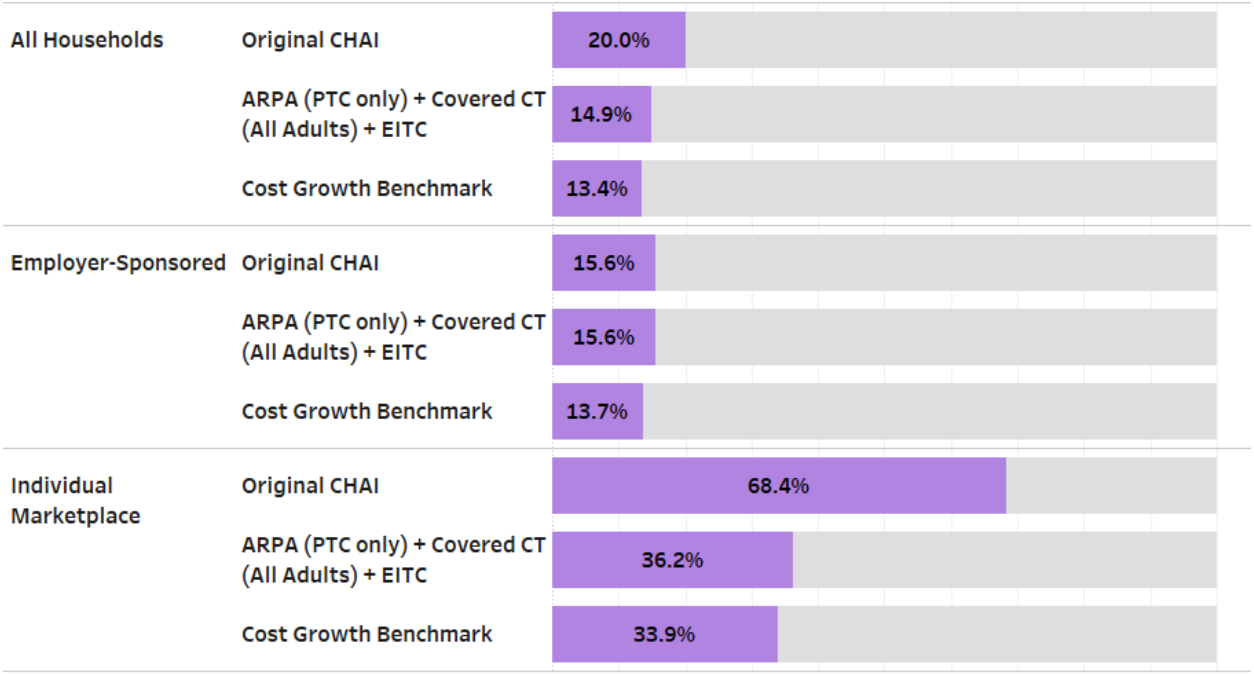


Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

3. Cost Growth Benchmark Impact on Affordable Healthcare Rates

The largest impact of the cost growth benchmark model appears among the affordable healthcare rates. Our analysis of the 2019 ACS dataset finds the percentage of households with healthcare costs beyond the spending target drops from 14.9% after incorporating the full Covered Connecticut program and the ARPA removal of the income cap for the premium tax credit to 13.4% with the healthcare cost reductions of the cost growth benchmark. Among households in the individual marketplace category, the rate of households with unaffordable healthcare costs decreases from 36.2% in the previous model to 33.9% after accounting for the cost growth benchmark limit. Overall, *reducing healthcare costs by the cost growth benchmark model results in over 14,000 additional households with affordable healthcare according to the Connecticut Household Healthcare Spending Target*.

Figure 10. Percentage of Households with Healthcare Expenses Exceeding the Connecticut Household Healthcare Spending Target by Insurance Category: CT 2019



Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

Impact of Policy Models by Demographic Characteristics

Policies impacting healthcare affordability have varying impact across household demographic characteristics. Table 5 compares the rate of households with unaffordable healthcare costs according to the Connecticut Households Healthcare Spending Target between the Original CHAI and the final model combining the impact of the ARPA premium tax credit changes, the expanded state EITC, the Covered CT program, and the cost growth benchmark.

