Washington State Department of Social and Health Services

Transforming Lives

REPORT TO THE LEGISLATURE

2018 Feasibility Study of Policy Options to Finance Long-Term Services and Supports in the State of Washington: Update to Original Study

ESSB 6032, Section 206(34)
October 1, 2018

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Executive Summary

Long-Term Services and Supports Study Required Under ESSB 6052:

In 2015, the Legislature passed Engrossed Substitute Senate Bill 6052, requiring the Department of Social and Health Services, Aging and Long-Term Support Administration (ALTSA) to contract with an actuarial firm to conduct an independent feasibility study of options that could assist individuals in paying for long-term services and supports (LTSS). ALTSA contracted with Milliman Actuarial Firm to conduct the study and Milliman modeled two options: a public long-term care benefit for workers funded through a payroll deduction and a public-private reinsurance risk-sharing model. As Medicaid is the primary public payer of LTSS, the study also examined potential savings to Medicaid for both options studied and modeled.

Study Update Required Under ESSB 6032:

In 2018, part of Engrossed Substitute Senate Bill 6032 directed the Department to contract for an update of the original actuarial and feasibility study of the recommended option from the original study (insurance funded through a payroll deduction).

The updated study further examined the public long-term care benefit option. This proposed option examined in the study:

- Is a public long-term services and supports insurance benefit for workers; there would be no dependent or spousal coverage;
- Provides a time-limited long term care insurance benefit;
- Is financed by a flat fee on all wages;
- Is a pay-as you-go funding model for a social insurance program, although the program does include some measure of prefunding;
- Has mandatory participation;
- Requires individuals to pay the fee for a specified number of years and meet the functional benefit eligibility definition to receive benefits;
- Identifies that no benefits would be paid in the first three years of the program, as no participant would vest in that time period.

For this 2018 study, Milliman modeled the impact of additional policy variables as identified by the Department through the input of stakeholders and members of the Joint Legislative Executive Committee on Aging and Disability. Potential savings to Medicaid was also updated. Both the original study and the update address the feasibility of offering a new public LTSS plan, including funding the program over the 75-year window, which is a standard period to evaluate a public program.

There are a number of important factors to take into consideration when reviewing the report and determining policy that can address these:

- The number of individuals in Washington who need LTSS is growing proportional to the increase in the number of individuals ages 65 and older.
- Medicaid expenditures for LTSS continue to rise and have become a larger proportion of spending at both the national and state level. A majority of this expenditure increase is due to caseload growth.

- The types of services and supports available to meet the needs of daily living tasks have changed dramatically over the last 30 years and are anticipated to continue to evolve and develop. It is important to ensure there is flexibility in how eligible enrollees could choose to spend their benefits (up to the lifetime maximum) and the types of providers or services that are considered eligible under the benefit design.
- Individuals and families are in the best position to determine what services and supports they need in order to maintain a maximum level of independence. Benefit design and administration should be done in a manner that recognizes and supports self-direction, autonomy and choice.
- 35% of Medicaid LTSS clients receive services for 12 months or less; 49% 24 months or less; 59% 36 months or less; 67% 48 months or less; 73% 60 months or less; with the remaining over 60 months.
- There is potential to generate savings to the Medicaid program if it is designed as the first payer of LTSS. The amount of savings is impacted by benefit design alternatives, such as lifetime maximum benefits, daily benefit amount, etc. The payroll tax rate needed to fund a public insurance benefit depends upon the benefit design variables chosen as part of the plan. Some variables are much more sensitive than others in terms of impacting the rate of surtax needed to support them.

Conclusion:
Both the original study and the update are included within this report document. Each of the policy variables and the impact made on the modeled tax rate are detailed in the report. Additional modeling would be needed once all final policy variables are determined for the program and periodically throughout the lifetime of the program to ensure adequate revenues to expense ratios are known and to determine whether changes are needed in the tax rate or benefit design. Potential legal considerations in the design and development of the LTSS public insurance plan are also outlined within this report.

Contact information for Milliman Actuarial Firm is included on Milliman's report cover page. For questions addressed to the Aging and Long-Term Support Administration, please contact Bea Rector at (360) 725-2272 or RectoBM@dshs.wa.gov.

Client Report

2018 Feasibility Study of Policy Options to Finance Long-Term Services and Supports in the State of Washington

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ATTACHMENTS

I. OVERVIEW

The Aging and Long-Term Support Administration (ALTSA) of the Washington State Department of Social and Health Services (DSHS) requested an update to the 2016 independent feasibility study and actuarial modeling of public and private options for leveraging private resources to help individuals prepare for long-term services and supports (LTSS) needs in the State of Washington. The 2016 Study provided on January 13, 2017 is included in Attachment A of this report. The follow-up study models alternative designs of the previously studied public long-term care (LTC) benefit for workers under Option 1 from the 2016 Study based on requested variations provided by DSHS. Milliman was engaged by DSHS as a contractor to perform this feasibility study, including the required modeling and actuarial analysis. Milliman subcontracted with Actuarial Research Corporation (ARC) to perform portions of this analysis.

SCOPE OF ENGAGEMENT AND WORK PROCESS

The scope of our engagement included three main components:

1. Actuarial modeling of the updated "Base Plan"
2. Actuarial modeling of additional design alternatives
3. Estimation of savings to the State Medicaid program for the Base Plan

Sections II and III of this report summarize modeling results under the Base Plan and various alternatives to illustrate the impact of changing key program features. Section IV provides estimated savings to the State Medicaid program under the Base Plan.

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, 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

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 DSHS. 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, 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 Washington, and future mortality. Section V (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 the impact of these assumptions 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 VI for additional caveats and limitations regarding this report.

II. BASE PLAN

Per direction of the Washington Legislature in Senate Bill 6052, Option 1 was defined in the 2016 Study as a public long-term care insurance benefit for workers, funded through a payroll deduction that would provide a time-limited long-term care insurance benefit. The plan would be financed by a flat state tax on all wages and self-employment income; 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, although the program does include some measure of prefunding.

Key Plan Features

The 2018 Base Plan features are outlined below. Tests regarding alternative plan variations compared with the 2018 Base Plan are discussed later in the report. Please note the 2018 Base Plan does not represent a recommended plan. It is a starting point to use as a reference when compared with the cost of other alternatives.

- Vesting by tax payments for a total of ten years without interruption of five or more consecutive years, or for three of the last six years.

  To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. The base plan assumes vesting is satisfied by tax payments in three of the last six years or ten total years without interruption of five or more consecutive years during an individual's work history.

- Vesting by working 25% of full-time hours, or approximately 500 hours per year.

  To achieve credit for a year of vesting, individuals must work 500 hours or more per year.

- Wage base subject to payroll tax.

  All wages are subject to the payroll tax as consistent with the wage base used for the Medicare tax.

- No premium payments for age 65+.

  Financing for the program will come solely from tax payments. There are no premiums required once an individual turns age 65.

- Minimum age requirement for participation of 18.

  Individuals are not eligible for the program until they turn age 18. Individuals who were disabled at birth or became disabled before age 18 will not be eligible for participation in the program.

- Divesting period of five years.

  Individuals of all ages are no longer eligible for program benefits if they have left the state for five years.

- No subsidy for low-income population.

  There are no subsidies by income level.

- Opt-out option.

  Individuals with private LTC insurance coverage have the option to opt-out at the start of the program. The opt-out option is a one-time selection and will not be an ongoing option.

- Retiree buy-in program for individuals 65+.

  Individuals 65 and older do not have the option to buy into the program.

- Benefit eligibility.

  Individuals who have vested can draw benefits once they require assistance with a minimum number of activities of daily living (ADLs) or severe cognitive impairment. The type and minimum number of ADLs considered by care setting will be consistent with the current definitions used under the State of Washington Medicaid program.

- Starting program daily benefit amount of $100 in 2025, indexing at 3% per year thereafter.

  Benefits are paid by reimbursing 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 in 2025, 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.

- 30-day elimination period.

  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 (described above).

- Administrative load of 3.5% of income and 3.5% of benefits.

  To cover expenses of administering the program, administrative loads are applied to the program's expected income and benefit payments.

Table 1 below compares the Base Plan specifications from the 2016 Study to the Base Plan in this study (2018 Base Plan) as prescribed by legislative direction.

Table 1 Base Plan Specifications		
Program Specifications	**2016 Study**	**2018 Study**
Vesting Requirements – Years of Tax Payments	Tax payments for 3 of last 6 years, or 10 years total	Tax payments for a total of 10 years without interruption of 5 or more consecutive years, or 3 of last 6 years
Vesting Requirements – Hours Worked Per Year	No minimum	25% of full-time hours, or approximately 500 hours per year
Wage Base Subject to Payroll Tax	All wages, consistent with wage base used for Medicare tax	All wages, consistent with wage base used for Medicare tax
Premium Payments	No premium payments for age 65+	No premium payments for age 65+
Minimum Age for Participation	18; Individuals who were disabled at birth or became disabled before age 18 will not be eligible for participation in the program	18; Individuals who were disabled at birth or became disabled before age 18 will not be eligible for participation in the program
Divesting Period	Individuals under 65 are no longer eligible for benefits after not paying taxes for 5 years if they have not fulfilled the vesting requirement. Individuals of all ages are no longer eligible for program benefits if they have left the state for 5 years	Individuals of all ages are no longer eligible for program if they have left the state for 5 years
Low-Income Subsidy	None	None
Opt-out Option: Individuals with Private LTC Insurance Coverage	No	Yes; The opt-out choice would be available at the start of the program only, and would not be an ongoing option
Retiree Buy-in Program for Individuals Age 65 and Older	No	No
Benefit Eligibility	Health Insurance Portability and Accountability Act (HIPAA) eligibility "trigger," 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 90 days	The type and minimum number of ADLs considered by care setting will be consistent with the current definitions used under the State of Washington Medicaid program
Daily Benefit Amount	$100 in 2023, indexing at 3% per year	$100 in 2025, indexing at 3% per year
Lifetime Pool of Benefit Dollars	$36,500 in 2023, indexing at 3% per year	$36,500 in 2025, indexing at 3% per year
Benefit Structure	Benefits are paid by reimbursing an individual for actual expenses incurred, subject to the daily maximum and lifetime pool	Benefits are paid by reimbursing an individual for actual expenses incurred, subject to the daily maximum and lifetime pool
Elimination Period – Benefit Deductible	90 calendar days	30 calendar days
Administrative Load to Cover Program Expenses	3.5% of income and 3.5% of benefits	3.5% of income and 3.5% of benefits

The key differences between the 2018 Base Plan and 2016 Base Plan are:

- Changing the benefit from $100 in 2023 to $100 in 2025
- The addition of an opt-out provision (at the start of the program only) for those who currently have LTC insurance coverage
- A shorter elimination period
- The addition of an hours worked requirement to the vesting criteria
- A change in the benefit eligibility trigger

Results Summary

We estimate the 2018 Base Plan will require a 0.52% payroll surtax rate over the 75-year period 2022 through 2096. We estimate an ultimate tax rate of 0.92% to cover program costs after 2096 once the population receiving benefits has stabilized. The key plan features for the 2018 Base Plan and the development of the estimated payroll taxes are described in the following sections.

We use an initial 75-year window because this is a standard period over which to evaluate a public program such as that being modeled here. The required tax rate is calculated such that the present value of income is equal to the present value of benefits, plus expenses, plus one year's outgo at the end of the 75-year period. We also calculated the required tax rate needed to continue funding the program after the 75-year window.

Table 2 below compares the financing estimate for the 2018 Base Plan and the 2016 Base Plan.

Table 2
Base Plan Comparison

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2016 Base Plan	0.54%		0.94%
2018 Base Plan	0.52%	-0.02%	0.92%

The changes to individual parameters between the 2018 Base Plan and the 2016 Base Plan allows us to understand the decrease in the 2018 Base Plan tax rate. Table 3 demonstrates the magnitude of the impact for each of the Base Plan changes, separately.

Table 3
Base Plan Changes

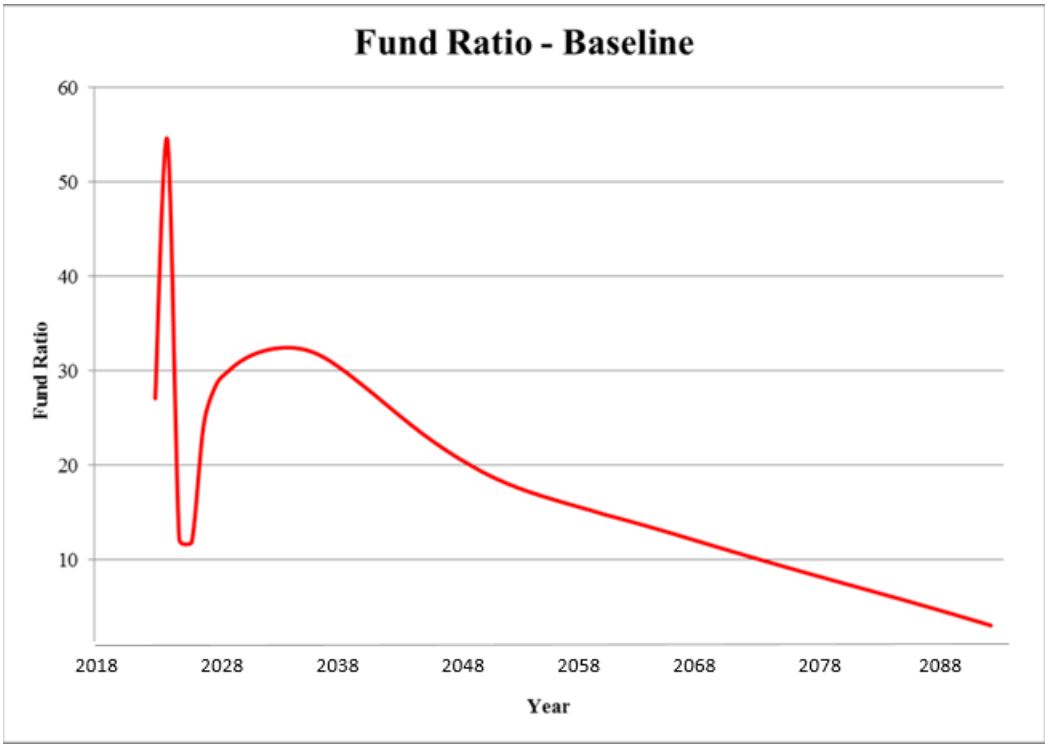
Benefit Option	Tax Rate	Marginal Tax Rate Change	Tax Rate Needed in Final Year
2016 Base Plan	0.54%		0.94%
Updated Demographic and Economic Assumptions*	0.53%	-0.01%	0.92%
$100 in 2025 vs. $100 in 2023	0.49%	-0.04%	0.85%
Opt-out Provision	0.49%	+0.00%	0.85%
Shortened Elimination Period	0.53%	+0.04%	0.92%
Hours Worked Requirement	0.49%	-0.04%	0.88%
Benefit Eligibility Adjustment	0.52%	+0.02%	0.92%
2018 Base Plan	**0.52%**		**0.92%**

**The demographic and economic assumptions underlying the projection model were updated to use the most recent reports as described in the Methodology and Assumptions section of this report.*

Projected Fund Ratio and Ultimate Tax Rate

We estimate the Base Plan will require a 0.52% payroll surtax rate over the 75-year period 2022 through 2096. The 0.52% tax rate can be viewed as the average rate needed for generating income to cover expected payments (benefits and expenses) over the 75-year window. Given this is 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 help illustrate, 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 below illustrates the estimated fund ratio each year for the program. As shown in the chart, the use of the average tax rate creates an inherent level of prefunding over the 75-year window.



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, 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.

We also examined the tax rate that would need to be paid by workers to fund the outgo in the final year of the program. We estimate a tax rate of 0.92% to cover these costs. This can be viewed as the ultimate tax rate that is necessary to fund the program once the population receiving benefits has stabilized. If this tax rate were used from the beginning, there would be an unreasonably large surplus of funds. In practice, the tax rate would be set to the 75-year rate initially (or slightly lower) and then increased before the end of the 75-year period. We anticipate that this would be part of continuous monitoring of the fund.

III. ADDITIONAL DESIGN ALTERNATIVES

Table 4 shows the additional design alternatives tested as compared with the 2018 Base Plan. Table 5 provides a summary of testing results from changing various parameters of the 2018 Base Plan one at a time. A description of each test is provided in detail below.

Table 4
Additional Design Alternatives

Parameter	Testing Values
Vesting Period – Hours Worked Per Year	10% of full-time hours 50% of full-time hours No hours worked provision
Wage Base Subject to Payroll Tax	- Tax applied up to the Social Security Administration (SSA) program wage limit - Tax applied up to the SSA program wage limit, no tax between SSA limit and $250,000, and taxes applied again for wages $250,000 and greater - Tax applied up to SSA program wage limit, no tax between SSA limit and $500,000, and taxes applied again for wages $500,000 and greater
Premium	$25 per month for all individuals 65+ (indexed) $50 per month for all individuals 65+ (indexed) $25 per month for all individuals receiving benefits (indexed) $50 per month for all individuals receiving benefits (indexed)
Divesting Period	10% of daily benefit 25% of daily benefit 50% of daily benefit No divesting
Benefit Eligibility	HIPAA eligibility (2 ADLs + CI) HIPAA eligibility (3 ADLs + CI)
Daily Benefit Amount (DBA)	No daily limit, average cost (but still subject to reimbursing actual expenses incurred) No daily limit, high cost (but still subject to reimbursing actual expenses incurred)
Lifetime Maximum Benefit	2, 3 years
Benefit Structure	100% cash benefit 10% cash benefit, 90% reimbursement 15% cash benefit, 85% reimbursement
Elimination Period	90 days
Retiree Buy-in Program for Individuals Age 65 and Older	No underwriting Full underwriting Mid-option including vesting period and wait time

Table 5 Payroll Tax Rates Compared With 2018 Base Plan		
Scenario	**Payroll Tax Rate**	**Change From Base Plan**
Base Plan	0.52%	-
Variation 1 - 10% full-time hours vesting	0.52%	-
Variation 2 - 50% full-time hours vesting	0.50%	-0.02%
Variation 3 - No hours worked provision	0.56%	+0.04%
Variation 4 - SSA tax base	0.63%	+0.11%
Variation 5 - Wage gap between SSA limit and $250,000	0.58%	+0.06%
Variation 6 - Wage gap between SSA limit and $500,000	0.61%	+0.09%
Variation 7 - $25 premium for individuals 65+	0.40%	-0.12%
Variation 8 - $50 premium for individuals 65+	0.33%	-0.19%
Variation 9 - $25 premium for individuals receiving benefits	0.51%	-0.01%
Variation 10 - $50 premium for individuals receiving benefits	0.51%	-0.01%
Variation 11 - 10% of DBA divesting	0.53%	+0.01%
Variation 12 - 25% of DBA divesting	0.57%	+0.05%
Variation 13 - 50% of DBA divesting	0.63%	+0.11%
Variation 14 - No divesting	0.76%	+0.24%
Variation 15 - HIPAA benefit eligibility trigger (2 ADLs + CI)	0.49%	-0.03%
Variation 16 - HIPAA benefit eligibility trigger (3 ADLs + CI)	0.44%	-0.11%
Variation 17 - No DBA maximum, average cost	0.57%	+0.05%
Variation 18 - No DBA maximum, high cost	0.59%	+0.07%
Variation 19 - 2 year lifetime maximum benefit	0.83%	+0.31%
Variation 20 - 3 year lifetime maximum benefit	1.02%	+0.50%
Variation 21 - 100% cash benefit	0.72%	+0.20%
Variation 22 - 10% cash benefit, 90% reimbursement	0.53%	+0.01%
Variation 23 - 15% cash benefit, 85% reimbursement	0.54%	+0.02%
Variation 24 – 90 days elimination period	0.48%	-0.04%

Vesting Period – Hours Worked Per Year Alternative

Under this plan feature, an individual is required to work a specified number of hours each year in order to be given vesting credit for that year. The 2018 Base Plan specifies individuals must work 25% of full-time hours, or approximately 500 hours per year. Variations of this threshold were modeled such that the hours worked requirement was no minimum hours, 10% of full-time hours, and 50% of full-time hours.

Table 6 Vesting Period – Hours Worked Per Year Alternatives			
Benefit Option	**Tax Rate**	**Change from Base Option**	**Tax Rate Needed in Final Year**
2018 Base Plan	0.52%		0.92%
10% Full-Time Hours	0.52%	+0.00%	0.92%
50% Full-Time Hours	0.50%	-0.02%	0.91%
No Hours Worked Provision	0.56%	+0.04%	0.97%

Wage Base Subject to Payroll Tax Alternative

The 2018 Base Plan estimates were produced assuming that all wages are subject to the payroll tax similar to the Medicare payroll tax earnings base. These earnings are referred to as “covered earnings” in the OASDI Trustees Report.

