State of California—Health and Human Services Agency
Department of Health Care Services

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September 10, 2020

Long Term Services and Supports Feasibility Study Final Report

The Budget Act of 2019, Assembly Bill 74 (Chapter 23, Statutes of 2019), Item 4260-101-0001, authorized funding for the Department of Health Care Services (DHCS) as follows:

> "16. Notwithstanding any other law, of the funds appropriated in this item, $1,000,000 shall be available to the State Department of Health Care Services for the purposes of contracting with a qualified entity for a feasibility study and actuarial analysis of long-term services and supports financing and services options. The study and analysis shall be developed in consultation with stakeholders and provide projected cost estimates of alternative financing and service options as well as possible impacts to existing state funded programs and services, including, but not limited to, Medi-Cal and the In-Home Supportive Services program. The results of the study shall be provided to the fiscal and policy committees of the Legislature and the Department of Finance no later than July 1, 2020."

DHCS selected Milliman, a national actuarial firm, to prepare this study. From November 2019 through January 2020, Milliman consulted with the state and a number of stakeholders in California, to gather information, priorities, and feedback for this study. An interim report was prepared and distributed in June 2020.

The attached Long Term Services and Supports Feasibility Study Final Report was prepared by Milliman, and provides background, stakeholder findings, a list of policy options and fiscal estimates, and actuarial analysis of the policy options. Please note that for both the Interim and Final Reports, the analysis, model design, and fiscal estimates were prepared independently by Milliman, and do not reflect proposals or commitments by the Newsom Administration.

For any questions on this Final Report, please contact DHCS at PublicInput@dhcs.ca.gov.

MILLIMAN REPORT

Long-Term Services and Supports Feasibility Study

Commissioned by the California Department of Health Care Services

September 9, 2020

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I. OVERVIEW

Recognizing that California's over-65 population is projected to grow to over 8.5 million by 2030, Governor Gavin Newsom issued an executive order calling for the creation of a Master Plan for Aging to be developed by October 1, 2020.[1] In conjunction with the Master Plan development efforts, Assembly Bill (AB) 74, Statutes of 2019, states that the California Department of Health Care Services (DHCS) will partner with a qualified contracting entity and various stakeholders to develop a long-term services and supports (LTSS) feasibility study (herein referred to as the feasibility study or LTSS feasibility study) that includes projected cost estimates of alternative financing and service options, as well as possible impacts to existing state-funded programs and services, including, but not limited to, Medi-Cal and the In-Home Supportive Services (IHSS) program.

Milliman, an international actuarial and consulting firm, was selected through a noncompetitive bid process to conduct the study. The feasibility study includes an analysis of a new public LTSS program, funded through a payroll deduction or other revenue, which would provide a limited LTSS insurance benefit in accordance with AB 74, Statutes of 2019.[2] The feasibility study does not represent the views or opinions of DHCS. Future actuarial modeling, after the feasibility study is completed, may also include analyzing other options to help individuals finance LTSS needs, such as modifications to current public programs and private insurance.

SCOPE OF ENGAGEMENT AND WORK PROCESS

The scope of our engagement includes two main components: 1) gathering stakeholder feedback, and 2) actuarial modeling of LTSS programs. An important starting place for a discussion of the design of various LTSS finance reform approaches is to identify both the problems to be solved and the policy objectives that are most important to address. We gathered input from a variety of stakeholders through a series of interviews and discussions. Individuals participating in the stakeholder interviews represented the following organizations and departments:

- California Aging and Disability Alliance (CADA)
- California Department of Aging (CDA)
- California Department of Finance
- California Department of Insurance (CDI)
- California Department of Social Services (CDSS)
- California Public Employees' Retirement System (CalPERS)
- DHCS
- Legislative Analyst's Office (LAO)
- Master Plan for Aging LTSS Subcommittee

Appendix A contains a stakeholder report of findings from the interviews and discussions. We were pleased with the engagement from all the stakeholders who provided thoughtful insights regarding program development to address this complex issue. There are a variety of potential financing solutions for LTSS. This was evident throughout the interviews as there was a variety of opinions around the desired structure of the potential new public LTSS program.

We compiled stakeholder feedback to create a list of modeling alternatives for actuarial analysis. Many stakeholders expressed the opinion that actuarial analysis of a wide variety of options and alternatives would be most beneficial to program decision-making. In particular, participants indicated the analysis should include sensitivity testing around major parameters. Stakeholders also stated it would be helpful to see options across the LTSS benefits spectrum, ranging from lean to rich parameters. The modeling alternatives analyzed in this report are not intended to be an exhaustive list of options; instead, they serve to illustrate a wide variety of options that will help guide further discussions regarding the LTSS program parameters. To provide a wide variety of options, we modeled various alternatives and sensitivities in the following format:

- Three Core Plans with variations on program parameters as described in Section II

- Alternatives that change multiple program features (i.e., broad and catastrophic alternatives) using Core Plan 1 as the base plan as described in Section III

[1] Executive Department State of California (2019). Executive Order N-14-19. Retrieved July 24, 2020, from https://www.gov.ca.gov/wp-content/uploads/2019/06/6.10.19-Master-Plan-for-Aging-EO.pdf.

[2] Assembly Bill 74 (2019). Statues of 2019. Retrieved July 24, 2020, from https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201920200AB74.

- Alternatives that change one program feature at a time using Core Plan 1 as the base plan as described in Section III

Core Plan 1 was chosen as the base plan for modeling the alternatives in Section III. Core Plan 1 does not represent a recommended plan; however, a base plan was chosen as a reference point to evaluate the incremental cost or savings associated with other plan alternatives or assumption sensitivities.

Appendix B contains our review of the current LTSS financing environment. This includes commentary on:

- Current state of LTSS financing in the United States, and specifically in California
- How LTSS is financed in other countries
- Potential alternative financing solutions for LTSS in the United States

COMMENTS ON LTSS DEFINITION AND LONG-TERM ACTUARIAL PROJECTIONS

For the purposes of this report, we use the terms LTSS and long-term care (LTC) interchangeably. LTSS is a range of services and supports for individuals who need assistance with daily living tasks, such as bathing, dressing, ambulation, transfers, toileting, medication administration or assistance, personal hygiene, transportation, and other health-related tasks. Often, this type of assistance is needed by individuals who experience functional limitations due to age or to physical or cognitive disability. LTSS includes services provided in:

- Institutional settings: Includes skilled, intermediate, and custodial care provided in an institutional facility setting, such as a nursing home or dedicated wing of a hospital.

- Home and community-based settings (HCBS): Includes care provided in a person's own home or in a community-based setting, such as an assisted living facility or adult family home. Coverage includes both the services rendered and the room and board in a community-based setting.

The estimates provided throughout this report are prepared to assist in evaluating the feasibility of offering a new public LTC plan using design elements as requested by DHCS. *Any estimates around required program revenue are for feasibility purposes only and not intended, and should not be used, for setting the program tax rate.*

This report includes estimates projected many years into the future. Actual expenses and related required revenue will inevitably vary from the estimates shown throughout the report. Examples of items that are difficult to project include the level of utilization of LTC services over time, duration of care needs, charge trends by site of care, emergence of new service and care modalities, wage growth and labor force participation, effectiveness of regulations and procedures to determine coverage and qualifications for benefits, migration patterns into and out of California, and future mortality. Section VII (methodology and assumptions) provides further background on our modeling.

Any reader of this report should possess a certain level of expertise and background in actuarial projections related to financing LTSS / LTC benefits to assist in understanding the significance of the assumptions used and their impact on the illustrated results. The reader should be advised by, among other experts, actuaries or other professionals competent in the area of actuarial projections of the type in this report, so as to properly interpret the estimates. The information included in this report should only be considered in its entirety. Please see Section VIII for additional caveats and limitations regarding this report.

II. CORE PLAN RESULTS

Based on stakeholder feedback and input from DHCS, the program modeled as the basis for this LTSS feasibility study is defined as a public, time-limited long-term care insurance benefit for workers, funded through a payroll deduction. The plan would be financed by a flat state tax on all wages and self-employment reported wages; therefore, participation is mandatory. Coverage is limited to workers and does not include spousal coverage. Funding is assumed to be pay-as-you-go for a social insurance program, though the program does include some measure of prefunding.

We modeled three Core Plans with variations on program parameters. For each Core Plan, we modeled the required revenue (payroll tax), benefit payments, and balance of a possible separate trust fund.

Our projection model produces year-by-year cash flow projections, such that the value and scope of the program can be estimated for any of the years in the 75-year projection period window. Revenue collected under the program is assumed to be placed into a trust fund for the sole purpose of paying expected program benefits and expenses. The cash flow consists of income to the program from taxes and interest earned from the fund balance. Outgo from the program consists of benefit payments in institutional or home and community-based care settings and administrative expenses. Please refer to Section VII for additional details regarding the methodology and assumptions used in the actuarial modeling.

The table in Figure 1 outlines the payroll tax rate required for each Core Plan over the 75-year window. Please note, to cover program costs beyond 75 years, we expect a different tax rate (potentially higher depending on long-term assumption parameters) would be required, once the population receiving benefits has stabilized. In practice, the tax rate could be set to the 75-year rate initially and then adjusted before the end of the 75-year period. We anticipate that this would be part of a continuous monitoring of the fund. Section IV of this report below includes additional discussion of the program tax rate and fund balance calculation. The amounts shown in Figure 1 do not reflect any assumed savings or reductions in other state-funded programs. To the extent that those savings are diverted to this program, the tax rate may vary. The plan features for each Core Plan are outlined in the section that follows.

Figure 1:
California
Core Plans

Scenario	75-Year Payroll Tax Rate
Core Plan 1	0.66%
Core Plan 2	0.88%
Core Plan 3	0.46%

The estimated payroll tax is highly sensitive to the underlying projection assumptions used in the modeling. Section VI includes additional details regarding sensitivity tests of the key assumptions. *Based on testing various key assumptions one at a time, we observe the tax rate for Core Plan 1 increasing or decreasing by roughly 50%*. The results of the testing should be taken into consideration when evaluating the feasibility of offering a new LTSS benefit program. The sensitivity of the program results under different conditions and the program's ability to adjust features when experience materializes differently from what was expected is a key initial step to inform rate setting.

DESCRIPTION OF CORE PLAN KEY FEATURES

The Core Plan features are outlined below. Tests regarding alternative plan designs and the sensitivity of changing program features, eligible population, and other modeling assumptions relative to Core Plan 1 are discussed later in this report. Note, the Core Plans do not represent recommended plans. Instead, we display Core Plan 1 as a reference point to evaluate the incremental cost or savings associated with other alternatives.

Figure 2: California Core Plan Parameters			
Parameter	**Core Plan 1**	**Core Plan 2**	**Core Plan 3**
Benefit Structure	Reimbursement	Cash	Reimbursement
Initial Daily Benefit Amount	$150	$150	$100
Elimination Period	90 days	90 days	30 days
Vesting Requirements	3 of last 6 years or 10 years in total	10 years total w/ partial vesting credits	3 of last 6 years or 10 years in total

Core Plan 1

- Comprehensive covered services similar to private market.
  - Institutional settings.
    - Includes skilled, intermediate, and custodial care provided in an institutional facility setting, such as a nursing home or dedicated wing of a hospital.
  - Home and community-based settings.
    - Includes care provided in a person's own home or in a community-based setting, such as an assisted living facility or adult family home.
- Minimum age requirement for participation of 18, disabled after 18.
  - Individuals are not eligible for program benefits until they turn age 18 and are not eligible for program benefits if they were disabled before age 18.
- HIPAA definition for benefit eligibility (i.e., "benefit trigger").
  - Individuals who are vested can draw benefits once they meet the HIPAA eligibility "trigger." The HIPAA trigger is defined as needing assistance with two or more activities of daily living (ADLs) or severe cognitive impairment, where the individual is expected to meet the definition for at least the next 90 days.
- Starting program maximum daily benefit amount of $150 in 2025, indexing at 3% per year thereafter.
  - Benefits are paid by reimbursing an individual for actual expenses incurred, subject to a daily maximum. The daily maximum increases at a rate of 3% per year.
- Starting pool of benefit dollars of $54,750, indexing at 3% per year.
  - The pool of money is calculated as a one-year (365-day) maximum benefit (over an individual's lifetime) multiplied by the daily benefit amount. The pool of money approach implies that a person may receive benefits for more than the benefit period (in this case, for more than one year).
- Reimbursement benefit structure.
  - Benefits are paid only as reimbursement for an individual's actual expenses incurred.
- Elimination period of 90 days.
  - Benefit payment commences following satisfaction of a one-time "deductible" period of 90 consecutive days during which the individual has a qualifying level of disability meeting the benefit eligibility trigger.
- Vesting by tax payments in three of last six years, or 10 years total.
  - To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. Core Plan 1 considers vesting satisfied by payroll tax payments in three of the last six years, or 10 total years during an individual's work history.

- Divesting period grading to 0% after five years.
  - If a vested individual moves from the state, that person will be eligible for a prorated maximum benefit, grading down to no benefit after five years outside the state (80% of the benefit after one year, 60% of the benefit after two years, etc.).
- Program revenue source is payroll tax on wages.
  - Financing for the program will come solely from tax payments. There are no premiums required once an individual no longer receives wages.

Core Plan 2

- No restrictions on covered services.
  - Given the cash benefit structure described below, there are no limitations on covered services.
- Minimum age requirement for participation of 18, disabled after 18.
  - Individuals are not eligible for program benefits until they turn age 18 and are not eligible for program benefits if they were disabled before age 18.
- HIPAA definition for benefit eligibility (i.e., “benefit trigger”).
  - Individuals who are vested can draw benefits once they meet the HIPAA eligibility “trigger.” The HIPAA trigger is defined as needing assistance with two or more ADLs or severe cognitive impairment, where the individual is expected to meet the definition for at least the next 90 days.
- Starting program daily benefit amount of $150 in 2025, indexing at 3% per year thereafter.
  - Benefits are paid in cash. The daily benefit amount increases at a rate of 3% per year.
- Starting pool of benefit dollars of $54,750, indexing at 3% per year.
  - The pool of money is calculated as a one-year (365-day) maximum benefit (over an individual’s lifetime) multiplied by the daily benefit amount. The pool of money approach implies that a person may receive benefits for more than the benefit period (in this case, for more than one year).
- Cash benefit structure.
  - Individuals receive the full daily benefit for each day they are eligible.
- Elimination period of 90 days.
  - Benefit payment commences following satisfaction of a one-time “deductible” period of 90 consecutive days during which the individual has a qualifying level of disability meeting the benefit eligibility trigger.
- Vesting by tax payments for 10 years total for full benefits; partial benefits if less than 10 years.
  - To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. To receive full benefits, Core Plan 2 assumes vesting is fully satisfied by tax payments for 10 years during an individual’s work history; however, the individual may receive prorated benefits based on the number of years the individual has paid payroll taxes.
- Divesting period grading to 0% after five years.
  - If a vested individual moves from the state, that person will receive a reduced daily benefit (after adjustment for partial vesting), grading down to no benefits after five years.

- Program revenue source is payroll tax on wages.
  - Financing for the program will come solely from tax payments. There are no premiums required once an individual no longer receives wages.

Core Plan 3

- Comprehensive covered services similar to private market.
  - Institutional settings.
    - Includes skilled, intermediate, and custodial care provided in an institutional facility setting, such as a nursing home or dedicated wing of a hospital.
  - Home and community-based settings.
    - Includes care provided in a person's own home or in a community-based setting, such as an assisted living facility or adult family home.
- Minimum age requirement for participation of 18, disabled after 18.
  - Individuals are not eligible for program benefits until they turn age 18 and are not eligible for program benefits if they were disabled before age 18.
- HIPAA definition for benefit eligibility (i.e., "benefit trigger").
  - Individuals who are vested can draw benefits once they meet the HIPAA eligibility "trigger." The HIPAA trigger is defined as needing assistance with two or more ADLs or severe cognitive impairment, where the individual is expected to meet the definition for at least the next 90 days.
- Starting program maximum daily benefit amount of $100 in 2025, indexing at 3% per year thereafter.
  - Benefits are paid by reimbursing an individual for actual expenses incurred, subject to a daily maximum. The daily maximum increases at a rate of 3% per year.
- Starting pool of benefit dollars of $36,500, indexing at 3% per year.
  - The pool of money is calculated as a one-year (365-day) lifetime maximum benefit times the daily benefit amount. The pool of money approach implies that a person may receive benefits for more than the benefit period (in this case, for more than one year).
- Reimbursement benefit structure.
  - Benefits are paid by reimbursing an individual for actual expenses incurred.
- Elimination period of 30 days.
  - Benefits begin to be paid following satisfaction of a one-time deductible period of 30 consecutive days during which the individual has a qualifying level of disability meeting the benefit eligibility trigger.
- Vesting by tax payments in three of last six years, or 10 years total.
  - To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. Core Plan 3 assumes vesting is satisfied by tax payments in three of the last six years or 10 total years during an individual's work history.
- Divesting period grading to 0% after five years.
  - If a vested individual has moved from the state, that person will receive a reduced daily benefit grading down to no benefits after five years.

- Program revenue source is payroll tax on wages.
  - Financing for the program will come solely from tax payments. There are no premiums required once an individual no longer receives wages.

DESCRIPTION OF TAX BASIS FOR REVENUE SOURCES

A fundamental facet in creating a new LTSS program is the funding source for the LTSS benefits. Per the request of DHCS, for the purposes of the feasibility study we used a flat payroll tax as a benchmark to present the revenue required to finance different program structures and parameters. For purposes of this analysis, the payroll tax is calculated based off of all covered earnings subject to the Medicare tax. Covered earnings are comprised of all wages (including self-employment reported wages). Note, we did not include in our calculations any requirement that a portion of new taxes go to education.

While a flat payroll tax is calculated for ease of comparison in this study, it does not represent a recommended revenue source. There are numerous options for revenue sources that should be considered before implementing a program. Section III below contains several plan alternatives that focus on varying the payroll tax wage basis. Alternative revenue sources (such as a non-level payroll tax or other tax bases) were not considered as part of the initial feasibility study, but should be considered once the scope of program benefits is narrowed. Further discussion on considerations can be found in Section IV of this report.

DESCRIPTION OF FUNDING APPROACH

Another fundamental facet in creating a new LTSS program is the funding approach for the LTSS benefits. Per the request of DHCS, for the purposes of the feasibility study we used a pay-as-you-go approach evaluated over a 75-year window without any provisions for situations where experience emerges different than expectations.

The level payroll tax rates expressed in this report evaluate program solvency for 75 years using a pay-as-you-go (with initial pre-funding) approach. In other words, vesting of future benefits "earned" during the 75-year window, but paid after the 75-year window are excluded in the evaluation of the needed tax rate. Under this approach, potentially significant unfunded liabilities likely would develop in future decades. This pay-as-you-go structure does not represent a recommended funding approach. Alternative funding approaches should be considered, such as maintaining a fund level equal to the actuarial present value of future liabilities or adding margin / cushion for potential future unfavorable experience. Further discussion on considerations can be found in Section IV of this report.

POPULATION COVERAGE EXPLANATION

This program is designed to provide a public long-term care insurance benefit for current, or future, program-eligible individuals (based on requirements below). It is intended to benefit a large number of individuals, including both the aged and disabled populations. It is important to understand the population eligible for benefits, given the following program specifications:

- Benefit age eligibility: The Core Plans focus on providing benefits to individuals who are 18 and older. Given the vesting requirements, this does not have a large impact on the eligible population, as we do not expect individuals under age 18 to have worked long enough to vest.

- Disabled population: Individuals who were disabled prior to age 18 are not eligible to receive benefits under the program. These individuals typically receive benefits from other state-funded programs.

- Vesting requirements: To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. Therefore, individuals who never work will not vest. Similarly, individuals who are already retired or nearing retirement will likely not be eligible to receive benefits under the program unless a buy-in option was included.

- Individual coverage: The program does not allow spousal or other family member coverage. Only the vested individual is covered.

Eligibility criteria are crucial assumptions in estimating the benefit payments from this program. Section III contains several plan alternatives that focus on varying program eligibility requirements.

III. RESULT SUMMARY OF PLAN DESIGN ALTERNATIVES

Stakeholders indicated an interest in examining a wide variety of options and alternatives to help inform decision-making related to program features. This section summarizes the results of testing around the major parameters discussed with stakeholders. The modeling alternatives analyzed in this report are not intended to be an extensive list of options; instead, they serve as a wide variety of options that will help guide further discussions regarding the LTSS program parameters.

We performed the testing in two primary ways:

- Alternatives that change multiple program features (i.e., broad and catastrophic alternatives)
- Alternatives that change one program feature at a time

Core Plan 1 was chosen as the base plan for modeling the alternatives. Core Plan 1 does not represent a recommended plan; however, a base plan was chosen in order to provide the widest variety of modeling alternatives within the scope of this engagement. Core Plan 1 is used as an illustrative reference point to evaluate the estimated high-level incremental cost or savings associated with other alternatives.

BROAD ALTERNATIVES

The broad alternative plan scenarios consider the impact of modifying several plan parameters at once. The revised payroll tax is compared to Core Plan 1 to illustrate the approximate combined impact of changing those plan features. The broad alternative scenarios include:

1. **Payroll tax alternative:** Under this plan, most plan parameters are consistent with Core Plan 1, except the payroll tax would only be assessed to individuals age 40 and older, and only individuals age 50 and older would be eligible to receive benefits.

2. **Lean alternative:** This alternative considers various plan parameter changes to decrease expected benefit payments. Relative to Core Plan 1, changes include:

    a. Individuals must reach age 65 before any benefits are paid (rather than age 18 in Core Plan 1).

    b. $100 maximum daily benefit amount (rather than $150 in Core Plan 1).

    c. 180-day elimination period (rather than 90-day in Core Plan 1).

    d. Individuals must achieve 10 years of work history to become fully vested (rather than three of the last six years or 10 years total in Core Plan 1).

    e. Individuals must be in-state residents to retain their vesting (rather than grading their vesting to 0% over five years upon leaving the state in Core Plan 1).

3. **Rich alternative:** This scenario considers various plan parameter changes to increase expected benefit payments. Relative to Core Plan 1, these changes include:

    a. All individuals from birth are eligible to receive benefits subject to vesting requirements (rather than Core Plan 1 where individuals who become disabled before age 18 are not eligible).

    b. Daily benefit equal to the average expected cost of care by care setting (rather than $150 in Core Plan 1).

    c. Daily benefit will inflate between 3% and 4% each year depending on the care setting (rather than 3% in Core Plan 1).

    d. Lifetime benefit period (rather than one year in Core Plan 1).

    e. 30-day elimination period (rather than 90-day in Core Plan 1).

    f. Individuals retain their vesting status for 10 years after moving out of the state (rather than grading their vesting to 0% over five years upon leaving the state in Core Plan 1).

The table in Figure 3 summarizes the payroll tax rate associated with each broad alternative.

Figure 3:
California
Broad Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Payroll Tax Alternative	0.85%	0.19%
Lean Alternative	0.34%	-0.32%
Rich Alternative	20.46%	19.80%

CATASTROPHIC ALTERNATIVES

While it was agreed that the preferred design for the Core Plans is a front-end benefit, significant discussions with stakeholders focused on the topic of front-end versus back-end coverage. In broad terms, front-end coverage provides limited benefits at or near the beginning of an individual's eligibility for LTSS. Back-end coverage provides catastrophic coverage for individuals who require LTSS, and who survive for longer periods of time (e.g., two years). Many stakeholders believed a back-end benefit could be financially difficult for some in the population who are vested in the program but lack sufficient resources to pay for necessary LTSS during longer elimination periods. We modeled a few catastrophic plans as alternatives to illustrate the potential impact on the tax rate for back-end coverage. The revised payroll tax for each alternative is compared to Core Plan 1 to estimate the impact of the catastrophic plan features.

All catastrophic plan alternatives produce higher tax rates compared to Core Plan 1. The catastrophic plans vary from Core Plan 1 in the following key ways:

1. Cash benefit structure (rather than reimbursement).
2. Lifetime benefit period (rather than one year).
3. Two-, three-, four-, or five-year elimination periods (EPs), respectively (rather than 90 days).

Figure 4:
California
Catastrophic Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Catastrophic Alternative 1 (2-year EP)	3.32%	2.66%
Catastrophic Alternative 2 (3-year EP)	2.75%	2.09%
Catastrophic Alternative 3 (4-year EP)	2.25%	1.59%
Catastrophic Alternative 4 (5-year EP)	1.83%	1.17%

BENEFIT STRUCTURE ALTERNATIVES

Benefit structure alternatives consider the method in which benefit payments will be disbursed to recipients. Core Plan 1 assumes a reimbursement method is used, where individuals are reimbursed for actual expenses incurred for approved services. The two alternatives modeled here consider more flexible benefit structures:

1. Cash: Under a cash benefit structure, upon becoming eligible for benefits and satisfying the elimination period, recipients will receive the full daily benefit amount every day until the pool of money empties or benefit eligibility ceases.
2. Reimbursement with partial cash: In practice, this structure would allow the state of California more flexibility to provide services, such as support for unpaid family caregivers, training and education, and others. As a proxy, to model this alternative, we blend the results for a reimbursement and cash benefit structure using an 85% / 15% split, respectively.

We developed adjustment factors to approximate potential differences in enrollee behavior under these more flexible benefit structures; for example, under a cash plan, enrollees may be more likely to seek benefit eligibility because they will receive a cash benefit with no restrictions on its use. Under the partial cash structure, we assume California will be able to manage the amount of benefits that are paid out on a cash basis in order to control potential overutilization.

Figure 5: California Benefit Structure Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Cash Alternative	0.89%	0.23%
Reimbursement with partial cash	0.69%	0.03%

COVERED SERVICES ALTERNATIVE

The alternative to covered services tests the tax rate impact of limiting the scope of services covered under the program. Core Plan 1 covers a comprehensive set of benefits, which includes both facility and home care. Under this alternative, only care services received in a person's home would be covered. We assumed that some individuals who would have received care in other settings under Core Plan 1 would "substitute" to receive care in a home setting, given services in other settings would not be covered under the program.