- For example, likely reflecting that healthcare costs in the individual marketplace increase with age, these models have a greater reduction in the percentage of households headed by adults over 50 exceeding the spending target.
- On the other hand, households with young children are less likely to experience a shift in healthcare affordability due to the percentage of the budget accounted for by the high cost of child care.
- This model estimates that households living in Toland, New Haven, and Fairfield counties experience the largest shift in the percentage of households with unaffordable healthcare according to the spending target. Overall, applying these models lowers the count of households with unaffordable healthcare, according to the spending target, by over 19,000 additional households in Fairfield County and over 17,000 additional households in New Haven County.
- Asian and Latinx households are estimated to have the largest decrease in unaffordable healthcare rates.

Table 5. Impact of Policy Models on the Percentage of Households with Healthcare Costs Exceeding the Connecticut Household Healthcare Spending Target by Select Demographic Characteristics: CT 2019
All Households

	Original CHAI	Combined impact of all policy models*	Difference
Age of householder			
18-34	18.7%	12.7%	6.0%
35-49	19.3%	13.4%	6.0%
50-64	21.4%	13.7%	7.7%
Age of youngest child			
Age of youngest child less than 6	23.2%	18.7%	4.5%
Age of youngest child more than 6	23.5%	17.5%	6.0%
No children	18.0%	10.5%	7.5%
County			
Fairfield County	24.5%	16.4%	8.0%
Hartford County	15.0%	10.3%	4.7%
Litchfield County	17.9%	13.4%	4.5%
Middlesex County	18.4%	13.5%	4.9%
New Haven County	21.3%	13.2%	8.1%
New London County	20.5%	14.3%	6.2%
Tolland County	20.7%	12.2%	8.5%
Windham County	20.4%	13.5%	6.9%
Family type			
No children	18.0%	10.5%	7.5%
Married with children	19.3%	14.9%	4.3%
Single father	39.4%	31.2%	8.2%
Single mother	28.5%	21.3%	7.3%
Race/ethnicity of householder			
American Indian or Alaska Native	9.0%	4.4%	4.6%
Asian, Native Hawaiian, and Pacific Islander	19.9%	11.5%	8.4%
Black or African American	24.6%	18.7%	5.9%
Latinx	29.1%	21.5%	7.6%
White	17.1%	10.7%	6.4%

*ARPA Premium Tax Credit changes, expanded State EITC, Covered CT program, and the Cost Growth Benchmark model

Source: U.S. Census Bureau, 2019 ACS 1-Year Public Use Microdata Sample.

Conclusion

The findings from this brief demonstrate that policy increasing the affordability of healthcare can have a substantial impact on the ability of Connecticut households to meet their basic needs—preventing hardships and debilitating debt. Overall, the expansion of the premium tax credit, the new Covered Connecticut program, and the cost growth benchmark results in an estimate that over 8,500 additional households would be able to afford their basic needs. Furthermore, focusing specifically on the cost of healthcare, if all of these policy changes—the ARPA premium tax credit changes, the expanded Connecticut EITC, and the cost growth benchmark—had been enacted in 2019, our model estimates that *over 62,000 more households would have healthcare costs within the Connecticut Household Healthcare Spending Target*. Healthcare is just one of several basic expenses Connecticut households need to get by at the bare minimum: further changes to income inadequacy rates will require comprehensive policies addressing not only healthcare but also the costs of housing, child care, transportation, and taxes.

Appendix: Methodology and Assumptions

This appendix explains the methodology, assumptions, and sources used to calculate the Connecticut Healthcare Affordability Index (CHAI), the estimate of the Connecticut income inadequacy rates, and the estimate of affordable healthcare rates. Additionally, we provide further details on the assumptions made for each health policy model.