The Social Security program limits the earnings subject to the Social Security payroll tax each year. These earnings are referred to as "taxable earnings." In 2018, this taxable limit is projected to be $128,400, meaning no income over this amount is subject to the Social Security tax.

The wage base subject to payroll tax alternatives consider a tax structure in which a tax to fund the LTC benefit is applied to wages up to the Social Security limit, and then to all wages above another specified amount. The two cases examined in this analysis apply the taxes to all wages over $250,000 and $500,000.

Table 7
Wage Base Subject to Payroll Tax Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
SSA Tax Base	0.63%	+0.11%	1.11%
SSA & > $250,000	0.58%	+0.06%	1.04%
SSA & > $500,000	0.61%	+0.09%	1.08%

Premium Alternative

The 2018 Base Plan contains no provision for the payment of premiums, as all benefits are financed by the payroll tax. Premium income is another possible source of revenue to offset the payroll tax. Premiums are not tied to income; therefore, the revenue generated will extend beyond an individual's working lifetime. In turn, premiums will decrease the required payroll tax rate applied to wages and decrease intergenerational transfer of funds. Additionally, premiums can provide a useful administrative tool to track program participants that can aid in financial decision-making and program operations. Two premium alternatives are modeled:

1. Vested individuals pay a monthly premium starting at age 65. Premium payments end once the individual becomes eligible for benefits.

2. Vested individuals pay a monthly premium once they become eligible for benefits.

For the estimates where individuals pay premiums when they are not receiving benefits, the modeling assumes premium payments are mandatory, and all individuals must pay the premium after age 65. It is assumed that premium payments will stop once individuals become benefit eligible and begin drawing benefits.

Table 8
Premium Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
Age 65+, $25	0.40%	-0.12%	0.73%
Age 65+, $50	0.33%	-0.19%	0.62%
Age 65+ and Benefits, $25	0.51%	-0.01%	0.91%
Age 65+ and Benefits, $50	0.51%	-0.01%	0.90%

Divesting Period Alternative

The divesting period alternatives consider the possibility of allowing individuals who leave the state to remain eligible for a portion of the LTSS benefit, given they are fully vested. In the 2018 Base Plan, anyone who moves from the state fully divests from the benefit after a period of five years. Under the alternatives modeled in this section, individuals will never completely divest from the benefit, but will be entitled to a reduced benefit payment. Three divesting alternatives are considered:

1. Individuals who move from the state receive 10% of the daily benefit amount ($10 in 2025)

2. Individuals who move from the state receive 25% of the daily benefit amount ($25 in 2025)

3. Individuals who move from the state receive 50% of the daily benefit amount ($50 in 2025)

Table 9
Divesting Period Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
10% Daily Benefit	0.53%	+0.01%	0.96%
25% Daily Benefit	0.57%	+0.05%	1.06%
50% Daily Benefit	0.63%	+0.11%	1.21%
No Divesting (100% DB)	0.76%	+0.24%	1.52%

Benefit Eligibility Alternative

A change in the benefit eligibility criteria will affect projected benefit payments, as it will impact the number of individuals who will qualify for benefits.

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 an indication of the need for long-term care services.

The 2018 Base Plan assumes benefit eligibility consistent with the LTSS standard for the State of Washington Medicaid program. Individuals are eligible for benefits under this standard if they are unable to perform a minimum number of ADLs varying by care setting or have severe cognitive impairment (CI). This standard includes three additional ADLs beyond those used in private LTC insurance policies' HIPAA trigger definition: Personal Hygiene, Medication Management, and Body Care. We applied a morbidity adjustment factor of 1.05 relative to the HIPAA trigger definition in order to model the more liberal trigger under the 2018 Base Plan.

The alternative benefit eligibility scenario assumes that frailty is defined based on the HIPAA criteria. In order to meet the LTC benefit trigger under HIPAA, an individual must be unable to perform two of six ADLs without standby assistance, or have a severe cognitive impairment necessitating substantial supervision. The six ADLs specified under HIPAA are bathing, dressing, toileting, transferring, continence, and eating.

We also included results based on HIPAA criteria, but using three of six ADLs or severe cognitive impairment.

Table 10
Benefit Eligibility Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
HIPAA (2+ ADL, CI)	0.49%	-0.03%	0.88%
HIPAA (3+ ADL, CI)	0.44%	-0.11%	0.79%

Daily Benefit Amount Alternative

The average cost of LTSS varies by site of care and region. Generally, the daily cost of a nursing home, assisted living facility, or home care exceeds the $100 daily benefit amount paid by the 2018 Base Plan. The uncapped DBA variations remove the daily benefit limit from the 2018 Base Plan. Under this scenario, the lifetime benefit pool remains the same (i.e., $36,500 in 2025), but individuals can use the benefit at a faster rate. On average, we expect this will result in an increase in daily benefit distributions and a shorter window of benefit payments. This provision will increase the cost of the program.

Factors were developed to account for the increase in benefit paid over the lifetime of a claim due to the uncapped daily benefit, by attained age. Two scenarios were modeled: the first assuming an average level of expenditures given the assumed cost of care in the State of Washington and the second assuming expenditures that exceed the average cost of care by 33%. As the DBA is increased, beneficiaries exhaust their benefit more rapidly than under the $100 DBA limit.

Table 11
Daily Benefit Amount Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
Base Plan	0.52%		0.92%
No DBA Limit, Average Cost	0.57%	+0.05%	1.01%
No DBA Limit, High Cost	0.59%	+0.07%	1.04%

Lifetime Maximum Benefit Alternative

Benefit payments are specified as a daily benefit amount, and benefits are paid until the maximum lifetime benefit is reached. This maximum lifetime benefit is referred to as a benefit pool. The 2018 Base Plan specifies the lifetime benefit maximum as one year of benefit payments or $36,500 (365 days * $100 DBA). The variations in this section model the tax rate necessary to fund a larger lifetime benefit maximum, by changing the lifetime maximum from 365 days to 730 and 1,095 days.

Table 12
Benefit Pool Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
2 year lifetime maximum benefit	0.83%	+0.31%	1.46%
3 year lifetime maximum benefit	1.02%	+0.50%	1.81%

Benefit Structure Alternative

The 2018 Base Plan assumes that all benefits are paid by reimbursing for actual expenses incurred for approved services. These alternatives were modeled to reflect the potential impact on the tax rate of funding a more flexible service package that is available in Washington's publically funded system of LTC. The flexible portion is used as a proxy for services such as support for unpaid family caregivers, training and education, etc. In Washington, roughly 85% to 90% of Medicaid services are spent on personal care services.

Adjustment factors were developed to estimate changes in enrollee behavior that would occur under a more flexible benefit scenario. The 100% cash alternative assumes no restrictions on the flexible benefit. The other two alternatives assume the flexible benefit is restricted to reimburse only approved non-care services as determined by DSHS. Therefore, there is less moral hazard when the cash benefit is restricted.

Additionally, benefit utilization is assumed to be 100% per day with a flexible benefit. The 2018 Base Plan assumes that 100% of the benefit is utilized for nursing home beneficiaries each day, but 70% of the benefit is utilized for home care beneficiaries because services are not expected to be provided every day.

Table 13
Benefit Structure Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
100% Cash Benefit	0.72%	+0.20%	1.21%
10% Flexible, 90% Reimbursement	0.53%	+0.01%	0.94%
15% Flexible, 85% Reimbursement	0.54%	+0.02%	0.95%

Elimination Period Alternative

The elimination period (which can also be thought of as a "deductible") is the number of calendar days from the onset of frailty until benefits are paid by the program. An individual would be responsible for paying LTC costs during the elimination period. We tested a 90 days alternative compared with the 2018 Base Plan using 30 days.

Changing the program elimination period helps illustrate the trade-off of program costs vs. requiring individuals to pay more LTC costs up-front in the form of a deductible. The length of the period could be financially difficult for the low-income population that has paid enough taxes to vest in the benefit, but lacks sufficient resources to pay for necessary LTSS during the elimination period. Depending on care setting and severity of LTSS need, the costs of self-funding long-term care during the deductible period could be significant. Medicaid and, in some instances, Medicare would likely cover expenses during the elimination period for individuals with sufficiently low income and assets. Once the elimination period is met, the 2018 Base Plan would become the first payer for LTSS and provide savings to the government program that would have otherwise paid for care.

Table 14
Elimination Period Alternative

Benefit Option	Tax Rate	Change from Base Option	Tax Rate Needed in Final Year
2018 Base Plan	0.52%		0.92%
90 days	0.48%	-0.04%	0.85%

Retiree Buy-in Program for Individuals Issue Age 65

Under this alternative, individuals 65 and older have an option to buy into the program. The individual must have paid taxes into the program to earn vesting "credit" for at least one of the last three years to participate. To model this retiree buy-in program, premiums are estimated assuming individuals pay monthly premiums for the remainder of their lives when not receiving benefits.

Three retiree buy-in program options for issue age 65 were modeled to illustrate the impact of varying underwriting approaches on the annual premiums of this program.

1. No underwriting: No requirements with the exception that individuals must have paid taxes into the program one of the last three years

2. Full underwriting: Includes tools such as reviewing medical / prescription drug history and assessing cognitive abilities (common approach used in today's private market)

3. "Middle" option: In lieu of underwriting, the coverage would include a five-year vesting period of paying premiums before any benefits are paid

Table 15
Estimated Premiums for Retiree Buy-in Option
At Start of Program
Issue Age 65

Option	Annual Premium in 2025, Indexing at 3%[1]
No underwriting	$1,750
Full underwriting	$750
"Middle" option	$1,500

[1] *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 $750 x 1.03 ^ 2 = $796 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 that have lower LTSS needs).

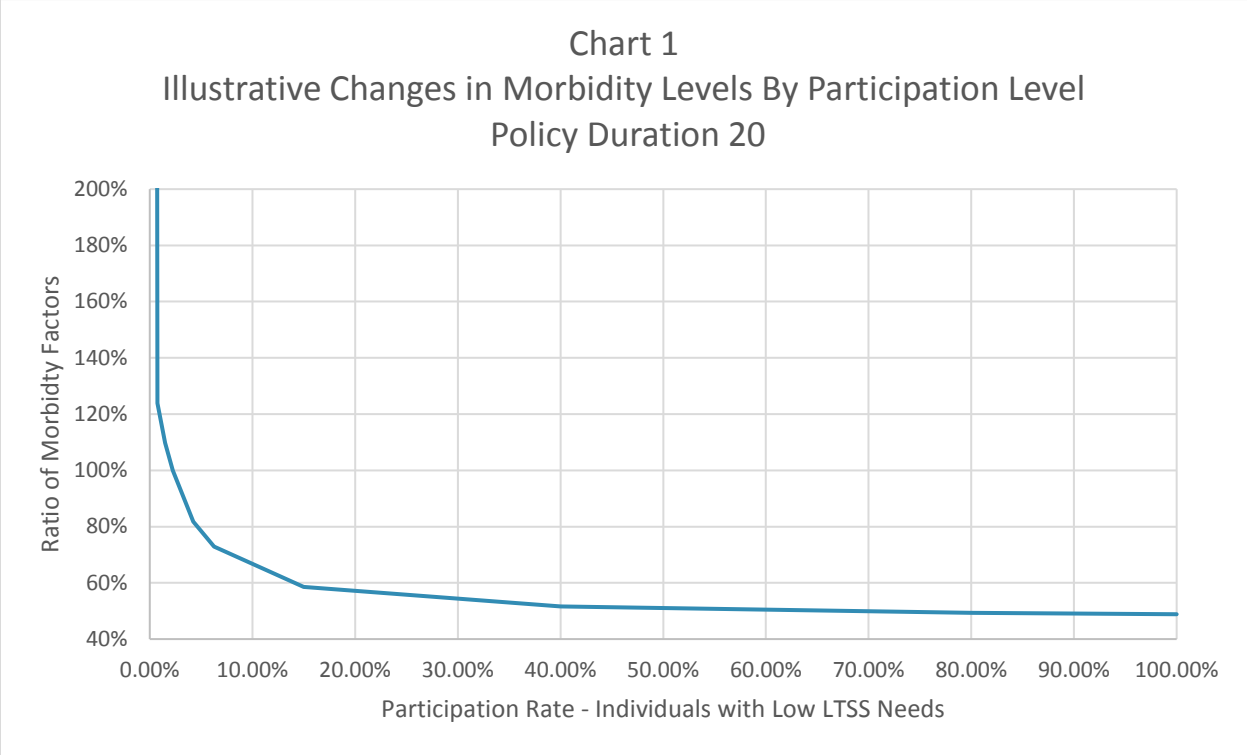
Completely removing underwriting from an individual LTC insurance plan may result in premiums that essentially are a pre-payment of future benefits. Adding a vesting period to that plan (such as the "middle" option considered here) will help bring premiums lower; however, the true premium reduction may 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.

The participation rates assumed for the retiree buy-in option are shown in Exhibit 1. The rates are designed to represent initial participation levels when the option is first offered. Premiums are highly sensitive to even small incremental changes in participation from the starting levels assumed in this report. 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 with 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 a policy, leaving only higher-risk individuals.

To help illustrate this impact, Chart 1 below shows the change in morbidity selection factors (20 years following coverage inception) as the population currently needing no help with ADLs and no signs of cognitive impairment is increased / decreased. Chart 1 demonstrates that estimated morbidity levels, or levels of claims / 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).



IV. ESTIMATE OF SAVINGS TO WASHINGTON MEDICAID PROGRAM

We estimate this program will generate savings to the Washington State Medicaid program. We discuss our process for estimating savings along with illustrative results below for the 2018 Base Plan.

RESULTS SUMMARY

Table 16 summarizes estimated federal and state Medicaid savings under the 2018 Base Plan by calendar year through 2052, separately for home and community-based care (HC), nursing home care (NH), and in total. Estimated state savings would be half of the combined state and federal savings, assuming Washington's Federal Medical Assistance Percentage remains 50%, in the absence of a waiver allowing Washington to retain a portion of the federal savings.

Table 16
State of Washington
Estimated Federal and State Medicaid Program Savings by Year
2018 Base Plan
($ millions)

Year	HC Medicaid Savings	NH Medicaid Savings	Total Medicaid Savings
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	21	13	34
2026	26	10	36
2027	10	7	17
2028	11	8	19
2029	13	9	22
2030	15	9	25
2031	18	10	28
2032	20	12	32
2033	24	13	36
2034	27	14	41
2035	31	16	47
2036	36	18	54
2037	41	21	62
2038	47	25	72
2039	55	29	83
2040	63	34	97
2041	73	40	113
2042	84	47	131
2043	97	55	152
2044	111	65	177
2045	128	77	205
2046	146	90	236
2047	166	104	270
2048	188	119	307
2049	210	135	346
2050	235	152	387
2051	260	169	428
2052	284	186	470

PROCESS FOR ESTIMATING MEDICAID SAVINGS

In order to derive Medicaid savings, we estimate the number of beneficiaries who would be qualified for Medicaid LTSS. The projected benefits paid to these beneficiaries represent savings to Medicaid. To be eligible for Medicaid LTSS benefits in the State of Washington, we assume that a beneficiary must meet benefit eligibility requirements under the State's definition and qualify financially.

We have accounted for three factors to estimate the proportion of beneficiaries who would otherwise qualify for Medicaid:

1. The proportion of the population with annual income of less than 138% of the federal poverty level (FPL).

2. An adjustment to account for the decreased likelihood that a Medicaid enrollee has completed the work requirement for vesting in the program.

3. An adjustment to account for assets that an individual possesses.[1] A significant percentage of individuals below 138% FPL have assets that would disqualify them from receiving Medicaid LTSS. Our adjustment reflects that some individuals would not qualify for Medicaid because they would be unlikely to spend down the assets before leaving benefit status.

Estimating Medicaid Eligibility

The percentage of workers below 138% FPL was calculated by age and sex using the American Community Survey (ACS) 2010-2014 five-year data set. This calculation was performed using total income. Adjustments were applied to this group to account for differences in eligibility criteria and individuals with low incomes who have assets that would prevent them from qualifying for Medicaid.

Additionally, there are individuals above 138% FPL who potentially receive benefits through Medicaid.

- For beneficiaries under age 65, the ACS data is used to calculate the percentage of individuals who have worked during the previous five years, have income above 138% FPL, and are enrolled in Medicaid. Adjustments were applied to this group to account for differences in eligibility criteria and individuals who have assets that would prevent them from qualifying for Medicaid.

- For ages 65 and above, the model estimates the percentage of individuals who have income above 138% FPL and are enrolled in Medicaid, by age and sex. Adjustments are applied to this population to account for the difference in Medicaid eligibility based on work history, differences in eligibility criteria, and assets. These percentages are applied to the program beneficiaries to determine the number of beneficiaries who would be eligible for Medicaid. By 2052, it is estimated that 14% of beneficiaries would also be eligible for Medicaid.

Estimating Medicaid Savings

Once the percentage of beneficiaries eligible for Medicaid by age and sex is calculated, program expenses for these beneficiaries are tabulated to estimate Medicaid savings by year. We assume that each individual will receive the average program benefit, and we do not make allowances for differences in LTSS utilization between the Medicaid-eligible population and the general population.

[1] This adjustment was based on RAND Health and Retirement Study (HRS) asset data tabulations provided by Melissa Favreault of the Urban Institute.

It is also assumed that the 2018 Base Plan is the first payer with respect to LTSS, and Medicaid would pay for costs not covered by the 2018 Base Plan. The 2018 Base Plan provides a one-year benefit of $100 per day. According to the U.S. Department of Health and Human Services (DHHS),[2] in 2016 the average cost of a semiprivate nursing home was $225 per day, the average cost of an assisted living facility was $119 per day, and the average cost of a home health aid was $20.50 per hour. Assuming long-term care price inflation of 1% to 2% per year for home health care and 4% per year for facility care, the daily benefit provided starting in 2025 could reasonably be expected to cover the costs of a home health aide for over a year, but it would pay for only a portion of nursing home and assisted living expenses. We anticipate that the remainder of these expenses would be paid by Medicaid LTSS for individuals who meet the Medicaid eligibility criteria.

SENSITIVITY ON MEDICAID SAVINGS

Table 17 summarizes estimated federal and state Medicaid savings under the 2018 Base Plan alternative using the HIPAA benefit eligibility criteria of two of six ADLs or severe cognitive impairment. Results are shown by calendar year through 2052, separately for home and community-based care (HC), nursing home care (NH), and in total. Estimated state savings would be half of the combined state and federal savings, assuming Washington's Federal Medical Assistance Percentage remains 50%, in the absence of a waiver allowing Washington to retain a portion of the federal savings.

[2] DHHS. Costs of Care. LongTermCare.gov. Retrieved August 21, 2018, from http://longtermcare.gov/costs-how-to-pay/costs-of-care/.

Table 17 State of Washington Estimated Federal and State Medicaid Program Savings by Year HIPAA Eligibility Criteria ($ millions)			
Year	**HC Medicaid Savings**	**NH Medicaid Savings**	**Total Medicaid Savings**
2022	0	0	0
2023	0	0	0
2024	0	0	0
2025	20	13	32
2026	25	9	34
2027	9	7	16
2028	11	8	18
2029	13	8	21
2030	15	9	24
2031	17	10	27
2032	19	11	31
2033	22	12	35
2034	26	14	40
2035	30	16	45
2036	34	18	52
2037	39	20	59
2038	45	23	68
2039	52	27	79
2040	60	32	92
2041	70	38	107
2042	80	45	125
2043	92	53	145
2044	106	62	168
2045	122	73	195
2046	139	86	225
2047	158	99	258
2048	179	114	293
2049	200	129	329
2050	224	145	368
2051	247	161	408
2052	271	177	448

V. METHODOLOGY AND ASSUMPTIONS

BASELINE PRICING MODEL

Actuarial Research Corporation (ARC) performed the modeling of the needed payroll tax with a model that has been used for the U.S. Department of Health and Human Services (DHHS) analysis of national LTC programs, including The Community Living Assistance Services and Supports (CLASS) Act. It was also used to model various state LTC initiatives for the State of Hawaii.

The projection is for the 75-year period 2022 through 2096. 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 those 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.

The model was adapted for this project by starting with a projection of the population of the State of Washington by age, sex, and year for 75 years. For each projected year, the number of workers is determined by multiplying the working age population by labor force participation rates and the number of beneficiaries is determined by multiplying the number of insured individuals by disability (or frailty) rates. Most of the beneficiaries are from the aged population. Additional key assumptions are discussed below.

Demographic Assumptions

The demographic assumptions relate to the projection of the population of Washington. For a public insurance program that primarily uses a pay-as-you-go financing structure, the covered population is of fundamental importance in the estimation of costs. The income to the program depends on the number of contributors, which is predominantly the population between ages 25 and 65 (although an increasing number of individuals continue to work past age 65), 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 population projection begins with a starting population that is projected forward with additions and subtractions. The changes to the population consist of births, deaths, and migration into and out of the state. The trends in birth rates, death rates, and migration are all model parameters so that the costs of the program can be tested under various demographic assumptions.