Figure 6: California Covered Services Alternative

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Home health coverage only	0.40%	-0.26%

MINIMUM AGE FOR BENEFITS ALTERNATIVES

Under Core Plan 1, individuals must be age 18 or older before becoming benefit-eligible and receiving benefits. We tested alternatives to the minimum age requirement for individuals to receive benefits.

The first alternative (no minimum age for benefits) in the table in Figure 7 models the tax rate impact of additionally covering intellectually and developmentally disabled individuals (i.e., individuals who were born with a disability or developed a disability before age 18). The remaining alternatives are variations of Core Plan 1 and the first alternative, restricting payout of any benefits until enrollees reach a certain attained age. For example, the "40 minimum age for benefits, disabled after age 0" would cover LTSS for all individuals (including intellectually and developmentally disabled individuals) beginning at age 40.

Figure 7: California Minimum Age for Benefits Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
0 minimum age for benefits	0.67%	0.01%
40 minimum age for benefits, disabled after age 0	0.65%	<0.01%
65 minimum age for benefits, disabled after age 0	0.59%	-0.07%
40 minimum age for benefits, disabled after age 18	0.65%	-0.01%
50 minimum age for benefits, disabled after age 18	0.64%	-0.02%
65 minimum age for benefits, disabled after age 18	0.59%	-0.07%

BENEFIT ELIGIBILITY ALTERNATIVES

The benefit trigger is the definition of frailty that must be met before benefits are paid. Core Plan 1 assumes enrollees must meet benefit eligibility criteria consistent with standard private market long-term care insurance policies, which include at least one of the following:

1. Requiring assistance to perform at least two activities of daily living (ADLs) for a period expected to last at least 90 days. A generally accepted list of ADLs includes bathing, dressing, transferring, continence, toileting, and eating.

2. Severe cognitive impairment necessitating substantial supervision.

Under the benefit eligibility alternatives, we model the tax rate impact of modifying the benefit eligibility criteria. As the benefit trigger becomes more restrictive, the funding requirement decreases because fewer individuals will qualify for the benefit. Under the IHSS requirement for benefit eligibility alternative, we adjust the eligibility criteria to be consistent with California's IHSS Program. IHSS requires Medi-Cal-eligible individuals to undergo a social worker assessment, which will authorize them to receive help with one or more of the following services:

1. Housework
2. Meals
3. Laundry
4. Shopping
5. Personal care services
6. Paramedical services
7. Accompaniment services
8. Teaching and demonstration

Under the stricter 3-ADL benefit trigger alternative, enrollees must be unable to perform at least three ADLs for at least 90 days or have a severe cognitive impairment in order to become eligible for benefits.

Figure 8:
California
Benefit Eligibility Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
IHSS benefit eligibility	1.03%	0.37%
3+ ADL benefit trigger	0.64%	-0.02%

DAILY BENEFIT AMOUNT ALTERNATIVES

The daily benefit amount (DBA) alternatives consider the tax rate impact of lowering or raising the daily benefit amount. Core Plan 1 assumes a $150 daily benefit amount. A higher or lower daily benefit amount will directly impact the lifetime maximum benefit amount (i.e., pool of money).

We assume 100% benefit utilization for daily benefit amounts of $200 and lower, given that we expect the daily cost of care in California to exceed $200 in a skilled nursing facility, assisted living facility, or home health care setting by 2025. For the $300 and $400 daily benefit amount alternatives, we assume beneficiaries may not utilize the full benefit each day, as they will only be reimbursed for the actual cost of services incurred. To determine the utilization of the benefit, we observe the average cost of care in California across nine different regions with varying average costs of care.

Figure 9: California Daily Benefit Amount Alternatives		
Scenario	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
$70 DBA	0.31%	-0.35%
$100 DBA	0.44%	-0.22%
$200 DBA	0.88%	0.22%
$300 DBA	1.22%	0.57%
$400 DBA	1.59%	0.94%

DAILY BENEFIT INDEX ALTERNATIVES

Daily benefit index refers to the rate at which benefits will be increased each year for the entirety of the program. Under Core Plan 1, a 3.0% inflation rate is used. We tested the following alternatives:

1. 4.0% inflation rate.
2. 3.5% inflation rate, which can be viewed as a proxy tied to wage growth.
3. 2.5% inflation rate, which can be viewed as a proxy tied to the Consumer Price Index (CPI).

Figure 10: California Inflation Alternatives		
Scenario	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
4% DBA inflation	1.01%	0.35%
DBA inflation tied to wage growth	0.81%	0.15%
DBA inflation tied to CPI	0.54%	-0.12%

LIFETIME MAXIMUM BENEFIT ALTERNATIVES

The lifetime maximum benefit alternatives consider the impact of increasing the length of time that benefits are paid once the beneficiary becomes eligible to receive benefits. In the table in Figure 11, the lifetime maximum benefit is expressed in terms of the number of years that benefit payments will occur. Core Plan 1 assumes a one-year benefit period (this can more precisely be described as a $54,750 pool of money, which is equivalent to a $150 DBA x 365 days). All alternatives here calculate the additional tax revenue needed should the benefit period be increased.

Figure 11: California Benefit Period Alternatives		
Scenario	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
2-year benefit period	1.19%	0.53%
3-year benefit period	1.63%	0.97%
4-year benefit period	1.99%	1.33%
5-year benefit period	2.28%	1.62%
Lifetime benefit period	3.52%	2.86%

ELIMINATION PERIOD ALTERNATIVES

The elimination period is the number of days after becoming benefit-eligible that a beneficiary must wait before receiving benefits. It is analogous to a deductible on a medical insurance policy. During the elimination period, individuals are responsible for paying for LTSS needs out-of-pocket. Coordination of benefits with other private and public programs (such as Medicaid) would need to be further defined while implementing this program. For the purposes of this feasibility study, we assumed that individuals would be able to use resources, such as Medicare to pay for out-of-pocket costs during their elimination periods.

Core Plan 1 assumes a 90-day elimination period. The alternatives test the tax rate impact of modifying the elimination period to be 0 days, 30 days, 60 days, or 180 days.

Figure 12:
California
Elimination Period Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
0-day elimination period	0.72%	0.06%
30-day elimination period	0.69%	0.03%
60-day elimination period	0.68%	0.02%
180-day elimination period	0.63%	-0.03%

VESTING REQUIREMENT ALTERNATIVES

Vesting refers to a structure where no benefits will be paid until a worker has paid taxes for a specific number of years. Under Core Plan 1, individuals must have worked three of the last six years or 10 years total across their entire employment history since program inception before benefits are paid. An individual receives vesting credit for a year if that person worked at least 500 hours during that year (approximately 25% of full-time equivalency). We tested the following vesting alternatives:

1. No vesting requirement: Individuals can access the LTSS benefit without regard to work history.
2. Worked 10 years total with partial vesting credits: Vesting will grade uniformly up to 100% over a period of 10 years of work history.
3. Worked one of the last three years, or 10 years total.
4. Worked five years total.
5. Worked 10 years total.

Figure 13:
California
Vesting Requirements Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
No vesting requirement	3.72% / 1.17%*	N/A
Worked 10 years total with partial vesting credits	0.72%	0.06%
Worked 1 of last 3 years, or 10 years total	0.68%	0.02%
Worked 5 years total	0.71%	0.05%
Worked 10 years total	0.62%	-0.04%

** For the no vesting scenario we calculate separate year one (3.72%) and ultimate (1.17%) tax rates.*

PORTABILITY / DIVESTING ALTERNATIVES

The portability / divesting alternatives consider whether individuals who leave the state of California will retain vesting in the LTSS benefit and for how long. In Core Plan 1, the percentage of maximum benefit for which individuals who leave the state are eligible grades to 0% over a period of five years. This alternative testing considers the following divesting scenarios:

1. No portability: Individuals who leave the state will immediately divest from the LTSS benefit.

2. Two-, five-, or 10-year divesting period: Individuals who leave the state will retain their vesting for a two-year, five-year, or 10-year grace period, respectively.

3. Grade benefits to 25% or 50% after five years out of state: The percentage of maximum benefit for which individuals who leave the state are eligible grades to 25% or 50%, respectively, over a five-year period.

4. Full portability: Individuals who leave the state will retain their vesting indefinitely.

Figure 14:
California
Portability / Divesting Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
No portability	0.63%	-0.02%
2-year divesting period	0.65%	-0.01%
5-year divesting period	0.67%	0.02%
10-year divesting period	0.71%	0.06%
Grade benefits to 25% after 5 years out of state	0.74%	0.09%
Grade benefits to 50% after 5 years out of state	0.83%	0.17%
Fully portable	1.00%	0.35%

PROGRAM REVENUE SOURCE ALTERNATIVES

Alternatives to program revenue source examine the impact to the tax rate of modifying the revenue source to fund benefits. Core Plan 1 assumes a percentage tax rate on all wages, with no other premiums or assessments levied. The alternatives tested here include:

1. Payroll tax above Social Security threshold: In 2020, the Social Security threshold is $137,700, meaning no wages in excess of this amount are subject to the Social Security tax. Under this alternative, only wages above this Social Security threshold are taxed. For example, if an individual's wage is $147,700 in 2020, the LTSS program tax only applies to the $10,000 in excess of the threshold.

2. Premium for individuals age 65 and above: Under this alternative, vested individuals (both disabled and nondisabled) must pay a monthly premium beginning at age 65 and continuing until benefits are exhausted or the individual dies. Both $25 and $50 monthly premiums are tested and summarized in the table in Figure 15.

3. Payroll tax on all wages for individuals age 40 and above: Individuals below age 40 will not be assessed the payroll tax. Because individuals below age 40 are not paying the tax, they will not be able to start accumulating vesting credits until age 40. For this reason, under this scenario no one under age 40 is eligible to receive benefit payments.

Figure 15: California Program Revenue Source Alternatives		
Scenario	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
Payroll tax above Social Security threshold	3.77%	3.11%
$25 premium for individuals age 65+	0.61%	-0.05%
$50 premium for individuals age 65+	0.57%	-0.09%
Payroll tax on all wages for individuals age 40+	0.86%	0.20%

POPULATION EXCLUSION AND INCLUSION ALTERNATIVES

The population exclusions and inclusions alternatives would allow certain groups to opt out of or into the program. The following alternatives were assessed:

1. Opt-out for California Public Employees' Retirement System (CalPERS) and private insurance members: Under this alternative, individuals already covered as of 2019 by CalPERS or private long-term care insurance would have the opportunity at program inception to opt out of the program, avoiding the tax rate and losing access to benefits.

2. Opt-In for self-employed population: Under this alternative, participation would not be mandatory for the self-employed population as it is under Core Plan 1. Instead, self-employed individuals would be able to opt into the program. Because it is difficult to predict the percentage of self-employed individuals who would choose to participate in the program, we modeled different participation scenarios. To estimate possible adverse selection due to offering an opt-in structure, we assumed that the same benefits would be paid out to self-employed individuals as under Core Plan 1, but we assumed the program would not collect revenue from 100% and then 50% of the self-employed population.

Figure 16: California Population Exclusions and Inclusions Alternatives		
Scenario	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
Opt-out for CalPERS / private insurance members	0.66%	<0.01%
Opt-In for self-employed population, Alternative 1: 100% of revenue carved out	0.74%	0.08%
Opt-In for self-employed population, Alternative 2: 50% of revenue carved out	0.70%	0.04%

FEDERAL POVERTY LEVEL (FPL) POPULATION EXCLUSION ALTERNATIVES

Core Plan 1 assumes all individuals' wages are taxed and all vested individuals are eligible for benefits (assuming individuals are at least 18 years of age, and not disabled before age 18). These alternatives assess the impact of carving out wages and / or benefits for certain low-income and mid-income populations. Income is specified under the alternatives as a percentage of the federal poverty level (FPL). The alternatives assessed here fall into two categories:

1. No taxes or benefits for individuals below a specified FPL: Under these alternatives, individuals below a specified FPL will not have their wages taxed, nor will they be eligible to receive benefits under the LTSS program.

2. No taxes for individuals below a specified FPL: Under these alternatives, individuals below a specified FPL will not have their wages taxed, but they *will* still be eligible to receive benefits under the LTSS program. In this situation, we assume individuals will become vested in the program in the same way as individuals paying the tax (i.e., they must still meet the work requirements).

The FPL parameters are applied to the current FPL levels of the population. Individuals will change income levels over their lifetimes, but for the purposes of this feasibility study we assume an individual is carved out based on their FPL status in a given year.

Figure 17:
California
FPL Population Exclusions and Inclusions Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
No taxes or benefits for individuals below 138% FPL	0.53%	-0.13%
No taxes for individuals below 138% FPL	0.68%	0.02%
No taxes or benefits for individuals below 200% FPL	0.47%	-0.19%
No taxes for individuals below 200% FPL	0.70%	0.04%
No taxes or benefits for individuals below 500% FPL	0.29%	-0.37%
No taxes for individuals below 500% FPL	0.95%	0.29%

PER HOUSEHOLD BENEFIT ALTERNATIVE

The tax and benefit per household alternative reflects full vesting for each individual in a household once any one individual in a household satisfies the vesting requirements (i.e., worked at least 500 hours three of the last six years, or 10 years total, since program inception). Assumptions for the proportion of individuals who vest were increased to account for the greater probability that at least one member of a household meets the work requirements. Note, under this scenario, each individual in a household still retains his or her own benefits; there is no shared pool of money split among the household. For purposes of this test, we assume a household would include an individual's spouse and adult dependent children between the ages of 18 and 26.

Figure 18:
California
Per Household Benefit Alternatives

Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Tax / benefit per household	0.87%	0.21%

BENEFIT PAYMENT REIMBURSEMENT PERIOD ALTERNATIVE

This alternative examines the tax rate impact of providing a monthly, benefit amount rather than a daily, benefit amount. The only assumption change associated with this alternative is increasing home health benefit utilization from 70.5% to 80%. Individuals receiving home care services generally often do not receive services each day (we estimate five out of seven days, on average). Monthly reimbursement allows a beneficiary to spend more on a daily basis, because the benefit is capped each month, rather than each day. This is because individuals who receive home care services generally only do so on weekdays (Monday through Friday). When individuals receiving home care are reimbursed with a monthly benefit amount, they are able to spend more on a daily basis because they do not receive care on the weekends.

An example of weekly versus daily reimbursement can be extrapolated to monthly reimbursement. For example, a beneficiary incurring costs of $200 per day, five days per week, would have 71% benefit utilization (five days of $150 benefit payments, two days of $0 benefit payments). Weekly reimbursement would allow for $1,050 in benefit (seven days x $150 benefit) to apply to the $1,000 in weekly cost, resulting in 95% benefit utilization.

Figure 19: California Benefit Payment Reimbursement Period Alternative		
Scenario	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Monthly benefit	0.66%	<0.01%

SENSITIVITY TO BUY-IN PROGRAM

Given the vesting requirements under the Core Plans, individuals who are already retired or nearing retirement will likely not be eligible to receive benefits under the program. The retiree buy-in alternatives would permit individuals age 65 and older, who would not be eligible to enter the program otherwise, the option to buy in to the program as an alternative to meeting the full vesting requirements. A less restrictive vesting requirement, paying taxes into the program at least one of the last three years, would apply to individuals 65 and older, allowing those who are approaching retirement to participate without needing to accumulate considerable work history. To model this program, we assume program revenue is supplemented by annual premiums from retirees who buy in. These retirees will pay premiums indefinitely, as long as they are not receiving benefits.

We model three retiree buy-in program options to demonstrate the impact of varying underwriting approaches:

1. No underwriting: No requirements beyond the one-of-three vesting requirement described above. Individuals would be assessed a $2,200 annual premium in 2025, indexed at 3.0% thereafter.

2. ”Middle” option: In place of underwriting, the coverage would include a five-year waiting period where enrollees must pay premiums before receiving benefits. Individuals would be assessed a $2,000 annual premium in 2025, indexed at 3.0% thereafter.

3. Full underwriting: In addition to the one-of-three vesting requirement, common private market underwriting tools, such as medical or prescription drug history reviews and cognitive abilities assessments, are utilized. Individuals would be assessed a $1,000 annual premium in 2025, indexed at 3.0% thereafter.

Figure 20: California Buy-In Program Alternatives	
Option	Annual Premium in 2025, Indexing at 3%*
No underwriting	$2,200
“Middle” option	$2,000
Full underwriting	$1,000

** Illustrative premiums for issue age 65 at the start of the program. Premiums increase every year by 3% (e.g., for retiree who opts into program at start, premium would be $1,000 x 1.03 ^ 2 = $1,061 under the full underwriting option in 2027).*

Removing underwriting, as with the no underwriting and “middle” option scenarios, increases premium levels. As individuals age, they will have better knowledge about their LTSS needs, allowing them to “select” against the insurance plan (i.e., individuals with higher LTSS needs are more likely to enroll compared with individuals who have lower LTSS needs).

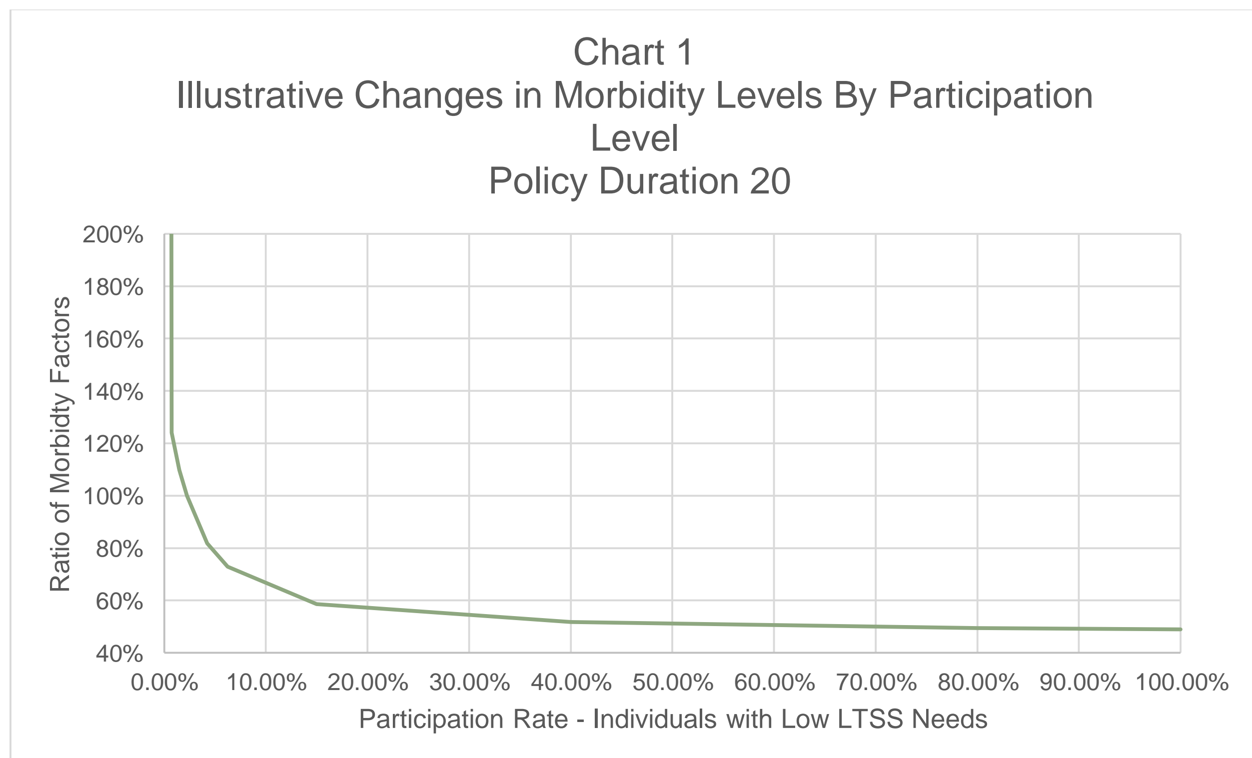
Completely removing underwriting from an individual LTC insurance plan may result in premiums that essentially are a prepayment of future benefits. Adding a vesting period to that plan (such as the “middle” option considered here) will help bring premiums lower; however, the true premium reduction may not be as significant as some would expect depending on the participation risk mix that can be achieved.

The vesting period approach removes some early claims from the insured population. However, individuals with somewhat worse health who are at higher risk for LTC claims remain likely to buy in. Even those people who are currently benefit-eligible or nearly benefit-eligible may buy in if they believe they will still need care after the five-year vesting period has expired (for example, one might expect individuals exhibiting early signs of cognitive impairment to be in this situation). Underwriting is more likely to remove many of those individuals from the covered population. If no underwriting is used, healthy individuals may be less likely to sign up creating a potential adverse selection spiral.

Premiums are highly sensitive to even small incremental changes in participation. However, the premium sensitivity to participation rate changes will diminish as programs approach having all individuals with low LTSS needs enrolled. Conversely, at lower levels of participation, small changes to the number of individuals with low LTSS needs enrolled will have even larger impacts on premium. This dynamic could create a “tipping point" where a program is unsustainable as lower-risk individuals choose to not purchase policies, leaving only higher-risk individuals.

To help illustrate this impact, the chart in Figure 21 shows the change in morbidity selection factors (20 years following coverage inception) as the population currently needing no help with ADLs and with no signs of cognitive impairment is increased or decreased. Figure 21 demonstrates that estimated morbidity levels, or levels of claims and benefits expected under the program, can vary dramatically if participation in the program is low (e.g., participation levels below 15% for this illustration). When program participation is higher, the variation in morbidity decreases (e.g., participation levels of 40% or more for this illustration).

Figure 21: Illustrative Changes in Morbidity Levels by Participation Level, Policy Duration 20

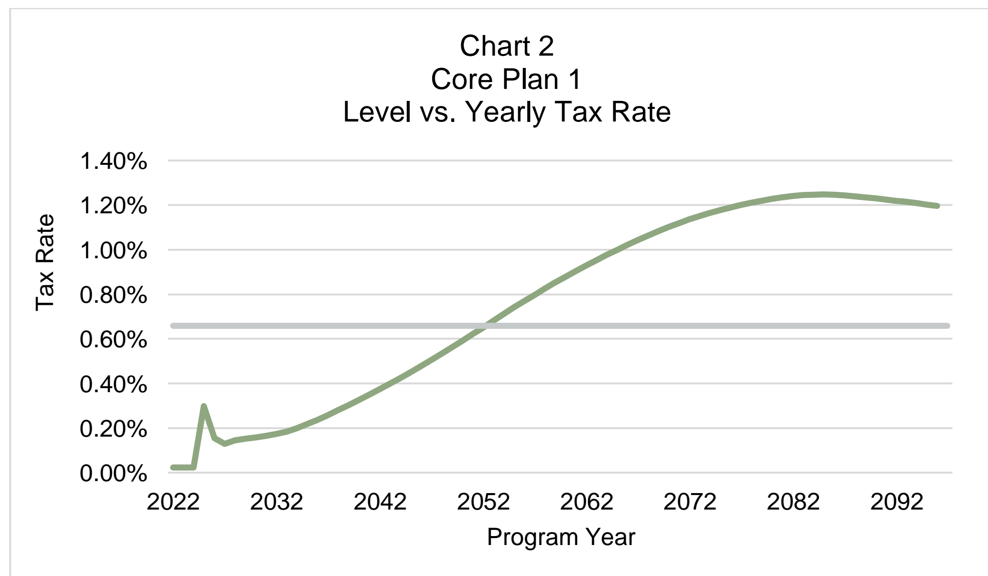


IV. DISCUSSION OF CONSIDERATIONS

FUNDING PERIOD AND APPROACH TO FUNDING

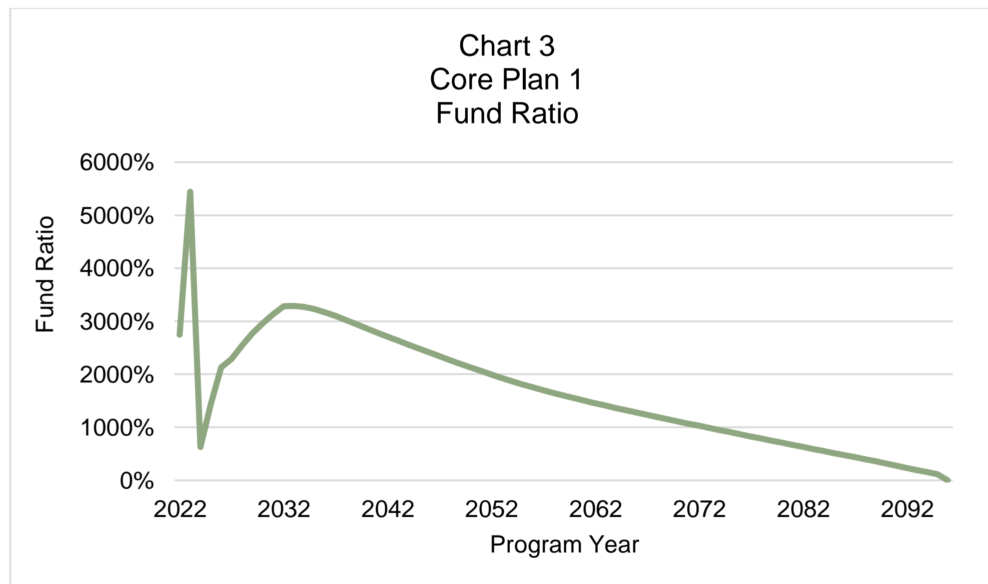
The payroll tax rate can be viewed as the average rate needed for generating income to cover expected payments (benefits and expenses) over the 75-year projection window. The chart in Figure 22 shows the level tax rate for Core Plan 1, as well as the annual tax rate required over the 75-year window if the program used a variable tax rate. Exhibit 3 includes additional details for the estimated yearly cash flows under the program. As shown in Figure 22, the required tax rate on a nonlevel basis would start low in the early program years and grow as more of the population satisfied vesting requirements. After reaching a peak tax rate around 2080, we would expect the yearly required tax rate to start decreasing as wage growth (assumed to be 3.6%) outpaces the benefit indexing (assumed to be 3%).