CHAI Assumptions and Data Sources

CHAI starts with the Self-Sufficiency Standard for Connecticut but differentiates the healthcare costs to account for factors that impact affordability, including differences in insurance coverage, age premiums, and increased out-of-pocket costs based on health risk scores.[4]

As with the original Self-Sufficiency Standard, the healthcare costs in CHAI are a combination of premium and out-of-pocket costs. In addition, CHAI incorporates additional factors impacting healthcare costs for individuals and families. Specifically, premiums are calculated for three types of health insurance coverage (employer sponsored, individual marketplace, Medicaid) and the out-of-pocket costs are calculated for three health risk scores (low, medium, high).[5] For employer-sponsored and individual marketplace coverage, each of these is varied by three age groups (18-34, 35-49, 50-64) and three health risk scores (low, medium, high). Because there are no premium and out-of-pocket costs for Medicaid, the Medicaid CHAI is not varied.

Employer-sponsored Premiums

The premiums for employer-sponsored health insurance are calculated based on data from the 2019 Medical Expenditure Panel Survey (MEPS) and adjusted geographically based on territory factors provided by Anthem.[6] Anthem Health Plans is one of the largest providers of health insurance in the state of Connecticut and has nearly a third of the market share.[7] Anthem sets three rating areas for the state of Connecticut based on county groups with the exception of the town of Waterbury which is

[4] For details on the methodology of the Self-Sufficiency Standard and the non-healthcare cost components of CHAI, see *Appendix A: Methodology, Assumptions, and Sources* of the Self-Sufficiency Standard for Connecticut 2019.
[5] A separate CHAI for uninsured households is not calculated as by definition there is no premium for uninsured households, and without coverage, there is no claims data to determine out-of-pocket costs.
[6] U.S. Department of Health and Human Services Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey. "Table II.C.2 Average total employee contribution (in dollars) per enrolled employee for single coverage at private-sector establishments that offer health insurance by firm size and State: United States, 2019," https://meps.ahrq.gov/data_stats/summ_tables/insr/state/series_2/2019/tiic2.htm; "Table II.D.2 Average total employee contribution (in dollars) per enrolled employee for family coverage at private-sector establishments that offer health insurance by firm size and State: United States, 2019," https://meps.ahrq.gov/data_stats/summ_tables/insr/state/series_2/2019/tiid2.htm; "Table II.E.2 Average total employee contribution (in dollars) per enrolled employee for employee-plus-one coverage at private-sector establishments that offer health insurance by firm size and State: United States, 2019," https://meps.ahrq.gov/data_stats/summ_tables/insr/state/series_2/2019/tiie2.htm.
[7] Kaiser Family Foundation, "Market Share and Enrollment of Largest Three Insurers – Individual Market," https://www.kff.org/private-insurance/state-indicator/market-share-and-enrollment-oflargest-three-insurers-individual-market (accessed August 11, 2020).

assigned to a separate area than the county. The statewide average employee contribution is adjusted geographically based on these three territory factors set by Anthem.[8]

The employee share of the premium is applied to the households as follows:

- Households with one member are assigned the single employee premium value
- Households with two members are assigned the employee +1 premium value
- Households with three or more members are assigned the family premium value

Individual Marketplace

The health insurance premium for the individual marketplace category varies by type of plan, participant ages, and rating area plus it includes the premium tax credit that offsets the total premium cost.

Plan Type

The individual marketplace (Access Health CT) in Connecticut is made up of several different plan options with Anthem and CBI as the primary carriers of plans. The marketplace organizes plan types into metal level: Catastrophic, Bronze, Silver, and Gold. Typically, Bronze plans have lower monthly premiums and higher out-of-pocket costs while Gold plans have the highest premiums and lowest out-of-pocket costs. CHAI uses the CBI's Choice Silver Standard as the representative plan from the individual marketplace as it was the most commonly selected plan in 2019 (32,295 subscribers).[9]

Age

In the individual marketplace, the premium for a household is composed of the cost for each member which varies by age. CHAI uses the premium rate for a 30-year-old for the 18-34 age bracket, a 40-year-old for the 35-49 age bracket, and a 55-year-old for the 50-64 age bracket. As the individual marketplace has one premium rate for children under the age of 15, CHAI premium costs have one premium rate for infants, preschoolers, and school-age children, while teenagers are assigned the premium for 17-year-olds.