- Starting Population

  The estimate of the starting population is from the 2016 American Community Survey. This survey was used to tabulate State population estimates by age and sex. This population projection is the starting point for the State population projection.

- Migration

  Washington immigration and emigration are tabulated from the American Community Survey (ACS) five-year data release files. The data files are used to calculate the distribution of immigration and emigration by age and sex. Yearly totals of immigrants and emigrants are based on the five-year ACS tabulations and are assumed to be constant throughout the projection period. Individuals who emigrate are kept track of separately in the model. Such individuals who contributed to the program could be eligible for benefits outside of Washington and could also move back to Washington for long-term care. Benefit credits could be lost (depending on the program specifications) over a specified period once an individual leaves Washington. The eligible beneficiary population includes emigrants in addition to Washington residents. The model does not track the legal status of immigrants or emigrants.

- Births

  The number of births in Washington are estimated using the total fertility rate for the State as reported by the Center for Disease Control National Vital Statistics Report (NVSR).[3] We use the distribution of fertility by the age of the mother as used in the 2018 OASDI Trustees Report. In addition, we use the same trend through time in the total fertility rate as assumed in the 2018 OASDI Trustees Report.

- Deaths

  Washington-specific mortality rates by age and sex were obtained from the Washington State Department of Health (WSDH) Center for Health Statistics. Current and projected U.S. mortality rates by age and sex were taken from the 2018 OASDI Trustees Report, Alternative II assumptions. The Trustees Report mortality rates are projected through 2100. The projected U.S. mortality trend from the 2018 OASDI Trustees Report is used to trend Washington mortality rates over the course of the projection period.

Economic Assumptions

Economic parameters concerning trends in the labor force, wages, and LTC prices 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

  U.S. labor force participation rates (LFPR) and unemployment rates (UR) by age and sex are from the 2018 OASDI Trustees Report. These rates are adjusted to Washington-specific levels using the ratio of state LFPR to U.S. LFPR and state UR to U.S. UR. State 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.

[3] National Vital Statistics Report, Volume 64, No. 12, December 23, 2015.

- Wages

  Projections of U.S. average taxable earnings from 2017 to 2092 are found in the 2018 OASDI Trustees Report. Taxable earnings are the amount of covered earnings subject to the Social Security payroll tax.[4] Taxable earnings for years after 2092 are projected using the 10-year trend from 2083 to 2092. In order to estimate the Washington tax base, we adjust the average U.S. earnings to Washington-specific earnings by the ratio of the average wage in Washington over the average wage in the United States. Wage data for this adjustment comes from BLS Occupational Employment Statistics. Average taxable earnings are multiplied by the labor force in a given year to determine the tax base in that year.

  For the wage base subject to payroll tax alternatives, the average taxable earnings are increased to account for the additional tax applied above $250,000 or $500,000 in wages. This adjustment is calculated using a State of Washington wage distribution tabulated from the 2016 Current Population Survey (CPS). The average taxable wage under the 2016 Social Security Taxable limit is calculated from the distribution. Next, the average additional taxable income above $250,000 and $500,000 is calculated. The ratio of additional taxable income above each threshold to the taxable income under the Social Security limit is used to adjust the tax base.

- Vesting - Years of Tax Payments

  In order to become eligible for benefits, a worker must become vested (or in other words, become insured). To vest in the Washington LTSS benefit, individuals must work and pay taxes for a specified number of years. Tabulations were produced using the 2006 Earnings Public Use Microdata File to determine the percentage of the population that vests by age and sex. 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.

  To find the percentage of the working population that has worked three of six years, or 10 total years by age and sex, we isolated individuals with complete work histories (those who turn 65 before 2006). For each age, the percentage of individuals who had recorded income for three of the previous six years is tabulated. Next, for each age the percentage of individuals who have worked at least 10 years over their entire lifetime is tabulated. The percentage of workers vested is the maximum of the percentage who have worked three of six years and the percentage who have worked 10 years for each age and sex. This process is repeated for cases where the low-income population is excluded from the LTC program by tabulating the percentage of the working population who have earnings above 138% FPL or 200% FPL for three of six years and 10 years total. In these cases, we assume that individuals who have at least eight years of income above the threshold will qualify for benefits because becoming insured under this program provides an added incentive to continue working for those who are almost insured.

- Vesting - Hours Worked Per Year

  The 2015 to 2017 American Time Use Survey (ATUS) was used to estimate the percentage of the working population that fulfills the hours worked requirement in each year. The ATUS is sponsored by the Bureau of Labor Statistics and conducted by the U.S. Census Bureau. In order to incorporate this requirement, the percentage of workers who met the threshold was calculated for 2015 to 2017 by age. The annual percentage was averaged over the three-year period. To determine the percentage of workers who are vested in the benefit each year, this percentage is used in conjunction with the percent of workers who paid taxes for a total of ten years without interruption of five or more consecutive years, or three of last six years.

[4] The 2018 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, The Board of Trustees, p.143.

For example, if 64% of age 31 individuals have paid taxes for three of the previous six years, we look at the percentage of workers who worked at least 500 hours per year at ages 26 to 31 (the six year period). The minimum of the three highest rates of meeting the 500-hour threshold over these ages is the percentage of workers considered to meet the hours worked requirement. In this example, 90% of age 31 workers meet the Hours Worked requirement. Thus, we would assume the following in this example: 64% (Meet Years of Tax Payment) * 90% (Meet Hours Worked) = 57.6% (Vested). This approach is conservative (i.e., it would potentially over estimate the number of individuals meeting the hours requirement) because it assumes that the same individuals are meeting the hours worked threshold in each year of the six-year period. In reality, some individuals who meet the hours worked requirement in one year may not meet the requirement in another year, and vice versa.

We have not assumed a difference in morbidity or mortality for the population that qualifies for benefits under the different hours worked requirements.

- Benefit Trend Index

  We assumed average increases in wages and CPI inflation are the same as assumed in the OASDI Trustees Report. The ultimate wage trend is 3.75% per year, and the ultimate CPI trend is 2.6% per year.

- Interest Rates

  The interest rates used in modeling come from the 2018 OASDI Trustees Report. Annual interest rates start at 4.6% in 2022, grow to 5.3% by 2026, and remain at 5.3% for the remaining years of the projection.

- Poverty Rates

  Poverty rates for the Washington State population and working population come from the ACS five-year data set. Poverty rates are tabulated by age and sex at 100% FPL, 138% FPL, and 200% FPL. Tabulated rates are then smoothed over age and sex using Whittaker-Henderson graduation. These tabulated rates are assumed to be fixed over the projection period.

Morbidity Assumptions

Key to the projection of benefit payments under the long-term care program is the projection of the percentage of the insured population that meets the requirements to receive benefits, which we will refer to as "frailty rates." For public programs with little or no underwriting, the prevalence of frailty is estimated from data in major surveys of the U.S. population: 1) the National Nursing Home Survey of the institutionalized, 2) the National Long-Term Care Survey of the noninstitutionalized, and 3) the Health Interview Survey. These surveys contained information on the number of individuals who could be considered frail and the degree of frailty, as well as data that can be used to construct continuance tables that show the expected duration of frailty. Frailty has traditionally been measured by a person's ability to perform activities of daily living (ADLs).

The model assumes that the full daily benefit amount is utilized for beneficiaries in a facility each day. It is assumed that home care beneficiaries receive the full daily benefit amount on roughly 70% of days (five of seven days per week).

Additionally, it was assumed that everyone with LTC private insurance would opt out of the state program at the start of the program. While it is likely that not everyone who has private insurance would opt out of the state program, this simplifying assumption provides an upper bound on the impact of an Opt-Out plan feature.

We relied on the following assumptions for modeling of the Opt-Out benefit:

- Estimates of the Washington population who has private LTC insurance coverage in 2014
- Adjustment factors designed to convert morbidity rates of a general population to rates for a population that excludes individuals with private LTC insurance
- Adjustment factors designed to convert mortality rates of a general population to rates for a population that excludes individuals with private LTC insurance

Participation and Adverse Selection

In discussions with the various stakeholders, the program was specified as a mandatory program for the payroll tax. Universal mandatory programs can be assured that the experience of the group will be average because everyone will be in the program; therefore, there will be no adverse selection.

Administrative Expenses

In addition to the cost of benefits, the LTC program must pay the costs incurred in administering the program. In general, public insurance programs have been able to return a high portion of income in benefits, with very little required for administration. 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. A LTC 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 tables for the first several years of the programs, because of start-up costs.

In 1989, Arizona began providing long-term care services through its Medicaid program, the Arizona Long-Term Care System (ALTCS). The ALTCS program differentiated itself from other the Medicaid programs in other states by offering all benefits through independent health plans that emphasized case management and home care services. It also invested a large amount of money in a management information system. During its first two years of operation, fiscal year (FY) 1989 and FY 1990, administrative expenses represented 18.4% and 15.5% of benefit payments, respectively. The Medicaid program, on average over all states, incurs an administrative expense equal to 5% of benefits. The administrative costs of the ALTCS program were studied in the report, "Evaluation of the Arizona Health Care Cost Containment System Demonstration, Second Implementation and Operation Report," by Nelda McCall, et al, November 1991.

The administrative costs of the California Public Employees' Retirement System (CalPERS) and the Federal LTC Insurance Program also provide information on the likely costs of administering a LTC program when the administration is provided by private contractors as opposed to government agencies. After reviewing the publicly available data from the Washington State Medicaid program to determine comparable costs to administer LTC services, and adjusting to the conditions expected in a State LTC program, we estimated the administrative load to be 7%. We split this as 3.5% of taxes and 3.5% of benefit payments.

RETIREE BUY-IN PRICING MODEL

The premium estimates presented in this report were developed from various illustrative LTC pricing assumptions. The information provided should not be interpreted as recommending rates, assumptions, or approaches for LTC pricing. The rates, assumptions, and approaches were constructed starting with our general knowledge of the private LTC market, are not attributable to any specific company, and should not be viewed as best estimates.

We used Milliman's pricing and projection software MG-ALFA® populated with assumptions developed from a combination of internal research and industry data. All premiums are shown in this report on a composite basis across sex and marital status using the following weights:

- Single insured: 70% female, 30% male
- Married insured: 50% female, 50% male
- 50% married insureds, 50% single insureds

The final structure of the retiree buy-in program will have an impact on the mix of individuals covered by sex and marital status. Additional modeling should be performed to construct appropriate rates by issue age, sex, marital status, and other variables affecting levels of benefits used as needed.

The key starting assumptions used to develop premium estimates for full underwriting are summarized below. The assumptions are derived from Milliman client work with many top LTC carriers and reflect more than 20 company data points (both individual and group business).

Morbidity Assumptions

- Incidence and Continuance Rates
  - Developed from the Milliman *Long-Term Care Guidelines* (*Guidelines*), which are based on approximately $50 billion of LTC private market insured claim experience from 800,000 claims
  - *Guidelines* provide a flexible, but consistent way to develop expected claim costs for various benefit packages, demographic splits, and underwriting levels
- Moderate level of full underwriting, with selection factors starting around 0.10 in duration 1 and grading up to 1.00 around durations 15 and later
- Benefit utilization (also called "salvage") arising due to service reimbursement structure, where maximum benefits will not be paid fully each day in all cases due to the actual cost of care being lower than the benefit limit ("dollars" salvage) or services not being provided every day ("days" salvage)
  - "Dollars" utilization of 100%
  - "Days" utilization of roughly 70% for home health care services
- Offsetting morbidity and mortality improvement (i.e., no impact to premium)
- Moderately adverse assumption: 10% load applied to claim costs

Persistency Assumptions

- Mortality
  - 90% of 1994 Group Annuitant Mortality (94GAM) Static Table
  - Selection factors of 0.40 in duration 1, grading up to 1.00 for durations 10 and later
  - Offsetting mortality and morbidity improvement (i.e., no impact to premium)

- Voluntary Lapse Rates

Duration	1	2	3	4	5	6	7	8	9+
Lapse Rate	6.0%	4.0%	3.0%	2.0%	1.5%	1.5%	1.5%	1.5%	1.0%

- Benefit exhaustion based on Milliman *Guidelines* continuance tables

Other Pricing Assumptions

- Investment Income: 4.5% annually
- Expenses
  - Non-commissions: consistent with observations of private LTC insurance
  - Commissions: None
- Profit Objective: 0% statutory internal rate of return

Participation Levels and Morbidity

Estimating participation levels is difficult due to the intertwined nature of the choice to buy coverage, the morbidity levels of those purchasing coverage, and the premiums necessary to cover expected insurance payments. Other influences will affect participation as well, such as benefit design, perceived value of the coverage, eligibility provisions, marketing / education, and availability of other programs. Exhibit 1 provides a summary of the participation rates assumed within each cohort for the options priced for the retiree buy-in program. Participation rates and corresponding morbidity levels are analyzed for a population comprised of individuals within the top 60% of wealth.

The 18 cohorts were defined based on an individual's current level of health and LTSS need as follows:

- Number of ADLs needing assistance (3 options): 0, 1, or 2+
- Level of cognitive impairment (3 options): none, mild, severe
- General health status (2 options): good-excellent, poor-fair

The rates in Exhibit 1 are designed to represent initial participation levels when the option is first offered. Premiums are highly sensitive to even small incremental changes in participation from the starting levels assumed in this report. 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 with 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 a policy, leaving only higher-risk individuals.

Our first step in constructing participation levels was to set participation rates by cohort for option where underwriting is used. As a guide and based on our judgment, we varied participation rates by cohort to produce a morbidity selection factor "curve" by policy duration similar to what we observe for products in the private market that are fully underwritten. Exhibit 1 shows our assumptions to match our desired pattern. We assumed the population mix would be primarily comprised of individuals with no ADL limitations, no or mild cognitive impairment, and a higher proportion in good-excellent health. We assumed 0% participation for the other cohorts under the general assumption they would be declined during the underwriting process.

After establishing our baseline participation rates and resulting morbidity selection curve, we then varied participation rates by cohort for the options where no underwriting is used or full underwriting is replaced by a five-year vesting period to produce revised morbidity selection curves. As shown in Exhibit 1, we assumed a higher proportion of individuals with some ADL limitations, cognitive impairment, and poor-fair health would choose to buy coverage where previously they would have been declined by underwriting.

VI. CAVEATS AND LIMITATIONS

This report has been prepared for the internal use of the Washington State Department of Social and Health Services (DSHS), and it should not be distributed, in whole or in part, to any external parties without the prior permission of Milliman, subject to the following exception:

- This report shall be a public record that shall be subject to disclosure to the State Legislature and its committees, persons participating in legislative reviews and deliberations, and parties making a request pursuant to the Washington Public Records Act.

We do not intend this information to benefit or create a legal liability to any third party. This communication must be read 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 Washington. It may not be appropriate, and should not be used, for other purposes.

In completing this analysis we relied on information provided by DSHS and publicly available data, which we accepted without audit. However, we did review this information for general reasonableness.

Many assumptions were used to construct the estimates in this report. Actual results will differ from the projections in this report. 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, Annie Gunnlaugsson, Al Schmitz, Sarah Wunder, and Eddie Armentrout 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 Washington State DSHS effective July 2, 2018, apply to this engagement.

Exhibit 1
Participation Assumptions By Cohort
Assumed Percent Participating Within Cohort

			Retiree Buy-in Program Options		
		Underwriting Approach	None	Full - Moderate	None
		Vesting Period	None	None	5 Years
Number of ADL Limitations	**Cognitive Impairment Status**	**General Health Status**			
0	None	good-excellent	1.00%	2.25%	1.25%
0	None	poor-fair	3.25%	1.00%	3.25%
0	Mild	good-excellent	60.00%	0.25%	60.00%
0	Mild	poor-fair	55.00%	0.00%	55.00%
0	Severe	good-excellent	40.00%	0.00%	40.00%
0	Severe	poor-fair	35.00%	0.00%	35.00%
1	None	good-excellent	35.00%	0.00%	35.00%
1	None	poor-fair	30.00%	0.00%	30.00%
1	Mild	good-excellent	30.00%	0.00%	30.00%
1	Mild	poor-fair	25.00%	0.00%	25.00%
1	Severe	good-excellent	25.00%	0.00%	25.00%
1	Severe	poor-fair	20.00%	0.00%	20.00%
2+	None	good-excellent	20.00%	0.00%	10.00%
2+	None	poor-fair	15.00%	0.00%	10.00%
2+	Mild	good-excellent	15.00%	0.00%	10.00%
2+	Mild	poor-fair	10.00%	0.00%	10.00%
2+	Severe	good-excellent	10.00%	0.00%	5.00%
2+	Severe	poor-fair	5.00%	0.00%	5.00%

Notes / Assumptions
Initial participation rates anticipated when program is started.
"Competing" available coverage (e.g., Medicaid) same as status quo baseline.
No low income premium or cost sharing subsidies.

ATTACHMENT A

2016 WA LTSS FEASIBILITY STUDY

Client Report

Feasibility Study of Policy Options to Finance Long-Term Services and Supports in the State of Washington

Prepared for:
Washington Department of Social and Health Services (DSHS)

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ATTACHMENTS

I. OVERVIEW

The Aging and Long-Term Support Administration (ALTSA) of the Washington State Department of Social and Health Services (DSHS) is conducting a feasibility study regarding public and private options to help Washingtonians prepare to meet their long-term services and supports (LTSS) needs. The study was mandated by the Washington State Legislature in the 2015 session. Funding for the study was provided by the State of Washington and a group of stakeholders, including: American Association of Retired Persons (AARP), Service Employees International Union (SEIU), Washington Health Care Association, LeadingAge, and the Adult Family Home Council. Milliman was engaged by DSHS as a contractor to perform this feasibility study, including the required modeling and actuarial analysis. Milliman partnered with Actuarial Research Corporation (ARC), ET Consulting, and LifePlans to perform this analysis.[1]

SCOPE OF ENGAGEMENT AND WORK PROCESS

The scope of our engagement included two main components: 1) gathering stakeholder feedback, and 2) actuarial modeling of LTSS programs. Our study focuses on quantitative and qualitative analyses of two options, per the direction of the Washington Legislature in Senate Bill 6052, Section 2016, paragraph 14.

- Option 1

  A public long-term care insurance benefit for workers, funded through a payroll deduction that would provide a time-limited long-term care insurance benefit.

- Option 2

  A public-private reinsurance or risk-sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of potential catastrophic long-term services and supports losses in order to provide additional insurance capacity for the State.

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 DSHS, Washington's Joint Legislative Executive Committee (JLEC) on Aging and Disability, and other interested stakeholders through a series of interviews and discussions. This was used to determine the final scope of plan parameters to model within the context of Option 1 and 2 above. Attachments A and B serve to document the process for gathering feedback.

- Attachment A summarizes the stakeholder interview process and outcomes that helped shape the plan parameters and alternatives outlined in Attachment B

- Attachment B includes two documents shared with stakeholders for the purpose of gathering feedback on the proposed program modeling specifications for both Option 1 and Option 2

In some instances, the final modeling selections differ from the feedback and parameters in the attachments. Please refer to Section II and Section III in this report for the final modeling selections, which reflect final feedback from stakeholders and recognize the scope and timeline of this engagement.

Throughout the interview and feedback process, there was general consensus across and within the stakeholder groups with regard to both problem definition and policy objectives. A few key findings that helped shape the stakeholder selection of plan parameters are outlined below. Please see Attachment A for a more comprehensive summary.

- Preserve and protect the Medicaid program budget by reducing reliance on Medicaid LTSS for those who could reasonably afford alternatives to relying on Medicaid.

[1] Melissa Favreault of the Urban Institute also provided peer review and comments on actuarial estimates under Option 1 for earlier draft versions of the report.

- Offer affordable LTSS insurance coverage (public, private, or some combination thereof) to delay or prevent Medicaid spend-down and increase awareness of LTSS need.

- Provide meaningful "front-end" LTSS coverage to benefit more individuals versus catastrophic "back-end" coverage benefiting fewer individuals.

- Be financially viable and sustainable in the long run.

The stakeholder interview and feedback step determined the final plan parameters to model under Option 1 and Option 2. The scope of our engagement included the evaluation and discussion of the following items:

- Expected costs and benefits for participants
- Total anticipated number of participants
- Financial and legal risks to the State
- Savings to the State Medicaid program

Sections II and III of this report summarize modeling results under Option 1 and 2, respectively. We include modeling under a "Base Plan" and various alternatives to illustrate the impact of changing key program features. Section IV discusses our high-level view of financial and legal risks to the State with implementing either option. Section V provides estimated savings to the State Medicaid program under the Base Plans modeled for Option 1 and 2.