Figure 22: Core Plan 1: Level vs. Yearly Tax Rate



Given that the level tax rate reflects an average rate across a 75-year horizon, it is important to analyze the funds built up from income collected compared with expected payments each year to ensure the fund balance is not negative in any given year. To help illustrate this concept, we define the fund ratio as the fund amount at the beginning of the year divided by outgo in that year. This gives a measure of the ratio of available funds to expected outgo in a given year, which is critical to test because the program will be financed on a pay-as-you-go basis, with no outside funding sources. The chart in Figure 23 illustrates the estimated fund ratio each year for the program under Core Plan 1. As shown in Figure 23, the use of the average tax rate creates an inherent level of prefunding over the 75-year window. To the extent the program parameters and tax rate may vary from Core Plan 1, Figure 23 would vary as well.

Figure 23: Core Plan 1: Fund Ratio



The fund ratio rises rapidly in the first few years as income is collected and minimal expenses are the only outgo. Once benefit payments begin, there is a steep drop in the fund ratio driven by beneficiaries' pent-up demand, followed by a sharp rise as income is collected from a largely young, healthy population, and many beneficiaries reach their one-year maximum benefits. As more and more enrollees age and become frail, the fund ratio begins to fall as benefit payments are increased. In all years, the fund ratio is positive, indicating that program income is sufficient to pay for benefits and expenses across the 75-year time horizon.

The level tax rate is not expected to be sufficient to maintain program solvency immediately beyond the 75-year window. This can be seen by examining Figure 22 above, where the final year tax rate exceeds the average tax rate, and Figure 23, where the fund ratio approaches 0% as the program approaches the final year of the projection.

As stated earlier in this report, the level payroll tax rate structure described is only intended to illustrate trade-offs for benefit parameters and should not be interpreted as a recommended funding source or funding approach for the final program structure. In practice, the tax rate could be set to the 75-year rate initially (or slightly lower) and then increased before the end of the 75-year period. An alternative to this could be a step-rate tax rate that would change over time to maintain program solvency. Additionally, the state may consider funding sources different from a payroll tax altogether (such as income tax) or evaluating fund balances against future projected liabilities. While exploring these alternative revenue sources or funding approaches was outside of the scope of this initial feasibility study, it is our understanding that different revenue sources and funding approaches will be considered once the scope of program benefits is narrowed. Regardless of the ultimate revenue source or funding approach for the program, continuous monitoring of the fund and its solvency will be important throughout the lifetime of the program.

PUBLIC PROGRAM CONSIDERATIONS

A public insurance program could provide financing to meet some portion of total LTSS needs for many of the long-term residents of California who are frail. An affordable program for the greatest number of people would not likely provide reimbursement for all long-term care costs of all frail persons. Rather, its goal would more likely be to make the catastrophic cost of long-term care manageable for the majority of those who become frail and in need of care. Because California is a pioneer state in attempting to establish this type of program, many uncertainties exist relating to certain assumptions on which the pricing was based. Thus, a cautious and somewhat graduated approach to establishing a program is advisable.

A public program is one established through legislative action, as opposed to the issuance of an insurance policy in private insurance. There are potentially significant similarities, however, between a public insurance program and private insurance. Conditions of coverage, benefits, and financing are all specified by law or regulation, in a manner similar to how insurance contracts specify benefits to which an insured is entitled. Individuals must earn coverage by

making contributions to the program, just as private contracts require premium payments. Covered individuals have a right to benefits without being subjected to a means test. In addition, the level of benefits is typically related to the level and number of years in which contributions have been made. As such, public insurance is not social assistance (often referred to as “welfare”), which is generally characterized by benefits that are means-tested and financed from general revenues.

In some major ways, public insurance does differ from private insurance. Private insurance is voluntary and based on the principle of "individual equity" and risk classification, which are necessary to obtain participation. Individual equity means that each person is classified into groups of individuals with similar cost characteristics, such as age and health status, and a premium is charged, so that each individual class finances its own expected benefits. The classification of individuals into groups is known as underwriting. This process allows individuals to be placed in a group that is deemed to be uninsurable. In other words, those who already need LTC or are reasonably expected to need care in the near future cannot be offered insurance, or the insurance program will quickly fail.

Mandatory public insurance can contain elements of "social adequacy." For example, individuals with high incomes can cross-subsidize those with low incomes in order to provide a minimum adequate benefit to all, including individuals whose contributions are small. Also, those who are of advanced age when the program begins can be subsidized by younger (less risky) participants. Otherwise, benefits may be too low to meet program goals for many years.

Cross-subsidies are possible through a universal public program if the program is mandatory or subsidized. A universal, or nearly universal, program can anticipate that its costs will be "average" (and not just a high-cost subset of the population), and a mandatory program can assure that social goals can be pursued without jeopardizing the viability of the program (because low-cost individuals cannot drop out). Voluntary programs, including private insurance, must give primary attention to risk classification and individual equity. This means that premiums must reflect benefit levels, age, health status, and little else, which leads to underwriting. Thus, individuals who are young and healthy would have very low rates, while those who are old and / or unhealthy would not be able to purchase coverage.

Another aspect of mandatory public insurance is that such programs can modify benefits by changing laws or regulations to keep benefits and costs in balance with public goals and intentions. Such changes are usually applied prospectively, so that benefits already granted are not taken away. Private insurance is based on the premise of the contractual right to benefits that cannot be modified once the contract is made (although disputes do arise on contract meaning, which can result in court settlements where benefits are sometimes granted that were not intended).

To be viable, private insurance must be "fully funded," i.e., have enough assets at any point in time to pay for future benefits earned from past contributions. Full funding protects the benefits of insured individuals in the event that a large proportion of participants stop paying premiums or the plan terminates. Full funding also requires that current plan participants pay for their own benefits, not relying on new members to keep the plan solvent. Because public insurance programs are assured of new entrants and that the government will not "go out of business,” they need not be fully funded, although overall benefit levels must be lower because of the inadequate funding for the initial beneficiaries. Testing for the actuarial soundness of the funding of public insurance programs is designed to assure that benefits can be paid on a timely basis.

COVID-19 CONSIDERATIONS

In preparing this study, we considered the potential impact of the emerging situation regarding the COVID-19 pandemic. Given the substantial uncertainty regarding the impact of COVID-19 on claims costs, including whether the pandemic will increase or decrease LTSS costs in the future, we did not make adjustments to the projections in our Core Plans and plan alternatives. At the time of publishing this report, it is not possible to predict the outcomes, particularly over the 75-year projection period of this study; however, the COVID-19 pandemic could have a material impact on future costs. Section VI of this report below includes sensitivities to pricing assumptions, including sensitivities to morbidity, mortality, and economic assumptions, all of which have been affected by COVID-19 in some capacity. Additional considerations related to pandemic risks and LTSS are discussed in a recent Milliman white paper.[3]

COHORT CONSIDERATIONS

As part of the feasibility study, DHCS requested we include an analysis of the potential costs and benefits to different cohorts of individuals. To quantify this, we calculated the present value of lifetime payments into the program (i.e., taxes) and lifetime receivables from the program (i.e., benefit payments) for individuals with different characteristics, such as age, wage earnings, and age at which an individual will require LTSS.

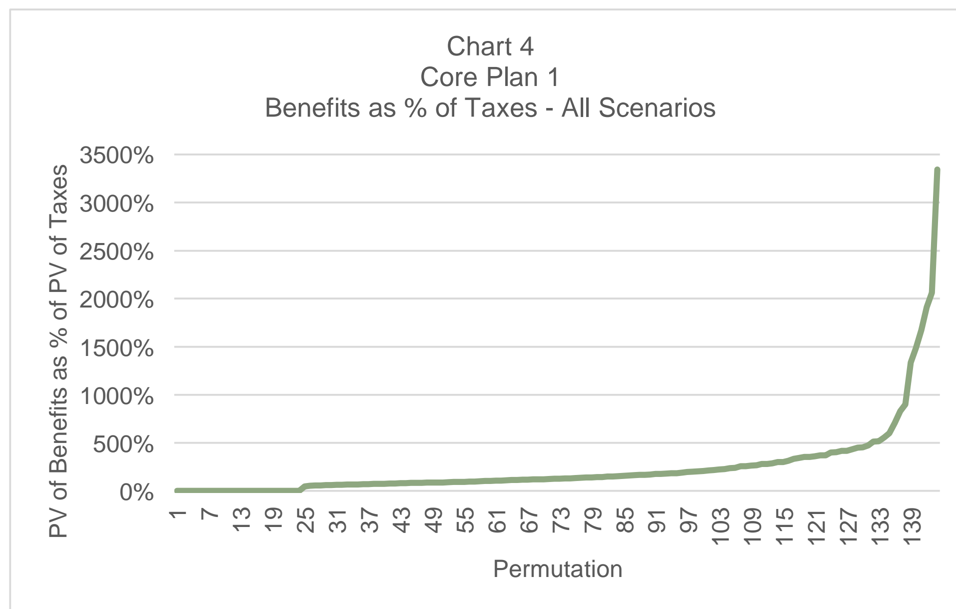
[3] Dalton, A.H. et al. (April 10, 2020). Pandemic Risk on Long-Term Care Insurance Reserves. Milliman White Paper. Retrieved July 24, 2020, from https://us.milliman.com/en/insight/pandemic-risk-on-ltc-insurance-reserves.

Using variations in these characteristics together, we calculated the costs and benefits of 144 different permutations (for example, we define the “baseline” permutation as a 30-year old at the start of the program with median wages who will require LTSS at age 70), shown in the chart in Figure 24. For each permutation we calculated the present value of benefit payments an individual would receive from the program as a percentage of the present value of taxes an individual would pay into the program. If an individual paid more in taxes than was received in benefit payments on a present value basis, the value would be less than 100%. Alternatively, if an individual received benefit payments worth more than the tax payments paid into the program, the value would be greater than 100%.

As part of this analysis, we made the following assumptions:

- We limited our combinations to only individuals who would end up requiring LTSS, because other individuals not receiving care would necessarily pay more into the program than they received (i.e., benefits received equal zero).
- We assumed an interest rate consistent with the 2020 Old-Age, Survivors, and Disability Insurance (OASDI) Trustees Report, as used in our Core Plan 1 modeling.
- For each cell, we modeled individuals working from age 18 to age 65, with wage growth consistent with the 2020 OASDI Trustees Report.
- We assumed the tax rate to be consistent with Core Plan 1 (0.66%).
- We assumed all individuals would utilize full benefits (ex: all $54,750 if year of LTSS need was 2025).
- Combinations are not representative of all California individuals, and do not represent equal distributions of the population that might associate with a particular permutation. In other words, the percentage of California individuals who receive more from the program than they pay into it cannot be determined from Figure 24 or this analysis directly.

Figure 24: Core Plan 1: Benefits as % of Taxes, All Scenarios



As seen in Figure 24, the benefits received as a percentage of taxes paid varies greatly among individuals, even when only considering individuals who will end up requiring LTSS. To better understand how different characteristics impact individuals’ cost-benefit trade-offs in the program, we determined a “baseline” cell and looked at the impact of altering one characteristic of the “baseline” cell at a time. The characteristics modeled under the baseline and alternatives are listed in the table in Figure 25.

Figure 25: California Buy-In Program Alternatives		
Characteristic	**Baseline**	**Alternatives**
Age at Start of Program	30	0, 20, 40, 50, 60
Wage*	$65k	$40k, $70k, $80k, $90k, $100k
Age at LTSS Need	70	65, 80, 90

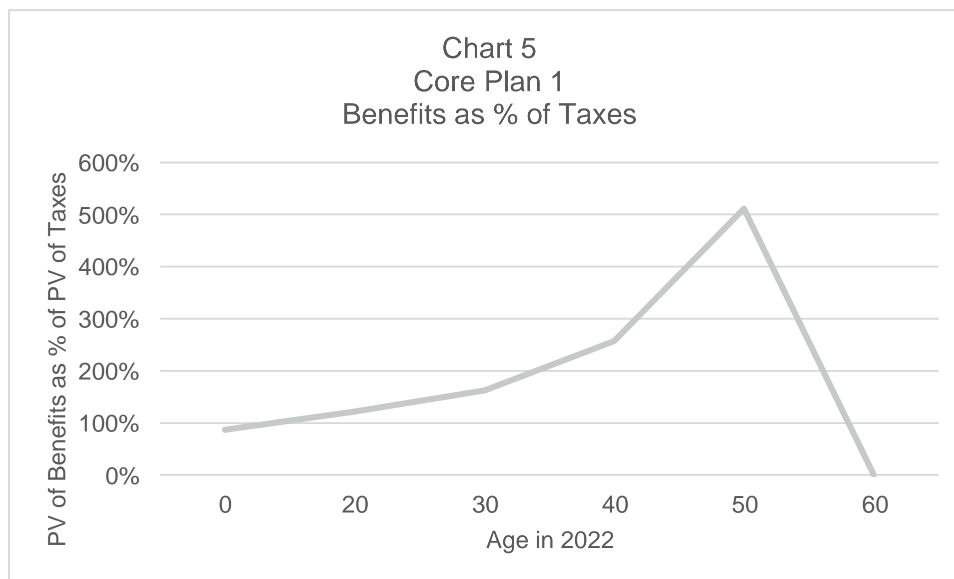
* *Wage shown in 2022 dollars.*

The results shown below in Figures 26 through 28 show how different individuals are affected by the program, as well as the subsidization that may occur between different groups.

Age at start of program

The chart in Figure 26 shows the impact to the benefits as a percentage of taxes (on a present value basis) by changing the age of an individual at the start of the program (2022). As seen in this chart, individuals who are older as of 2022 have a larger "payoff" from the program because they pay taxes for fewer years. This drops dramatically after a certain age, however, as we assume individuals who are 60 and older receive no payoff from the program. This is because we assume these individuals would pay into the program until age 65, but would receive no benefits from the program. They would not pay in enough years to become vested because we are assuming LTSS need would occur at age 70.

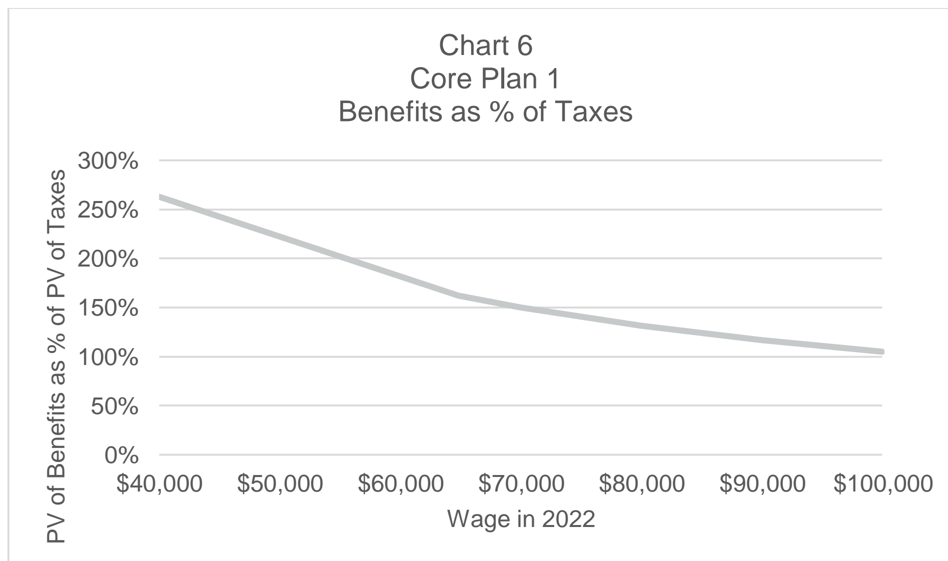
Figure 26: Core Plan 1: Benefits as % of Taxes, by Age



Wage

The chart in Figure 27 shows the impact to the benefits as a percentage of taxes (on a present value basis) by changing the annual wages earned for a cell. As seen in Figure 27, the less an individual's wages, the larger the "payoff" from the program. The present value of benefit payments paid are constant across all points on the chart; however, individuals with lower wages will pay less in taxes into the program, and, therefore, will benefit more from having the program in place if they end up requiring LTSS.

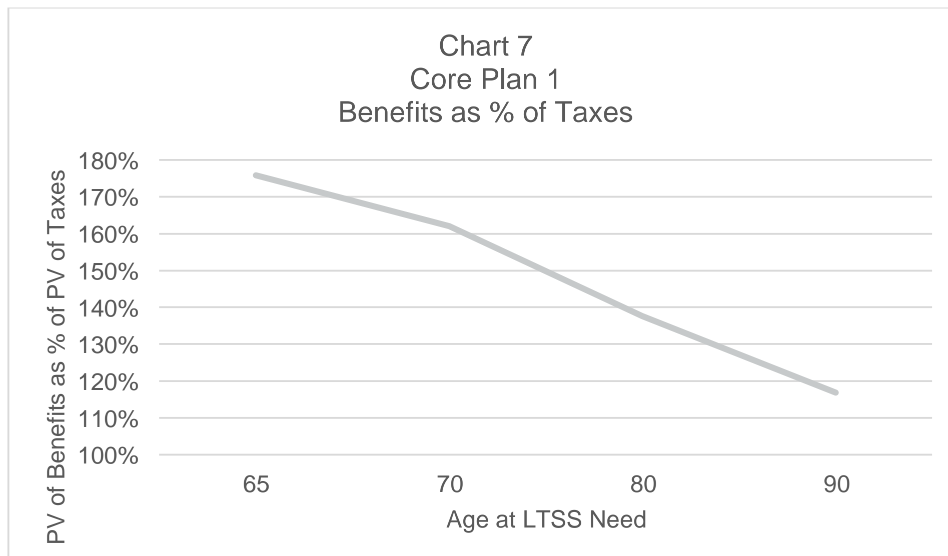
Figure 27: Core Plan 1: Benefits as % of Taxes, by Wage



Age at LTSS need

The chart in Figure 28 shows the impact to the benefits as a percentage of taxes (on a present value basis) by changing the age an individual starts requiring LTSS. As seen in this chart, the earlier an individual requires LTSS, the larger the "payoff" from the program. Because the age in 2022 (assumed to be 30) and the annual wages (assumed to be $65,000) are held constant, the difference in "payoff" across these scenarios comes from the benefit indexing and present value. Because the interest rates (ultimate of 4.7%) are larger than the benefit index (3%), the present value of the benefit decreases the further into the future an individual receives the benefit.

Figure 28: Core Plan 1: Benefits as % of Taxes, by Age of LTSS Need



V. FISCAL IMPACT TO CALIFORNIA MEDICAID PROGRAM

Medicaid is the primary payer of LTSS in the United States. In 2017, approximately 52% of LTSS expenditures were paid for by Medicaid.[4] Medicaid is jointly funded by states and the federal government, but LTSS may require individual out-of-pocket costs as well. California's Medicaid program, which encompasses Medi-Cal, IHSS, and services provided under the Departments for Developmental Services and Aging among others, provides LTSS services to qualifying Medicaid-eligible individuals. As much of California's Medicaid program provides LTSS services within a managed care environment, we are unable to directly assess the total LTSS expenditures across the fee-for-service and managed care programs. However, using national statistics, we estimate that the California Medicaid program (total, including state and federal) spent between $25 billion and $30 billion on LTSS expenditures in 2017, including both institutional care and HCBS services for physically and developmentally disabled individuals. Figure 29 provides the estimated percentage of total state and federal expenditures in institutional care, physically disabled HCBS, and developmental services.

Figure 29:
California
Estimated 2017 State and Federal LTSS Expenditures by Category

Category	Total
Institutional Care (Nursing Home and ICF/DD)	25%
Physically Disabled HCBS	50%
Developmental Services	25%
Total LTSS	**$25 to $30 billion**

Medicaid is generally the payer of last resort.[5] This means private insurance, including LTC insurance or Medicare, must pay for medical and LTSS costs incurred by a Medicaid-eligible individual before Medicaid.[6] If California created a new public LTSS program, it may provide LTSS coverage before Medicaid would pay or concurrently with Medicaid, similar to other non-Medicaid payers.

Given that Medi-Cal is jointly funded by California and the federal government, if Medicaid expenditures were reduced because of a new public LTSS program, federal financial participation would also be reduced. Therefore, as part of this LTSS feasibility study, we analyzed how a new public LTSS program would interact with the Medicaid program. More specifically, our analysis models the percentage of total LTSS recipients projected to receive LTSS services under a new public program that would have ended up receiving the services from the Medicaid program, absent the new program. For each of these LTSS recipients, we also projected the corresponding fiscal impact to the Medicaid program resulting from a new public LTSS program. For purposes of this analysis, we focused on estimating the Medicaid fiscal impact of the Core Plan 1 option.

ANALYSIS LIMITATIONS

The Medicaid fiscal impacts developed in this analysis are based on our understanding of how California's Medicaid program will interact with a new public LTSS program. We received summarized historical data from DHCS and related divisions to support this analysis. However, data was not readily available to support all assumptions needed for this analysis. In those cases, we relied on other publicly available data, as well as our research and experience to develop assumptions for these projections.

Additionally, changes to the state Medicaid reimbursement or eligibility, federal regulations, or executive orders, as well as to state insurance laws, will impact the conclusions made in this report. Further consideration of the following issues, outside the scope of our analysis, should be made when evaluating the Medicaid impacts of a public LTSS program proposal:

- We did not adjust for any increased use of services due to awareness or use of services, as individuals with coverage may use services at higher rates and then become eligible for Medicaid.

[4] Musumeci, M., Chidambaram, P., & O'Malley Watts, M. (February 2020). Medicaid Home and Community-Based Services Enrollment and Spending. Kaiser Family Foundation Issue Brief. Retrieved July 26, 2020, from http://files.kff.org/attachment/Issue-Brief-Medicaid-Home-and-Community-Based-Services-Enrollment-and-Spending.

[5] U.S. Department of Health and Human Services (June 1, 2018). Medicaid Provisions in Recently Passed Federal Budget Legislation Bipartisan Budget Act of 2018 – Third Party Liability in Medicaid and CHIP. Retrieved July 26, 2020, from https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/cib060118.pdf.

[6] Medicaid and CHIP Payment and Access Commission. Third party liability. Retrieved July 26, 2020, from https://www.macpac.gov/subtopic/third-party-liability/.

- We did not adjust for any cost increases due to potential increased demand in the LTSS marketplace. Demand may increase and put pressure on wages and other costs for personal care workers.
- We did not reflect any impact to nursing home provider taxes.
- We did not vary LTSS incidence rates for different FPL groupings (e.g., under 138% FPL).

To the extent that DHCS further considers the implementation of a public LTSS program following this feasibility study, these items should be studied in greater detail to understand how they would impact the analysis of a new public LTSS program.

CORE PLAN 1 FEDERAL AND STATE FISCAL IMPACT

The table in Figure 30 illustrates the following projected information underlying the Core Plan 1 projections during the first 10 years of a public program, as well as in 10-year increments starting in 2040:

- Number of total recipients who are projected to start receiving LTSS program benefits during the year
- Projected recipients who would have been Medicaid-eligible absent the new LTSS program
- State and federal Medicaid fiscal impact resulting from those recipients receiving the new public LTSS benefit

Figure 30:
California
Medicaid Fiscal Impact (Federal and State)

	Recipients Starting LTSS Program Benefits		Medicaid Fiscal Impact (in millions)	
Year	**Total Recipients**	**Medicaid Recipients**	**Untrended (2020 $)**	**Trended at 3%**
2025	30,000	20,000	($ 860.0)	($ 1,000.0)
2026	36,000	23,000	(1,010.0)	(1,210.0)
2027	41,000	27,000	(1,150.0)	(1,420.0)
2028	46,000	30,000	(1,290.0)	(1,640.0)
2029	49,000	31,000	(1,350.0)	(1,760.0)
2030	51,000	33,000	(1,410.0)	(1,890.0)
2031	54,000	34,000	(1,490.0)	(2,060.0)
2032	57,000	36,000	(1,570.0)	(2,240.0)
2033	61,000	38,000	(1,660.0)	(2,430.0)
2034	67,000	42,000	(1,810.0)	(2,740.0)
2035	73,000	46,000	(1,980.0)	(3,080.0)
2040	110,000	68,000	(2,910.0)	(5,260.0)
2050	209,000	126,000	(5,420.0)	(13,160.0)
2060	308,000	183,000	(7,900.0)	(25,760.0)
2070	378,000	223,000	(9,650.0)	(42,320.0)
2080	421,000	247,000	(10,700.0)	(63,050.0)
2090	415,000	244,000	(10,570.0)	(83,660.0)
2100	402,000	236,000	(10,230.0)	(108,840.0)

Notes:

1. *The estimated state-only impact is approximately 50% of the total state and federal Medicaid fiscal impact.*
2. *For purposes of this table, we have included a trended projection and a projection that excludes healthcare trend in order to better compare to current program spending.*
3. *Given Core Plan 1 excludes individuals if they were disabled before age 18, the Medicaid fiscal impact would primarily impact the institutional and physically disabled HCBS spending categories.*

Based on data provided by DHCS, we estimate between 250,000 and 300,000 Medicaid enrollees started receiving LTSS services in 2017, excluding the developmental disabilities population. Given that the over-65 population is estimated to grow significantly between 2017 and 2035, new Medicaid enrollees starting to receive LTSS services in 2035 could be between 350,000 and 400,000, assuming LTSS incidence rates remain the same. The Medicaid

recipients estimated to start receiving LTSS services from a new public LTSS program benefit in 2035 represents approximately 10% to 15% of the total Medicaid new LTSS recipients in 2035.

One of the big factors on the projected recipients and the Medicaid fiscal impact (as well as the total program cost) is the vesting requirement assumptions. The table in Figure 31 illustrates the impact of vesting requirements on Medicaid recipients who otherwise would have been eligible for the proposed public LTSS program.