Rating Area

The ACA provides that each state has a set number of geographic rating areas that all providers must use to set their rates. In Connecticut, there are eight rating areas that correspond to each county.[10]

Premium Tax Credit

If the total CHAI income falls into the eligibility bracket of being between 100% and 400% of the previous year's federal poverty guidelines (FPG), then the premium tax credit (PTC) is calculated. The PTC caps the percentage of income a family spends on the health insurance premium between 2.08% - 9.86% of household income; the calculation of the PTC uses the second lowest cost silver plan and a

[8] Source: Personal communication with Miriam Miller (Miriam.Miller@ct.gov) on December 18, 2019.
[9] Source: Personal communication with Access Health CT by Sarju Shah at UConn AIMS, December 11, 2019.
[10] See https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Market-Reforms/ct-gra

sliding percentage of income.[11] The lower the income (the total CHAI in this case), the higher the credit, and the more the cost of the health insurance premium is reduced.[12]

Medicaid

In Connecticut, Medicaid is administered by the HUSKY Health program and is known as HUSKY A and HUSKY D. As Medicaid charges no costs to participants, the healthcare costs are shown as zero in the Medicaid CHAI.

Out-of-Pocket Costs

Out-of-pocket costs, consisting of medical and prescription drugs costs, were calculated by Analytics and Information Management Solutions at the University of Connecticut using the Connecticut All-Payer Claims Databases (APCD) Limited Data Set. The out-of-pocket costs vary by county, age group (0-17, 18-34, 35-49, 50-64), gender (male or female), and health risk score (low, medium, high). Out-of-pocket cost data was applied to CHAI family types following the same assumptions of the Self-Sufficiency Standard:[13]

- A single-person household is one adult male
- A single-parent household is one adult female
- A two-adult household is one adult male and one adult female
- A third adult in a household is assigned the average of one adult male and one adult female.

As the Self-Sufficiency Standard does not vary cost data by children's gender, the out-of-pocket cost is calculated without a gender breakdown for children. CHAI assumes the same risk score per adult and does not vary risk score for children.

CHAI Income Inadequacy Methodology and Assumptions

Data and Sample

This study uses data from the 2019 1-Year American Community Survey by the U.S. Census Bureau. The ACS publishes social, housing, and economic characteristics for demographic groups covering a broad spectrum of geographic areas with populations of 65,000 or more in the United States and Puerto Rico.

[11] See https://www.irs.gov/pub/irs-drop/rp-18-34.pdf and https://www.cms.gov/CCIIO/Programs-and-Initiatives/Health-Insurance-Market-Reforms/ct-gra

[12] Although some families may be eligible for cost sharing, to reduce their out-of-pocket costs, this varies by individual, and presumably is already reflected in the out-of-pocket costs.

[13] Gendered costs in the Standard are typically limited to food costs. All other Self-Sufficiency Standard costs, such as housing, do not vary based on gender. Note that costs for children do not vary by gender.

The 2019 Public Use Microdata Sample (PUMS) is a set of data files that contains records of a one-percent sample of all housing units surveyed. For determining the PUMS sample size, the size of the housing unit universe is the ACS estimate of the total number of housing units.

The most detailed geographic level in the ACS available to the public with records at the household and individual level is the Public Use Microdata Sample Areas (PUMAs), which are special, non-overlapping areas that partition a state. Each PUMA, drawn using the 2010 Census population count, contains a population of about 100,000.