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 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).

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, 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 Washington, and future mortality. Section VI (sensitivity testing of pricing assumptions) and Section VII (methodology and assumptions) provide 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 the impact of these assumptions 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. OPTION 1

Per direction of the Washington Legislature in Senate Bill 6052, Option 1 is defined as a public long-term care insurance benefit for workers, funded through a payroll deduction, that would provide a time-limited long-term care insurance benefit. The plan would be financed by a flat state tax on all wages and self-employment income; 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.

RESULTS SUMMARY – BASE PLAN

We estimate the Base Plan under Option 1 will require a 0.54% payroll surtax rate over the 75-year period 2020 through 2094. We estimate an ultimate tax rate of 0.94% to cover program costs after 2094 once the population receiving benefits has stabilized. The key plan features for the Option 1 Base Plan and the development of the estimated payroll taxes are described in the following sections.

We use an initial 75-year window because this is a standard period over which to evaluate a public program such as that being modeled here. The required tax rate is calculated such that the present value of income is equal to the present value of benefits, plus expenses, plus one year's outgo at the end of the 75-year period. We also calculated the required tax rate needed to continue funding the program after the 75-year window.

Key Plan Features

The Base Plan features are outlined below. Tests regarding alternative plan variations and the sensitivity of changing select assumptions compared with the Base Plan are discussed later in the report. Please note the Base Plan does not represent a recommended plan. It is a starting point to use as a reference when compared with the cost of other alternatives.

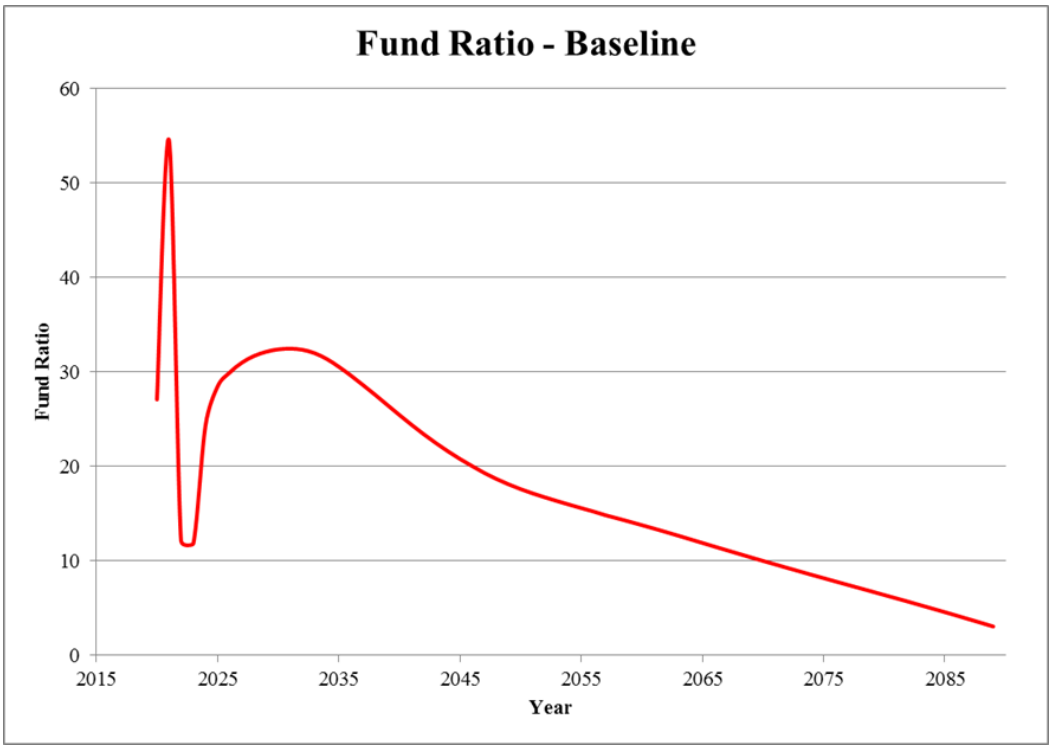
- Vesting by tax payments in three of last six years, or 10 years total.
  - To be eligible for benefits, individuals must pay the tax for a specified number of years, known as the vesting period. The base plan assumes vesting is satisfied by tax payments in three of the last six years or 10 total years during an individual's work history.
- No premium payments for age 65+.
  - Financing for the program will come solely from tax payments. There are no premiums required once an individual turns age 65.
- Minimum age requirement for participation of 18.
  - Individuals are not eligible for the program until they turn age 18.
- Starting program daily benefit amount of $100 in 2023, 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.
- 90-day elimination period.
  - Benefits begin to be paid 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 (described below).

- 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.
- Administrative load of 3.5% of income and 3.5% of benefits
  - To cover expenses of administering the program, administrative loads are applied to the program's expected income and benefit payments.
- Divesting period of five years
  - Individuals under age 65 are no longer eligible for program benefits after not paying taxes for five years if they have not fulfilled the vesting requirement. Individuals of all ages are no longer eligible for program benefits if they have left the state for five years.
- No subsidy for low-income population
  - There are no subsidies by income level.
- HIPAA definition for benefit eligibility (i.e., "benefit trigger")
  - Individuals who have vested can draw benefits once they meet the Health Insurance Portability and Accountability Act (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 90 days.

Projected Fund Ratio and Ultimate Tax Rate

We estimate the Base Plan will require a 0.54% payroll surtax rate over the 75-year period 2020 through 2094. The 0.54% tax rate can be viewed as the average rate needed for generating income to cover expected payments (benefits and expenses) over the 75-year window. Given this is 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 help illustrate, 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 below illustrates the estimated fund ratio each year for the program. As shown in the chart, the use of the average tax rate creates an inherent level of prefunding over the 75-year window.



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, 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.

We also examined the tax rate that would need to be paid by workers to fund the outgo in the final year of the program. We estimate a tax rate of 0.94% to cover these costs. This can be viewed as the ultimate tax rate that is necessary to fund the program once the population receiving benefits has stabilized. If this tax rate were used from the beginning, there would be an unreasonably large surplus of funds. In practice, the tax rate would be set to the 75-year rate initially (or slightly lower) and then increased before the end of the 75-year period. We anticipate that this would be part of a continuous monitoring of the fund.

Coverage and Expenditure Estimates

Table 1 and Table 2 display projections of the Washington State population, the working population, and the population eligible for benefits in each year.

Table 1 Option 1 Base Plan Coverage for Contributing Population, Ages 20-64				
Year	**Population**	**Workers**	**Vested**	**% Vested**
2023	4,542,332	3,608,536	2,732,909	60%
2024	4,544,692	3,613,537	3,018,565	66%
2025	4,548,715	3,618,926	3,088,625	68%
2026	4,551,869	3,625,593	3,090,877	68%
2027	4,555,885	3,632,520	3,094,891	68%
2028	4,560,543	3,639,142	3,100,873	68%
2029	4,566,538	3,645,015	3,107,996	68%
2030	4,574,928	3,651,770	3,116,549	68%
2040	4,754,347	3,770,534	3,306,945	70%
2050	4,876,354	3,871,443	3,623,735	74%
2060	4,929,216	3,935,951	3,747,681	76%
2070	5,064,958	4,028,992	3,860,945	76%
2080	5,197,128	4,127,811	3,953,867	76%
2090	5,275,941	4,209,370	4,003,101	76%

Table 2 Option 1 Base Plan Coverage of Aged Population, Ages 65+			
Year	**Population**	**Vested**	**% Vested**
2023	1,312,163	40,615	3%
2024	1,345,417	87,731	7%
2025	1,378,455	132,695	10%
2026	1,408,859	172,977	12%
2027	1,437,118	211,990	15%
2028	1,463,168	249,704	17%
2029	1,486,119	285,730	19%
2030	1,504,087	319,222	21%
2040	1,608,044	649,715	40%
2050	1,705,564	1,018,663	60%
2060	1,864,638	1,360,655	73%
2070	1,960,645	1,599,782	82%
2080	2,041,237	1,757,855	86%
2090	2,167,479	1,901,240	88%

Table 1 shows the population of contributing age (i.e., ages 20 to 64) vests in the benefit relatively quickly. In the early years of the program, the population eligible for benefits is estimated to be over 60% of the number of workers in the state. The percentage is fairly high because of the number of workers satisfying the vesting requirement of paying taxes three of the previous six years. Table 2 shows the aged population (i.e., ages 65+) vests in the benefit more slowly. The percentage starts low (around 3% in 2023) because the initial aged population has fewer years to complete the vesting requirement compared with younger cohorts. As the working population ages and turns 65, the vesting percentage of the aged population begins to rise.

Tables 3 and 4 display program eligibility through time by age group for males and females, respectively.

Table 3 Option 1 Base Plan Percentage of Washington Males Eligible for Program by Attained Age and Year							
Age Group	**2030**	**2040**	**2050**	**2060**	**2070**	**2080**	**2090**
20-44	83%	83%	84%	84%	83%	83%	83%
45-64	75%	79%	91%	96%	96%	96%	96%
65-69	54%	67%	83%	93%	100%	100%	99%
70-74	33%	54%	75%	87%	95%	98%	98%
75-79	0%	52%	65%	81%	90%	97%	97%
80-84	0%	34%	53%	74%	86%	94%	97%
85-89	0%	0%	52%	65%	81%	90%	96%
90-94	0%	0%	38%	53%	74%	86%	94%
95+	0%	0%	0%	51%	63%	80%	89%
Total	**67%**	**73%**	**82%**	**87%**	**90%**	**91%**	**91%**

Table 4 Option 1 Base Plan Percentage of Washington Females Eligible for Program by Attained Age and Year							
Age Group	**2030**	**2040**	**2050**	**2060**	**2070**	**2080**	**2090**
20-44	67%	67%	67%	67%	67%	67%	67%
45-64	61%	65%	74%	78%	79%	79%	78%
65-69	43%	54%	68%	75%	81%	81%	81%
70-74	26%	44%	61%	71%	77%	80%	79%
75-79	0%	42%	53%	66%	73%	79%	79%
80-84	0%	27%	43%	60%	70%	76%	78%
85-89	0%	0%	42%	52%	65%	73%	78%
90-94	0%	0%	30%	43%	60%	70%	76%
95+	0%	0%	0%	42%	51%	65%	72%
Total	**51%**	**57%**	**65%**	**70%**	**72%**	**74%**	**74%**

Tables 3 and 4 demonstrate a higher percentage of males than females are eligible for the program. The difference by gender emerges because males have historically been more likely than females to have earnings profiles that meet the vesting requirements.

Table 5 outlines projected annual program beneficiaries and expenditures (i.e., benefits and expenses) under the Base Plan for Option 1. Results are shown in total dollars and per beneficiary. The average program daily benefit by year is shown for reference as well.

Table 5 Option 1 Base Plan Estimated LTSS Beneficiaries and Expenditures				
Year	**Beneficiaries**	**Expenditures ($ millions)**	**Per Beneficiary Expenditures**	**Average Daily Benefit**
2023	15,623	$211	$13,507	$100
2024	21,731	$298	$13,700	$103
2025	21,274	$164	$7,725	$106
2026	17,725	$176	$9,924	$109
2027	20,384	$208	$10,180	$113
2028	23,209	$243	$10,459	$116
2029	26,244	$282	$10,734	$119
2030	29,493	$325	$11,005	$123
2040	84,347	$1,184	$14,032	$165
2050	180,096	$3,311	$18,387	$222
2060	259,773	$6,372	$24,530	$299
2070	340,505	$11,137	$32,708	$401
2080	404,590	$17,672	$43,680	$539
2090	445,970	$26,110	$58,546	$725

In the early years of the program, Table 5 shows a greater influx of beneficiaries who have longer-than-average expected benefits. These beneficiaries represent the population who already has a need for LTSS, as well as the population that develops LTSS needs in these early years. We assume some initial adverse selection as individuals who have a high likelihood of LTC need attempt to fulfill the vesting requirement in order to receive benefits. Once these beneficiaries exhaust their benefit or leave the program, benefit payments stabilize and represent payments to those who become frail each year. Table 5 also shows the per beneficiary expenditures are higher in the first few years of the program. This is due to the timing of benefit payments during the year. The initial group of beneficiaries receives benefits for most of the calendar year, but we assume subsequent beneficiaries begin receiving their benefits throughout the year and, thus, have fewer months of benefits per year (on average).

RESULTS SUMMARY – PLAN DESIGN ALTERNATIVES

Table 6 shows the policy option plan design alternatives tested as compared with the Base Plan. Table 7 provides a summary of testing results from changing various parameters of the Base Plan one at a time. A description of each test is provided in detail below.

Table 6 Plan Design Alternative Testing	
Parameter	**Testing Values**
Vesting Period	10 years
Premium	$25, $50 per month (indexed)
Minimum Age for Benefits	40, 65
Daily Benefit Amount (DBA)	$75, $150
DBA Indexing	Wage Index, CPI
Deductible	30, 180 days
Low-Income Subsidy	138%, 200% of FPL
Lifetime Maximum Benefit	2, 3 years
Administrative Load	4%, 10%
Divesting Period	None, 0, 3, 10 years
Benefit Trigger	State of WA Medicaid Program eligibility standard

Table 7 Payroll Tax Rates Compared With Base Plan		
Scenario	**Payroll Tax Rate**	**Change From Base Plan**
Base Plan	0.54%	-
Variation 1 - 10-yr Vesting	0.46%	-0.08%
Variation 2 - $25 Premium	0.40%	-0.13%
Variation 3 - $50 Premium	0.32%	-0.21%
Variation 4 - 40-yr-old Age Requirement	0.52%	-0.01%
Variation 5 - 65-yr-old Age Requirement	0.48%	-0.05%
Variation 6 - $75 DBA	0.40%	-0.14%
Variation 7 - $150 DBA	0.80%	0.26%
Variation 8 - Wage DBA Index	0.75%	0.21%
Variation 9 - CPI DBA Index	0.45%	-0.08%
Variation 10 - 180-day Elimination Period	0.48%	-0.06%
Variation 11 - 30-day Elimination Period	0.58%	0.04%
Variation 12 - 2-yr Lifetime Max	0.85%	0.32%
Variation 13 - 3-yr Lifetime Max	1.06%	0.52%
Variation 14 - 138% FPL – No Taxes, No Benefits	0.47%	-0.07%
Variation 15 - 138% FPL – No Taxes, Benefits	0.55%	0.01%
Variation 16 - 200% FPL – No Taxes, No Benefits	0.43%	-0.10%
Variation 17 - 200% FPL – No Taxes, Benefits	0.57%	0.03%
Variation 18 - 4% Admin Costs	0.52%	-0.02%
Variation 19 - 10% Admin Costs	0.55%	0.02%
Variation 20 - 0-yr Divesting Period	0.52%	-0.02%
Variation 21 - 3-yr Divesting Period	0.52%	-0.01%
Variation 22 - 10-yr Divesting Period	0.55%	0.01%
Variation 23 - No Divesting	0.79%	0.25%
Variation 24 - 3+ ADL Benefit Trigger	0.44%	-0.09%
Variation 25 - Leanest Parameters	-0.01%	-0.55%
Variation 26 - Richest Parameters	3.35%	2.79%

Sensitivity to Vesting Period

"Vesting period" refers to a structure where no benefits will be paid until a worker has paid taxes for a specified number of years. Under the Base Plan, individuals must pay the tax in three of last six years or 10 years total before benefits are paid. We tested an alternative vesting requirement where only the 10 years requirement was applied.

Table 8 Sensitivity to Vesting Period			
Vesting Period	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
3 of 6, or 10 years	0.54%		0.94%
10 years (no 3 of 6)	0.46%	-0.08%	0.95%

Modifying the definition to be more stringent by having only one "path" to satisfy the vesting period decreases the needed tax rate from 0.54% to 0.46%. Although the needed tax rate will be lower, using a requirement of 10 years as the only path may be less attractive to older or retired workers when the program begins.

Sensitivity to Premiums (Age 65+)

In addition to the implementation of a mandatory payroll tax, premium income could be another means to finance LTC benefits. Premiums can be charged in conjunction with the payroll tax at any age. This alternative adds a required monthly premium payment for those 65 and older (65+), indexed to the daily benefit amount (DBA). We have assumed no waiver of premium for beneficiaries on claim.

Table 9
Sensitivity to Premiums (Age 65+)

Monthly Premium	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
$0	0.54%		0.94%
$25	0.40%	-0.13%	0.73%
$50	0.32%	-0.21%	0.62%

Our modeling assumes premium payments are voluntary, but that 90% of eligible individuals choose to pay the premium and remain covered after age 65. This is roughly equivalent to the participation in Medicare Part B, which also requires a beneficiary premium. We modeled no adverse selection given the high assumed participation rate.

Charging a premium to participants who are no longer working and contributing the payroll tax has a number of financial and administrative advantages, such as:

- Financial Advantages

  The premium acts as an additional source of funding, which lowers the taxes on the working population. The level of the premium can be set to any amount. Charging a premium to age 65+ participants leads to less intergenerational transfer of funds and ensures that those individuals receiving benefits are still contributing.

- Administrative Advantages

  Premium payments provide a mechanism to track participants. Those who are working are easier to track because of tax payments. Once an individual ceases working, though, they can move out of state, die, etc. The ability to track and identify possible beneficiaries is important for reserving, monitoring expected future liabilities, and managing program logistics.

Sensitivity to Minimum Age for Benefits

A minimum age for receiving benefits could make the program function more like a retirement program. Individuals below the minimum age would pay taxes without being eligible for benefits. We tested two alternative minimum ages (40 and 65) compared with the Base Plan, which sets the minimum to age 18. All variations assume individuals with permanent disabilities as a result of birth or a childhood injury / illness (i.e., disabilities that occurred before age 18) are excluded from program eligibility.

Table 10
Sensitivity to Minimum Age for Benefits

Minimum Age for Benefits	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
18	0.54%		0.94%
40	0.52%	-0.01%	0.93%
65	0.48%	-0.05%	0.90%

The required tax rate is not very sensitive to minimum age requirements because the vast majority of beneficiaries do not become frail until after age 65.

Sensitivity to Daily Benefit Amount

This alternative examines the impact of changing the program's maximum daily benefit amount (DBA) compared with the Base Plan amount of $100.

Table 11
Sensitivity to Daily Benefit Amount (DBA)

Initial DBA	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
$100	0.54%		0.94%
$75	0.40%	-0.14%	0.71%
$150	0.80%	0.26%	1.39%

Changing the daily benefit amount effectively scales the required tax rate needed—25% lower for the $75 DBA and 50% higher for the $150 DBA.

Sensitivity to Indexation of Daily Benefit Amount

The DBA is indexed each year regardless of when an individual begins participation. We explored different alternatives for indexing the DBA – one scenario tied to income/wages and one scenario tied to the Consumer Price Index (CPI).

Table 12
Sensitivity to DBA Indexing

Indexing of DBA	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
Baseline (3.0%)	0.54%		0.94%
Wage (3.85%)	0.75%	0.21%	1.62%
CPI (2.6%)	0.45%	-0.08%	0.71%

One advantage of setting the DBA index to a rate lower than the rate of increase in income (e.g., CPI) is that this makes the benefits less expensive over time relative to the funding source. This can be helpful when establishing a new program where costs are unknown. As the program operates, it likely would be politically easier to increase the benefit index if the program is overfunded than it would be to decrease the benefit index if the program is more expensive than anticipated. Use of the CPI for indexing would lower the cost compared with the 3% indexing assumed in the Base Plan.

One general disadvantage of using a variable DBA index is that it creates another "uncertain" variable as part of any future cost projections. Actual yearly inflation will likely vary from the pricing target, so investment strategies may need to be considered to hedge against this inflation risk.

Sensitivity to Elimination Period

The elimination period (which can also be thought of as a "deductible") is the number of calendar days from the onset of frailty until benefits are paid by the program. An individual would be responsible for paying LTC costs during the elimination period. We tested two alternatives (30 and 180 days) compared with the Base Plan using 90 days.

Table 13 Sensitivity to Elimination Period			
Elimination Period	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
90 Days	0.54%		0.94%
180 Days	0.48%	-0.06%	0.84%
30 Days	0.58%	0.04%	1.01%

Raising the elimination period to 180 days decreases the needed tax rate 0.06 percentage points, or roughly 11% (= 0.48% / 0.54%). Lowering the elimination period to 30 days increases the needed tax rate 0.04 percentage points, or roughly 7% (= 0.58% / 0.54%). Changing the program elimination period helps illustrate the trade-off of program costs versus requiring individuals to pay more LTC costs up-front in the form of a deductible.