Figure 31:
California
Impact of Vesting Requirements on Medicaid Recipients

	Projected Medicaid Recipients	
	Total	**Vested**
Recipients Starting LTSS Program Benefits in 2035	196,000	46,000

As the public LTSS program matures, the impact of the vesting requirement will become less of an impact and the percentage of new Medicaid enrollees who will receive the public LTSS benefit will increase. Therefore, the Medicaid fiscal impact will be increased accordingly. It is also important to note that a significant portion of the Medicaid LTSS recipients will not be eligible for the public LTSS program. This is further described in the next section.

ESTIMATING PROJECTED MEDICAID RECIPIENTS

The Medicaid program provides LTSS services for hundreds of thousands of Californians. However, we are projecting only that a portion of them would receive services under the proposed new public LTSS program. There are a few key differences between the existing Medicaid program and Core Plan 1 modeled in the LTSS feasibility study that account for why only a portion of the Medicaid population would receive services under a new public program. The primary differences between the Core Plan 1 scenario of a new public program and the Medicaid program include the following:

- **Vesting requirements**
  - *New public program*: To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period.
  - *Medicaid*: *Must* meet Medicaid eligibility requirements.
- **Benefit eligibility**
  - *New public program*: Individuals who vested can draw benefits once they meet the HIPAA eligibility "trigger." The HIPAA trigger is defined as needing assistance with two or more ADLs or severe cognitive impairment, where the individual is expected to meet the definition for at least the next 90 days.
  - *Medicaid*: There are several different LTSS programs. The biggest and least restrictive is IHSS, which requires a needs assessment that includes ADLs and instrumental ADLs (IADLs). Our understanding is that this is less restrictive than the HIPAA eligibility "trigger."
- **Minimum age requirements**
  - *New public program*: To be eligible for benefits, individuals must be over the age of 18 and become disabled after the age of 18.
  - *Medicaid*: Medicaid provides essential services to children needing LTSS services and individuals who became disabled prior to the age of 18.

Because of these differences, we utilized the total new LTSS recipients projected for the new program as a starting point for our analysis. To estimate projected Medicaid recipients, we modeled the projected percentage of total recipients accessing the new LTSS program that would have accessed the Medicaid LTSS benefit without the public program.

As we discussed above, Medicaid is the primary payer of LTSS services, accounting for 52% of total LTSS spend. However, for purposes of this analysis, we are interested in what percentage of the projected LTSS new program recipients would ever become Medicaid-eligible without the public LTSS program. Based on industry research and our experience, we understand that a portion of individuals who begin covering LTSS costs out-of-pocket or by using other sources besides LTC insurance ultimately spend down their assets and qualify for Medicaid. Individuals who spend down onto Medicaid represent approximately 40% of the Medicaid nursing home residents.[7] This likely also occurs for individuals receiving home and community-based services, but to a lesser extent than the nursing home population. Overall, we targeted that approximately 60% of total LTSS recipients receiving the new public program benefit would have become Medicaid-eligible without the program. Additionally, we estimate Medicaid will represent a higher portion of the nursing home recipients than other care settings.

California's Medicaid program includes a large number of LTSS recipients who participate in the "share of cost." For these individuals, who are also eligible for the public LTSS program, we recognize that the combination of the individual's "share of cost" and the daily benefit amount from a public LTSS program may cover the total cost of LTSS and defer an individual's need for Medicaid assistance.

ESTIMATING MEDICAID FISCAL IMPACT PER RECIPIENT

Once we identified the percentage of total LTSS recipients that would have accessed Medicaid, we needed to determine the corresponding fiscal impact for each recipient. To estimate the fiscal impact, we projected an average length of treatment (in months) of LTSS on average for Medicaid enrollees. The table in Figure 32 illustrates the estimated average months of treatment for Medicaid nursing home recipients.

Figure 32:
California
Average Months of Treatment for Medicaid Nursing Home Recipients

Age Group	1 -12	13-24	25+
18-50	45.1%	15.9%	39.0%
50-64	45.1%	15.9%	39.0%
65-80	49.3%	20.8%	29.8%
80-95	46.5%	24.0%	29.4%

The fiscal impact of each Medicaid LTSS recipient was assumed to be in one of two categories, depending on whether a person qualified for Medicaid at the time of needing LTSS. The two categories of cost include:

- Projected LTSS per member per month (PMPM) cost, capped at the monthly maximum benefit amount ($150 per day x 30.25 days = $4,538)
- Projected total PMPM cost, including both LTSS and Medi-Cal expenditures

The fiscal impact of a recipient who qualified for Medicaid when needing LTSS services under the new public program was calculated as the average number of months of treatment multiplied by the projected LTSS PMPM cost. For individuals who were not Medicaid-eligible when they needed LTSS services, but were projected to spend down their assets and qualify for Medicaid, the fiscal impact was calculated as the average number of months of treatment multiplied by the projected total PMPM cost. The average number of months reflects the estimated Medicaid monthly lapse of LTSS services. Total PMPM cost was assumed for the fiscal impact of individuals who spend down onto Medicaid because the new public LTSS program is anticipated to delay an individual from spending down onto the Medicaid program. Once an individual spends down and gains Medicaid eligibility, that person qualifies for both Medi-Cal and LTSS services. Projections varied by age group and care setting to account for some of the unique characteristics of different recipients.

[7] U.S. Department of Health and Human Services (January 1, 1992). The Impact of Spend-Down on Medicaid Expenditures. ASPE. Retrieved July 26, 2020, from https://aspe.hhs.gov/basic-report/analysis-impact-spend-down-medicaid-expenditures#impact.

VI. MODELING ASSUMPTIONS SENSITIVITY TESTING

This section summarizes the testing of various key assumptions one at a time. Section VII below includes additional details regarding the baseline assumptions used in our modeling.

The estimated payroll tax is highly sensitive to the underlying projection assumptions used in the modeling. The results of the testing should be taken into consideration when evaluating the feasibility of offering a new LTSS benefit program. The sensitivity of the program results under different conditions and the program's ability to adjust features when experience materializes differently from what has been expected is a key initial step to inform rate setting.

SENSITIVITY TESTING TO INCIDENCE

Incidence refers to the rate at which the population requires the use of LTSS. The level of incidence over the projection period will have a direct impact on the cost of financing a public LTSS benefit. If incidence rates decrease, fewer people will require LTSS and funding requirements will be lower. We ran sensitivities at +20% and -20% load to baseline incidence.

Figure 33:
California
Sensitivity to Incidence

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
+ 20% Incidence	0.71%	0.05%
- 20% Incidence	0.59%	-0.06%

SENSITIVITY TESTING TO BENEFIT PAYMENTS

Variations in benefit payments can be caused by many factors including price inflation, average length of stay, incidence rates, etc. We modeled two sensitivities to benefit payments to illustrate the impact of increasing and decreasing benefit payments by 20%.

Figure 34:
California
Sensitivity to Benefit Payments

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
+ 20% Benefit Payments	0.79%	0.13%
- 20% Benefit Payments	0.53%	-0.13%

SENSITIVITY TESTING TO MORTALITY

Mortality refers to the death rate of the population. We applied separate mortality rates to the active (or "healthy") lives and disabled lives. Mortality rates have generally been decreasing by age over the last 100 years. As mortality rates decrease, the population is expected to survive longer. A population living longer will increase the demand for LTSS. We ran six sensitivities, increasing and decreasing mortality rates at each age by 10% for all lives, as well as tests where we only change the mortality for active lives and disabled lives.

Figure 35: California Sensitivity to Mortality Rate		
Sensitivity	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1	0.66%	-
+ 10% Mortality	0.64%	-0.02%
- 10% Mortality	0.68%	0.02%
+ 10% Active Life Mortality	0.65%	-0.01%
- 10% Active Life Mortality	0.67%	0.01%
+ 10% Disabled Life Mortality	0.65%	-0.01%
- 10% Disabled Life Mortality	0.67%	0.01%

SENSITIVITY TESTING TO MORTALITY IMPROVEMENT

We used the OASDI Report estimates of mortality improvement for their intermediate, low-cost, and high-cost scenarios. The intermediate mortality improvement of 0.78% per year represents the best estimate of mortality improvement going forward. The low-cost estimate (0.42%) and high-cost estimate (1.16%) represent extremes in the projected mortality improvement. As mortality improvement increases, the funding requirement for the program will increase as the expected life expectancy of the population, and need for LTSS, will increase.

Figure 36: California Sensitivity to Mortality Improvement		
Sensitivity	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1 (0.78% mortality improvement)	0.66%	-
Low Mortality Improvement (0.42%)	0.61%	-0.04%
High Mortality Improvement (1.16%)	0.71%	0.05%

SENSITIVITY TESTING TO BIRTH RATE

The birth rate represents the number of births as a percentage of the population. For the majority of our modeling we assume a birth rate consistent with projections from the California Department of Finance, Demographic Research Unit. This projection has a birth rate of 11.5 (births per 1,000 women aged 15 to 44 years). As birth rates increase, the funding requirement for the LTSS program decreases. As more children are born, the average age of the population lowers, and there are more working individuals relative to the elderly, which results in a larger tax base. We ran two sensitivities, with an increase in the birth rate to 14.9 births per 1,000 women aged 15 to 44 years and a decrease to 8.7.

Figure 37: California Sensitivity to Birth Rate		
Sensitivity	**75-Year Payroll Tax Rate**	**Change From Core Plan 1**
Core Plan 1 (birth rate of 11.5)	0.66%	-
Low Fertility Rate (birth rate of 8.7)	0.70%	0.04%
High Fertility Rate (birth rate of 14.9)	0.61%	-0.05%

SENSITIVITY TESTING TO MIGRATION

As a state-run public program, state-to-state migration and net immigration to the state impact the population projections. The Core Plan assumes a net annual migration consistent with projections from the California Department of Finance. We ran two sensitivities, with an increase and decrease of 25% to the net annual migration counts. Changes in net migration counts do not significantly impact the LTSS funding requirement. Changes to the demographics of the migration population would have a larger impact on the tax rate than changing the net migration counts alone, as seen in the third sensitivity test in the table in Figure 38. For this test, we kept the migration counts consistent with Core

Plan 1, but changed the distribution of net migration to reflect a younger population. More individuals to contribute to program revenue before withdrawing benefits decreased the tax rate. For the final migration sensitivity, we removed all out migration from the state. In the context of this program, out migration functions almost as a “lapse,” where individuals pay the payroll tax into the program, but move out of the state oftentimes before receiving any program benefits. As a result, removing out migration (or restricting “lapses”) increases the tax rate.

Figure 38:
California
Sensitivity to Migration

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
25% Lower Net Migration	0.66%	<0.01%
25% Higher Net Migration	0.66%	<0.01%
Change to Migration Distribution	0.57%	-0.09%
No Out Migration	0.73%	0.07%

SENSITIVITY TESTING TO VESTING

To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. Core Plan 1 assumes vesting is satisfied by tax payments in three of the last six years or 10 total years during an individual’s work history. We ran two sensitivities on the vesting rates, reducing or increasing vesting rates by 5% to 10%, varying by gender, attained age, and program year.

Figure 39:
California
Sensitivity to Vesting

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Low Vesting (5% to 10% reduction)	0.59%	-0.07%
High Vesting (5% to 10% increase)	0.71%	0.05%

SENSITIVITY TESTING TO INTEREST RATES

The interest rate determines the level of interest earned of the program fund balance. As the interest rate earned by the trust fund increases, the necessary revenue funded through payroll tax decreases. Alternatively, if interest rates decrease, less is earned on the invested funds, requiring increased funding through payroll taxes. The interest rate assumptions tested are the 2020 OASDI Trustees Report intermediate, low-cost, and high-cost assumptions, respectively. To achieve the interest rates modeled, the program would likely require a portfolio including equities.

Figure 40:
California
Sensitivity to Interest Rate

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1 (4.7% ultimate rate)	0.66%	-
Low Interest Rate (3.6% ultimate rate)	0.76%	0.10%
High Interest Rate (5.8% ultimate rate)	0.56%	-0.10%

SENSITIVITY TESTING TO WAGE GROWTH

As wage growth increases, the payroll tax rate necessary to fund program benefits decreases, and the tax base increases. It is possible that increased wages can result in price inflation, but this impact is ignored in the provided wage sensitivity analyses. Please see the sensitivities to benefit payments for impacts on increasing benefit payments as a proxy for price inflation. The baseline growth in average annual wage is taken from the 2020 OASDI Trustees Report intermediate assumption as is, assumed to be 3.55% in the ultimate year. Sensitivity runs are conducted using both the low-cost and high-cost Trustees Report assumptions (2.34% and 4.76% in the ultimate year, respectively).

As part of our modeling, we grade off a California-specific wage adjustment over 20 years, assuming that over time wages will approach national average wages. The last sensitivity in the table in Figure 41 shows the results if we maintain the California wage adjustment over the entire 75-year window. Because California wages are higher than national wages, maintaining this adjustment would cause the tax rate to decrease.

Figure 41:
California
Sensitvity to Wage Growth

Sensitivity	75-Year Payrol Tax Rate	Change From Core Plan 1
Core Plan 1 (3.6% ultimate rate)	0.66%	-
Low Wage Growth (2.3% ultimate rate)	0.96%	0.31%
High Wage Growth (4.8% ultimate rate)	0.43%	-0.23%
No Wage Grade-Off	0.59%	-0.07%

SENSITIVITY TESTING TO EMPLOYMENT

The percentage of the population we assume is employed impacts the number of individuals paying taxes into the program, and ultimately the revenue the program is able to collect. We test two variations of employment, where we increase and decrease the count of workers in each year by 5%.

Figure 42:
California
Sensitivity to Employment

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
5% Lower Employment	0.69%	0.03%
5% Higher Employment	0.63%	-0.03%

SENSITIVITY TESTING TO ADMINISTRATIVE COSTS

The administrative load represents the expense necessary to conduct program operations, including premium collection and payment of benefits. We test three variations of administrative loads (4%, 8%, and 10%). The incremental change in the administrative load flows directly to the required tax rate.

Figure 43:
California
Sensitivity to Expenses

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1 (7% administrative load)	0.66%	-
4% Administrative Load	0.64%	-0.02%
8% Administrative Load	0.67%	0.01%
10% Administrative Load	0.68%	0.02%

SENSITIVITY TESTING TO PANDEMIC SCENARIO

We also performed a scenario test, combining sensitivities of multiple assumption sensitivities to produce a "pandemic scenario." While pandemics can take many forms, for this test we modeled a scenario where a "shock" event would occur in 2035 to increase incidence and decrease interest rates in that year and several years after, but then reverting back to our Core Plan assumptions for the remainder of the projection. While this caused a significant increase to the benefit payments in those years, the overall impact to the tax rate, which reflects a 75-year window, was relatively small (+0.01%).

Figure 44:
California
Sensitivity to Pandemic Scenario

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
Pandemic Scenario	0.67%	0.01%

SENSITIVITY TESTING TO MORBIDITY, INTEREST, AND WAGE GROWTH

DHCS and the California Department of Finance requested we perform a scenario test that combined adverse impacts related to morbidity, interest earnings, and wage growth. For this scenario, we assumed incidence rates to be 20% higher (as with the test in Figure 33), lower interest rates with an ultimate rate of 3.6% (as with the test in Figure 40), and lower wage growth with an ultimate rate of 2.3% (as with the test in Figure 41). Most of the sensitivity tests in Figures 33 through 43 show the impact of changing one assumption at a time. As shown with the test in Figure 45, the impact of changing multiple assumptions in one test is often not equal to the sum of the impacts from changing each assumption individually.

Figure 45:
California
Sensitivity to Morbidity, Interest Rate, and Wage Growth

Sensitivity	75-Year Payroll Tax Rate	Change From Core Plan 1
Core Plan 1	0.66%	-
High Morbidity, Low Interest, & Low Wage Growth Scenario	1.26%	0.60%

VII. METHODOLOGY AND ASSUMPTIONS

We projected long-term care beneficiaries and costs using Milliman's modeling software, MG-ALFA®. The projection started with the current population of the state of California by age, sex, and region, and projected forward for 75 years. The projected California population is estimated based on the number of births, deaths, and net migrants in each future year.

To calculate the long-term care beneficiaries and costs for the projected population in each year, the model utilizes Milliman's proprietary Long-Term Care Guidelines (Guidelines) calibrated from an insured basis to the California population characteristics. The Guidelines provide frequencies, continuance curves, utilization assumptions, and claims costs developed from a large number of product designs, based on data from the past two decades. The Guidelines incorporate both private and public sector data sources. The Guidelines are updated triennially to reflect the most comprehensive and current information available in the market. The breadth of underlying data and the comprehensiveness of analysis put the Guidelines in position to be an unrivaled benchmark for LTC morbidity.

The projection is for the 75-year period 2025 through 2100. A 75-year projection has been established by the Social Security Administration (SSA) and the Centers for Medicare and Medicaid Services (CMS) as the standard projection period for determining the actuarial balance of a public insurance program. The 75-year period covers the expected lifetime of the vast majority of residents just entering their working ages. Thus, a 75-year projection period covers all of the working years and all of the benefit years of those just beginning their participation. The model produces year-by-year cash flow projections, such that the value and scope of the program can be estimated for any of the years in the 75-year projection period. A projection period of at least 75 years is necessary to see the ultimate costs of the program, because it allows for a full career contribution period (so that the ultimate effects of the vesting rules can be modeled) and the full benefit period (so that the benefits paid over all retirement years based on a specified indexing option can be modeled).

The cash flow consists of income to the program from taxes, premiums, subsidies, and interest on any fund. Outgo from the program consists of benefit payments for nursing home or home care services and administrative expenses. We projected each of these items on a year-by-year basis for 75 years.

DEMOGRAPHIC ASSUMPTIONS

The demographic assumptions relate to the projection of the population of California. For a pay-as-you-go public insurance program, the covered population is of fundamental importance in the estimation of costs. The income to the program depends on the number of contributors and the outgo of the program depends on the number of beneficiaries, most of whom are aged 65 or over. Estimates of the number of contributors and of the number of beneficiaries are based on the population projection.

The estimate of the resident population starts with the census count of the resident population for California by age and sex as of 2016. We use a 2016 starting population to build up a stable disabled population and appropriately reflect LTC prevalence at the time of first program payments (2025). The model projects the California population by estimating the number of births, deaths, and net migrants for each future year.

Starting population

The estimate of the 2016 starting population is from the State of California Department of Finance, Demographic Research Unit projections as of January 2020. This survey was used to tabulate state population estimates by age and sex and is the starting point for the California population projection.

Migration

Net migration to California is based on the State of California Department of Finance, Demographic Research Unit projections of the "Components of (Population Change)" through 2060. The relativities of state-to-state immigration and emigration, as well as immigration and emigration into and out of the United States, are tabulated from the American Community Survey (ACS) five-year data release files. The data files are used to calculate the distribution by age and sex of domestic and international net migration into and from California. Yearly totals of immigrants and emigrants are based on the relativities noted above. Individuals who emigrate are kept track of separately in the model. Such individuals who contributed to the program could be eligible for partial benefits outside of California as they divest from the program. In most of the modeled alternatives, benefit credits are assumed lost over five years once an individual

leaves California. The eligible beneficiary population includes emigrants in addition to persisting and immigrating California residents. The model does not track the legal status of immigrants or emigrants.

Births

The number of births in California are estimated using the projected birth rates from the State of California Department of Finance, Demographic Research Unit projections as of January 2020. The report estimated calendar year births during 1990 to 2018 and projected births during 2019 to 2040 for California and its 58 counties. The report also includes fertility rate by mother's age group during 1990 to 2040.

Deaths

We applied separate mortality rates to the active (or "healthy") lives and disabled lives.

- Active life mortality**:** Current and projected U.S. active life mortality rates by age and sex were calculated using multiple sources, including the Guidelines, 2020 OASDI Trustees Report (after backing out disabled life mortality), Society of Actuaries (SOA) 2012 Individual Annuity Mortality (IAM) table (after backing out disabled life mortality), and SOA Intercompany data.
- Disabled life mortality**:** Current and projected U.S. disabled life mortality rates by age, sex, duration, and care setting were calculated from Milliman's proprietary Guidelines.

The projected U.S. mortality rates were calibrated to California using the Centers for Disease Control and Prevention (CDC) age-adjusted mortality rates by state. This data shows that California's mortality rates are 14% to 15% less than the national average.

Mortality improvement rates by age and sex were estimated from the 2020 OASDI Trustees Report. The Trustees Report mortality rates are projected through 2095.

As a final step, projected lives by calendar year were compared against the State of California Department of Finance, Demographic Research Unit projections as of January 2020.

ECONOMIC ASSUMPTIONS

Economic parameters concerning trends in the labor force, wages, and costs of LTC services are of primary importance for the projection of the income and outgo of the LTC program. Because the program is financed by a payroll tax, the labor force participation and wage level will directly affect annual program income. The index used to trend the daily benefit amount is important because it affects program liabilities in the future. The interest rate assumption is important because it affects the interest income earned by the LTC fund (and the present value of the future benefit stream).

Labor force participation and unemployment

The U.S. labor force participation rates (LFPR) and unemployment rates (UR) by age and sex are from the 2020 OASDI Trustees Report. These rates are adjusted to California-specific levels using the ratio of California LFPR to U.S. LFPR, and California UR to U.S. UR. California-specific and U.S. employment data for this adjustment comes from the U.S. Bureau of Labor Statistics (BLS) Local Area Unemployment Statistics. This data is used to project the labor force and unemployment rate in each year of the projection period. The labor force is calculated in order to estimate the tax base in each year. The labor force calculations do not take into account workers' legal status.

Wages

Projections of U.S. average taxable earnings from 2018 to 2095 are found in the 2020 OASDI Trustees Report. Taxable earnings are the amount of covered earnings subject to the Social Security payroll tax. Taxable earnings for years after 2095 are projected using the five-year trend from 2091 to 2095. In order to estimate the California tax base, we adjust the average U.S. earnings to California-specific earnings by the ratio of the average wage in California over the average wage in the United States. We grade off the California-specific wage adjustment over 20 years, assuming that over time wages will approximate national average wages. Wage data for this adjustment comes from BLS Occupational Employment Statistics. We then convert the taxable earnings into covered earnings using the ratio of taxable earnings to covered earnings from the 2020 OASDI Trustees Report. Average covered earnings are multiplied by the labor force in a given year to determine the tax base in that year.

We assumed average increases in wages are the same as those assumed in the OASDI Trustees Report, with an ultimate wage trend of 3.55% per year.

Vesting

In order to become eligible for benefits, a worker must become vested (or in other words, become insured). To vest in the LTSS benefit, an individual must work and pay taxes for a specified number of years. We used the 2006 Social Security Earnings Public Use Microdata File to estimate the percentage of Californians that would become vested by age, sex, and projection year. This data provides annual earnings information (i.e., a lifetime earnings profile) for a 1% random sample of all Social Security numbers issued before January 1, 2007.

Under Core Plans 1 and 3, individuals are fully vested if they work more than 500 hours per year for three of the last six years, or for 10 years total over their lifetimes. To find the percentage of the working population meeting these requirements, we observed the work histories of the random sample of data. For each age, the percentage of individuals who had recorded income for three of the previous six years or eight years total is tabulated. We used eight instead of 10 years in this tabulation because becoming insured under this program provides an added incentive to continue working for those who are almost insured. For each year of the program, we vary the number of years of work history to be included in this tabulation. For example, in year 10 of the program, we only considered work history for individuals going back 10 years to estimate vesting percentages. Because of this, the vesting percentages by age and gender vary in each program year. We used the American Time Use Survey to determine the percentage of workers who work more than 500 hours per year (approximately 95%), and apply this percentage to the vesting percentages by age, gender, and program year.

We observed that females' work histories changed significantly since the beginning of the data collection period in 1951, with the last five to 10 years of data approximating the male work history. As such, we set the female vesting percentages equal to the male vesting percentages.

We did not vary the migration assumptions for individuals who migrated into California. This is a conservative assumption, because we are basically assuming they are able to bring their work histories in other states with them. However, varying this assumption had a relatively low impact on results and seemed appropriate given that we do not know how many individuals moving into the state lived in California previously and would be moving into the state with some relevant work history.

We used a similar methodology for Core Plan 2 and other alternatives where the changes to program parameters would affect the vesting, observing an individual's qualifying working years based on a "look-back" period consistent with program duration, to determine partial vesting credits earned.

Interest rates

The interest rates used in modeling come from the 2020 OASDI Trustees Report. Annual interest rates start at 2.2% in 2019, grow to 4.7% by 2029, and remain at 4.7% for the remaining years of the projection. The interest rates are assumed to represent earnings net of investment expenses and the cost of defaults.

FPL groupings

Federal poverty levels (FPLs) for the California state population and working population come from the ACS five-year data set. FPL groups are tabulated by age and sex at 100%, 138%, 200%, 500%, and 500%+ FPL. These tabulated rates are assumed to be fixed over the projection period.

MORBIDITY ASSUMPTIONS

To calculate the long-term care beneficiaries and costs for the projected population in each year, we utilized Milliman's proprietary Guidelines. The Guidelines provide frequencies, continuance curves, utilization assumptions, and claims costs from a large number of fully insured long-term care product designs sold over the past two decades. The Guidelines incorporate both private and public sector data sources, and are periodically updated to reflect the most comprehensive and current information available in the market. The first set of Guidelines was developed in 1992 and is updated regularly, with the most recent edition completed in 2017. The breadth of underlying data and the comprehensiveness of analysis put the LTC Guidelines in position to be an unrivaled benchmark for LTC morbidity of the fully insured population. We did not assume any morbidity improvement as part of our modeling.

Eligibility criteria

Frailty has traditionally been measured by a person's ability to perform activities of daily living (ADLs). As originally conceived by Katz in his paper "A Measure of Primary Sociobiological Functions," there were six ADLs: bathing, dressing, transferring, continence, toileting, and eating. Later, some researchers proposed mobility (i.e., the ability to get about inside of a house), and others the taking of medication, as additional ADLs. This original measure of frailty has been expanded to include cognitive ability in addition to physical abilities as indications of the need for long-term care services.