Connecticut has 169 towns partitioned into 26 PUMAs, with 2019 ACS estimates reported for each. In the instances when a single PUMA is in more than one town, each town was weighted by population and a new weighted average was calculated to determine a Self-Sufficiency Standard and CHAI specific to that PUMA. If there are multiple PUMAs in a single town, each PUMA in the town is assigned the town's Self- Sufficiency Standard and CHAI.

Exclusions

Since the Self-Sufficiency Standard assumes that all adult household members work, the population sample in this report includes only those households in which there is at least one adult of age 18-64 without a work-limiting disability.

Adults are identified as having a work-limiting disability if they are disabled and receive Supplemental Security Income or Social Security Income, or if they are disabled and are not in the labor force. Thus, although the ACS sample includes households that have disabled or elderly members, this report excludes elderly adults and adults with work-limiting disabilities and their income when determining household composition and income. Households defined as "group quarters" are also excluded from the analysis. In total, 934,482 non-disabled, non-elderly households are included in this demographic study of Connecticut.

Income

Income is determined by calculating the total income of each person in the household, excluding seniors and disabled adults. It is assumed that all income in a household is equally available to pay all expenses. Income includes money received during the preceding 12 months by non-disabled/nonelderly adult household members (or children) from: wages or salary; farm and non-farm self-employment; Social Security or railroad payments; interest on savings or bonds, dividends, income from estates or trusts, and net rental income; veterans' payments or unemployment and worker's compensation; public assistance or welfare payments; private pensions or government employee pensions; alimony and child support; regular contributions from people not living in the household; and other periodic income. Not included in income are: capital gains; money received from the sale of property; the value of in-kind income such as food stamps or public housing subsidies; tax refunds; money borrowed; or gifts or lump-sum inheritances.

The Connecticut Healthcare Affordability Index

Each household was coded with a CHAI based on type of insurance, age of householder, and random assignment into a health risk score, as well as household composition and place (town).

Each household was assigned into one of three variables representing the different CHAI insurance costs: individual, employer, or zero-cost. If a household is without any health insurance coverage, they are benchmarked to individual unless income eligible for Medicaid and then assigned to zero-cost. Parents and caregivers are eligible for Medicaid with incomes under 160% of the federal poverty guidelines and adults without minor children are eligible with incomes under 138% of the federal poverty guidelines.[14] If Indian Health Service (IHS) is the only insurance, the person is coded as having no health insurance as the Census considers coverage provided by IHS to not be comprehensive.[15]

The seven ACS health insurance variables and the uninsured were categorized into CHAI model as follows:

- Employer:
    - Insurance through a current or former employer or union
    - TRICARE or other military healthcare
- Individual
    - Insurance purchased directly from an insurance company
    - Indian Health Service AND not eligible for Medicaid
    - Uninsured AND not eligible for Medicaid
- Zero-cost:
    - Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability
    - VA (including those who have ever used or enrolled for VA healthcare)
    - Indian Health Service AND income eligible for Medicaid
    - Uninsured AND income eligible for Medicaid
    - Medicare under 65

Some householders had more than one type of health insurance. Householders were assigned to a single health insurance category based on the following order: 1) employer, 2) individual, 3) zero-cost.

The out-of-pocket expenditures in CHAI vary based on health risk score (low, medium, high). As the American Community Survey does not collect information that will allow an educated assignment of

[14] HUSKY Health for Connecticut Children and Adults, Connecticut HUSKY Health Program Annual Income Guidelines, https://portal.ct.gov/-/media/HH/PDF/HUSKYAnnualIncomeChart.pdf

[15] This is consistent with assumptions in the American Community Survey and the Current Population Survey. See https://www.census.gov/programs-surveys/cps/technical-documentation/user-notes/health-insurance-user-notes/health-ins-cov-meas-asec-acs.html.

health risk score, each householder was randomly assigned a health risk score based on county, sex of householder, and age of householder per the out-of-pocket cost dataset provided by UCONN AIMS.