The length of the period could be financially difficult for the low-income population that has paid enough taxes to vest in the benefit, but lacks sufficient resources to pay for necessary LTSS during the elimination period. Depending on care setting and severity of LTSS need, the costs of self-funding long-term care during the deductible period could be significant. Medicaid and, in some instances, Medicare would likely cover expenses during the elimination period for individuals with sufficiently low income and assets. Once the elimination period is met, Option 1 would become the first payer for LTSS and provide savings to the government program that was previously paying for care.

Sensitivity to Lifetime Maximum

The lifetime maximum is the length of time that benefits are paid once the beneficiary becomes eligible to receive benefits. We tested alternatives of two years and three years.

Table 14 Sensitivity to Lifetime Maximum			
Lifetime Maximum	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
1 Year	0.54%		0.94%
2 Years	0.85%	0.32%	1.50%
3 Years	1.06%	0.52%	1.85%

The tax rate needed is very sensitive to the program's lifetime maximum. While adding years to the lifetime maximum will provide additional coverage for individuals, it will come at the expense of higher program costs.

Sensitivity to Low Income Options

Under a public LTSS program, there are multiple options for handling the low-income population. The low-income population can be:

- Excluded from tax payments to the program and excluded from benefits
- Excluded from tax payments to the program but eligible to receive benefits
- Eligible for tax payments to the program and benefits.

The low-income population can be specified by the program as a percentage of the federal poverty level (FPL). For the purposes of this alternative testing, the low-income population was set to 138% FPL and 200% FPL.

Table 15 Sensitivity to Low-Income Option			
Low-Income Option	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
All Incomes - Taxes and Benefits	0.54%		0.94%
138% - No Taxes nor Benefits	0.47%	-0.07%	0.83%
138% - No Taxes, Benefits	0.55%	0.01%	0.96%
200% - No Taxes nor Benefits	0.43%	-0.10%	0.77%
200% - No Taxes, Benefits	0.57%	0.03%	1.00%

When the low-income population is excluded from paying taxes and receiving benefits, the required tax rate for funding the program will decrease because the average income of participants will be higher. When the low-income population is excluded from paying taxes, but is eligible to receive benefits, the required tax rate will increase because benefits for the low-income population will be subsidized by workers who fall above the low-income threshold.

Sensitivity to Administrative Load

Administrative load is the expense necessary to perform program operations including premium collection and payment of benefits. We test two variations of administrative loads (4% and 10%). The incremental change in the administrative load (plus or minus 3%) flows directly to the needed tax rate.

Table 16 Sensitivity to Administrative Load			
Administrative Load	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
7%	0.54%		0.94%
4%	0.52%	-0.02%	0.92%
10%	0.55%	0.02%	0.97%

Sensitivity to Divesting

The divesting period is the period of time after which an individual who leaves the state loses the right to benefits. We examined various alternatives to highlight the sensitivity of changing the divesting structure.

Table 17 Sensitivity to Divesting Period			
Number of Years to Divest	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
5 Years	0.54%		0.94%
0 Years	0.52%	-0.02%	0.92%
3 Years	0.52%	-0.01%	0.93%
10 Years	0.55%	0.01%	0.96%
Never	0.79%	0.25%	1.59%

Our testing shows the tax rate needed is relatively similar, as long as some form of program divesting is in place. Should the program have no divesting structure, the needed tax would be significantly higher.

There are many issues that must be considered related to program divesting. Every year, many individuals who have worked and paid taxes in Washington move from the state. It is important to have well-defined protocol for how these individuals are treated with respect to benefit eligibility. We have estimated divesting as a period of time after an individual moves out of Washington in which that person is still eligible to receive benefits. This arrangement is similar to the vesting period in which an individual is not eligible for benefits until he or she has worked a specified number of years.

Another situation to consider is how to handle individuals who pay taxes until age 65, but then move from the state. If individuals work in Washington for most of their lives and pay the tax, should they still be eligible for benefits if they leave the state after retirement? If there is a premium, then requiring continued premium payments to maintain vested status could solve this problem. The modeling in this analysis assumes individuals divest from the program when they move from the state, regardless of age and vesting status.

Sensitivity to Benefit Trigger

The benefit trigger is the definition of frailty that must be met before benefits are paid. Activities of daily living (ADLs) are routine tasks that, if requiring assistance or supervision, would indicate that an individual is in need of long-term care. As the benefit trigger becomes stricter, the funding requirement decreases because fewer individuals qualify for the benefit. The HIPAA trigger for long-term care need is assistance with at least two ADLs or having a substantial cognitive impairment. A trigger of supervision for three or more ADLs or severe cognitive impairment is similar to the Washington State threshold for LTSS coverage from Medicaid.

Table 18
Sensitivity to Benefit Trigger

Benefit Trigger	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
2+ ADL, Supervision or Cognitive	0.54%		0.94%
3+ ADL, Supervision or Cognitive	0.44%	-0.09%	0.80%

Using a threshold similar to the State of Washington Medicaid program is estimated to lower the necessary tax rate.

Sensitivity – Plan Design "Extremes"

Looking at low- and high-end estimates is informative about the range of possible funding requirements. We examined "low" and "high" alternatives where we set all parameters to their lowest- and highest-cost options. These estimates demonstrate the range of possible funding requirements based on the options estimated in this report.

Table 19
Plan Design "Extreme" Sensitivities

Scenario	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
Base Plan	0.54%		0.94%
Low Parameters	-0.01%	-0.55%	-0.03%
High Parameters	3.35%	2.79%	8.56%

If all parameters are set to the lowest-cost option and modeled together, the tax rate required for funding would be -0.01% (-0.03% ultimate). A negative or near zero tax rate indicates that the premium income received after age 65 would be sufficient to cover the proposed benefit. This option would have a long deductible period (180 days), low DBA ($75), and high premium ($50), among other parameters. This option

assumes nearly everyone participates and pays the premium. Different pricing would be required for lower participation levels, as the program would experience adverse selection (causing the required tax rate to increase).

If all parameters were set to the highest-cost option, the tax rate required would be 3.35% (8.56% ultimate). This option would have a short deductible (30 days), high DBA ($150), and no premium. These "high" and "low" case scenarios help illustrate how designing the program is a task of balancing costs and benefits.

Alternative Tax Rate Funding Structure

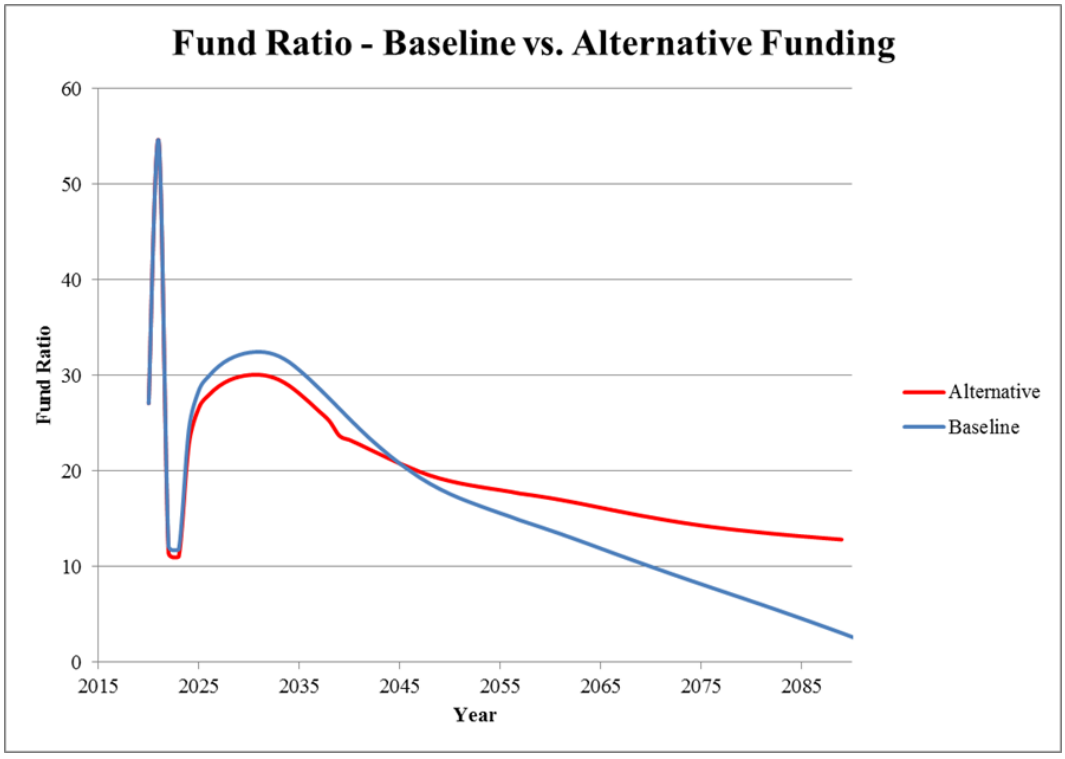
There are numerous ways to schedule the tax payment collections over the 75-year projection period. The Base Plan assumes a tax rate of 0.54% for 75 years and a rate of 0.94% subsequent to that time (i.e., calendar year 2095 and later). The tax rate of 0.54% estimated for the 75-year projection period is expected to maintain fund solvency during the 75-year period. However, at the beginning of the program, there are many more people paying taxes than are eligible for benefits, building up an initial surplus. This initial surplus is taken into account when determining the surtax needed to fund the program for 75 years.

To better match the initial pattern where more taxes are collected than benefits and expenses paid, Option 1 could be structured to start with a lower tax rate and then increase thereafter – e.g., in smaller increments every few years or occasional large increments. The increments could also be structured such that there is a smoother transition before "stepping up" to the ultimate tax rate (0.94% as noted above).

We tested one alternative tax rate "step" approach over the 75-year projection to illustrate how funds under the program build up differently over the 75-year period. The alternative approach assumed:

- Tax rate of 0.50% for calendar years 2020 to 2039
- Tax rate of 0.70% for calendar years 2040 to 2094

The chart below shows the emergence of the fund ratio over the 75-year period under both the Base Plan approach and the alternative step approach.



The chart shows the alternative step approach is estimated to produce a significantly higher fund at the end of 75 years. Although not modeled as part of this report, this implies the 0.70% tax rate level could be used subsequent to 2094 for a period of time before ending up at the estimated ultimate tax rate of 0.94%.

If a "stepped" tax rate approach is used, the feasibility to adjust the tax rate should be considered when setting the initial rate. It is important to stress that the rate should be subject to change if emerging program experience is unfavorable. Thus, any future changes in the tax rate would be a combination of adjusting the tax rate to the actual emerging cost of the program as well as adjusting to the ultimate cost of the program.

DISCUSSION AND CONSIDERATIONS

This report provides quantitative and qualitative analysis on a public long-term care insurance benefit for workers, funded through a payroll deduction that would provide a time-limited long-term care insurance benefit. Included in the analysis are cost estimates of a "baseline" program and many different options and variations from that baseline. Other variations are certainly possible and could be further investigated upon request.

Funding Period and Approach to Funding

Our analysis is completed using a 75-year period of measurement. Over this time, the required tax is calculated so that the present value of income is equal to the present value of benefits, plus expenses, plus one year's outgo at the end of the 75-year period. Because the average tax rate needed during the 75-year projection period is less than the ultimate required tax rate (i.e., tax rate needed to fund the program after the 75th year), the tax rate will need to be increased after 75 years. If the program were to become operational, it is more likely that the tax rate may start lower and then be increased at times during the 75-year period. At the program start, most participants will be paying into the program but not drawing benefits. This will lead to a surplus of funds in the early years that are drawn down as the population ages and a larger portion of participants are receiving benefits. The 75-year projection period is chosen because this will encompass most of the lifetime of program participants at the time of the projection. Individuals who are age 20 currently will be age 95 at the end of the projection period, and most benefits to this cohort will have been paid by the end of the projection period. The tax rate estimates represent the total tax required; we do not differentiate whether the tax is employee-paid, employer-paid, or some combination of the two. In practice, required taxes can be split in a variety of ways between employer and employees or borne exclusively by one group. These political considerations are beyond the scope of this analysis.

The tax base uses estimated average wages in Washington trended forward at the same rate as average covered earnings projected in the 2016 OASDI Trustees Report. There is no subsidy for low-income individuals, though we do include sensitivity tests that incorporate subsidies. The model assumes Medicaid will continue to operate but that the benefits from the new program will pay first. Because the new program will pay first, some savings will result for the Medicaid program. Please note the estimates in this report assume developmentally disabled individuals (i.e., those who were disabled at birth or became disabled before age 18) will not be eligible for participation in the program, even if they are working as adults.

Public Program Considerations

A public insurance program, as proposed under Option 1, could provide financing to meet some portion of total LTSS needs for many of the long-term residents of Washington who are frail. An affordable program for the greatest number of people would not likely provide reimbursement for all frail persons for all long-term care costs. 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 Washington 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 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," which is 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 future generations. 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 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.

III. OPTION 2

Per direction of the Washington Legislature in Senate Bill 6052, Option 2 is defined as a public-private reinsurance or risk-sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of their catastrophic long-term services and supports losses in order to provide additional insurance capacity for the State. Discussions with various stakeholder groups shaped the structure and analysis for Option 2.

We focused on two reinsurance design structures for Option 2:

- Reinsurance Structure 1

  Reinsurance pool pays LTSS benefits after a specified number of years for known claims. For example, for a plan that offers lifetime benefits, reinsurance would be responsible for all benefit payments after the first four years of a claim.

- Reinsurance Structure 2

  Reinsurance program covers probability / risk of claims occurring. Under this structure, the reinsurance pool pays for the present value of lifetime LTSS benefits per cohort grouping above a certain dollar amount.

Option 2 relies on the existing structure of the private LTC insurance market with no subsidies from other funding sources. Funds to set up and administer the reinsurance pool are assumed to be collected through a premium surcharge on policies from participating insurers.

The private insurance market offers individuals a wide variety of benefit options including:

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

These benefit options allow individuals to choose their desired levels of coverage. In most cases, coverage is richer than the specifications laid out for the public program outlined in Option 1. However, underwriting is used in the private market to align premiums with the underlying health risk of policyholders; therefore, individuals who apply for a LTC policy are not guaranteed to be accepted for coverage.

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. Because of this, LTC policy sales have decreased over time with the increased expense to policyholders. Many LTC insurance carriers have exited the market, concerned about the level of risk for the return available. While Washington ranks 9th compared to other U.S. states in terms of private LTC insurance market penetration, still, only about 7% of the adult population age 40 and older has purchased private LTC insurance in

Washington. Table 20 provides a snapshot of the size of the private LTC market in Washington for stand-alone policies.

Table 20
State of Washington
Private LTC Insurance Market
Earned Premium and Lives In-force*

Year	Earned Premium	Lives at Year-end
2013	$299,805,325	231,417
2014	$288,054,068	209,968
2015	$305,488,938	221,771

** Summarized from company-submitted financial annual statement: Long-Term Care Experience Reporting Form 5. (Source: Aggregated data from SNL Financial; http://www.snl.com).*

RESULTS SUMMARY – OPTION 2

Reinsurance Structure 1

Reinsurance Structure 1 has limited potential to increase the prevalence of private LTC insurance in the State of Washington. Our conclusion is based on the view that the cost of funding the reinsurance pool would ultimately be passed back to the individual consumer and, therefore, have little impact on premiums for products available in the current private market. We believe overall participation levels in the stand-alone private LTC insurance market would remain similar to current levels without a significant reduction in premium.

In our discussions with the various stakeholders that shaped the design of Reinsurance Structure 1, the primary area of focus for the reinsurance pool was to provide protection after an individual has been on claim for a "long" time. This reinsurance protection would provide insurance companies more certainty in estimating premiums because insurance carriers would not have to cover catastrophic claims that last many years. The stakeholders wanted to test whether the improved certainty could lead to a more robust private market.

The following sections provide further background to support our conclusion and rely on the following data:

- Distribution of claim payments depending on how long individuals need LTC services
- Sales characteristics of the private market by benefit period (BP)

Distribution of LTC Expected Payments – Private Market

To illustrate the potential impact Reinsurance Structure 1 could have on the portion of risk retained by a LTC insurance carrier, it is instructive to review the distribution of expenditures by various years of LTC need. Table 21 summarizes the distribution of expected costs 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 market, where need is defined as an individual qualifying for benefits under the HIPAA benefit trigger.

Table 21 LTC Expenditures by Year Paid Over Remaining Lifetime Individual Currently Age 65 With Some LTC Needs							
	< 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%

Portion of Costs Paid Over First "X" Years of LTC Need:

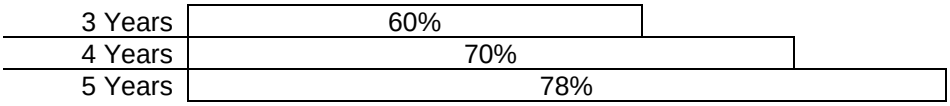


Table 21 shows that, for average individuals age 65 who need LTC at some point in their lifetimes, the majority of costs will be incurred over a limited number of years – e.g., 78% of costs are paid over the first five years of needing LTC, with the remaining 22% of costs paid for in the sixth year and later. The data indicates that, if an insurance pool is large enough such that is it statistically credible, the vast majority of claim payments will happen over the first five years of an individual needing LTC.

From a simplified insurance perspective, a grid such as Table 21 provides a carrier with data regarding expectations and the amount of financial risk, depending on how long an insurance policy will pay benefits. For Reinsurance Structure 1, we were requested to review costs under a reinsurance pool structure that would pay benefits after either three or four years of benefits had been paid out by the insurance company. Table 22 shows examples of the amount of reduction in claim costs associated with each of these benefit periods for an individual who begins needing care at age 82 under the HIPAA definition for various BP options and reinsurance caps.

Table 22 Estimated Claim Payment Reduction LTC Services Needed Starting at Age 82 Under HIPAA Definition			
Pool Design	Female	Male	Composite
4 Year BP capped at 3 Years	-16%	-12%	-14%
5 Year BP capped at 3 Years	-25%	-19%	-23%
5 Year BP capped at 4 Years	-11%	-8%	-9%

The reinsurance cap is the specified number of years for known claims, after which the reinsurance pool pays LTC benefits. For example, a "4 Year BP capped at 3 Years" means the private LTC carrier would see its expected claim payments reduced by 14% on average for a 4-Year BP if the reinsurance pool began making payments after year 3 of needing LTC.

This claim cost reduction would ultimately decrease the financial obligation of the private LTC carrier, as the reinsurer would cover these costs. However, in order to cover its expected benefit payments, the reinsurance pool would need to charge a premium to the carrier. In the absence of any other outside funding sources, the carrier would then pass any reinsurance costs back to the consumer through premium charges, resulting in likely little impact on the premium paid by the consumer compared with a structure without reinsurance.

The pricing illustrated above is on an expected value basis, meaning it represents the "average." If the reinsurance pool requires participating insurers to pay a margin for administration expenses, profit, or potential variability, the cost will also be passed on through reinsurance premiums and ultimately to the consumer. In this case, the consumer may actually pay more because of the presence of reinsurance than

they might pay for comparable coverage without that "backstop." We discuss these reinsurance concepts further when we turn our focus to Reinsurance Structure 2.

Benefit Period Sales Characteristics – Private Market

Private LTC market insurance carriers have already taken steps to lessen their financial exposures to claims lasting many years by no longer offering lifetime BPs. Moving away from offering lifetime or very long BPs limits the impact Reinsurance Structure 1 could have on the private LTC insurance market. Table 23 shows the distribution of nationwide sales by BP from 2009 to 2015 from *Broker World* magazine. We believe these trends by benefit period are relatively consistent in all states. Trends in how much coverage consumers purchase when they buy LTC insurance reflect both the nature and type of coverage that is available from which they choose, and also the price they are asked to pay for coverage. In recent years, the decline in sales of "lifetime" coverage was driven both by price and availability.

Table 23
Private Market LTC Insurance Sales by Benefit Period (BP)
as Reported by *Broker World* Magazine

BP in Years	2015	2014	2013	2012	2011	2010	2009
Less than 3	11%	12%	11%	10%	11%	13%	13%
3	42%	35%	35%	25%	27%	27%	26%
4	13%	14%	17%	17%	17%	16%	14%
5	13%	13%	14%	13%	14%	16%	17%
6-8	21%	21%	18%	13%	16%	13%	13%
9-10	1%	1%	2%	2%	3%	3%	2%
Lifetime	0%	4%	4%	20%	13%	14%	16%

There is a clear trend of sales moving away from longer BPs. In 2015, no carriers offered a lifetime BP in the individual market. While Reinsurance Structure 1 could help protect insurers against catastrophic costs related to claims lasting many years, the market is already protecting itself against part of this risk with sales focused on shorter BPs.