The criteria for eligibility for benefits in the Core Plans are based on the HIPAA definition. This is the industry standard measure for when LTC is required, as used universally by federally tax-qualified private LTC insurance plans. An individual is defined as satisfying this benefit trigger when that person needs hands-on or supervisory assistance with two or more ADLs for a period expected to last at least 90 days, or when that person has a severe cognitive impairment. The ADLs now have specific definitions and include bathing, dressing, toileting, transferring, eating, and caring for incontinence.

Benefit utilization

The model assumes that the full daily benefit amount is utilized for nursing home beneficiaries each day. It is assumed that home care beneficiaries receive the full daily benefit amount on roughly 70.5% of days.

Incidence calibration

The Milliman Long Term Care Guidelines incidence rates are representative of a fully insured population. A fully insured population will have different morbidity from the population under this program for a few reasons, including:

- Insured data may have inherent anti-selection as it reflects individuals who choose to purchase care and may have reason to believe they will need care in the future.
- Insured data reflects a higher-income population, which is generally composed of healthier lives with lower morbidity.
- Most individuals insured in the private market had to complete underwriting, ensuring they were relatively healthy at least when they first purchased coverage. There is no underwriting qualification associated with the public program in this study, although individuals will need to be at least healthy enough to satisfy vesting requirements.

We calibrated the incidence rates to a general population basis using a variety of data sources, including selection factors from the Guidelines and other industry general population prevalence studies. While general population data exists, morbidity data reflecting a “public option” program does not exist and was not used for this feasibility study. It is unknown how individuals will react to having a public benefit available.

PARTICIPATION AND ADVERSE SELECTION

Universal mandatory programs can be assured that the experience of the group will be average, because everyone will be in the program. Voluntary programs, however, are subject to anti-selection (i.e., those with the highest need of services will be most likely to enroll). Because all Core Plans and alternatives are mandatory, no anti-selection assumptions were modeled.

ADMINISTRATIVE EXPENSES

In addition to the cost of benefits, we also projected costs incurred to administer the program. In general, public insurance programs have been able to return a high portion of income in benefits. The administrative expenses as a percentage of benefit payments for the various Social Security and Medicare programs (as shown in the Trustees Reports) have been less than 3% of the benefits, although some studies indicate it may be higher than this amount. A long-term care program would likely cost more than any of these programs, because it would entail the high cost of determining eligibility (as in the Disability Insurance program) and the high cost of paying claims (as in the Supplementary Medical Insurance program). In addition, the administrative costs as a percentage of contributions for Social Security and Medicare programs would be several times greater than the recent figures for the first several years of the programs, because of start-up costs.

The Medicaid program, CalPERS LTC Program, and the Federal Long Term Care Insurance Program also provide information on the potential costs of administering a LTC program. Given that the administration structure of the program is unknown, we assumed administration expenses to be 3.5% of revenue and 3.5% of benefits based on our high-level review of other government programs and programs offering LTC benefits.

VIII. CAVEATS AND LIMITATIONS

This report was prepared for the internal use of the California State Department of Health Care Services (DHCS), and it should not be distributed, in whole or in part, to any external parties without the prior permission of Milliman. Notwithstanding the foregoing, Milliman recognizes that this report may be subject to disclosure to the California State Legislature and its committees, including persons participating in legislative reviews and deliberations, and/or requests made under the California Public Records Act. In the event such disclosures to third parties occur, Milliman does not intend to benefit or create a legal liability to any third party. Any distribution of this work product to a third party must be made in its entirety.

The information in this report provides actuarial modeling and analysis regarding the feasibility of policy options to finance long-term services and supports (LTSS) in the state of California. It may not be appropriate, and should not be used, for other purposes.

In completing this analysis, we relied on information provided by DHCS and publicly available data, which we accepted without audit. However, we did review this information for general reasonableness. If the underlying data or information is inaccurate or incomplete, the results of our analysis may likewise be inaccurate or incomplete.

In order to provide the information requested by DHCS, we have constructed several projection models. Differences between our projections and actual amounts depend on the extent to which future experience conforms to the assumptions made for this analysis. It is certain that actual experience will not conform exactly to the assumptions used in this analysis. Actual amounts will differ from projected amounts to the extent that actual experience deviates from expected experience. Experience should be monitored as it emerges and corrective actions taken when necessary.

Guidelines issued by the American Academy of Actuaries require actuaries to include their professional qualifications in all actuarial communications. Chris Giese, Al Schmitz, Rob Damler, Jeremy Cunningham, Annie Gunnlaugsson, Jeremy Hamilton, and Sarah Wunder are members of the American Academy of Actuaries, and meet the qualification standards for performing the analyses in this report.

The terms of the Personal Service Contract with California State DHCS effective November 12, 2019, apply to this engagement.

EXHIBITS

Exhibit 1
California
Long-Term Services and Supports Feasibility Study
Program Design Alternatives Modeled

Parameter	Testing Values
Benefit Structure	Cash Reimbursement with partial cash
Covered Services	Home health only, private market services
Minimum Age for Benefits	0, disabled after age 0 18, disabled after age 0 40, disabled after age 0 65, disabled after age 0 40, disabled after age 18 50, disabled after age 18 65, disabled after age 18
Benefit Eligibility	IHSS requirement for benefit eligibility 3 ADL benefit trigger
Daily Benefit Amount	$70 DBA $100 DBA $200 DBA $300 DBA $400 DBA
Inflation	4% DBA inflation 3.5% DBA inflation (tied to wage growth) 2.5% DBA inflation (tied to CPI)
Benefit Period	2 years 3 years 4 years 5 years Lifetime
Elimination Period	30 days 60 days 180 days
Vesting Requirements	No vesting requirement 10 years total with partial vesting credits 1 of last 3 years, or 10 years total 5 years total 10 years total
Portability / Divesting	No portability 2 year divesting period 5 year divesting period 10 year divesting period Grade to 25% after 5 years Grade to 50% after 5 years Full portability
Program Revenue Source	Payroll tax above Social Security threshold Payroll tax on all wages with $25 monthly premium for 65+ Payroll tax on all wages with $50 monthly premium for 65+ Payroll tax on all wages for individuals age 40+
Population Exclusions and Inclusions	Opt-Out for CalPERS / private insurance members Opt-In for self-employed population
FPL Population Exclusions and Inclusions	No taxes nor benefits for individuals below 138% FPL No taxes for individuals below 138% FPL No taxes nor benefits for individuals below 200% FPL No taxes for individuals below 200% FPL No taxes nor benefits for individuals below 500% FPL No taxes for individuals below 500% FPL
Per Household Benefit	Tax / benefit per household
Buy-In Program	Buy into program at 65, no underwriting Buy into program at 65, limited underwriting Buy into program at 65, full underwriting
Benefit Payment Timing	Monthly benefit (instead of daily)

Exhibit 2
California
Long-Term Services and Supports Feasibility Study
Payroll Tax Rates Compared with Core Plan 1

Scenario	Payroll Tax Rate		Change from Core Plan 1
Core Plan 1	0.66%		-
Core Plan 2	0.88%	↑	0.22%
Core Plan 3	0.46%	↓	-0.20%
Payroll Tax Alternative	0.85%	↑	0.19%
Lean Alternative	0.34%	↓	-0.32%
Rich Alternative	20.46%	↑	19.80%
Catastrophic Alternative 1	3.32%	↑	2.66%
Catastrophic Alternative 2	2.75%	↑	2.09%
Catastrophic Alternative 3	2.25%	↑	1.59%
Catastrophic Alternative 4	1.83%	↑	1.17%
Cash Alternative	0.89%	↑	0.23%
Reimbursement with partial cash Alternative	0.69%	↑	0.03%
Home health coverage only Alternative	0.40%	↓	-0.26%
0 minimum age for benefits Alternative	0.67%	↑	0.01%
18 minimum age for benefits, disabled after age 0 Alternative	0.67%	↑	0.01%
40 minimum age for benefits, disabled after age 0 Alternative	0.65%	↓	0.00%
65 minimum age for benefits, disabled after age 0 Alternative	0.59%	↓	-0.07%
40 minimum age for benefits, disabled after age 18 Alternative	0.65%	↓	-0.01%
50 minimum age for benefits, disabled after age 18 Alternative	0.64%	↓	-0.02%
65 minimum age for benefits, disabled after age 18 Alternative	0.59%	↓	-0.07%
IHSS requirement for benefit eligibility Alternative	1.03%	↑	0.37%
3 ADL benefit trigger Alternative	0.64%	↓	-0.02%
$70 DBA Alternative	0.31%	↓	-0.35%
$100 DBA Alternative	0.44%	↓	-0.22%
$200 DBA Alternative	0.88%	↑	0.22%
$300 DBA Alternative	1.22%	↑	0.57%
$400 DBA Alternative	1.59%	↑	0.94%
4% DBA inflation Alternative	1.01%	↑	0.35%
DBA inflation tied to wage growth Alternative	0.81%	↑	0.15%
DBA inflation tied to CPI Alternative	0.54%	↓	-0.12%
2 year benefit period Alternative	1.19%	↑	0.53%
3 year benefit period Alternative	1.63%	↑	0.97%
4 year benefit period Alternative	1.99%	↑	1.33%
5 year benefit period Alternative	2.28%	↑	1.62%
Lifetime benefit period Alternative	3.52%	↑	2.86%
0 day elimination period Alternative	0.72%	↑	0.06%
30 day elimination period Alternative	0.69%	↑	0.03%
60 day elimination period Alternative	0.68%	↑	0.02%
180 day elimination period Alternative	0.63%	↓	-0.03%
No vesting requirement Alternative	3.72% / 1.17%[1]	↑	0.51%
Worked 10 years total with partial vesting credits Alternative	0.72%	↑	0.06%
Worked 1 of last 3 years, or 10 years total Alternative	0.68%	↑	0.02%
Worked 5 years total Alternative	0.71%	↑	0.05%
Worked 10 years total Alternative	0.62%	↓	-0.04%
No portability Alternative	0.63%	↓	-0.02%
2 year divesting period Alternative	0.65%	↓	-0.01%
5 year divesting period Alternative	0.67%	↑	0.02%
10 year divesting period Alternative	0.71%	↑	0.06%
Grade benefits to 25% after 5 years out of state Alternative	0.74%	↑	0.09%
Grade benefits to 50% after 5 years out of state Alternative	0.83%	↑	0.17%
Fully portable Alternative	1.00%	↑	0.35%
Payroll tax above Social Security threshold Alternative	3.77%	↑	3.11%
$25 premium for individuals age 65+ Alternative	0.61%	↓	-0.05%
$50 premium for individuals age 65+ Alternative	0.57%	↓	-0.09%
Payroll tax on all wages for individuals age 40+ Alternative	0.86%	↑	0.20%
Opt-Out for CalPERS / private insurance members Alternative	0.65%	↓	0.00%
Opt-In for self-employed population Alternative	0.74%	↑	0.08%
Opt-In for self-employed population - 50% carve out Alternative	0.70%	↑	0.04%
No taxes nor benefits for individuals below 138% FPL Alternative	0.53%	↓	-0.13%
No taxes for individuals below 138% FPL Alternative	0.68%	↑	0.02%
No taxes nor benefits for individuals below 200% FPL Alternative	0.47%	↓	-0.19%
No taxes for individuals below 200% FPL Alternative	0.70%	↑	0.04%
No taxes nor benefits for individuals below 500% FPL Alternative	0.29%	↓	-0.37%
No taxes for individuals below 500% FPL Alternative	0.95%	↑	0.29%
Tax / benefit per household Alternative	0.87%	↑	0.21%
Monthly benefit Alternative	0.66%	↑	0.00%
Buy into program at 65, no underwriting Alternative	n/a		n/a
Buy into program at 65, limited underwriting Alternative	n/a		n/a
Buy into program at 65, full underwriting Alternative	n/a		n/a

[1] *For the no vesting scenario we calculate separate year one (3.72%) and ultimate (1.17%) tax rates.*

Exhibit 3
California
Long-Term Services and Supports Feasibility Study
Cash Flows for Core Plan 1

	Program Income ($millions)		Program Outgo ($millions)			Individuals	
Calendar Year	Payroll Taxes	Interest	Benefit Payments	Expenses	State Residents	Vested Individuals	New Beneficiaries
2022	$8,147	$259	$0	$285	39,808,000	0	0
2023	$8,456	$439	$0	$296	40,039,000	0	0
2024	$8,777	$838	$0	$307	40,280,000	0	0
2025	$9,099	$1,198	$3,675	$447	40,507,000	17,961,000	119,000
2026	$9,438	$1,576	$1,824	$394	40,724,000	19,701,000	36,000
2027	$9,793	$2,067	$1,523	$396	40,928,000	20,886,000	42,000
2028	$10,159	$2,526	$1,798	$418	41,116,000	21,842,000	48,000
2029	$10,514	$3,077	$1,968	$437	41,297,000	22,001,000	50,000
2030	$10,864	$3,606	$2,155	$456	41,468,000	22,152,000	53,000
2031	$11,234	$4,167	$2,360	$476	41,625,000	22,297,000	56,000
2032	$11,610	$4,760	$2,584	$497	41,746,000	22,449,000	59,000
2033	$11,996	$5,388	$2,827	$519	41,860,000	22,588,000	62,000
2034	$12,386	$6,047	$3,214	$546	41,968,000	23,134,000	68,000
2035	$12,779	$6,735	$3,657	$575	42,064,000	23,692,000	74,000
2036	$13,189	$7,450	$4,152	$607	42,153,000	24,249,000	81,000
2037	$13,602	$8,193	$4,702	$641	42,230,000	24,788,000	89,000
2038	$14,018	$8,961	$5,310	$676	42,290,000	25,299,000	96,000
2039	$14,542	$9,755	$5,978	$718	42,336,000	25,788,000	105,000
2040	$15,079	$10,576	$6,706	$763	42,368,000	26,266,000	113,000
2041	$15,640	$11,425	$7,495	$810	42,395,000	26,729,000	122,000
2042	$16,210	$12,299	$8,345	$859	42,415,000	27,177,000	131,000
2043	$16,793	$13,197	$9,261	$912	42,426,000	27,608,000	140,000
2044	$17,391	$14,118	$10,243	$967	42,433,000	28,023,000	150,000
2045	$18,000	$15,060	$11,299	$1,025	42,422,000	28,423,000	159,000
2046	$18,630	$16,022	$12,429	$1,087	42,415,000	28,808,000	169,000
2047	$19,285	$17,000	$13,643	$1,152	42,407,000	29,182,000	180,000
2048	$19,962	$17,994	$14,943	$1,222	42,395,000	29,547,000	190,000
2049	$20,667	$19,000	$16,334	$1,295	42,380,000	29,901,000	201,000
2050	$21,395	$20,016	$17,821	$1,373	42,364,000	30,241,000	212,000
2051	$22,147	$21,039	$19,402	$1,454	42,361,000	30,567,000	223,000
2052	$22,920	$22,066	$21,080	$1,540	42,356,000	30,880,000	234,000
2053	$23,710	$23,092	$22,850	$1,630	42,341,000	31,178,000	245,000
2054	$24,527	$24,114	$24,707	$1,723	42,316,000	31,458,000	257,000
2055	$25,368	$25,130	$26,656	$1,821	42,273,000	31,722,000	268,000
2056	$26,227	$26,135	$28,686	$1,922	42,242,000	31,968,000	279,000
2057	$27,111	$27,126	$30,794	$2,027	42,224,000	32,198,000	289,000
2058	$28,012	$28,100	$32,978	$2,135	42,208,000	32,412,000	300,000
2059	$28,962	$29,054	$35,235	$2,247	42,191,000	32,608,000	310,000
2060	$29,941	$29,984	$37,567	$2,363	42,161,000	32,789,000	320,000
2061	$30,940	$30,888	$39,976	$2,482	42,137,000	32,955,000	330,000
2062	$31,965	$31,761	$42,466	$2,605	42,104,000	33,104,000	339,000
2063	$33,004	$32,599	$45,033	$2,731	42,064,000	33,240,000	348,000
2064	$34,093	$33,398	$47,675	$2,862	42,014,000	33,360,000	357,000
2065	$35,207	$34,154	$50,396	$2,996	41,944,000	33,466,000	365,000
2066	$36,337	$34,862	$53,194	$3,134	41,870,000	33,558,000	373,000
2067	$37,498	$35,517	$56,077	$3,275	41,790,000	33,639,000	381,000
2068	$38,686	$36,114	$59,038	$3,420	41,708,000	33,706,000	389,000
2069	$39,940	$36,649	$62,065	$3,570	41,628,000	33,759,000	396,000
2070	$41,227	$37,116	$65,215	$3,725	41,548,000	33,800,000	402,000
2071	$42,544	$37,512	$68,335	$3,881	41,469,000	33,831,000	409,000
2072	$43,910	$37,831	$71,651	$4,045	41,396,000	33,852,000	415,000
2073	$45,319	$38,068	$74,913	$4,208	41,321,000	33,863,000	421,000
2074	$46,793	$38,219	$78,306	$4,378	41,244,000	33,865,000	426,000
2075	$48,303	$38,279	$81,763	$4,552	41,160,000	33,858,000	431,000
2076	$49,856	$38,241	$85,286	$4,730	41,048,000	33,843,000	436,000
2077	$51,475	$38,100	$88,876	$4,912	40,922,000	33,819,000	440,000
2078	$53,148	$37,851	$92,543	$5,099	40,770,000	33,788,000	444,000
2079	$54,871	$37,487	$96,265	$5,290	40,615,000	33,750,000	448,000
2080	$56,636	$37,003	$100,036	$5,484	40,457,000	33,705,000	451,000
2081	$58,442	$36,393	$103,844	$5,680	40,292,000	33,655,000	453,000
2082	$60,317	$35,652	$107,670	$5,880	40,134,000	33,599,000	455,000
2083	$62,255	$34,776	$111,510	$6,082	39,976,000	33,540,000	457,000
2084	$64,260	$33,763	$115,314	$6,285	39,876,000	33,476,000	458,000
2085	$66,331	$32,610	$119,097	$6,490	39,771,000	33,409,000	458,000
2086	$68,474	$31,313	$122,944	$6,700	39,669,000	33,339,000	458,000
2087	$70,706	$29,872	$126,551	$6,904	39,569,000	33,268,000	458,000
2088	$73,011	$28,289	$130,257	$7,114	39,464,000	33,194,000	457,000
2089	$75,379	$26,556	$133,996	$7,328	39,355,000	33,118,000	456,000
2090	$77,820	$24,668	$137,793	$7,546	39,240,000	33,042,000	455,000
2091	$80,352	$22,618	$141,655	$7,770	39,121,000	32,964,000	453,000
2092	$82,980	$20,398	$145,616	$8,001	38,994,000	32,886,000	452,000
2093	$85,704	$17,996	$149,819	$8,243	38,870,000	32,807,000	451,000
2094	$88,519	$15,403	$154,012	$8,489	38,753,000	32,727,000	450,000
2095	$91,452	$12,616	$158,129	$8,735	38,636,000	32,645,000	449,000
2096	$94,418	$9,629	$162,365	$8,987	38,504,000	32,559,000	448,000

APPENDIX A
LONG-TERM SERVICES AND SUPPORTS FEASIBILITY STUDY INTERIM REPORT

STAKEHOLDER REPORT OF FINDINGS

INTRODUCTION

The first crucial step in this feasibility study is to understand the stakeholder perspectives on both the nature of the problem and the proposed alternative financing and service options. This section provides a summary of stakeholder perspectives and the methodology through which these insights were obtained.

METHODOLOGY

Stakeholder Identification

Stakeholders include a wide variety of entities within government, finance, advocacy, and the care delivery network. Please note, the definition of stakeholders for purposes of the LTSS feasibility study includes government entities, which is different than DHCS' usual definition of stakeholders. Note, the description of findings from the stakeholder interviews below primarily reflect the feedback from the Master Plan for Aging LTSS Subcommittee and the California Aging and Disability Alliance (CADA), rather than state agencies or departments. The perspectives summarized in this section do not represent an official opinion from the participating entities. DHCS organized and convened a three-day session for intensive interviews with stakeholders in November 2019. Individuals participating in the stakeholder interviews represented the following organizations and departments:

- CalPERS
- DHCS
- Master Plan for Aging LTSS Subcommittee
- California Department of Social Services (CDSS)
- California Department of Aging (CDA)
- California Department of Finance
- California Aging and Disability Alliance (CADA)
- Legislative Analyst's Office (LAO)
- California Department of Insurance (CDI)

Interview Protocol

We developed an interview protocol with variations appropriate to different stakeholder groups, as well as several common elements across all interviews. The interviews ranged from one-hour to three-hour timeframes in order to maximize the amount of feedback collected. While the protocol included some closed-category questions, it was largely exploratory and qualitative in nature, serving as a springboard for conversation and exploration on key topics. The team also encouraged stakeholders to raise issues that may not have been anticipated in the interview protocol.

A sample of the interview protocol is found in Attachment A.1.

Pre-Interview Survey

In advance of the in-person interviews, we wanted to explore the extent of consensus and divergence with respect to stakeholder perspectives specifically related to the key principles of primary importance in LTSS finance reform. We also asked stakeholders to identify other important areas of concern to address in the analysis. A brief survey was created and distributed via email to stakeholders. Only a small sample of individuals completed the survey; therefore, no conclusions were derived from it.

A copy of the survey is included in Attachment A.2.

KEY FINDINGS

This section summarizes the stakeholder feedback received during both the in-person meetings in November 2019 and other discussions with stakeholders via virtual meetings.

Primary Goals

An important starting place for a discussion of the design of various LTSS finance reform approaches is to identify both the problems to be solved and the policy objectives that are most important to address. There was consensus around the problem definition. Stakeholders believed many aging and disabled individuals that reside in California cannot afford

and are not adequately supported when long-term services and supports are needed. There were many varying opinions on what a new public LTSS program policy should address. Some individuals wanted to focus on the middle-class aging population, some wanted to focus on specific target populations (e.g., Alzheimer's), and others wanted the program to benefit all individuals in need of LTSS.

In the current environment, financial coverage for LTSS varies by economic status. Low economic status individuals are eligible for LTSS coverage through Medicaid. Medicaid eligibility varies by state and program. High economic status individuals are wealthy enough to purchase private LTC insurance policies or to self-fund LTSS needs. There is a gap for middle-income individuals. Typically, these individuals are required to spend down their assets to qualify for Medicaid and receive LTSS coverage. However, this creates financial strain on the individual, as well as their families, leading to a multigenerational problem.

Limitations of a Private Market Solution

Missteps of the private market were discussed briefly, pointing out that market penetration has remained small and citing concerns with affordability and rate stability. There was little to no interest in exploring private market alternatives. There was consensus the feasibility study should focus on public financing alternatives. There were several discussions surrounding the interaction of a potential public LTSS program and the current private market, including individuals with policies through CalPERS.

Medicaid Program Interaction

Stakeholders were proud of the current performance of California's Medicaid program, which provides extensive LTSS benefits, particularly through the IHSS program. However, many middle-class individuals have to spend down their assets to receive Medicaid benefits when an LTSS need occurs. Stakeholders expressed the desire to ensure that as few people as possible end up impoverishing themselves and their families because of LTSS costs. Delaying or preventing Medicaid spend-down was cited as an important policy objective for an LTSS finance reform.

Given CMS guidelines surrounding federal matching for state Medicaid spending, a stand-alone LTSS program may be required to pay before the Medicaid program, as Medicaid is typically the payer of last resort. Several discussions with stakeholders centered on the most efficient and effective way to pay for LTSS. A new stand-alone LTSS program would not receive federal matching dollars and, therefore, may not be the most cost-effective way to provide LTSS benefits to Medicaid-eligible individuals. As a result, stakeholders were interested in seeing scenarios that showed the impact of including and excluding the Medicaid-eligible population on overall state spending, including the impact to the Medicaid budget.

California Specifics

California is a geographically diverse state given its vast expanse. Regions in the state range from urban to very rural. Therefore, LTSS provider access, utilization of services, and cost of services vary widely across the state as well. Stakeholders were interested in ensuring the study focused on the state as a whole, not focusing only on the urban populations, to capture any differences among the state's regions.

LTSS Program Modeling Components

After the discussion of policy objectives and concerns, stakeholders were asked to share their thoughts and preferences with regard to each of the specific options to be included in the actuarial analysis. This was an opportunity for them to identify priorities for the parameters of those options or to raise questions and concerns about the various approaches.

Mandatory vs. Voluntary

There was consensus among stakeholders that the LTSS program should be mandatory. Many stakeholders were familiar with the CLASS Act and the challenges of addressing adverse selection. Stakeholders expressed their assumption that a voluntary program is not a viable option.

However, many stakeholders did want to consider opt-out privileges for individuals who already have LTC coverage, including individuals who have private LTC and CalPERS policies. There were some beginning discussions around the operational aspects of these opt-outs; however, more technical discussions will be needed if opt-outs are considered for the LTSS program.

Eligible Population

Throughout the interviews, a number of stakeholders believed the new LTSS program should benefit as many individuals as possible, including both the aged and disabled populations. There were several discussions surrounding the inclusion or exclusion of the working disabled population as their income may preclude them from receiving some of the benefits of California's current public programs. Many individuals felt as though this population is not receiving the funding that they deserve. However, there was not consensus on whether or not the LTSS program would be the correct venue to address this problem.

Most commonly, the private LTC insurance market requires the HIPAA benefit eligibility trigger of needing assistance with two or more ADLs. California's IHSS program has a more lenient benefit trigger of needing assistance with one or more ADLs, including IADLs. Stakeholders showed interest in the IHSS benefit trigger definitions in addition to private market definitions, indicating IADLs were important in the state of California for some stakeholders.

Partial vs. Robust

Some stakeholders believed the new LTSS program should ideally cover all LTSS costs for all individuals. However, stakeholders understand that providing a robust benefit comes at a significant cost. Therefore, stakeholders focused on discussing a program that would provide a smaller benefit to a greater number of individuals.