Additional CHAI tables were generated to code the families not included in the initial CHAI. For large families with more than six children, an average cost measure was calculated with the assumption children are 0-12 years of age for purposes of the individual market (lowest cost estimate).

CHAI Health Policy Models

Below we provide further details on the assumptions included in the health policy models highlighted in this brief.

Covered Connecticut Program

As the Covered Connecticut program model does not change the cost of any health insurance premiums, it was not necessary to calculate a new CHAI income threshold. However, it was necessary to recategorize household health insurance assignment to estimate the percentage of households with inadequate income and affordable healthcare.

To analyze the impact of the Covered Connecticut program, two additional models were conducted utilizing the 2019 1-Year American Community Survey PUMS dataset. We first tested the impact of Covered Connecticut for caregivers, followed by the expansion to all adults. Each model was also repeated with healthcare cost and tax credit changes impacted by the American Rescue Plan Act[16].

Households were coded as eligible for Covered Connecticut (*caregivers*) if the household met all of the following parameters:

1. Children were present.
2. The household's income was between 160% and 175% of the 2019 federal poverty guidelines (2019 federal poverty guidelines were used to be consistent with household income in the American Community Survey).
3. The householder was uninsured or covered by the individual marketplace.

Households were coded as eligible for Covered Connecticut (*all adults*) if the household met the following parameters:

1. The household's income was between 138% and 175% of the 2019 federal poverty guidelines (2019 federal poverty guidelines were used to be consistent with household income in the American Community Survey).

[16] ARPA expanded tax credits for families as well as the premium tax credit. This brief only presents the analysis with the premium tax credit changes but the data incorporating the tax credits for children can be viewed in the Interactive CHAI tool.

2. The householder was uninsured or covered by the individual marketplace.

After recategorizing households from the individual marketplace to the zero-cost category, each household was assigned the appropriate CHAI income threshold to assess the impact on income adequacy.

ARPA Premium Tax Credit

This model tests the impact of removing the premium tax credit income eligibility cap from the 2019 premium tax credit subsidy table. Income eligibility for the premium tax credit is based on the previous year's federal poverty guidelines (FPG). As the CHAI and household income in the ACS are in 2019, the 2018 FPG were utilized. In 2019, if a household had income above 400% of the 2018 FPG, they would not be eligible for the premium tax credit but ARPA removed that income eligibility threshold, making all households eligible for the premium tax credit.

To test the impact, we removed the income eligibility limit from the premium tax credit and recalculated the CHAI tables. Next, households were assigned the adjusted income thresholds which were compared to household income to estimate income inadequacy rates. Finally, the new net healthcare costs that incorporated the change in the premium tax credit was compared to household income to estimate the impact on the healthcare spending target.

Cost Growth Benchmark

To model the impact of reducing healthcare costs by the cost growth benchmark amount, it was necessary to adjust the CHAI healthcare costs. Total healthcare expense (premium and out-of-pocket) were reduced by 5.5% for employer-provided insurance and by 5.2% for insurance in the individual marketplace. The benchmark plan utilized to calculate the premium tax credit was also reduced by 5.2%. Households in the ACS dataset were assigned the appropriate adjusted CHAI which was compared to household income to determine income adequacy. Likewise, the adjusted healthcare costs were compared to household income in the ACS to estimate the impact on affordable healthcare rates.

About the Center for Women's Welfare

The Center for Women's Welfare at the University of Washington School of Social Work is devoted to furthering the goal of economic justice for women and their families. The main work of the Center focuses on the development of the Self-Sufficiency Standard and related measures, calculations, and analysis. The Center partners with a range of government, non-profit, women's, children's, and community-based groups to:

- research and evaluate public policy related to income adequacy;
- create tools to assess and establish income adequacy and benefit eligibility;
- develop policies that strengthen public investment in low-income women and families.

Learn more about the Center and the Self-Sufficiency Standard research project at http://www.selfsufficiencystandard.org.