From a consumer perspective, a reinsurance pool that pays benefits for periods of LTC need lasting beyond three or four years provides coverage that may not be available in the private market. A consumer in today's private LTC insurance market can generally only find coverage for the first six years of care, as shown in Table 23. However, we know that 16% percent of payments on average result from individuals needing care beyond six years (see Table 21), which can have a catastrophic financial impact on those individuals and their families. Although as previously discussed, Reinsurance Structure 1 may not reduce premiums, it may open up the opportunity for individuals to have more insurance coverage for claims lasting many years. This additional coverage will come at a cost potentially beyond the pattern of expected payments noted in Table 21 if individuals change their behavior in the presence of more insurance coverage (a pattern observed by LTC carriers when lifetime BPs were offered in the past). As a result, the increased coverage will be priced accordingly and is not expected to significantly influence LTC insurance sales.

Reinsurance Structure 2

Reinsurance Structure 2 has limited potential to increase the prevalence of private LTC insurance in the State of Washington. Similar to Reinsurance Structure 1, our conclusion is based on our view that the cost of funding the reinsurance pool would ultimately be passed back to the individual consumer and, therefore, provide little premium relief for individuals looking to buy LTC insurance coverage through the private market. We believe overall participation levels in the stand-alone private LTC insurance market would remain similar to current levels without a significant reduction in premium.

Option 2, Reinsurance Structure 2 – Base Plan

We will first describe and summarize results for a Reinsurance Structure 2 "Base Plan." Tests regarding the sensitivity of changing select assumptions compared with the base scenario are discussed later in the report. Please note the Base Plan does not represent a recommended plan. It is a starting point to use as a reference when compared with other alternatives.

For the Base Plan, we assumed the reinsurance pool pays for the present value of lifetime LTSS benefits per cohort grouping above a 120% share of total expected costs. The Base Plan assumes the reinsurance pool will charge 105% of expected reinsurance claims to cover administration and profit costs. We will refer to the 120% as the attachment factor and the 105% as the reinsurance charge.

Table 24 shows the results of our analysis. We constructed 1,000 claim scenarios based on variability of incurred claims observed in the private LTC insurance market to use in evaluating the financial results. The construction of the scenarios is described further in the Methodology and Assumptions section.

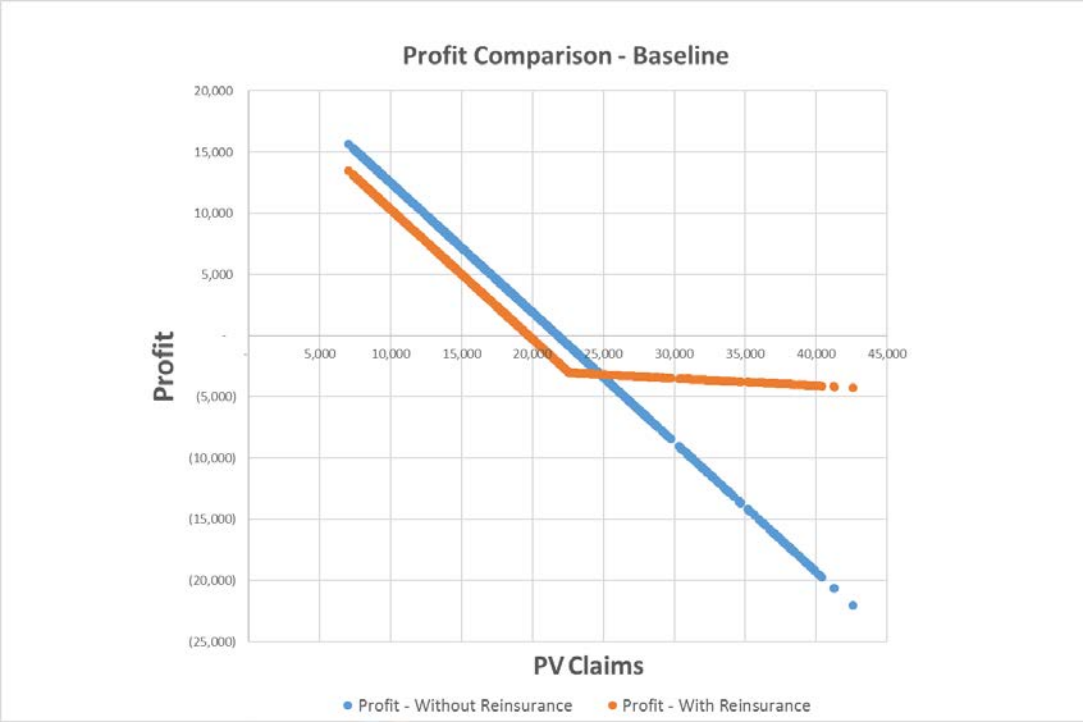
Table 24
Option 2 – Reinsurance Structure 2
Base Plan Results of Stochastic Testing
Present Value of Lifetime Profits per Individual ($)

	Direct Carrier			Reinsurer		
	Min	**Average**	**Max**	**Min**	**Average**	**Max**
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Baseline Plan	(4,232)	3,036	13,483	(17,819)	104	2,178

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

The results show the downside risk for the direct carrier significantly decreases from the current marketplace to the baseline scenario. However, the upside risk has also decreased, and direct carriers would be expected to have less profit, which is due to the charge for the reinsurance protection.

The chart below shows a comparison of the profit with and without reinsurance for the direct carrier. As shown by the orange line, the profits are expected to be lower, but losses are limited or "floored" after a carrier has incurred a defined level of claims.



To aid in the interpretation of the results shown in Table 24, here are three examples of individual claim scenarios and the impact of reinsurance to the direct writer's claim payments and profit for these scenarios. These three examples are a subset of the 1,000 iterations used to develop the Base Plan. They use the following assumptions:

- Average present value (PV) of claims of $18,838
- Present value of premium of $31,397
- Reinsurance attachment point of $22,606, or 120% of the expected present value of claims
- Reinsurance charge of $2,178, or 105% of expected reinsurance claims
- Expenses calculated as 6.0% of claims plus 26% of premium

Example 1 – Unfavorable Experience

The first example shows the impact of reinsurance when there is unfavorable experience, or claims are much greater than the expected present value of claims. Table 25 shows a scenario where the claims incurred almost double the expected present value of claims.

Table 25
Example 1 - Unfavorable Experience

	PV Claims		PV Profit	
Scenario	**Paid by Direct Writer**	**Paid by Reinsurer**	**of Direct Writer**	**of Reinsurer**
Without Reinsurance	$37,111	$0	-$16,230	$0
With Reinsurance	$22,606	$14,506	-$3,903	-$12,327
Difference	-$14,506	$14,506	$12,327	-$12,327

In this example, the present value of claims exceeds the $22,606 attachment point. If the direct writer did not have reinsurance (as shown in the first row of Table 25), the insurer would be responsible for the full claim payment of $37,111. If the reinsurance arrangement were in place, the direct writer would only be

responsible for $22,606 in claims, and the reinsurer would be responsible for all claims above this threshold ($14,506).

Although the direct writer would be responsible for $14,506 less in claims in the context of a reinsurance arrangement, the direct writer would remain responsible for the same level of expenses plus the additional premium charge to the reinsurer of $2,178. In the end, while the direct writer still experiences a loss under this scenario, the loss is decreased significantly ($12,327) in the presence of reinsurance. Because the reinsurer is paying out claims larger than the reinsurance charge it is earning in this scenario, the reinsurer also experiences a loss. Of note, even if claims were higher, the profit of the direct writer would not fall further below -$3,903 (other than to cover claim expenses).

Example 2 – Average Experience

Example 2 shows the impact of reinsurance when there is average experience, or claims that are close to equaling the expected present value of claims. Table 26 shows a scenario where the claims are $18,839, which is the average present value of claims among the 1,000 scenarios.

Table 26
Example 2 - Average Experience

	PV Claims		PV Profit	
Scenario	**Paid by Direct Writer**	**Paid by Reinsurer**	**of Direct Writer**	**of Reinsurer**
Without Reinsurance	$18,839	$0	$3,139	$0
With Reinsurance	$18,839	$0	$960	$2,178
Difference	$0	$0	-$2,178	$2,178

Because the claims do not meet the $22,606 attachment point, regardless of reinsurance the direct writer is responsible for the entirety of the claim payment. Under the reinsurance arrangement the direct writer would need to pay the $2,178 reinsurance charge in addition to usual expenses, and as a result the direct writer's profit would decrease by the amount of this reinsurance charge.

Because the reinsurer is not responsible for any claim payment, the reinsurer realizes the entire $2,178 reinsurance charge to cover profit and expenses. Because the attachment point is greater than 100% of expected claims, in most scenarios the reinsurer does not pay any claims and earns the reinsurance charge.

Example 3 – Favorable Experience

Example 3 shows the impact of reinsurance when there is favorable experience, or claims that are less than the expected present value of claims. Table 27 shows a scenario where the claims incurred are less than half the expected present value of claims.

Table 27
Example 3 - Favorable Experience

	PV Claims		PV Profit	
Scenario	**Paid by Direct Writer**	**Paid by Reinsurer**	**of Direct Writer**	**of Reinsurer**
Without Reinsurance	$7,627	$0	$15,024	$0
With Reinsurance	$7,627	$0	$12,845	$2,178
Difference	$0	$0	-$2,178	$2,178

Like Example 2, the claims in this example do not meet the $22,606 attachment point; therefore, the direct writer is responsible for the entirety of the claim payment. With reinsurance, the direct writer's profit is reduced by the amount of the reinsurance charge. Because the reinsurer is not responsible for any claim payment, the reinsurer's profit is equal to the reinsurance charge of $2,178.

As seen in Table 27, the impact of reinsurance to the direct writer's profit (-$2,178) plus the impact of reinsurance to the reinsurer's profit ($2,178) nets to $0. This is true of the net impact to claims and to profit for all of the scenarios. This is important to note, because although the direct writer's or reinsurer's claim payment and profit may change through the introduction of reinsurance, at the end of the day the total claim payment does not change. In reality, the profit in total might actually decrease, which would be due to additional expenses of the reinsurer.

RESULTS SUMMARY – PLAN ALTERNATIVES

Sensitivity to Attachment Factor

This alternative examines the impact of changing the attachment factor. The baseline scenario assumes a 120% attachment factor. As the attachment factor increases, the lower bound of the profit range decreases, shifting more risk to the direct carrier.

Table 28
Sensitivity to Attachment Factor
Present Value of Lifetime Profits per Individual ($)

	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Baseline Plan	(4,232)	3,036	13,483	(17,819)	104	2,178
110% Attachment Factor	(2,996)	3,005	12,836	(19,055)	135	2,826
125% Attachment Factor	(4,891)	3,049	13,766	(17,160)	90	1,896
130% Attachment Factor	(5,579)	3,062	14,020	(16,472)	78	1,642

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

Sensitivity to Reinsurance Charge

This alternative examines the impact of changing the reinsurance charge. The baseline scenario assumes a 105% reinsurance charge. As the reinsurance charge increases, the probability of profit for the reinsurer increases as they are receiving the extra cash flow.

Table 29
Sensitivity to Reinsurance Charge
Present Value of Lifetime Profits per Individual ($)

	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Baseline Plan	(4,232)	3,036	13,483	(17,819)	104	2,178
110% Reinsurance Charge	(4,336)	2,932	13,380	(17,715)	207	2,282
120% Reinsurance Charge	(4,543)	2,725	13,172	(17,508)	415	2,490
125% Reinsurance Charge	(4,647)	2,621	13,068	(17,404)	519	2,593

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

Sensitivity to Company Size Volatility

This alternative examines the impact of changing the company size. The Base Plan for illustration assumes the claim risk for small company size. If the claim risk is changed to mimic those of large companies, the variability in profit decreases significantly, both with and without reinsurance.

Table 30
Sensitivity to Company Size Volatility
Present Value of Lifetime Profits per Individual ($)

	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Small Company Without Reinsurance	(22,051)	3,140	15,662	N/A	N/A	N/A
Small Company With Reinsurance	(4,232)	3,036	13,483	(17,819)	104	2,178
Large Company Without Reinsurance	(8,316)	3,140	10,149	N/A	N/A	N/A
Large Company With Reinsurance	(1,894)	3,036	9,476	(6,422)	104	674

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

If Reinsurance Structure 2 is implemented on a statewide basis, the pool of reinsurers (whether from the private or public sector) will be able to take advantage of the size of the block reinsured and keep the reinsurance charge small. This can benefit the direct writers in the market and provide a tool to help manage risks. Despite this benefit to direct writers, Reinsurance Structure 2 may not dramatically influence pricing (and ultimately the prevalence of private LTC insurance sales) because it does not change the total expected claims from Washington residents who own coverage. In addition, for large companies, reducing statistical variability of results may be of less value.

DISCUSSION AND CONSIDERATIONS

Input from Private LTC Insurance Carriers

We discussed the current LTC insurance environment with two major carriers. They are particularly concerned about the ability to take action if experience is worse than expected. Private insurance companies that file for an actuarially justified rate increase do not always get the full amount asked for to offset worse-than-expected experience. The current environment surrounding rate increases is challenging, with insurance departments trying to balance the needs of both consumers and the companies providing insurance. Option 2 could help if the State offers a backstop; however, it comes with some challenges:

- It will potentially be difficult to find willing reinsurers if the State's role is confined to administrative functions and there is no risk-bearing.
- If the State participates in the pool, a potential conflict of interest can arise because the State is also the entity empowered to approve or disapprove rate increases. For Option 2 to be feasible, the rules need to be clear and well-defined with respect to appropriate triggering of rate increases.
- It is likely to have little impact on pricing and rates.
- Overall LTC risk will not change.
- Uncertainty for future results still exists.
- Subsidies may be necessary.

- The State may have to take risk.
- The primary impact of implementing Option 2 may be:
  - Return of lifetime benefit period policies to the private market. It will be expensive, but will cover catastrophic costs.
  - Because there is no material price impact, this option will only serve a small portion of the population.

One of the problems with the reinsurance approach in Option 2 is that, if the underlying LTSS product is the same as it historically has been (with regard to the price of coverage relative to benefits offered), then sales will not increase. If carriers become more comfortable with the risk, they may be more inclined to enter or stay in the market, but if there is not strong market potential for increased sales, that inclination diminishes. Put another way, without a change in demand, the fact that there may be more supply will have little likely impact on the market and the numbers of individuals who ultimately are insured in the state. Factors influencing demand include price, perceived value, coverage flexibility, and levels of education and awareness of the need.

Implementation Considerations

The theoretical underpinnings of Option 2 can be discussed at a high level. However, there are important implementation and practical considerations that must be addressed before any program could commence. A non-exhaustive list includes the following:

- Timing of when the reinsurance pool reimburses the direct writer when using a lifetime present value approach. Because LTC insurance is a “long tail” product, when and how to measure claims experience is not a trivial matter.
- Adjustments for misses on other assumptions such as mortality and lapse rates. This has been an important consideration for direct writer financial experience and would be an important consideration in a reinsurance structure that looks at overall claim experience.
- Standardizing risks accepted and covered by the reinsurance pool. As underwriting is an important consideration in the private market, standardizing pricing based on variations in underwriting will be critical.
- Load needed for expenses, profit, and contingency margin. The ultimate size of the market, as well as whether the State is involved in taking risk, will impact this.
- Discount rate for present value calculations. This is an important consideration in a contract that covers a significant period of time and builds up significant reserves.
- Choice of “standard” assumptions for determining reinsurance attachment points.
- Portability of coverage. Particularly if the State is taking risk for coverage, rules surrounding portability of coverage will need to be established.
- If margin is considered in the pricing of the reinsurance arrangement, should that margin be released back to the policyholders if it is not needed? How would any release back to policyholders be structured?

Potential Future Alternative

Option 2, as defined in the Washington Senate Bill, examined "a public-private reinsurance or risk sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of potential catastrophic long-term services and supports losses in order to provide additional insurance capacity for the State." As such, it examined reimbursement approaches to insurers using the product *currently available* in the insurance market.

One potential alternative to Option 2 that could be considered in the future is one that: 1) changes the product to be non-cancelable (meaning the coverage cannot be canceled and the premium rates can never change for the policyholder; this product variation is *currently not available* in the market), thereby addressing a common concern of potential policyholders; 2) puts limits on the potential downside for carriers such that they are willing to enter the market; and 3) engages the public sector so that policyholders have a sense of security, carriers are more comfortable with the overall level of risk, and the State has the potential to see significant Medicaid savings.

This approach leverages the size and backing of the public sector to change the market by not just providing risk transfer for carriers but also providing security to policyholders with respect to rate increases. Private industry companies cannot offer non-cancelable products because of the risk involved, but if they partner with the State and the State is willing to take risk, it may be possible that a structure could be designed that will work.

Some of the biggest concerns regarding this approach include:

- Is there a price where there is a sizable consumer market, where carriers are willing to offer a product, and where the State is comfortable with the long-term risk? This is a particularly large challenge and may be a problem for which no price will satisfy all criteria.

- The State will be exposed to significant risk if the product is not priced correctly or actual experience differs from what was expected. Funding specific to the reinsurance program needs to be carefully considered. However, in some respects, if the State ends up paying for more LTC through the reinsurance program beyond expected, the overall financial risk to the State could be diminished because the additional LTC costs may be for care the State would have paid for through Medicaid in the absence of any reinsurance program.

- Limited-pay options (essentially non-cancelable coverage after the premium paying period) provided by LTC insurance carriers did not see significant sales.

There may be a price point where the market could increase because of non-cancelable policies, leading carriers to enter the market (which would increase competition in the context of an entity's willingness to reinsure the risk). This could be investigated further and include the following potential steps.

- Research the possibility of non-cancelable plans impacting the market.

- Investigate attachment points that would appeal to carriers.

- Gauge the State's appetite for risk considering that many may end up on Medicaid anyway.

IV. FINANCIAL AND LEGAL RISKS TO THE STATE

FINANCIAL RISKS

LTSS financing schemes can create potentially significant financial risks. Schemes that take a long-term view of financing risk for LTSS inherently must contain critical assumptions to support that long-term view. There is potentially significant sensitivity and financial risk in not realizing the assumptions used in setting up a scheme. Both Option 1 and Option 2 provide a long-term view of LTSS needs of individuals. As such, there are potentially significant risks to any program that is intended to span decades. Many of the risks noted below are discussed in more detail throughout this report. The items below summarize many of the major risks associated with Option 1 and Option 2.

Option 1

- Long-term morbidity trends
- Long-term mortality trends
- Cost of care inflation
- Fertility rates
- Population migration
- Interest rates
- Wage growth
- Expense levels

Option 2

- Long-term morbidity trends
- Long-term mortality trends
- Cost of care inflation
- Interest rates
- Lapse rates
- Expense levels

LEGAL RISKS

We provide comments on potential program uncertainties for each plan option at a high level. We are not attorneys and cannot provide legal advice or analysis. Our comments are based on our general knowledge and experience in long-term care. The potential legal risk associated with any option may best be examined subsequent to this initial feasibility study when additional details of a program are available and specified. Washington may consider at least the following challenges with each option.

Option 1

- Mandatory Consideration: A program that could be viewed as mandatory could have some legal considerations. The State could look to other government programs with mandatory taxes and fees to help identify potential challenges.

- Equity: It may be difficult to assure that two people who are alike in similar respects are treated similarly from a benefit perspective. This may simply highlight the importance of the assessment function to mitigate legal risk and included a mechanism for 3rd party review to mitigate claims risk.

- Mispricing / Rate Increases: If the plan is mispriced or tax rates need to be increased, participants could raise objections. The State should consider adding rules to outline corrective actions the State can pursue if experience materializes different than pricing.

- Benefit Coverage: The specifics of how the plan covers benefits, pays for certain benefits, and caveats that might interfere with getting benefits such as leaving the state, not fulfilling the vesting period must be clearly defined.

Option 2

- Rate Increases: If Washington is the reinsurer but also approves premium rates, there might be a conflict of interest concern.

- Mispricing: If reinsurance charges are mispriced under a structure when the State administers the reinsurance pool, participants or direct writers could raise objections. The State should consider adding rules to outline corrective actions the State can pursue if experience materializes different than pricing.

To help mitigate these challenges, we advise developing a coverage document that clarifies all the terms under which coverage is offered. It is important to clearly state what LTSS benefits are covered, how they are covered, and the conditions that would cause coverage to end or claims not to be paid.

V. ESTIMATE OF SAVINGS TO WASHINGTON MEDICAID PROGRAM

We estimate Option 1 – a public long-term care insurance benefit for employees – will generate savings to the Washington State Medicaid program. We discuss our process for estimating savings along with illustrative results below for the Base Plan. We estimate there will be little to no savings to the Medicaid program under Option 2 – the reinsurance programs – because of our view that these programs will have minimal impact on stand-alone private LTC insurance market participation.

RESULTS – OPTION 1 FEDERAL AND STATE MEDICAID SAVINGS THROUGH 2050

Table 31 summarizes estimated federal and state Medicaid savings under the Option 1 Base Plan by calendar year through 2050, separately for home and community-based care (HC), nursing home care (NH), and in total. Estimated state savings would be half of the combined state and federal savings, assuming Washington's Federal Medical Assistance Percentage remains 50%.