Eligible Benefits

Several of the stakeholder meetings had discussion surrounding the definition of LTC and LTSS, as well as what benefits would be eligible under a new public LTSS program. There was stakeholder consensus that the benefits should be transferrable across care settings (e.g., home and community-based services, assisted living facilities, nursing facilities, etc.), including having the ability to pay for one-time costs that would allow for individuals to remain in their homes. Further discussion will be required following the LTSS feasibility study to define what services will be eligible under a new public LTSS program.

Front-End vs. Back-End Coverage

Many of the stakeholder discussions focused on a front-end benefit. A front-end benefit would provide a limited coverage benefit at or near the beginning of an individual's eligibility for LTSS. A back-end benefit would provide catastrophic coverage for individuals requiring LTSS that survived a longer period of time (e.g., two years) to receive benefits. They believed a back-end benefit would not support the targeted middle-income individual as these individuals would inevitably spend-down their assets quickly and become eligible for Medicaid LTSS coverage.

Portability

The challenge of addressing portability in a state program was raised. Many discussions regarding portability revolved around the operational issues surrounding allowing benefit portability. Stakeholders were interested in quantifying the financial impact of several portability variations.

Revenue Funding

A fundamental facet in creating a new LTSS program is the funding source for the LTSS benefits. There was consensus among the non-state entity stakeholders around creating an additional payroll tax to fund the benefits. Stakeholders did not show interest in funding through premium payments. Given the complexity of the tax system, a payroll tax can be applied in numerous ways. For the purposes of the feasibility study, a flat payroll tax will be calculated for ease of comparison. In practice, stakeholders believed a progressive tax might be more appropriate. More detailed discussions involving the revenue source should occur once more specifics are determined regarding the new LTSS program.

CONCLUSION

Over the three-day interview process and subsequent follow-up discussions, we collected a significant amount of valuable feedback. We were pleased with the engagement from all the stakeholders who provided new and thoughtful insights into this complex issue. It is crucial to understand what issues are most important to the stakeholders in California, as this will help inform the next steps in the feasibility study.

There are a variety of potential financing solutions for LTSS. This was evident throughout the interviews as there was not a consensus around the desired structure of the potential new public LTSS program.

The stakeholder feedback was used to create a list of modeling alternatives for actuarial analysis. Many stakeholders expressed that the actuarial analysis would be most useful if it contained a wide variety of options and alternatives. In particular, the analysis should show sensitivity testing around the major parameters. Stakeholders also stated it would be helpful to see options across the spectrum, with both lean and rich parameters.

ATTACHMENT A.1
STAKEHOLDER INTERVIEW PROTOCOL

Long Term Services and Supports (LTSS) Feasibility Study
Sample Breakout Discussion Questions
Stakeholder Meetings – November 12 through14, 2019

- **Introductions**
- **Overview of Actuarial Report Scope and Timeline**
- **Discuss Stakeholder "Interview" Questions**
  - What critical questions / issues should be considered as part of the feasibility analysis?
  - For new LTSS programs, what should be the key measures for determining success?
  - What are your preferences / concerns with regard to a voluntary approach vs. a mandatory approach for a new LTSS program?
  - Should coverage under a new program be:
    - Partial, targeting a large number of people
    - Robust, targeting those with higher levels of need
  - Should coverage under a new program be:
    - "Front-end," where limited coverage is available at the <u>start</u> of when care is needed
    - "Back-end," where limited coverage is available at the <u>end</u> of when care is needed
    - "Lifetime," where coverage is available <u>throughout</u> when care is needed
  - What are your preferences / concerns with regard to collecting revenue to fund the new LTSS program through taxes vs. consumer premiums?
  - What amount of a new payroll tax on wages or consumer premiums is feasible?
    - From consumer viewpoint?
    - From political viewpoint?
  - How important is choice under a new program?
    - Choice when deciding on level of insurance coverage?
    - Choice when deciding how insurance benefits can used at time of need?
  - What role should the following play as part of a new solution?
    - Medicaid program
    - CalPERS program
    - Private insurance carriers
- **Wrap Up and Next Steps**

ATTACHMENT A.2

STAKEHOLDER PRE-INTERVIEW SURVEY TOOL

California Department of Health Care Services
California Department of Aging

Survey - Perspectives on LTSS Financing Reform

Please take a few moments to share your thoughts with us with regard to long-term services and supports (LTSS) financing reform in California.

The results of this survey will be shared with the California Department of Health Care Services and the Contractor assisting them in the LTSS feasibility study described below.

Background

Recognizing that California's over-65 population is projected to grow to 8.6 million by 2030, Governor Gavin Newsom issued an executive order calling for the creation of a Master Plan for Aging to be developed by October 1, 2020. In conjunction with the Master Plan development efforts, Assembly Bill (AB) 74, Statutes of 2019, states that the California Department of Health Care Services (DHCS) will partner with a qualified contracting entity and various stakeholders to develop an LTSS feasibility study that includes projected cost estimates of alternative financing and service options as well as possible impacts to existing state funded programs and services, including, but not limited to, Medi-Cal and the In-Home Supportive Services program.

Long-Term Services and Supports

For purposes of this feasibility study, we will use the terms LTSS and long-term care (LTC) interchangeably. LTSS is a range of services and supports for individuals who need assistance with daily living tasks, such as bathing, dressing, ambulation, transfers, toileting, medication administration or assistance, personal hygiene, transportation, skilled and social supports, and other health-related tasks. Often, this type of assistance is needed by individuals who experience functional limitations that are due to age, physical, or cognitive disability. LTSS includes services provided in:

Institutional Settings: Includes skilled, intermediate, and custodial care provided in an institutional facility setting, such as a nursing home or dedicated wing of a hospital

Home and Community-Based Settings: Includes care provided in a person's own home or in a community-based setting, such as an assisted living facility or adult family home.

Survey

You have been identified as an important stakeholder. Your opinions are very important to the State's analysis of strategies and options. These questions ask for your thoughts on the relative importance of various goals and objectives which should be considered as the State explores different approaches to LTSS financing reform.

1. Respondent information (optional)

What is your name?

What organization are you affiliated with?

2. Which of the following best describes your affiliation?

- Labor/union
- Provider organization
- LTSS Advocacy organization
- Government
- Insurance/finance
- Community organization
- Individual
- Caregiver (family, friend, neighbor)
- Other (please describe)

3. How important do you feel each of the following principles is with regard to the desired LTSS financing reform option(s) the State is considering? Please use a scale of 1 to 10 with 1 being "MOST IMPORTANT" and 10 being "LEAST IMPORTANT."

	1	2	3	4	5	6	7	8	9	10
1. It is financially sound and sustainable.	○	○	○	○	○	○	○	○	○	○
2. It is affordable for the middle income market.	○	○	○	○	○	○	○	○	○	○
3. It is a relatively easy program to understand.	○	○	○	○	○	○	○	○	○	○
4. It recognizes and attempts to alleviate the budgetary constraints of Medicaid.	○	○	○	○	○	○	○	○	○	○
5. It provides a safety net for the poor.	○	○	○	○	○	○	○	○	○	○
6. It includes coverage choices and different premium or contribution amounts.	○	○	○	○	○	○	○	○	○	○
7. It addresses needs for the disabled population of all ages.	○	○	○	○	○	○	○	○	○	○
8. It encourages those who can afford it to prefund their LTC needs either through savings or insurance.	○	○	○	○	○	○	○	○	○	○
9. It provides modest coverage but reaches a broad population.	○	○	○	○	○	○	○	○	○	○
10. It provides comprehensive coverage for a specific targeted population.	○	○	○	○	○	○	○	○	○	○
11. It is both comprehensive and broad in terms of the population it addresses.	○	○	○	○	○	○	○	○	○	○
12. It addresses needs for today's currently disabled population in addition to the future disabled population.	○	○	○	○	○	○	○	○	○	○

4. Which of the items listed in question 3 is the MOST important objective for LTC finance reform?

- 1. It is financially sound and sustainable.
- 2. It is affordable for the middle income market.
- 3. It is a relatively easy program to understand.
- 4. It recognizes and attempts to alleviate the budgetary constraints of Medicaid.
- 5. It provides a safety net for the poor.
- 6. It includes coverage choices and different premium or contribution amounts.
- 7. It addresses needs for the disabled population of all ages.
- 8. It encourages those who can afford it to prefund their LTC needs either through savings or insurance.
- 9. It provides modest coverage but reaches a broad population.
- 10. It provides comprehensive coverage for a specific targeted population.
- 11. It is both comprehensive and broad in terms of the population it addresses.
- 12. It addresses needs for today's currently disabled population in addition to the future disabled population.

5. Which of the items listed in question 3 is the LEAST important objective for LTC finance reform?

- 1. It is financially sound and sustainable.
- 2. It is affordable for the middle income market.
- 3. It is a relatively easy program to understand.
- 4. It recognizes and attempts to alleviate the budgetary constraints of Medicaid.
- 5. It provides a safety net for the poor.
- 6. It includes coverage choices and different premium or contribution amounts.
- 7. It addresses needs for the disabled population of all ages.
- 8. It encourages those who can afford it to prefund their LTC needs either through savings or insurance.
- 9. It provides modest coverage but reaches a broad population.
- 10. It provides comprehensive coverage for a specific targeted population.
- 11. It is both comprehensive and broad in terms of the population it addresses.
- 12. It addresses needs for today's currently disabled population in addition to the future disabled population.

6. What issues or areas of inquiry are of greatest importance to you as the State explores LTC financing approaches?

What critical question(s) do you feel must be answered to help inform next steps?

7. Please provide any additional comments below.

Please contact EngAGE@aging.ca.gov with any questions.

APPENDIX B
CURRENT AND PROPOSED LTSS FINANCING ENVIRONMENT

CURRENT AND PROPOSED LTSS FINANCING ENVIRONMENT

BACKGROUND

The California Department of Health Care Services (DHCS) is conducting a feasibility study regarding options to help Californians prepare to meet their LTSS and long-term care (LTC) needs. The feasibility study was mandated by California AB 74 in the 2019-20 session. Milliman was engaged by DHCS as a contractor to perform this feasibility study, including the required modeling and actuarial analysis. As part of this study, Milliman was tasked with providing a summary of:

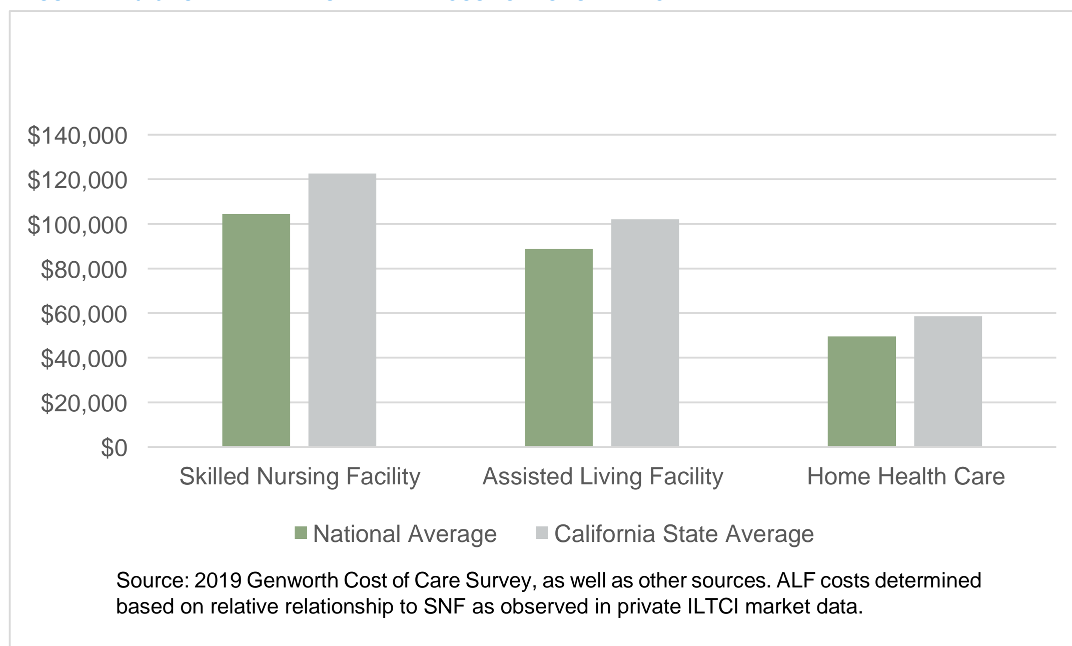
- The current state of LTSS financing in the United States, and specifically in California
- How LTSS is financed in other countries
- Potential alternative financing solutions for LTSS in the United States (proposed both at the state and federal levels)

For the purposes of this report, we use the terms LTSS and LTC interchangeably. LTSS is a range of services and supports for individuals who need assistance with daily living tasks, such as bathing, dressing, ambulation, transfers, toileting, medication administration or assistance, personal hygiene, transportation, skilled and social supports, and other health-related tasks. Often, this type of assistance is needed by individuals who experience functional limitations that are due to age or physical or cognitive disability. LTSS includes services provided in:

- Institutional settings – Includes skilled, intermediate, and custodial care provided in an institutional facility setting, such as a nursing home or dedicated wing of a hospital
- Home and community-based settings (HCBS) – Includes care provided in a person's own home or in a community-based setting, such as an assisted living facility or adult family home

The average annual cost of LTSS varies by care setting and geographic setting. Figure 1 shows the median daily cost of formal LTSS in the three most common care settings nationally: skilled nursing facility (SNF), assisted living facility (ALF), and home health care (HHC). Please note, HHC reflects individuals receiving care through a home health agency and does not include California's IHSS program. While some areas in California have lower costs of care than the national average, most regions in California have average costs of care that exceed the national average.

FIGURE 1: 2019 ESTIMATED ANNUAL MEDIAN COST OF LONG-TERM CARE



Source: 2019 Genworth Cost of Care Survey, as well as other sources. ALF costs determined based on relative relationship to SNF as observed in private ILTCI market data.

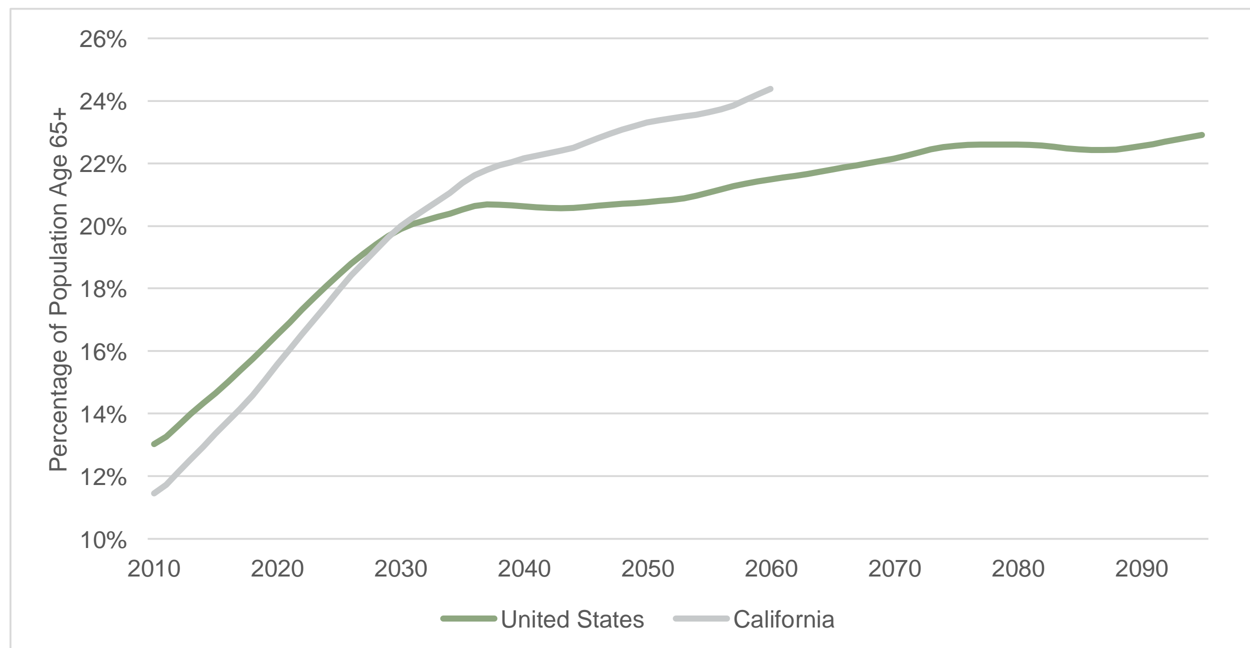
Further, most individuals require care for longer than one year, often driving total costs well beyond $100,000 in an individual's lifetime. Figure 2 provides a sample distribution of expected expenditures by year, paid over an individual's lifetime for someone currently age 65. The distribution is estimated from data on the claims experience of the private insurance market, where need is defined as an individual qualifying for benefits under the HIPAA benefit trigger (requiring substantial assistance with two of six activities of daily living, or severe cognitive impairment).[1] Figure 2 shows the average individual age 65 with some LTC needs will incur the majority of costs over a number of years (e.g., 73% of costs are paid beyond the first year of needing LTC).

FIGURE 2: SAMPLE LTC EXPENDITURES BY YEAR PAID FOR INDIVIDUAL CURRENTLY AGE 65 WITH SOME LTC NEEDS OVER REMAINING LIFETIME

	< 1 YEAR	1-2 YEARS	2-3 YEARS	3-4 YEARS	4-5 YEARS	5-6 YEARS	> 6 YEARS
Female	23%	18%	14%	11%	8%	6%	20%
Male	31%	21%	14%	10%	7%	5%	12%
Composite	27%	19%	14%	10%	8%	6%	16%

For a typical population, the need for LTSS increases sharply with age. As an example, in private LTC data we observe that individuals in their 80s might be 10 to 30 times more likely to require care compared to individuals in their 50s. The sharp increase in LTSS needs as individuals age creates significant financial challenges as the U.S. aged population continues to grow. Over the next several decades a larger percentage of the population will be at the ages when LTSS needs are greatest. The 2019 OASDI (Social Security) Trustees report projects that the percentage of the U.S. population over the age of 65 will exceed 20% by 2030.[2] Similarly, the California Department of Finance projects that the percentage of the Californians over age 65 will exceed 20% by 2031.[3] Both projections are illustrated in Figure 3.

FIGURE 3: PROJECTED PERCENTAGE OF POPULATION AGED 65+



[1] 26 U.S. Code § 7702B - Treatment of qualified long-term care insurance. (n.d.). Retrieved February 19, 2020, from https://www.law.cornell.edu/uscode/text/26/7702B.

[2] The Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds (2019). The 2019 Annual Report of the Board of Trustees of the Federal OASDI Trust Funds. Retrieved February 12, 2020, from https://www.ssa.gov/OACT/TR/2019/.

[3] State of California Department of Finance (2020). Demographics. Retrieved February 12, 2020, from http://www.dof.ca.gov/Forecasting/Demographics/.

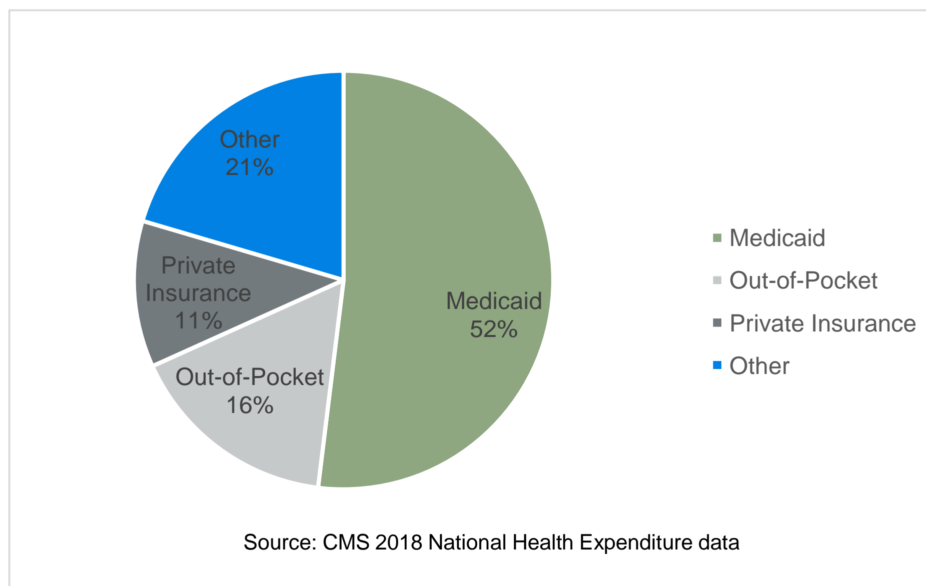
CURRENT LTSS FINANCING IN UNITED STATES

In the United States, a number of payers contribute to the cost of LTSS, including:

- Medicaid
- Individuals out-of-pocket
- Private insurance market
- Other sources, such as other private or federal revenues, the Indian Health Service, workers' compensation, general assistance, and other state and local programs

Figure 4 shows the percentage each payer contributes to total national spending on LTSS. The distribution of payers in Figure 4 comes from the 2018 National Health Expenditure Accounts (NHEA) data produced by the Centers for Medicare and Medicaid Services (CMS).[4] Notably, Medicaid is the largest payer, accounting for more than half of LTSS expenditures. For the purposes of this report, we exclude from the total LTSS expenditures Medicare spending on nursing care, home health care, or personal care provided as part of post-acute care.

FIGURE 4: 2018 NATIONAL SPENDING FOR LTSS BY PAYER



Medicaid

Medicaid LTSS Benefits and Programs

Medicaid is the primary payer of LTSS in the United States. Of the $379 billion spent on LTSS in 2017, 52% was paid for by Medicaid.[5] Medicaid is jointly funded by states and the federal government, but LTSS may require individual out-of-pocket costs as well. All state Medicaid programs are required to provide nursing facility services and home health state plan services to those who qualify for Medicaid and meet medical necessity criteria.[6] Many states have

[4] CMS. National Health Expenditure Data. Retrieved February 12, 2020, from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.

[5] Musumeci, M., Chidambaram, P., & O'Malley Watts, M. (February 2020). Medicaid Home and Community-Based Services Enrollment and Spending. Kaiser Family Foundation Issue Brief. Retrieved February 12, 2020, from http://files.kff.org/attachment/Issue-Brief-Medicaid-Home-and-Community-Based-Services-Enrollment-and-Spending.

[6] Thach, N., & Wiener, J. (May 2018). An Overview of Long-Term Services and Supports and Medicaid. U.S. Department of Health and Human Services.. Retrieved February 12, 2020, from https://aspe.hhs.gov/system/files/pdf/259521/LTSSMedicaid.pdf.

expanded the availability of LTSS to include more HCBS options in addition to home health because they are often lower-cost.[7] There are three optional state plan benefits—1915(i), personal care (i.e., 1915[j]), and Community First Choice (CFC, i.e., 1915[k])—and two types of waivers—1915(c) and 1115—that states can utilize to provide LTSS in home and community-based settings.[8] In recent years, states have either begun or continued efforts to increase HCBS utilization in place of institutional care to contain LTSS spending and keep elderly and disabled individuals in their communities.[9]

California's Medicaid program, which encompasses "Medi-Cal," IHSS, and services provided under the Departments for Developmental Services and Aging among others, utilizes a number of waivers, state plan amendments, and other programs to serve Medicaid beneficiaries outside of institutional settings. As much of California's Medicaid program provides LTSS services within a managed care environment, we are unable to directly assess the total LTSS expenditures across the fee-for-service and managed care programs. However, we have estimated using national statistics that the California Medicaid program spent between $25 billion and $30 billion on LTSS expenditures in 2017, including both institutional care and HCBS. California spends approximately 76% of their fee-for-service LTSS expenditures in HCBS settings (compared to the U.S. average of 56%); however, the 76% value may be overstated for comparison purposes to the U.S. average to the extent the managed care LTSS expenditures (which are significant in California) reflect a higher proportion of institutional services.[10,11] Attachment B.1 provides high-level background for each of California's Medicaid LTSS benefits and programs.

Eligibility for Medicaid LTSS

The populations that require LTSS—typically older adults and individuals with physical or intellectual / developmental disabilities—generally qualify for Medicaid either because they receive Supplemental Security Income (SSI) or through an aged, blind, or disabled (ABD) pathway.[12] The ABD pathways in California include: Poverty-Related, Katie Beckett, Buy-In, and Medically Needy.[13,14] Figure 5 outlines the eligibility criteria for several of the ABD pathways, as well as how California covers the populations generally eligible for Medicaid using these pathways.

[7] Fox-Grage, W., & Walls, J. (March 2013). State Studies Find Home and Community-Based Services to Be Cost-Effective. AARP Public Policy Institute. Retrieved February 12, 2020, from https://www.aarp.org/content/dam/aarp/research/public_policy_institute/ltc/2013/state-studies-find-hcbs-cost-effective-spotlight-AARP-ppi-ltc.pdf.

[8] Musumeci, M. et al., op cit.

[9] Medicaid.gov. Home & Community Based Services. Retrieved February 12, 2020, from https://www.medicaid.gov/medicaid/home-community-based-services/index.html; Fox-Grage, W., & Walls, J., op cit.

[10] Musumeci, M., Chidambaram, P., O'Malley Watts, M. (2019). Medicaid Home and Community-Based Services Enrollment and Spending. *Kaiser Family Foundation*, 2. Retrieved January 29, 2020, from http://files.kff.org/attachment/Issue-Brief-Medicaid-Home-and-Community-Based-Services-Enrollment-and-Spending

[11] MACPAC, 2019, analysis of CMS-64 FMR net expenditure data as of June 17, 2019. MACStats Exhibit 17. Total Medicaid Benefit Spending by State and Category. Retrieved February 5, 2020, from https://www.macpac.gov/publication/total-medicaid-benefit-spending-by-state-and-category/

[12] Colello, K. J., & Morton, W. R. (December 9, 2019). Medicaid Eligibility: Older Adults and Individuals with Disabilities. Congressional Research Service. Retrieved February 12, 2020, from https://crsreports.congress.gov/product/pdf/R/R46111. The ABD population is called "Seniors or Persons with Disabilities" (SPD) in California; California Health Care Foundation (June 29, 2017). Medi-Cal Enrollment of Seniors and People with Disabilities, County by County. Retrieved February 12, 2020, from https://www.chcf.org/publication/medi-cal-enrollment-of-seniors-and-people-with-disabilities-county-by-county/#related-links-and-downloads.