Table 31
State of Washington
Estimated Federal and State Medicaid Program Savings by Year
Option 1, Base Plan
($ millions)

Year	HC Medicaid Savings	NH Medicaid Savings	Total Medicaid Savings
2020	0	0	0
2021	0	0	0
2022	0	0	0
2023	10	9	19
2024	10	15	25
2025	7	7	14
2026	7	7	14
2027	8	8	16
2028	9	9	18
2029	10	11	21
2030	11	13	24
2031	13	15	27
2032	14	17	31
2033	16	20	36
2034	18	23	42
2035	21	27	48
2036	25	32	56
2037	29	37	66
2038	34	43	78
2039	41	50	91
2040	48	59	107
2041	57	68	125
2042	68	79	147
2043	80	92	172
2044	94	106	199
2045	109	120	229
2046	125	136	261
2047	142	152	294
2048	160	170	330
2049	178	188	366
2050	196	206	402

PROCESS FOR ESTIMATING MEDICAID SAVINGS

In order to derive Medicaid savings, we estimate the number of Option 1 beneficiaries who would be qualified for Medicaid LTSS. The projected benefits paid to these beneficiaries represent savings to Medicaid. To be eligible for Medicaid LTSS benefits in the State of Washington, we assume that a beneficiary must meet a benefit trigger of 3+ ADLs with supervision, or severe cognitive impairment, and qualify financially.

We have accounted for four factors to estimate the proportion of Option 1 beneficiaries who would otherwise qualify for Medicaid:

1. The proportion of the population with annual income of less than 138% of the federal poverty level (FPL).

2. An adjustment to account for the decreased likelihood that a Medicaid enrollee has completed the work requirement for vesting in the program.

3. An adjustment to consider the difference in eligibility criteria between Option 1 and Medicaid LTSS (2+ ADLs or severe cognitive impairment versus 3+ ADLs or severe cognitive impairment).

4. An adjustment to account for assets that an individual possesses.[2] A significant percentage of individuals below 138% FPL have assets that would disqualify them from receiving Medicaid LTSS. Our adjustment reflects that some individuals would not qualify for Medicaid because they would be unlikely to spend down the assets before leaving benefit status.

Estimating Medicaid Eligibility

The percentage of workers below 138% FPL was calculated by age and sex using the American Community Survey (ACS) 2007-2011 five-year data set. This calculation was performed using total income. Adjustments were applied to this group to account for differences in eligibility criteria for individuals with low incomes who have assets that would prevent them from qualifying for Medicaid.

There are individuals above 138% FPL who potentially receive benefits through Medicaid.

- For beneficiaries under age 65, the ACS data is used to calculate the percentage of individuals who have worked during the previous five years, have income above 138% FPL, and are enrolled in Medicaid. Adjustments were applied to this group to account for differences in eligibility criteria and individuals who have assets that would prevent them from qualifying for Medicaid.

- For ages 65 and above, the model estimates the percentage of individuals who have income above 138% FPL and are enrolled in Medicaid, by age and sex. Adjustments are applied to this population to account for the difference in Medicaid eligibility based on work history, differences in eligibility criteria, and assets. These percentages are applied to the program beneficiaries to determine the number of beneficiaries who would be eligible for Medicaid. By 2050, it is estimated that 12% of Option 1 beneficiaries would also be eligible for Medicaid.

Estimating Medicaid Savings

Once the percentage of beneficiaries eligible for Medicaid by age and sex is calculated, program expenses for these beneficiaries are tabulated to estimate Medicaid savings by year. We assume that each individual will receive the average program benefit, and we do not make allowances for differences in LTSS utilization between the Medicaid-eligible population and the general population.

[2] This adjustment was based on RAND Health and Retirement Study (HRS) asset data tabulations provided by Melissa Favreault of the Urban Institute.

It is also assumed that Option 1 is the first payer with respect to LTSS, and Medicaid would pay for costs not covered by Option 1. The Option 1 Base Plan provides a one-year benefit of $100 per day. According to the U.S. Department of Health and Human Services (DHHS),[3] in 2010 the average cost of a semiprivate nursing home was $205 per day, the average cost of an assisted living facility was $110 per day, and the average cost of a home health aid was $21 per hour. Assuming long-term care price inflation of 1% to 2% per year for home health care and 4% per year for facility care, the daily benefit provided starting in 2023 could reasonably be expected to cover the costs of a home health aide for over a year, but it would pay for only a portion of nursing home and assisted living expenses. We anticipate that the remainder of these expenses would be paid by Medicaid LTSS for individuals who meet the Medicaid eligibility criteria.

[3] DHHS. Costs of Care. LongTermCare.gov. Retrieved January 10, 2017, from http://longtermcare.gov/costs-how-to-pay/costs-of-care/.

VI. SENSITIVITY TESTING – PRICING ASSUMPTIONS

OPTION 1

Sensitivity – Morbidity Improvement

Frailty refers to the rate at which the population requires the use of LTSS. The rate at which frailty increases or decreases over time will have a direct impact on the cost of financing a public LTSS benefit. If frailty rates decrease (also referred to as morbidity improvement), fewer people will require LTC benefits and funding requirements will be lower. Historically, frailty has decreased over time with advances in healthcare, but it is unknown if this trend can continue into the future. We have estimated no morbidity improvement in the baseline case and have run sensitivities at 0.25% and 0.50% morbidity improvement per year for all future years.

Table 32
Sensitivity to Morbidity Improvement

Morbidity Improvement	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
None (0%)	0.54%		0.94%
0.25%	0.48%	-0.06%	0.77%
0.50%	0.42%	-0.11%	0.64%

Sensitivity – Mortality Improvement

Mortality refers to the death rate of the population. Mortality rates have been decreasing by age over the last 100 years. As mortality rates decrease, the population will be expected to survive longer. An increase in the older population will increase the demand for LTC services. We have used the Social Security Trustees 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 because the expected lifetime of the population will rise and more people will require LTSS.

Table 33
Sensitivity to Mortality Improvement

Mortality Improvement	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
0.78%	0.54%		0.94%
0.42%	0.48%	-0.05%	0.81%
1.16%	0.60%	0.06%	1.19%

Sensitivity – Fertility

The fertility rate represents the number of births per woman in the population. In the baseline run, the fertility rate is set to the Social Security Trustees Report projection. This projection has an ultimate fertility rate of 2.0. As fertility rates increase, the funding requirement for the Washington LTSS program decreases. As more children are born, there are more people in the workforce relative to the elderly, which results in more people paying taxes. The baseline was estimated with an increase and decrease in the fertility rate of 0.2.

Table 34 Sensitivity to Fertility Rate			
Ultimate Fertility Rate	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
2.00	0.54%		0.94%
2.20	0.52%	-0.02%	0.88%
1.80	0.55%	0.02%	1.11%

Sensitivity – Migration

Changes in net migration do not significantly impact the LTSS funding requirement. Because the Base Plan has a five-year divesting feature, changes in out-migration do not significantly affect benefits paid by the program.

Table 35 Sensitivity to Net Migration			
Annual Net Migration	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
24,396	0.54%		0.94%
18,473	0.54%	0.00%	1.01%
30,932	0.53%	0.00%	0.97%

Sensitivity – Interest Rate

The interest rate determines the present value of program income and expenses. Because the wage index and daily benefit increase are set independently of the interest rate, changes to the interest rate will change the required payroll tax necessary to fund the program. As the interest rate increases, future benefit payments are reduced in present value, which reduces the necessary payroll tax. If interest rates decrease, future benefit payments become more expensive in present value, and the necessary payroll tax increases. The interest rate assumptions tested are the 2016 OASDI Trustees Report intermediate, low-cost, and high-cost assumptions.

Table 36 Sensitivity to Interest Rate			
Ultimate Interest Rate	Tax Rate	Change From Base Option	Tax Rate Needed in Final Year
5.3%	0.54%		0.94%
4.2%	0.62%	0.08%	1.00%
6.4%	0.46%	-0.08%	0.98%

Sensitivity – Wage Growth

As wage growth increases, the payroll tax increase necessary to fund program benefits decreases. The required payroll tax is lower because the tax base increases. It is possible that increased wages can result in price inflation, but this impact is not accounted for in the sensitivity analysis provided. The baseline growth in average annual wage is taken from the Trustees Report intermediate assumption as is, assumed to be 3.75% per year. Sensitivity runs are conducted using both the low-cost and high-cost Trustees Report assumptions (2.54% and 4.98%, respectively).

Table 37 Sensitivity to Wage Growth			
Ultimate Wage Growth	**Tax Rate**	**Change From Base Option**	**Tax Rate Needed in Final Year**
3.8%	0.54%		0.94%
2.5%	0.78%	0.24%	2.42%
5.0%	0.46%	-0.08%	0.41%

OPTION 2

Reinsurance Structure 1

Sensitivity – Attained Age

Table 22 in the Results Summary shows the impact of reinsurance caps on different benefit period options for an 82-year-old. The magnitude of this impact varies based on attained age. Tables 38 through 40 below show the difference of this impact by attained age for three different scenarios:

- Capping a four-year benefit period at three years
- Capping a five-year benefit period at three years
- Capping a five-year benefit period at four years

For a four-year benefit period, the impact of capping benefit payments at three years ranges from a decrease of 9% to a decrease of 17%, with the largest impact coming from males at younger attained ages.

Table 38 Claim Cost Impact of Capping Four-Year BP at Three Years			
Attained Age	**Female**	**Male**	**Total**
25	-15%	-17%	-16%
35	-15%	-17%	-16%
45	-15%	-17%	-16%
55	-16%	-16%	-16%
62	-15%	-16%	-15%
67	-16%	-15%	-15%
72	-15%	-14%	-15%
77	-16%	-13%	-14%
82	-16%	-12%	-14%
87	-15%	-12%	-14%
92	-14%	-10%	-12%
97	-13%	-9%	-11%

For a five-year benefit period, the impact of capping benefit payments at three years ranges from a decrease of 13% to a decrease of 26%, with the largest impact coming from males at younger attained ages.

Table 39
Claim Cost Impact of Capping Five-Year BP at Three Years

Attained Age	Female	Male	Total
25	-24%	-26%	-25%
35	-24%	-26%	-25%
45	-25%	-26%	-25%
55	-25%	-26%	-26%
62	-24%	-25%	-24%
67	-25%	-23%	-24%
72	-24%	-21%	-23%
77	-25%	-20%	-23%
82	-25%	-19%	-23%
87	-23%	-18%	-21%
92	-21%	-15%	-19%
97	-19%	-13%	-17%

Of the three alternatives, capping a five-year benefit period at four years has the smallest impact on average on claim costs, ranging from a decrease of 5% to a decrease of 12%. As with the other alternatives, the largest impact comes from males at younger attained ages.

Table 40
Claim Cost Impact of Capping Five-Year BP at Four Years

Attained Age	Female	Male	Total
25	-11%	-12%	-11%
35	-11%	-12%	-11%
45	-11%	-12%	-11%
55	-11%	-12%	-11%
62	-11%	-11%	-11%
67	-11%	-10%	-11%
72	-11%	-9%	-10%
77	-11%	-8%	-10%
82	-11%	-8%	-9%
87	-10%	-7%	-9%
92	-8%	-6%	-7%
97	-8%	-5%	-6%

Reinsurance Structure 2

Sensitivity – Morbidity Improvement

We assumed offsetting morbidity and mortality improvement impact in the Base Plan. We ran sensitivities assuming an additional 0.25% and 0.50% morbidity improvement per year applied to the Base Plan estimated LTC claim costs.

Table 41 Sensitivity to Morbidity Improvement Present Value of Lifetime Profits per Individual ($)						
	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Base Plan	(4,232)	3,036	13,483	(17,819)	104	2,178
0.25% Improvement	(3,967)	2,846	12,633	(16,695)	97	2,042
0.50% Improvement	(3,719)	2,669	11,843	(15,648)	91	1,915

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

Sensitivity – Interest Rate

The interest rate determines the present value of program income and expenses. As the interest rate increases, future costs are reduced in present value, which reduces the profit range. If interest rates decrease, future costs become more expensive in present value, and the profit range increases. The baseline scenario assumes an interest rate of 5.0%. The interest rate assumptions tested are the 2016 OASDI Trustees Report intermediate, low-cost, and high-cost assumptions.

Table 42 Sensitivity to Interest Rate Present Value of Lifetime Profits per Individual ($)						
	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Baseline Plan	(4,232)	3,036	13,483	(17,819)	104	2,178
4.2% Interest	(5,220)	3,744	16,645	(21,988)	128	2,686
5.3% Interest	(3,920)	2,812	12,484	(16,497)	96	2,018
6.4% Interest	(2,986)	2,143	9,498	(12,535)	73	1,538

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

Sensitivity – Benefit Inflation

As benefit inflation increases, the profit range increases because of higher benefits paid. The baseline growth in average annual benefit inflation is assumed to be 3.0% per year. Sensitivity runs are conducted using the low-cost, intermediate-cost, and high-cost Trustees Report assumptions for wages (2.54%, 3.75%, and 4.98%, respectively), assuming benefit inflation increases are tied to wages.

Table 43 Sensitivity to Benefit Inflation Present Value of Lifetime Profits per Individual ($)						
	Direct Carrier			Reinsurer		
	Min	Average	Max	Min	Average	Max
Current Marketplace	(22,051)	3,140	15,662	N/A	N/A	N/A
Baseline Plan	(4,232)	3,036	13,483	(17,819)	104	2,178
2.54% Inflation	(3,771)	2,705	12,007	(15,865)	92	1,941
3.75% Inflation	(5,126)	3,677	16,345	(21,592)	126	2,638
4.98% Inflation	(7,079)	5,079	22,609	(29,797)	173	3,643

Note: "Min" and "Max" represent results for a single scenario; "Average" represents the average of results across all 1,000 scenarios modeled. Profits for reinsurer assumed to also cover any administration costs.

VII. METHODOLOGY AND ASSUMPTIONS

OPTION 1: MODELING CALCULATIONS BY ACTUARIAL RESEARCH CORPORATION

Actuarial Research Corporation (ARC) modeled Option 1 with a model that has been used for the U.S. Department of Health and Human Services (DHHS) analysis of national LTC programs, including The Community Living Assistance Services and Supports (CLASS) Act. It was also used to model various state LTC initiatives for the State of Hawaii.

The projection is for the 75-year period 2020 through 2094. 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 those 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.

The model was adapted for this project by starting with a projection of the population of the State of Washington by age, sex, and year for 75 years. For each projected year, the number of workers is determined by multiplying the working age population by labor force participation rates and the number of beneficiaries is determined by multiplying the number of insured individuals by disability (or frailty) rates. Most of the beneficiaries are from the aged population. Additional key assumptions are discussed below.

Demographic Assumptions

The demographic assumptions relate to the projection of the population of Washington. For a public insurance program that primarily uses a pay-as-you-go financing structure, the covered population is of fundamental importance in the estimation of costs. The income to the program depends on the number of contributors, which is predominantly the population between ages 25 and 65 (although an increasing number of individuals continue to work past age 65), 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 population projection begins with a starting population that is projected forward with additions and subtractions. The changes to the population consist of births, deaths, and migration into and out of the state. The trends in birth rates, death rates, and migration are all model parameters so that the costs of the program can be tested under various demographic assumptions.

- Starting Population

  The estimate of the starting population is from the November 2015 Washington State Office of Financial Management State Population Forecast. This report contains historical and projected State population estimates by age and sex. This population projection is the starting point for the State population projection.

- Migration

  Washington immigration and emigration are tabulated from the American Community Survey (ACS) five-year data release files. The data files are used to calculate the distribution of immigration and emigration by age and sex. Yearly totals of immigrants and emigrants are based on the five-year ACS tabulations and are assumed to be constant throughout the projection period. Individuals who emigrate are kept track of separately in the model. Such individuals who contributed to the program could be eligible for benefits outside of Washington and could also move back to Washington for long-term care. Benefit credits could be lost (depending on the program specifications) over a specified period once an individual stops filing a Washington income tax return. The eligible beneficiary population includes emigrants in addition to Washington residents. The model does not track the legal status of immigrants or emigrants.

- Births

  The number of births in Washington are estimated using the total fertility rate for the State as reported by the Center for Disease Control National Vital Statistics Report (NVSR).[4] We use the distribution of fertility by the age of the mother as used in the 2016 OASDI Trustees Report. In addition, we use the same trend through time in the total fertility rate as assumed in the 2016 OASDI Trustees Report.

- Deaths

  Washington-specific mortality rates by age and sex were obtained from the Washington State Department of Health (WSDH) Center for Health Statistics. Current and projected U.S. mortality rates by age and sex were taken from the 2016 OASDI Trustees Report, Alternative II assumptions. The Trustees Report mortality rates are projected through 2100. The projected U.S. mortality trend from the 2016 OASDI Trustees Report is used to trend Washington mortality rates over the course of the projection period.

Economic Assumptions

Economic parameters concerning trends in the labor force, wages, and LTC prices 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

  U.S. labor force participation rates (LFPR) and unemployment rates (UR) by age and sex are from the 2016 OASDI Trustees Report. These rates are adjusted to Washington-specific levels using the ratio of state LFPR to U.S. LFPR and state UR to U.S. UR. State 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.

[4] National Vital Statistics Report, Volume 64, No. 12, December 23, 2015.

- Wages

  Projections of U.S. average taxable earnings from 2015 to 2090 are found in the 2016 OASDI Trustees Report. Taxable earnings are the amount of covered earnings subject to the Social Security payroll tax.[5] Taxable earnings for years after 2090 are projected using the 10-year trend from 2081 to 2090. In order to estimate the Washington tax base, we adjust the average U.S. earnings to Washington-specific earnings by the ratio of the average wage in Washington over the average wage in the United States. Wage data for this adjustment comes from BLS Occupational Employment Statistics. Average taxable earnings are multiplied by the labor force in a given year to determine the tax base in that year.

- Vesting

  In order to become eligible for benefits, a worker must become vested (or in other words, become insured). To vest in the Washington LTSS benefit, individuals must work and pay taxes for a specified number of years. Tabulations were produced using the 2006 Earnings Public Use Microdata File to determine the percentage of the population that vests by age and sex. 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.

  To find the percentage of the working population that has worked three of six years, or 10 total years by age and sex, we isolated individuals with complete work histories (those who turn 65 before 2006). For each age, the percentage of individuals who had recorded income for three of the previous six years is tabulated. Next, for each age the percentage of individuals who have worked at least 10 years over their entire lifetime is tabulated. The percentage of workers vested is the maximum of the percentage who have worked three of six years and the percentage who have worked 10 years for each age and sex. This process is repeated for cases where the low-income population is excluded from the LTC program by tabulating the percentage of the working population who have earnings above 138% FPL or 200% FPL for three of six years and 10 years total. In these cases, we assume that individuals who have at least eight years of income above the threshold will qualify for benefits because becoming insured under this program provides an added incentive to continue working for those who are almost insured.

- Benefit Trend Index

  We assumed average increases in wages and CPI inflation are the same as assumed in the OASDI Trustees Report. The ultimate wage trend is 3.75% per year, and the ultimate CPI trend is 2.6% per year.

- Interest Rates

  The interest rates used in modeling come from the 2016 OASDI Trustees Report. Annual interest rates start at 4.7% in 2020, grow to 5.3% by 2024, and remain at 5.3% for the remaining years of the projection.

- Poverty Rates

  Poverty rates for the Washington State population and working population come from the ACS five-year data set. Poverty rates are tabulated by age and sex at 100% FPL, 138% FPL, and 200% FPL. Tabulated rates are then smoothed over age and sex using Whittaker-Henderson graduation. These tabulated rates are assumed to be flat over the projection period.

[5] The 2016 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds, The Board of Trustees, p.144.

Morbidity Assumptions

Key to the projection of benefit payments under the long-term care program is the projection of the percentage of the insured population that meets the requirements to receive benefits, which we will refer to as "frailty rates." For public programs with little or no underwriting, the prevalence of frailty is estimated from data in major surveys of the U.S. population: 1) the National Nursing Home Survey of the institutionalized, 2) the National Long-Term Care Survey of the noninstitutionalized, and 3) the Health Interview Survey. These surveys contained information on the number of individuals who could be considered frail and the degree of frailty, as well as data that can be used to construct continuance tables that show the expected duration of frailty.

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 an indication of the need for long-term care services.

The criteria for eligibility for benefits in the Option 1 Base Plan 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 if that person has a severe cognitive impairment. The ADLs now have specific definitions and include bathing, dressing, toileting, transferring, eating, and caring for incontinence.

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% of days (five of seven days per week).

Participation and Adverse Selection

In discussions with the various stakeholders, Option 1 was specified as a mandatory program for the payroll tax. Universal mandatory programs can be assured that the experience of the group will be average because everyone will be in the program; therefore, there will be no adverse selection.