[13] Colello, K. J., & Morton, W. R., ibid.

[14] This paper does not discuss all Medicaid eligibility pathways. It focuses only on those pathways relevant to the populations receiving LTSS. Individuals may qualify for Medicaid in other ways, including by meeting Medicaid Expansion eligibility criteria.

FIGURE 5: ABD ELIGIBILITY PATHWAYS, CRITERIA, AND CALIFORNIA COVERAGE

ABD PATHWAY	CRITERIA	CALIFORNIA
Poverty-Related	100% Federal Poverty Level (FPL)	Must be 65 or older, blind or disabled; have less than $2,000 in assets for an individual or $3,000 for a couple; have countable income less than 100% of FPL plus a standard income disregard of $230 for an individual or $310 for a couple
Katie Beckett	Children with disabilities under age 18 who live at home, meet the SSI definition of disability, require nursing facility care, and have income up to 300% FBR (222% FPL in 2019)	Covered under one of five comparable HCBS waivers
Buy-In	Working individuals with disabilities or working families who have children with a disability. Various income levels	Must be disabled; be working and earning income; have less than $2,000 in assets for an individual or $3,000 for a couple; have countable income less than 250% of FPL
Medically Needy	Individuals with high medical expenses, but too much income to otherwise qualify for Medicaid[15] Individuals eligible under this pathway do not have a maximum income limit, but are required to share in the cost as described below.	Must be 65 or older, blind, or disabled; have less than $2,000 in assets for an individual or $3,000 for a couple

In California, an individual can become eligible for Medicaid through the Medically Needy pathway by paying a share of the medical expenses, called a “share of cost.” An individual’s share of cost is calculated as that person's income less the “Maintenance Need Standard,” which is $600 per month for an individual in the community, $934 for a couple, and $35 as a personal needs allowance for individuals in nursing homes (income deductions may also apply).[16] Once beneficiaries pay their share of cost, Medi-Cal covers the rest of their medical expenses for the month.[17] The share of cost payment has been described as functioning like a deductible.[18] This ensures that the majority of an individual’s income would go towards their care while they are in the LTC facility, thus, offsetting some of the financial burden from the state.

Given the significant cost to receive LTSS, an individual’s assets and / or income may decrease during that person's treatment. As a result, it is common for individuals (in particular for those in the middle class) to “spend down” their income and assets below the applicable federal poverty level and gain Medicaid eligibility through the Poverty-Related pathway. Research suggests nearly 40% of nursing home residents who receive Medicaid originally entered as private payers prior to spending down their assets and gaining Medicaid eligibility.[19] In California, this process can be complicated due to a California law that prohibits asset transfers for 30 months before an individual becomes eligible for Medicaid.[20] There are also trusts an individual can use to protect income and assets and still qualify for Medicaid.[21]

For purposes of this LTSS feasibility study, we will refer to the “share of cost” population as those who have too much income to qualify for Medicaid on an ongoing basis, so they share in the cost of services each month. The “spend-down” population will include those who spend down their income and assets and gain full Medicaid eligibility indefinitely.

[15] Colello, K. J., & Morton, W. R., op cit.
[16] California Advocates for Nursing Home Reform (February 3, 2020). Overview of Medi-Cal for Long Term Care. Retrieved February 12, 2020, from http://www.canhr.org/factsheets/medi-cal_fs/html/fs_medcal_overview.htm.
[17] California HealthCare Foundation (September 2010). Share of Cost Medi-Cal. Retrieved February 12, 2020, from https://www.chcf.org/wp-content/uploads/2017/12/PDF-ShareOfCostMediCal2010.pdf.
[18] California Health Advocates. Medi-Cal (for People with Medicare). Retrieved February 12, 2020, from https://cahealthadvocates.org/low-income-help/medi-cal-for-people-with-medicare/.

[19] U.S. Department of Health and Human Services (January 1, 1992). An Analysis of the Impact of Spend-Down on Medicaid Expenditures. ASPE. Retrieved February 12, 2020, from https://aspe.hhs.gov/basic-report/analysis-impact-spend-down-medicaid-expenditures#impact.
[20] American Council on Aging (January 2, 2020). California Medicaid (Medi-Cal) Income & Asset Limits for Nursing Homes & Long Term Care. Retrieved February 12, 2020, from https://www.medicaidplanningassistance.org/medicaid-eligibility-california/.
[21] Paying for Senior Care (January 2, 2020). Using the Medically Needy/Share of Cost Pathway as a Means to Gain Medicaid Eligibility. Retrieved February 12, 2020, from https://www.payingforseniorcare.com/medicaid/share_of_cost.

How would a new public LTSS program interact with Medicaid?

Medicaid is generally the payer of last resort.[22] This means private insurance, including LTC insurance or Medicare must pay for medical costs incurred by a Medicaid-eligible individual before Medicaid.[23] This financing system generally incentivizes private sector initiatives and sees Medicaid as an option for individuals otherwise unable to provide for themselves.[24] If California created a new public LTSS program, it may provide LTSS coverage before Medicaid would pay or concurrently with Medicaid, similar to other non-Medicaid payers.

Given Medi-Cal is jointly funded by California and the federal government, if Medicaid expenditures were reduced because of the new public LTSS program, federal financial participation would also be reduced. Therefore, as part of this LTSS feasibility study, we are working with DHCS to understand how a new public LTSS program would interact with the Medicaid program and how DHCS could potentially limit the overlap between the two programs.

Understanding where the current Medicaid funding and a new public LTSS program would potentially overlap in the future (e.g., 40 years from now for a 35-year-old person needing LTSS at age 75) is challenging. Fully capturing the overlap in funding requires the following information:

- Has the person qualified for the new public LTSS program when needing LTSS (referred to as "benefit vesting")?
- Does the person qualify for Medicaid at the time of needing LTSS?
- Would the person "spend-down" and gain Medicaid eligibility *without* the new public LTSS program?
- Would the person "spend-down" and gain Medicaid eligibility *with* the new public LTSS program?

Setting up processes to capture the answers to these questions for each person receiving services through the new public LTSS program would likely be needed to best estimate the state and federal Medicaid savings resulting from the program. One avenue to capture the reduction in Medicaid federal financial participation (i.e., federal savings) that resulted from the creation of this potential new LTSS program is through a CMS Waiver. Currently, the state of Washington is pursuing a CMS Waiver as part of its new public LTSS program to retain the federal savings from the new program.[25]

LTSS and Managed Care

In California, LTSS are carved out of the managed care contract, except for individuals enrolled in managed care in Coordinated Care Initiative (CCI) counties, individuals enrolled in a County Organized Health System (COHS) plan in select programs and counties that cover LTSS, and the first 60 days of LTC for individuals enrolled in managed care in the Two Plan model counties. The CCI was passed in 2012 and requires nearly all Medi-Cal beneficiaries in selected counties age 21 and older to join a managed care plan to receive Medi-Cal LTSS benefits.[26,27]

The state of California recently released a proposal entitled "Medi-Cal Healthier California for All." The proposal calls for DHCS to transition the managed care programs under the CCI into a statewide Managed LTSS (MLTSS) program in conjunction with Dual-Eligible Special Needs Plans (D-SNPs). The state envisions the transition to statewide MLTSS would take six years.[28] The collection of complete and accurate encounter data from the statewide MLTSS program

[22] U.S. Department of Health and Human Services (June 1, 2018). Medicaid Provisions in Recently Passed Federal Budget Legislation Bipartisan Budget Act of 2018 – Third Party Liability in Medicaid and CHIP. Retrieved February 12, 2020, from https://www.medicaid.gov/sites/default/files/federal-policy-guidance/downloads/cib060118.pdf

[23] Medicaid and CHIP Payment and Access Commission. Third party liability. Retrieved February 12, 2020, from https://www.macpac.gov/subtopic/third-party-liability/.

[24] Wiener, J. M. & O'Keeffe, J. (March 2011). Long-Term Care Reform Options in Hawaii. Hawaii Long-Term Care Commission. Retrieved February 12, 2020, from http://www.publicpolicycenter.hawaii.edu/projects-programs/_long-term-care/RTI_Options_Report-FINAL.pdf.

[25] The full text of the Washington state law is available at https://lawfilesext.leg.wa.gov/biennium/2019-20/Pdf/Bills/Session%20Laws/House/1087-S2.SL.pdf.

[26] DHCS (March 2013). Coordinated Care Initiative Executive Summary. Retrieved February 12, 2020, from http://calduals.org/wp-content/uploads/2013/03/1-CCI-Overview.pdf.

[27] DHCS (December 20, 2019). CCI Information for Beneficiaries. Retrieved February 12, 2020, from https://www.dhcs.ca.gov/Pages/CCI-Info-Bene.aspx.

[28] DHCS (December 9, 2019). Expanding Access to Integrated Care for Dual Eligible Californians. Retrieved February 12, 2020, from http://calduals.org/wp-content/uploads/2020/01/Expanding-Access-to-Integrated-Care-for-Dual-Eligible-Californians-FINAL.pdf.

will be critical to measure LTSS expenditures over time, especially if DHCS pursues a CMS Waiver to capture federal savings from a potential new public LTSS program.

Private Insurance Market

Approximately 11% of national LTSS expenditures are financed through the private insurance market. Although long-term care is a risk with high frequency (approximately 50% of 65-year-olds will need formal long-term care in their lifetimes) and high severity (as seen in Figure 1 above, median annual costs often exceed $100,000), it is rarely insured in the private market. In fact, in California less than 5% of the adult population age 40 and older has purchased a private long-term care insurance policy as of 2018.[29]

One reason for the low prevalence of private long-term care insurance in the United States is the high cost of purchasing a policy, with the average premium per new life rising to $2,544 in 2018.[30] The cost of private insurance has continued to increase over the past decade. Many private market insurance companies have filed for rate increases on groups or "classes" of policyholders because actual experience has been worse than anticipated compared with original pricing assumptions. The high price serves as a barrier for many individuals outside of the upper class wishing to obtain coverage, as illustrated in a 2016 study of private LTC insurance purchasers.[31] While only 36% of the general population 50 and older have incomes above $75,000, approximately 61% of LTC insurance purchasers surveyed had incomes above $75,000.

In addition to financial barriers, underwriting is used in the private market to align premiums with the underlying health risks of policyholders; therefore, individuals who apply for LTC policies are not guaranteed to be accepted for coverage. For those able to purchase LTC insurance, the majority of policies offer comprehensive benefits that reimburse costs of formal long-term care received in institutional or home care settings up to a benefit maximum. The private insurance market offers individuals a wide variety of benefit options including:

- Benefit period options (three years is the most common and coverage is typically structured as a "pool of money" derived from the benefit period duration times the daily benefit amount)
- Elimination period options (the period of time during which the policyholder has a qualifying degree of disability, but policy benefits are not paid—90 days is the most common)
- Inflation options (3% compound inflation is common, inflating both the "pool of money" and any daily or monthly benefit limits)
- Various levels of underwriting
- Premium discounts including marital, preferred, and worksite
- Coordination with governmental programs including Medicaid and Medicare

Individuals are typically eligible for benefits when they have severe cognitive impairment or require assistance with two of the six designated activities of daily living (ADLs)—bathing, dressing, eating, transferring, toileting, and continence—where the condition is expected to last at least 90 days. More information on the private LTC insurance market and typical attributes of private LTC insurance policies can be found in the Broker World 2019 Milliman Long Term Care Survey.[32]

While most long-term care insurance sales continue to decrease, "combination" policies (or policies that provide LTC insurance benefits combined with life insurance or annuity coverage) are growing in popularity. The Pension Protection Act of 2006 (PPA) opened the door for combination products featuring long-term care riders. The PPA clarified that charges for tax-qualified or non-qualified LTC riders on life policies are deemed distributions (retroactive to the enactment of HIPAA in 1996), but for tax-qualified riders those distributions beginning in 2010 will not be taxable, but

[29] Summarized from CalPERS data (https://www.calpers.ca.gov/docs/board-agendas/201902/financeadmin/item9a-01_a.pdf) and company-submitted financial annual statement: Long-Term Care Experience Reporting Form 5 (source: Aggregated data from SNL Financial: http://www.snl.com).

[30] Thau, C., Schmitz, A., & Giese, C. (July 1, 2019). 2019 Milliman Long Term Care Insurance Survey. Broker World. Retrieved February 12, 2020, from https://brokerworldmag.com/2019-milliman-long-term-care-insurance-survey/.

[31] LifePlans (January 2017). Who Buys Long-Term Care Insurance? Twenty-Five Years of Study of Buyers and Non-Buyers in 2015-2016. Retrieved February 12, 2020, from https://www.ahip.org/wp-content/uploads/2017/01/LifePlans_LTC_2016_1.5.17.pdf.

[32] See https://brokerworldmag.com/2019-milliman-long-term-care-insurance-survey/.

rather will reduce the basis in the contract. The law also addresses non-qualified annuity contracts by stating LTC benefits paid are generally paid as tax-free LTC benefits. LTC payments from tax-qualified LTC riders on life insurance or annuity contracts are tax-free to the extent that they reimburse actual LTC expenses or are less than an annually adjusted per diem limit if paid on an indemnity basis. The market outlook for combination products is described as positive in a recent Contingencies article.[33]

In California, the private market also includes the California Public Employees' Retirement System (CalPERS) LTC program, a voluntary LTC program available to California state employees since 1995. As of June 2018, the CalPERS program had 124,000 policies in-force.[34] The CalPERS program has faced many of the same challenges as the rest of the private market, including large rate increases that have been met with lawsuits.[35]

Individuals Out-of-Pocket

As shown in Figure 4 above, individuals paying out-of-pocket are the second-largest payer of LTSS, after Medicaid. The majority of this cost comes from individuals whose income is too high to qualify for Medicaid, but who still cannot afford or qualify for private LTC insurance. Many of these individuals are not prepared to pay for the ultimate cost of long-term care and end up spending down their assets until they do qualify for Medicaid.

The individuals who exist in the insurance "gap" between Medicaid and private LTC insurance are often the focus of efforts to explore alternative financing solutions for LTC. After conversations with stakeholders in California, it is clear this "middle-income" group is one of the main populations of focus as part of this feasibility study.

The cost allocated to individuals paying out-of-pocket does not include the cost to individuals who serve as informal caregivers to family and friends. Despite not being included in Figure 4, the intergenerational cost to those giving informal care is often part of the conversation with regard to exploring alternative financing solutions (for example, it is addressed as part of the Hawaii Kupuna Caregivers Act which is discussed later in this report).

Other Sources

Other sources of funding for long-term services and supports include worksite healthcare, other private revenues, Indian Health Service, workers' compensation, general assistance, maternal and child health, vocational rehabilitation, other federal programs, Substance Abuse and Mental Health Services Administration (SAMHSA), other state and local programs, and school health.[36]

CURRENT LTSS FINANCING IN OTHER COUNTRIES

The United States is not alone in its aging population. We examined rates of aging and the LTSS environment for five other nations. The five were selected in an effort to get a cross-section of funding approaches, aging growth, and based on the availability of information. As Figure 6 illustrates, the populations of the five other nations studied for this report are also experiencing significant rates of aging.[37] These nations (France, Germany, Japan, the Netherlands, and Singapore) support their aging populations in different ways, some of which are described below.

[33] Friedrich, C. et al. Unlocking potential—new combination long-term care insurance solutions show promise. Contingencies. Retrieved February 12, 2020, from http://contingencies.org/unlocking-potential-new-combination-long-term-care-insurance-solutions-show-promise/.

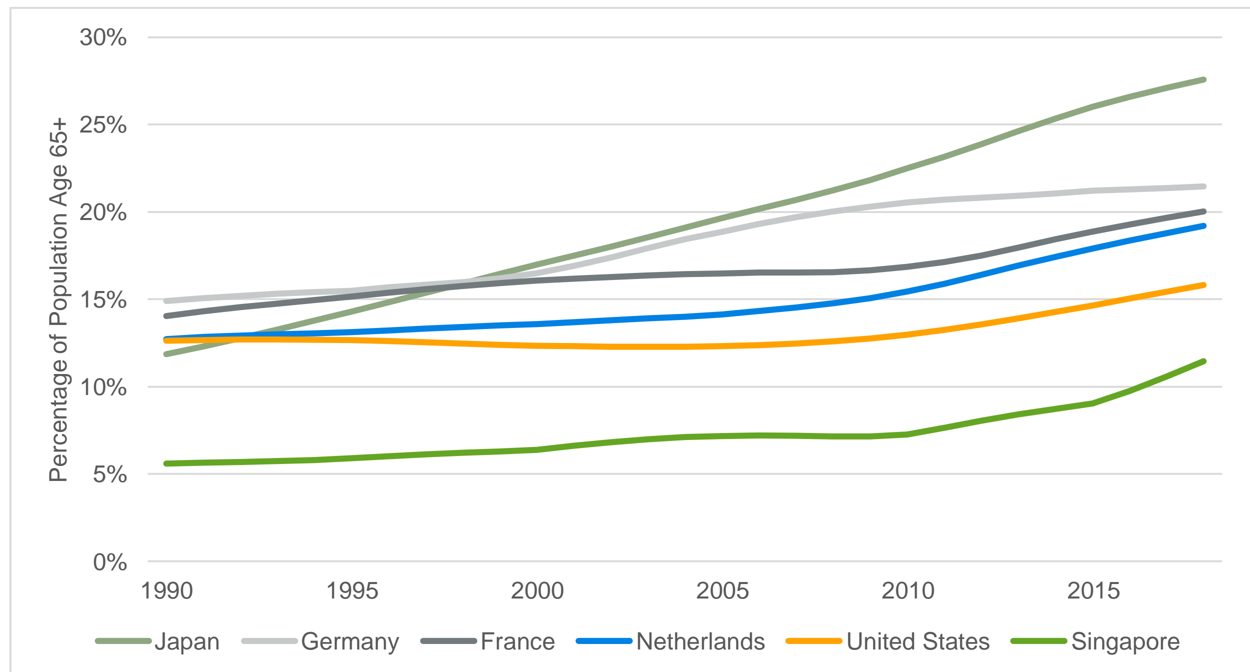
[34] CalPERS Long-Term Care Program (June 30, 2018). CalPERS Long-Term Care Actuarial Valuation as of June 30, 2018. Retrieved February 12, 2020, from https://www.calpers.ca.gov/docs/board-agendas/201902/financeadmin/item9a-01_a.pdf.

[35] Venteicher, W. (2019, June 10). Did CalPERS mislead policyholders on long-term care insurance? Trial begins on a $1.2 billion lawsuit. Retrieved February 19, 2020, from https://www.sacbee.com/news/politics-government/the-state-worker/article231329758.html.

[36] CMS, National Health Expenditure Data, op cit.

[37] World Bank. Population Ages 65 and Above (% of total population). Retrieved February 12, 2020, from https://data.worldbank.org/indicator/SP.POP.65UP.TO.ZS.

FIGURE 6: PERCENTAGE OF POPULATION AGED 65+ BY COUNTRY



Netherlands

In 1968, the Netherlands became the first country to establish a universal, social LTC insurance program: the General Exceptional Medical Expenses Act (AWBZ).[38] The program covered catastrophic medical costs and LTC expenses, including institutional care and home health care, as well as some cash benefits. All citizens were eligible for the program, which was administered by private insurance companies. Despite offering some cash benefits, over time the percentage of individuals receiving informal care decreased compared to other countries.

The increasing cost of the program ultimately led to the replacement of AWBZ with the Long-Term Care Act in 2015. The current program limits benefit recipients to "elderly people in the advanced stages of dementia, people with serious physical or intellectual disabilities, and people with long-term psychiatric disorders." A standardized assessment determines an individual's benefit eligibility and also the functions and services to which an individual is entitled. The program is funded by an income tax assessment (9.65% of income up to a maximum assessment of approximately USD 3,500 in 2015[39]), as well as an income-dependent contribution charged to beneficiaries.

Additional information on the Netherlands program can be found at:
https://www.eiseverywhere.com/file_uploads/0f57b7c2d0d94ff45769269d50876905_P4-HealthcareintheNetherlands.pdf.

Japan

With 27.6% of its population over age 65 (the largest percentage in the world), Japan has long offered government-funded LTC for the country's aged population. Japan implemented its current universal long-term care insurance program in 2000. It covers 90% of an individual's cost of care (the individual is responsible for the other 10%, up to an income-adjusted out-of-pocket maximum). Benefits are provided to individuals age 65 and above (or disabled individuals 40 and above) who have met eligibility criteria determined at the local government level. Eligible benefits

[38] Gleckman, H. (February 2010). Long-Term Care Financing Reform: Lessons From the U.S. and Abroad. Washington, DC: Commonwealth Fund. Retrieved February 12, 2020, from https://www.commonwealthfund.org/sites/default/files/documents/___media_files_publications_fund_report_2010_feb_1368_gleckman_longterm_care_financing_reform_lessons_us_abroad.pdf.

[39] Belastingdienst. Maximum Contribution Base for 2015. Retrieved February 12, 2020, from https://www.belastingdienst.nl/wps/wcm/connect/bldcontenten/belastingdienst/individuals/moving_internationally/social_security/how_is_the_contribution_calculated/maximum_contribution_base/maximum_contribution_base_for_2015.

and services, which include institutional and home health care, vary by an individual's determination of need. An individual's level of need is reevaluated at least every two years. Cash benefits are not offered in Japan.

Japan's program is funded through means-tested mandatory premiums (for those over age 40) and various forms of tax revenue. Very few private LTC insurance policies are sold in Japan, and the ones that are sold are normally supplemental policies sold to wealthy individuals.

Over the years, Japan has struggled with "social hospitalization," long waiting lists, and a shortage of care facilities and health workers. Additional information on Japan's universal LTC program can be found at: http://japanhpn.org/en/longtermcare/.

Germany

Since the mid-1990s, Germany has mandated LTC coverage for its citizens with the option of receiving coverage either through a private insurance benefit or the more widely selected public offering. Only about 10% of individuals, who tend to be wealthier, elect to purchase private insurance plans. The remaining 90% of the population contribute to the public program through a payroll tax (which is split between the employer and employee) and retiree premiums.

The public program is administered by a combination of public and private insurers and is overseen by the government. Benefit eligibility is determined using ADL and mental cognition-driven criteria. These criteria are also used to determine the level of benefits and maximum expenditures for which an individual is eligible. Benefits include institutional and home health care, as well as a lower-valued cash benefit.

Despite the lower value of the cash benefit compared to the service benefits, the vast majority of beneficiaries opt to receive the cash benefit, which many use to pay for informal support while remaining in their own homes.[40] Germany continues to explore opportunities to promote the use of already popular home care benefits, including through two LTC-strengthening acts passed in 2015, which further expanded home care benefits and other benefits supporting self-reliance for beneficiaries, especially for beneficiaries living with dementia.[41]

Additional information can be found at: https://www.bundesgesundheitsministerium.de/english-version/topics/long-term-care/long-term-care-insurance.html.

France

France has explored a number of social LTC benefits over the past 30 years targeting different populations at federal, provincial, and local levels of government. The most notable form of LTC coverage in France is the Personalized Autonomy Allowance (APA) program.[42] APA is not intended to cover the full cost of long-term care, though it provides a partial benefit to individuals age 60 and older who need assistance performing essential activities of daily living. Benefit eligibility is determined by a set of standard criteria used across the country and administered by medical teams. Benefit eligibility also determines the benefit maximum for which an individual is eligible. The monthly benefit paid to an individual is the maximum benefit reduced by an individual's participation amount (or copayment). The copayment amount is based on income, where the wealthiest individuals' copayments are as high as 90%. The APA is funded through local and federal general revenues.

Additional information about the APA, as well as other government-funded LTC benefits in France, can be found at: https://ec.europa.eu/social/main.jsp?catId=1110&langId=en&intPageId=4536.

Singapore

Singapore originally introduced a long-term care social insurance program in 2002, called "ElderShield," providing a cash benefit of SGD 300 to SGD 400 per month (about USD 294) for up to five or six years (depending on the joining date) for its severely disabled citizens. The program's benefit eligibility is based on a person's inability to perform three or more activities of daily living. The ElderShield program was offered and administered by private insurers, requiring

[40] Gibson, M. J., & Redfoot, D. L. (October 2007). In Brief: Comparing Long-Term Care in Germany and the United States. Retrieved February 12, 2020, from https://www.aarp.org/home-garden/livable-communities/info-2007/inb150_usgerman_ltc.html.

[41] Federal Ministry of Health. The Long-Term Care Insurance in Germany. Retrieved February 13, 2020, from https://www.bundesgesundheitsministerium.de/english-version/topics/long-term-care/long-term-care-insurance.html.

[42] Le Bihan, B. & Sopadzhiyan, A. (November 2017). CEQUA Country Report: France. Retrieved February 13, 2020, from https://1d520973-35f0-4e46-8af0-304ac08d8794.filesusr.com/ugd/442c21_1248c8d9e1be47b791fd1254c2fb31d8.pdf.

citizens to pay level premiums, varying by entry age, during their working years (i.e., up to age 65). The program was not compulsory. Though citizens were automatically enrolled around age 40, an enrollee could opt out of coverage.

Beginning in 2020, the government-run "CareShield Life" program will largely replace the ElderShield program. The CareShield Life program is compulsory and offers SGD 600 (about USD 430) cash payments per month for as long as a person is disabled. All Singaporeans currently age 30 to 40 are required to start paying CareShield Life premiums to replace the optional ElderShield coverage. Citizens over the age of 40 have the option of keeping the ElderShield benefits (and premium) or upgrading to CareShield Life benefits (and corresponding premium increase). Payments are made until age 67 and can increase in future years.

Additional information can be found at: https://www.moh.gov.sg/careshieldlife/about-eldershield.

PROPOSALS FOR ALTERNATIVE LTSS FINANCING

While California is at the forefront exploring alternative financing solutions for LTSS, initiatives have also been explored at the federal and state levels in the United States. At the federal level, this includes the repealed CLASS Act and proposed Medicare Long-Term Care Services and Supports Act. Two initiatives at the state level have been passed into law, with Washington passing the Trust Act in 2019 and Hawaii passing the Kupuna Caregivers Act in 2015. In this section we discuss these initiatives, as well as other proposals.

CLASS Act

Perhaps the most well-known example of proposed alternative financing for LTSS is the Community Living Assistance Services and Supports (CLASS) Act that was included (and ultimately repealed) as part of the Patient Protection and Affordable Care Act (ACA). The CLASS program was to be a voluntary, guaranteed-issue program funded through payroll deductions. Individuals who paid into the program for at least five years would be eligible for benefits if they met eligibility criteria. Benefits under the program were to be cash payments correlating to an individual's degree of impairment, but not subject to any lifetime maximum.

Ultimately, the CLASS Act was not deemed to be actuarially sound and was repealed in 2013. It was determined not to be actuarially sound primarily due to the potential adverse selection from offering a benefit on a voluntary and guaranteed issue basis. More information on the CLASS Act can be found at: https://www.soa.org/globalassets/assets/files/sections/prof-sec-ltc-class-act.pdf.

Hawaii Kupuna Caregivers Act[43]

The Kupuna Caregivers Act established a pilot program that currently provides up to a $210 weekly payment to informal caregivers in the state of Hawaii. To be eligible, the caregiver must work 30 hours per week beyond being an informal caregiver, and the individual receiving care must be at least 60 years old and require assistance with two ADLs or instrumental activities of daily living (IADLs) or have cognitive impairment. There are no income or asset requirements to qualify. The benefit is not an entitlement program, so if the program is at capacity, not all eligible individuals will be entitled to receive benefits.

Additional information on this program can be found at: https://www.payingforseniorcare.com/hawaii/kupuna-caregivers.

Washington State Trust Act

The Washington Trust Act established the first U.S. social insurance program to pay for long-term care, with the first taxes to be collected in 2022 and first benefits to be paid in 2025. The Trust Act created a state-based social insurance program funded through a payroll tax (0.58% on all wages). The social program offers front-end benefits ($100 daily benefit amount, 365-day benefit period) to vested individuals. The daily benefit inflates each year by a rate less than or equal to the Washington consumer price index (CPI) and can be used to reimburse costs of receiving care in a home, residential community-based setting, or skilled nursing facility. Individuals vest into the program by paying the payroll tax for 10 years over their lifetimes or three of the last six years before benefit eligibility.

More information on the Trust Act can be found at: http://lawfilesext.leg.wa.gov/biennium/2019-20/Pdf/Amendments/Senate/1087-S2%20AMS%20ENGR%20S3352.E.pdf.

[43] Paying for Senior Care. Hawaii's Kupuna Caregivers Program: Helping Working Families to Care for Their Loved Ones. Retrieved February 13, 2020, from https://www.payingforseniorcare.com/hawaii/kupuna-caregivers.

LTC in Medicare Advantage

Starting in 2019, Medicare Advantage (MA) plans are able to provide certain LTC benefits as primarily health-related (PHR) benefits for individuals who need assistance with ADLs or IADLs. While there are potential concerns about introducing LTC benefits as part of a MA plan (specifically related to anti-selection and potential increase to MA premiums[44]), a number of MA plans did start offering supplemental LTC benefits as part of the 2019 plan year. Figure 7 shows four of the nine supplemental benefits described in a CMS memorandum along with the number of plans covering them.

FIGURE 7: 2019 MA PLANS OFFERING CMS-SUGGESTED BENEFITS UNDER EXPANDED PHR DEFINITION[45]

2019 SUPPLEMENTAL BENEFIT	COUNT OF PLANS
Adult daycare services	2
Home-based palliative care	8
In-home support services	60
Support for caregivers (aka respite care)	421

Credit for Caring Act

In May 2019, the Credit for Caring Act was introduced to the U.S. House of Representatives and referred to the House Committee on Ways and Means. Similar to Hawaii's caregiver program, the Credit for Caring Act would create a tax credit for informal family caregivers. To receive the tax credit, the individual receiving care must be certified to need care for 180 days and the family caregiver must meet income requirements. The status of this bill can be followed on the U.S. Congress website: https://www.congress.gov/bill/116th-congress/house-bill/2730/all-info.

Medicare Long-Term Care Services and Supports Act of 2018

The Medicare Long-Term Care Services and Supports Act was a 2018 bill from Rep. Frank Pallone (D-N.J.) that was designed to establish an LTSS cash benefit within Medicare. The benefit would be offered as part of Medicare Part A (and also available to others without Part A who meet disability criteria) and would provide a cash benefit equal to at least five hours of home care services per day. Benefits would be available to individuals who require assistance with three or more ADLs after a two-year waiting period or cash deductible. The bill has not gained significant traction to date.

More information on the Medicare Long-Term Care Services and Supports Act of 2018 can be found at: https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/LTSS%20Act%20Section%20by%20Section%20May%202018.pdf.

Other

Several government task forces and committees have been established to address aging-related issues, including:

- The U.S. House Committee on Ways and Means held a committee hearing on "Caring for Aging Americans" on November 14, 2019. Information on the testimony provided, including a transcript of the hearing, can be found at: https://waysandmeans.house.gov/legislation/hearings/caring-aging-americans.

- In 2017, the U.S. Department of the Treasury developed a Federal Interagency Task Force on Long-Term Care Insurance. The task force continues to explore reforms to LTC insurance regulation and as recently as July 2019 held a public meeting on this topic. Information on the task force and its work can be found at: https://home.treasury.gov/policy-issues/economic-policy/economic-policy-reports-and-notices/federal-interagency-task-force-on-long-term-care-insurance.

[44] Giese, C. & Schmitz, A. (June 2018). Are Medicare Advantage Plans Ready for the High Costs of Long-Term Care? Milliman White Paper. Retrieved February 13, 2020, from https://us.milliman.com/insight/Are-Medicare-Advantage-plans-ready-for-the-high-costs-of-long-term-care.

[45] Alcocer, P., Eaton, R., & Laboy, P. (February 2019). LTSS Services in Medicare Advantage Plans. Milliman White Paper. Retrieved February 13, 2020, from https://www.milliman.com/insight/LTSS-services-in-Medicare-Advantage-Plans.

Other examples of organizations studying alternative LTSS financing solutions include: Bipartisan Policy Center (BPC), National Academy of Social Insurance (NASI), RWJ Foundation, SCAN Foundation, and the Society of Actuaries (SOA). As part of a 2014 think tank, the SOA published a study exploring a number of alternative financing options, which are included in Figure 8.

FIGURE 8: SOA STUDY OF ALTERNATIVE FINANCING OPTIONS

ALTERNATIVE FINANCING OPTION	DESCRIPTION
LTC savings program	Mandatory savings account to save for LTC or LTC insurance (LTCI).
High-deductible health plan (HDHP)	Back-end LTC insurance plan that would provide catastrophic coverage after a waiting period of one to three years.
Short-term care	Front-end LTC insurance plan that would provide limited coverage during the first one to two years of an LTC event.
Medicare LTC	Federal LTC program that would borrow Medicare's structure, where Part A would provide basic benefits and Parts B to F would provide supplemental coverage for extra premium.
Mutual LTC	Noncancelable LTC insurance plan where premiums are fixed and benefits are subject to available funds.
Tax-deferred savings	Tax reform to allow tax-deferred personal savings accounts to be used to purchase long-term care insurance or pay for long-term care expenses.
National reinsurance	Catastrophic reinsurance for private LTC insurers.
Medicaid tightening	Restriction on Medicaid eligibility to make it harder for individuals with significant assets to gain coverage.
Medicaid modernization	Enabling Medicaid to pay for care in a larger range of settings, including home and community-based settings.
Changing LTC legislation and regulations	Changes to National Association of Insurance Commissioners (NAIC) Model Act to provide more flexibility for LTC benefits.
Improving the way LTCI is marketed and sold	Increased education around the risks of LTC need.

More information on the ideas from the 2014 SOA think tank can be found at: https://www.soa.org/resources/research-reports/2014/research-2014-ltp-ltc/.

Additionally, the American Academy of Actuaries hosted a roundtable called "A National Conversation on Long-Term Care Financing" that established the following list of essential criteria for long-term care financing reform:

1. Coverage.
2. Comprehensiveness of benefits.
3. Quality of care.
4. Understandability and choice.
5. Affordability.
6. Risk management and cost control.
7. Financial soundness and sustainability.

An overview of each of these criteria can be found at: https://www.actuary.org/content/essential-criteria-long-term-care-financing-reform-proposals.

ATTACHMENT B.1

CALIFORNIA MEDICAID LTSS STATE PLAN BENEFITS AND HCBS PROGRAMS

STATE PLAN BENEFITS PROVIDING LTSS

State Medicaid agencies must cover nursing facility care and home health care for individuals age 21 and older who require nursing facility care. States determine who is eligible for nursing facility admission by evaluating whether they meet nursing home level of care criteria.[1] Medi-Cal will only pay for skilled nursing facility services after a beneficiary has been in the institution for more than 91 days.[2]

Nursing homes must provide: nursing and related services, specialized rehabilitative services, medically related social services, pharmaceutical services, dietary services, activities designed to meet the interests and physical, mental, and psychosocial well-being of the resident, routine dental services, and treatment and services required by mentally ill residents.[3] Federal regulations require that home health services include nursing, home health aides, medical supplies, medical equipment, and appliances suitable for use in the home.[4]

1115 WAIVER BENEFITS

- **Community-Based Adult Services (CBAS):** CBAS is a managed care benefit provided through the state's California Medi-Cal 2020 1115 waiver. CBAS is available to individuals 18 and older who are eligible for Medicaid under the state plan and are either aged, blind, or disabled. Individuals must be managed care plan members or exempt from managed care enrollment and must reside within a geographic service area. CBAS provides beneficiaries with skilled nursing care, social services, therapies, personal care and more in outpatient, facility settings.[5]

1915(C) HOME AND COMMUNITY-BASED SERVICES WAIVERS

States can use 1915(c) waivers to serve Medicaid beneficiaries in need of LTSS in their homes or communities instead of in an institution. Unlike state plan options, 1915(c) waivers can only serve a limited number of individuals in need of institutional care and may have higher financial eligibility criteria or provide services that the state plan does not cover.[6]

- **Multipurpose Senior Services Program (MSSP), 1915(c):** The goal of the MSSP program is to prevent or delay institutionalization through ongoing care management, using available community services and resources, and purchasing needed services when they are not already available. The California Department of Aging administers the waiver.[7] The waiver serves Medi-Cal eligible individuals who are 65 years or older and disabled. Individuals must require nursing facility level of care, be enrolled in only one HCBS waiver at a time, and reside in a designated county.[8] The maximum number of unduplicated participants who are served in each year the waiver is in effect is 11,370.[9]

- **California Assisted Living Waiver (ALW), 1915(c):** The goals of ALW are to facilitate safe and timely transitions of seniors eligible for Medi-Cal and persons with disabilities from a nursing facility to a community home-like setting and to offer those individuals services that meet their healthcare needs.[10] The eligibility criteria for this waiver are 1) age 21 or older, 2) have full-scope Medi-Cal eligibility with zero share of cost, 3) have care needs equal to those of residents funded by Medi-Cal living and receiving care in nursing facilities, 4) willing to live in an assisted living setting as an alternative to a nursing facility, 5) able to reside

[1] CMS. Nursing Facilities. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/long-term-services-supports/institutional-long-term-care/nursing-facilities/index.html.
[2] DHCS (November 26, 2019). Essential Health Benefits. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/services/medi-cal/Pages/Benefits_services.aspx.
[3] SSA §1919(4)(A), Requirements for Nursing Facilities. Retrieved February 13, 2020, from https://www.ssa.gov/OP_Home/ssact/title19/1919.htm.
[4] U.S. Department of Health and Human Services (2010). Understanding Medicaid Home and Community Services: A Primer. Retrieved from https://aspe.hhs.gov/report/understanding-medicaid-home-and-community-services-primer-2010-edition/mandatory-state-plan-services-home-health.
[5] Medicaid.gov (November 19, 2019). California Medi-Cal 2020 Demonstration (11-W-00193/9): Special terms and conditions. (2019). Retrieved March 3, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/81046 (download Demonstration Approval, see p. 29-30 of PDF).
[6] Thach, N. & Wiener, J., An Overview of Long-Term Services and Supports and Medicaid, op cit.
[7] California Department of Aging. Multipurpose Senior Services Program (MSSP). Retrieved February 13, 2020, from https://aging.ca.gov/Providers_and_Partners/Multipurpose_Senior_Services_Program/Program_Narrative_and_Fact_Sheets/.
[8] DHCS (2019). Multipurpose Senior Services Program. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/services/medi-cal/Pages/MSSPMedi-CalWaiver.aspx.
[9] Medicaid.gov (November 7, 2019). CA Multipurpose Senior Services Program (0141.R06.00): Application for a §1915(c) home and community-based services waiver. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8174 (download Approved Application, see p. 26 of PDF).
[10] DHCS (December 19, 2019). Assisted Living Waiver. Retrieved February 13, 2020. From https://www.dhcs.ca.gov/services/ltc/Pages/AssistedLivingWaiver.aspx.

safely in an assisted living facility or public subsidized housing, and 6) willing to live in one of 15 counties.[11] The waiver is described by the state as offering "beneficiaries the choice of residing in an assisted living setting as an alternative to long-term placement in a nursing facility."[12] Assisted living facilities include residential / adult residential care facilities.[13] Available services vary based on the tier a member is assigned to.[14] The maximum number of unduplicated participants who are served in each year the waiver is in effect is 7,409.[15]

- **Home and Community-Based Alternatives Waiver, 1915(c)**: The goals of this waiver are to facilitate safe and timely transitions of members eligible for Medi-Cal from medical facilities to home or community settings utilizing waiver services, for members eligible for Medi-Cal who reside in the community, but are at risk of being institutionalized within the next 30 days. This 1915(c) waiver offers community-based adult services to eligible older adults and / or adults with disabilities to restore or maintain their optimal capacity for self-care and delay or prevent inappropriate or personally undesirable institutionalization.[16] This waiver is available to individuals of any age who are enrolled in or eligible for Medi-Cal and have been in the hospital for at least 60 consecutive days or require a nursing facility level of care.[17] Waiver services are varied and include care management, habilitation, home respite, community transition services, and more.[18] The maximum number of unduplicated participants who are served in each year the waiver is in effect ranges from about 6,000 to almost 10,000.[19]

- **HCBS Waiver for Californians With Developmental Disabilities, 1915(c):** This waiver serves persons with developmental disabilities and those at risk of becoming developmentally disabled in homes and communities as an alternative to intermediate care facilities. The waiver is administered by the California Department of Developmental Services.[20] Statutory services, those specifically authorized or otherwise included in Section 1915(c) of the Social Security Act,[21] include behavioral intervention, community living arrangement, day, homemaker, supported employment, and prevocational services, as well as respite care. There are also extended state plan services, supports for participant direction, and more.[22] The maximum numbers of unduplicated participants who are served in each year the waiver is in effect ranges from 130,000 to 150,000**.**[23]

- **Self-Determination Program for Individuals With Developmental Disabilities, 1915(c):** California's Self-Determination Program (SDP) Waiver for the developmentally disabled provides home and community-based services to individuals who would otherwise require care in an intermediate care facility, whether habilitative or nursing.[24] The SDP Waiver allows participants the opportunity to accept greater control and responsibility regarding the delivery of needed services. Services include community living and employment supports, homemaker and live-caregiver services, respite services, occupational therapy, and more.[25] The maximum number of unduplicated participants who are served in each year the waiver is in effect ranges from 1,000 to 2,500.[26]

[11] Ibid.
[12] Medicaid.gov (February 28, 2019). CA Assisted Living (0431.R03.00): Application for a §1915(c) home and community-based services waiver. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8170 (download Approved Application, see p. 4 of PDF).
[13] DHCS (December 19, 2019), Assisted Living Waiver, op cit.
[14] Medicaid.gov (February 28, 2019). CA Assisted Living (0431.R03.00), op cit.
[15] Ibid., see p. 24 of PDF.
[16] DCHS (January 13, 2020). Community-Based Adult Services. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/services/Pages/Community-BasedAdultServices(CBAS)AdultDayHealthCare(ADHC)Transition.aspx.
[17] Medicaid.gov (December 18, 2019). CA Home and Community Based Alternatives Waiver (0139.R05.00): Application for a §1915(c) home and community-based services waiver. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8165 (download Approved Application, see pp. 1-5 of PDF).
[18] Ibid., see p. 52 of PDF).
[19] Ibid., see pp. 25-26 of PDF).
[20] California Department of Developmental Services (January 22, 2020). Home and Community-Based Services Programs. Retrieved February 13, 2020, from https://www.dds.ca.gov/initiatives/hcbs/.
[21] CMS (January 2015). Application for a §1915 Home and Community-Based Waiver: Instructions, Technical Guide, and Review Criteria, p. 103. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf.
[22] Medicaid.gov (December 19, 2019). CA HCBS Waiver for Californians w/DD (0336.R04.00): Application. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8162 (download Approved Application, see p. 66 of PDF).
[23] Ibid., pp. 45-46.
[24] Medicaid.gov (July 10, 2018). CA Self-Determination Program for Individuals with Developmental Disabilities (1166.R00.00): Application. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=48570 (download Approved Application, see pp. 2-3 of PDF).
[25] Medicaid.gov. California Waiver Factsheet. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/Waiver-Descript-Factsheet/CA-Waiver-Factsheet.html#CA1166.
[26] CA Self-Determination Program for Individuals with Developmental Disabilities, *supra* note 20, p. 22.

- **HIV / AIDS, 1915(c):** The goals of this waiver are to enroll individuals with HIV / AIDS into HCBS, assist participants with disease management, increase coordination among service providers, and eliminate duplication of services. Participants in this waiver must have a written diagnosis of HIV / AIDS, a health status to make home care appropriate, be eligible for Medi-Cal on the date of enrollment and each month thereafter, and have been certified to need a nursing facility level of care or higher.[27] Services range from enhanced case management to skilled nursing.[28] The maximum number of unduplicated participants who are served in each year the waiver is in effect ranges from 1,800 to almost 2,000.[29]

STATE PLAN AMENDMENTS

- **In-Home Supportive Services (IHSS):** IHSS is the name of a Medi-Cal program comprised of several optional HCBS state plan benefits.[30] All components of the program provide supportive personal care services to individuals who otherwise would not be able to remain in their homes.[31] Over 520,000 IHSS providers currently serve over 600,500 recipients. The four IHSS options are: CFC Option (CFCO), Personal Care Services Program, IHSS Plus Option, and IHSS-Residual Program.[32] The program an individual is assigned to, depends on Medicaid eligibility and the level of care required.

  - **CFCO** provides home and community-based attendant services and supports to eligible individuals. Beneficiaries must be eligible for Medicaid under an existing eligibility pathway that offers state plan services and in an eligibility group under the state plan that covers nursing facility services. If not in such a group, beneficiaries must have incomes at or below 150% FPL and meet institutional level of care criteria.[33,34] States can receive an enhanced Federal Medical Assistance Percentage (FMAP) of 6% in addition to the standard federal match for CFC services.[35] CFCO recipients make up about 43% of the overall IHSS population.

  - The **Personal Care Services Program (**PCSP) enrolls individuals who are not eligible for CFC because they do not meet nursing facility level of care criteria.[36] PCSP recipients are eligible for full-scope Federal Financial Participation (FFP), and these Medi-Cal services are funded with 50% federal, 32.5 % state, and 17.5% county dollars. PCSP recipients make up about 53% of the overall IHSS population.

  - Individuals who are eligible for the **IHSS Plus Option (IPO)** are those who receive services from spouses or parents, an advance payment for monthly services to pay their providers directly, or a restaurant meal allowance.[37] IHSS Plus is a 1915(j) state plan option.[38] The IPO recipients make up a little over 2.5% of the overall IHSS population.

  - Beneficiaries in the **IHSS-Residual (IHSS-R) Program** either do not receive full-scope Medicaid or do not receive full-scope Medicaid with Federal Financial Participation (FFP).[39] IHSS-R recipients make up less than 1.5% of the overall IHSS population.

[27] California Department of Public Health (June 11, 2018). AIDS Medi-Cal Waiver Program. Retrieved February 13, 2020, from https://www.cdph.ca.gov/Programs/CID/DOA/Pages/OA_care_mcwp.aspx.
[28] California Waiver Factsheet, op cit., CA HIV/AIDS Waiver (0183.R05.00).
[29] Medicaid.gov (January 10, 2018). CA HIV/AIDS Waiver (0183.R04.00): Application. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/section-1115-demo/demonstration-and-waiver-list/?entry=8168 (download Approved Application, see p. 22 of PDF).
[30] California Medicaid Research Institute (August 2011). California's Medi-Cal Home and Community-Based Services Waivers, Benefits and Eligibility Policies, 2005-2008, p. 24. Retrieved February 13, 2020, from https://www.thescanfoundation.org/media/2019/07/camri_waiver_report_0_3.pdf.
[31] Ramsey, C. (June 2019). In-Home Supportive Services (IHSS): A Guide for Advocates, p. 5. Justice for Aging. Retrieved February 13, 2020, from https://www.justiceinaging.org/wp-content/uploads/2019/06/Final_IHSS-Adocate-Manual.pdf.
[32] Ibid., p. 9.
[33] Mitchell, A. et al. (March 9, 2015). President's FY2016 Budget: Centers for Medicare & Medicaid Services (CMS) Legislative Proposals, p. 51. Congressional Research Service. Retrieved February 13, 2020, from https://fas.org/sgp/crs/misc/R43934.pdf.
[34] Community First Choice is also referred to as 1915(k). See https://www.medicaid.gov/medicaid/home-community-based-services/home-community-based-services-authorities/community-first-choice-cfc-1915-k/index.html.
[35] CMS. 1915(k) Community First Choice Overview, p. 5. Retrieved February 13, 2020, from https://nasddds.org/uploads/documents/SOTA%2Bslides%2Bfor%2BCFC%2BHCBS%2BPresentation%2B9%2B10%2B%283%29.pdf.
[36] In-Home Supportive Services (IHSS): A Guide for Advocates, op cit., p. 10.
[37] California Department of Social Services. In-Home Supportive Services (IHSS) Program. Retrieved February 13, 2020, from https://www.cdss.ca.gov/inforesources/ihss.
[38] Chapter Seven: In-Home Supportive Services (IHSS), p. 2. Retrieved February 13, 2020, from https://www.bettzedek.org/wp-content/uploads/2019/08/Ch.7-IHSS2019-FINAL.pdf.
[39] Disability Rights California (June 2018). Understanding How IHSS Hours Are Calculated, p. 3. Retrieved February 13, 2020, from https://www.disabilityrightsca.org/system/files/file-attachments/561101.pdf. IHSS-Residual recipients are "usually persons with Satisfactory Immigration Status, which denies them federal reimbursement. There are very few people in this category." See http://www.canhr.org/factsheets/misc_fs/html/fs_ihss.htm.

- **1915(i) State Plan Amendment (SPA):** This option allows "states to target the HCBS benefit to specific populations, establish separate additional needs-based criteria for individual HBCS, establish a new Medicaid eligibility group for people who get state plan HCBS, define the HCBS included in the benefit, and allow any or all of the HCBS to be self-directed."[40] FFP is available for services provided. California has chosen to target its SPA to serve individuals with developmental disabilities.[41]

- **Program of All-Inclusive Care for the Elderly (PACE):** PACE is a Medicare program that can be provided to Medicaid beneficiaries as an optional benefit.[42] Recipients must be 55 or older, meet the requirement for skilled nursing home care, live in a service area, and are able to live in the community.[43] Once enrolled, a recipient will receive all Medicare and Medicaid services through the program.[44] There are approximately 10,000 individuals enrolled in California's PACE program.[45]

Other Optional Benefits

- **811 Project Rental Assistance:** The 811 program is a collaborative effort between the state of California and U.S. Department of Housing and Urban Development to provide rental assistance to low-income people with disabilities. The funds are intended to assist individuals in moving from nursing facilities back into the community. Recipients are required to receive or be eligible for LTSS through Medi-Cal.[46,47]

[40] Medicaid.gov. Home and Community-Based Services 1915 (i). Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/home-community-based-services/home-community-based-services-authorities/home-community-based-services-1915i/index.html.
[41] DHCS (January 11, 2018). Statewide Transition Plan for Compliance with Home and Community-Based Settings Rules, pp. 7-8. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/services/ltc/Documents/CASTP-11Jan2018ADA.pdf.
[42] Medicaid.gov. Program of All-Inclusive Care for the Elderly. Retrieved February 13, 2020, from https://www.medicaid.gov/medicaid/long-term-services-supports/program-all-inclusive-care-elderly/index.html.
[43] DHCS (October 3, 2019). Program for All-Inclusive Care for the Elderly. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/provgovpart/Pages/PACE.aspx.
[44] Medicaid.gov, Program of All-Inclusive Care for the Elderly, op cit.
[45] CalPACE (January 28, 2020). Program of All-inclusive Care for the Elderly. Retrieved February 13, 2020, from http://www.calpace.org/wp-content/uploads/2017/12/CalPACE-General-Fact-Sheet-01-28-20.pdf.
[46] DHCS (October 30, 2019). 811 Project Rental Assistance (PRA) Award Stakeholder Outreach and Engagement. Retrieved February 13, 2020, from https://www.dhcs.ca.gov/services/ltc/Pages/811_PRA_Stakeholder_-Page.aspx.
[47] California Housing Finance Agency. Section 811 Factsheet. Retrieved February 13, 2020, from https://www.calhfa.ca.gov/multifamily/section811/factsheet/index.htm.

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