Under scenarios where premium payments are required starting at age 65, we assumed premium payments are voluntary but that 90% of eligible individuals choose to pay the premium and remain covered after age 65. This is roughly equivalent to the participation in Medicare Part B, which also requires a beneficiary premium. We modeled no adverse selection given the high assumed participation rate.

Administrative Expenses

In addition to the cost of benefits, the LTC program must pay the costs incurred in administering the program. In general, public insurance programs have been able to return a high portion of income in benefits, with very little required for administration. 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. A LTC 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 tables for the first several years of the programs, because of start-up costs.

In 1989, Arizona began providing long-term care services through its Medicaid program, the Arizona Long-Term Care System (ALTCS). The ALTCS program differentiated itself from other the Medicaid

programs in other states by offering all benefits through independent health plans that emphasized case management and home care services. It also invested a large amount of money in a management information system. During its first two years of operation, fiscal year (FY) 1989 and FY 1990, administrative expenses represented 18.4% and 15.5% of benefit payments, respectively. The Medicaid program, on average over all states, incurs an administrative expense equal to 5% of benefits. The administrative costs of the ALTCS program were studied in the report, "Evaluation of the Arizona Health Care Cost Containment System Demonstration, Second Implementation and Operation Report," by Nelda McCall, et al, November 1991.

The administrative costs of the California Public Employees' Retirement System (CalPERS) and the Federal LTC Insurance Program also provide information on the likely costs of administering a LTC program when the administration is provided by private contractors as opposed to government agencies. After reviewing the publicly available data from the Washington State Medicaid program to determine comparable costs to administer LTC services, and adjusting to the conditions expected in a State LTC program, we estimated the administrative load to be 7%. We split this as 3.5% of taxes and 3.5% of benefit payments.

OPTION 2 – MODELING CALCULATIONS BY MILLIMAN

The first step was to construct a baseline pricing model that “recreates” incurred claim levels seen in the private LTC insurance market today. To accomplish this, we used Milliman’s pricing and projection software MG-ALFA® populated with assumptions developed from a combination of internal research and industry data. A primary data source included the 2014 Milliman *Long-Term Care Guidelines* (*Guidelines*), which are based on approximately $25 billion of LTC private market insured claim experience from 450,000 claims.

The key assumptions used to develop premium and incurred claim estimates are summarized below. The assumptions are derived from Milliman client work with many top LTC carriers and reflect more than 20 company data points (both individual and group business).

Product Benefit Structure

The plan priced in this report is intended to reflect policies commonly sold in the private LTC insurance market today. We assumed the following underlying product and demographic features for developing premiums:

- $180 daily benefit at policy issue
- 90-day elimination period based on services
- Three-year benefit period with a pool-of-money design
- 3% automatic annual compound benefit increases
- Benefits are paid based on actual service costs incurred up to the daily limit
- Comprehensive care setting coverage (nursing home, assisted living, and home care included)
- Tax-qualified with HIPAA trigger for benefit eligibility – substantial assistance with two of six ADLs or severe cognitive impairment
- The results are composited across gender and marital status using the following weights:
  - Single insured: 70% female, 30% male
  - Married insured: 50% female, 50% male
  - 50% married insureds, 50% single insureds

- The results are composited issue age using the following weights:
  - Issue age 40: 5%
  - Issue age 45: 10%
  - Issue age 50: 15%
  - Issue age 55: 25%
  - Issue age 60: 25%
  - Issue age 65: 20%

Morbidity assumptions

- Incidence and continuance are developed from the Milliman *Guidelines*, which provide a flexible but consistent way to develop expected claim costs for various benefit packages, demographic splits, and underwriting levels
- Moderate level of full underwriting, with selection factors starting around 0.10 in duration 1 and grading up to 1.00 around durations 15 and later
- Benefit utilization (also called "salvage") arising due to service reimbursement structure, where maximum benefits will not be paid fully each day in all cases because the actual cost of care is lower than the benefit limit ("dollars" salvage) or services are not being provided every day ("days" salvage)
  - "Dollars" utilization ranging from 80% to 90%, varying by care setting
  - "Days" utilization of roughly 70% for home health care services
- Offsetting morbidity and mortality improvement (i.e., no impact to premium or claims)
- Moderately adverse assumption: 10% load applied to claim costs

Persistency Assumptions

- Mortality
  - 90% of 1994 Group Annuitant Mortality (94GAM) Static Table
  - Selection factors of 0.40 in duration 1, grading up to 1.00 for durations 10 and later
  - Offsetting mortality and morbidity improvement (i.e., no impact to premium)
- Voluntary Lapse Rates

Duration	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9+**
Lapse Rate	6.0%	4.0%	3.0%	2.0%	1.5%	1.5%	1.5%	1.5%	1.0%

- Benefit exhaustion based on Milliman *Guidelines* continuance tables

Incurred Claims – Stochastic Modeling

The morbidity and persistency assumptions described above were used to construct estimated yearly incurred claims for the expected "average" policyholder. When examining reinsurance structures, it is important to review the potential variability in financial results due to statistical volatility (referred to as "process risk") or uncertainty around projecting the average (referred to as "parameter risk").

We constructed 1,000 scenarios to use in evaluating the financial results under Option 2, Reinsurance Structure 2. In order to get these 1,000 data points, we applied factors to incurred claims to reflect process and parameter risk. We approximated process and parameter risk by reviewing data summarized from 2015 company-submitted financial annual statements as reported on Long-Term Care Experience Reporting Form 1 (data from SNL Financial; http://www.snl.com). The 2015 financial data reported on Form 1 contains a summary by calendar year of how actual results compare with company expected valuation assumptions for incurred claims. This "actual to expected" (A/E) ratio provided data to use for parameter risk and process risk as follows:

- Parameter risk: Measured by overall A/E ratio observed across calendar years 2009 to 2014
- Process risk: Measured by the yearly A/E ratio observed for a given company after adjusting the ratios for the overall A/E miss across all calendar years

Because company size plays an inherent role in the amount of volatility seen, companies were grouped into small company and large company subsets, allowing tests of reinsurance program results depending on the size of the block of individuals covered. For both process and parameter risk, all of the A/E data points were given an equal likelihood of occurring. A random number generator assigned the risk values to 1,000 different scenarios.

For each scenario we calculated the net present value of incurred claims, premiums, expenses, and profits using a 5% discount rate. The simulations were based off the small company inputs, and we applied both process and parameter risk only for morbidity.

- Incurred claims were calculated as discussed above.
- The present value of premium was calculated assuming the present value of incurred claims are 60% of the present value of premiums. The average premium was then calculated by dividing the present value of premiums by the annuity factor.
- Expenses were calculated as 6% of incurred claims plus 26.4% of premiums.
- Profit was calculated before and after the Option 2 reinsurance plan for both the direct carrier and the reinsurer.
  - Direct Carrier
    - Before reinsurance: PV Premiums – PV Incurred Claims – PV Expenses
    - After reinsurance: PV Premiums – minimum (PV Incurred Claims, Attachment Point) – PV Expenses – PV of Reinsurance Charge
      - Attachment point is set at 120% of incurred claims (baseline)
      - Reinsurance charge is set at 105% of expected reinsurance claims (baseline)
  - Reinsurer
    - Reinsurance charge: Claims paid by reinsurer

VIII. CAVEATS AND LIMITATIONS

This report has been prepared for the internal use of the Washington State Department of Social and Health Services (DSHS), and it should not be distributed, in whole or in part, to any external parties without the prior permission of Milliman, subject to the following exception:

- This report shall be a public record that shall be subject to disclosure to the State Legislature and its committees, persons participating in legislative reviews and deliberations, and parties making a request pursuant to the Washington Public Records Act.

We do not intend this information to benefit or create a legal liability to any third party. This communication must be read 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 Washington. It may not be appropriate, and should not be used, for other purposes.

In completing this analysis we relied on information provided by DSHS and publicly available data, which we accepted without audit. However, we did review this information for general reasonableness.

Many assumptions were used to construct the estimates in this report. Actual results will differ from the projections in this report. 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, John Wilkin, 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 Personal Service Contract with Washington State DSHS effective February 26, 2016, apply to this engagement.

ATTACHMENT A

STAKEHOLDERS' PERSPECTIVES REPORT

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

ATTACHMENT A

STAKEHOLDERS' PERSPECTIVES REPORT

INTRODUCTION

In December 2015, the Washington State Department of Social and Health Services issued Competitive Solicitation #1534-569 – a request for proposals to conduct a Long-Term Services and Supports (LTSS) Feasibility Study. The scope of work included three major components:

- Modeling and actuarial analyses of two alternative approaches for a State-based initiative to address the large and growing risk and costs of meeting Washingtonians' LTSS needs
- Summary of stakeholder perspectives on both the nature of the problem and the proposed alternative state initiatives
- A final report including the above components along with an analysis of the alternative public and private options for leveraging private resources to help individuals prepare for their future LTSS needs

The specific initiatives for modeling represent different approaches to address the LTSS challenge with regard to the nature and extent of public vs. private sector reliance. The two model options are:

- Option 1: A public long-term care insurance benefit for workers funded through a payroll deduction that would provide a time-limited long-term care insurance benefit.
- Option 2: A public-private reinsurance or risk-sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of their catastrophic LTSS losses in order to provide additional private LTSS insurance capacity for the State.

This report 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. DSHS organized and convened a two-day session for intensive interviews with stakeholders. Individuals participating in the stakeholder interviews represented the following organizations and departments:

- Aging and Long-Term Support Administration, DSHS
- Research and Data Analysis Division, DSHS
- Washingtonians for a Responsible Future Coalition
- Office of the Governor
- Office of Financial Management
- Financial Services Administration, DSHS
- Washington State Office of the Insurance Commissioner (OIC)
- Services Employees International Union 775 (SEIU 775)
- Eldercare Alliance
- LeadingAge Washington
- Washington State Ombudsman
- AARP
- Washington Health Care Association
- Alzheimer's Association
- Two large private LTC insurance carriers (anonymous)

ATTACHMENT A

STAKEHOLDERS' PERSPECTIVES REPORT

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 were designed for a 20- to 30-minute time frame in order to minimize burden on participants and to maximize interest in contributing. 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. Key areas of inquiry for the stakeholder interviews were as follows:

- Perspectives on the private LTC financing market in Washington
- Prior concerns and current issues affecting business, consumers and government specific to private finance products and programs
- Concerns and current issues pertaining to the public-sector LTSS initiatives
- Views on an expanded public role in LTSS finance
- Objectives for public-sector initiatives to stimulate the private LTSS finance market
- Model programs to consider with application to Washington LTSS
- Insights on consumer needs and wants, data, and other trends relevant to inform the design of LTSS options
- Thoughts on the political feasibility and critical pricing and design issues with regard to both LTSS options outlined in the request for proposal (RFP)

A copy of the interview protocol may be found in Attachment A, Appendix 2.

While the RFP contemplated individual stakeholder interviews, both in-person and by telephone, once participants were identified and convened, it was agreed within the group to conduct most of the interviews as a series of small group discussions. This was done both in the interest of time and expediency but also because the group interaction would help identify and inform additional areas of inquiry and provide important insights to the conversation. Participants agreed that this approach would not inhibit the free expression of diverse opinions.

To that end, the interviews were conducted over two days (April 25 and 26, 2016). Day one focused largely on state government stakeholders, while the broader group of stakeholders was interviewed on day two. Input was obtained by telephone as follow-up from a few additional stakeholders not able to be present at the in-person meeting.

Pre-Interview Survey

In advance of the on-site 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 instrument was created and distributed via email to stakeholders. Because of the small sample (n = 17), the findings are directional only and helped to spark and guide the in-person conversations. Based on the pre-interview survey, stakeholders, including state representatives, agree on the following "Top Two" finance reform principles:

- A program should be financially sound and sustainable
- It should be affordable for the middle market

Respondents also noted a reform that encourages private planning for those who can afford to do so, and that it is relatively easy to understand, is also important. State respondents placed slightly greater importance on alleviating Medicaid budget issues than other stakeholders, although during the in-person interviews, this was an important priority across all groups. Other concerns about LTSS financing reform that emerged from the pre-interview survey included the following:

- How to make it sustainable
- How to fund the program
- Enticing the currently healthy to begin to save for future LTSS needs
- How best to balance the need to protect taxpayers with family needs for LTSS
- Showing real help for middle-income families and for the state budget
- Strategies for helping the largest number of people

A copy of the survey and the scoring summary is included in Attachment A, Appendix 3 and Appendix 4, respectively.

Data Presentation

In order to provide a uniform context for the stakeholder conversations, the project team presented a LTSS Snapshot for the State of Washington (see Attachment A, Appendix 1). The presentation included information on:

- Private LTC insurance market take-up. Washington ranks 9th compared with other states, with approximately 6.8% of individuals age 40 and above having private LTC insurance. The national average is 4.8%. The state employees' LTC insurance program and the offering of other large state employers are important factors in the higher-than-average market penetration.

- Private LTC insurance coverage purchased in Washington, based on a survey of current buyers (2015), compares favorably with the nature and type of coverage in the U.S. overall. The average annual premium is $2,772, providing comprehensive coverage with a daily benefit amount of roughly $150 for both facility and in-home care, providing benefits that will last at least four years. Over three-fourths of policies have some type of inflation protection.

- LTSS cost and supply characteristics and demographics of the aging population: Washington is fairly representative compared with the U.S. overall on these parameters.

- Key dimensions of performance across various LTSS measures. Based on the *AARP State LTSS Scorecard, 2014*, Washington ranks in the top quartile for all domains and ranks 2nd in the United States when averaged across all domains.

KEY FINDINGS

Problem Definition and Identifying Policy Objectives

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 across and within the stakeholder groups with regard to both problem definition and policy objectives. These objectives have risen to the top of the policy agenda, given the rapidly aging demographics of the state, perceived failure of the private market to adequately address the issue, challenges to the State budget in general and the rapid growth in the Medicaid LTSS home and community-based services (HCBS) program budget.

Medicaid Budget

A strongly shared sentiment was the desire to preserve and protect a viable Medicaid program budget by reducing reliance on Medicaid LTSS for those who could reasonably afford alternatives to relying on Medicaid. Stakeholders were proud of the current performance of the State's Medicaid program, especially with respect to its ability to manage Medicaid LTSS in a way that strongly supports HCBS. At the same time, stakeholders recognize that the challenging economy and rapidly growing aging population will put tremendous pressure on the Medicaid program. An important objective for stakeholders is to preserve and

protect the ability of the Medicaid program to meet residents' needs in all regards including LTSS, education, disability, health care and others. By reducing the future share of Medicaid expenditures going to LTSS – through one or more finance reform proposals – more funds can be available to maintain the programs current LTSS initiatives and for other critical needs.

The overarching policy objective expressed by stakeholders is the desire to ensure that as few people as possible end up impoverishing themselves because of LTSS costs. The desire is to make sure that people plan, save, and have affordable options such as public insurance that could be supplemented with private coverage. Delaying or preventing Medicaid spend-down was, therefore, cited as an important policy objective for a LTSS finance reform. Stakeholders expressed the desire to ensure that as few people as possible end up impoverishing themselves because of LTSS costs. While this objective might be achieved through different mechanisms, participants want to see more people made aware of the need to plan, and supported in their efforts to do so, with a more robust private market and, for some, a public insurance plan that could be supplemented with private coverage.

Limitations of the Private Market Solution

Stakeholders also identified lack of consumer awareness with regard to LTC risks and costs as a critical problem and a barrier to change. While education and raising awareness are important, stakeholders felt that they are necessary but not sufficient; people will not plan ahead unless they have incentives or options that strongly enable or encourage planning. Affordability to take precautions against LTC risk is another important constraint even when awareness is raised. Failure of the private market was once again discussed, pointing out that market penetration has remained small and citing concerns with affordability and rate stability. Stakeholders hoped that the analysis would explore possible private market response to the LTSS finance reform options being explored. They expressed interest in learning more about thoughts with regard to private market innovation and incentives to improve market penetration. Stakeholders felt it may be politically important to garnering support for a public finance reform to fully explore discussion of private market solutions to help illustrate how far they can or cannot go.

Out-of-Pocket Expenditures for LTSS

Another area of concern for stakeholders is the significant and growing impact of needing LTSS on both the out-of-pocket expenditures for citizens and the impact on family caregivers (economically and emotionally). While preliminary modeling from a national presentation suggests that a comprehensive program with broad population coverage is an important way to reduce reliance on the Medicaid safety net, a more front-end, limited coverage option has a greater impact on helping to reduce the out-of-pocket LTSS expenditures being paid privately by individuals not relying on Medicaid.

To this point, stakeholders expressed interest regarding the impact on out-of-pocket expenditures, family caregiving, working caregivers, and other pressures caused by lack of preparedness for LTC. The real impact of a public finance reform on families, employers, care choice, and the Medicaid safety net could better motivate support for a solution. Quantification of these impacts are outside the scope of this feasibility study and should be explored once more specific plan design details are finalized.

Other Important Policy Objectives

While a major emphasis of stakeholder concern pertained to the topics outlined above, a number of other objectives were identified. Given the State's success with rebalancing and access to home and community-based care, and the public's general preference for care in the least restrictive setting, stakeholders felt that finance reform should also be neutral with respect to where services are delivered. Additionally, the State has an impressive track record of managing Medicaid LTSS in a way that strongly supports HCBS. Interest in leveraging some of the expertise in managing care and avoiding institutional care bias were also identified, perhaps leveraging State expertise in this regard should the State decide to engage in a public insurance program. Stakeholders also want the analysis to speak to the equity of the options analyzed with

respect to the State's significant geographic and economic disparities across the state. Finally, stakeholders want solutions that they can be confident will:

- Be financially viable and sustainable in the long run
- Meet the needs of individuals with varying preferences and LTSS care needs
- Ensure an adequate participation rate, if it is a voluntary program, or have broad reach if it is a mandatory program
- Be able to address in some way the needs of Washingtonians who may, at some point in the future, relocate out of state (i.e., portability)

Factors in Success

Stakeholders were asked to articulate their views of what outcomes would be important indicators for them that a program had been successful. They provide additional metrics by which to measure the outcomes modeled in the actuarial analyses. Success factors mentioned by the State stakeholders included the following:

- Having a meaningful coverage option for consumers
- Reducing Medicaid expenditures and having fewer people relying on Medicaid
- Reducing out-of-pocket expenditures and delaying or reducing spend-down for individuals
- Helping to alleviate the needs of family caregivers
- Having a robust private market to augment whatever public program is provided so that the range of consumer needs and affordability can be met
- Having meaningful participation rates if the program is voluntary

The other stakeholders cited the following in response to the same line of questioning:

- Families will have a reasonable absence of fear with regard to aging in place and can expect financial protection and a system to pay for care that gives them meaningful choices
- Medicaid expenditure growth rate will be stable and/or maintained
- Families will have greater confidence regarding their LTSS futures and other retirement needs
- The overall health of the State budget will be improved (the sentiment was expressed that using money for LTSS takes away from other important uses for public dollars such as children and families with disabilities, K-12 education, nutrition, and other social services)
- Private care choices for families are enhanced, in particular for the middle class
- The emphasis on HCBS within Medicaid can be sustained by bringing budget relief from fewer middle-income families needing to spend down or rely on Medicaid
- The options would favorably and equitably impact different population segments, particularly with regard to women and the State's diverse communities

Stakeholder Input to Option 1

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 parameters of those options or to raise questions and concerns about the various approaches.

Almost without exception, stakeholders expressed a preference for a more modest benefit that reaches a broad population, rather than a LTSS finance reform that reaches a smaller population but provides catastrophic protection. Interest was expressed in a program formulated along the lines of the Hawaii proposal, in part given all the work that had been done on that approach, and also because it focused on front-end coverage for a broad population. In talking about the Hawaii LTC plan proposed legislation as a model for Option 1, some important differences between Hawaii and Washington were identified, which may influence the extent to which a Hawaii model is relevant. They include:

- No income tax in Washington, only sales and property taxes
- Very different Medicaid programs
- Significant limitations on availability, access, and costs of facility care in Hawaii relative to Washington
- Greater cultural diversity and emphasis on family care in Hawaii.

Stakeholders want the analysis of Option 1 to consider whether it might spur new and interesting private market products. The impact on women and families of color was specifically mentioned as an important consideration in evaluating Option 1. Stakeholders also want the modeling of Option 1 to explore alternatives for including payment for family care as compared with only paying for formal care services. The options for a cash benefits versus service reimbursement versus indemnity benefit, along with various family care provisions within a service benefit, were discussed. This concept was identified as one of several important pricing variables to include in the analysis. Other features that can help maintain and not erode the role of family caregivers are desired. That said, there was concern that a program that pays family caregivers might deplete the workforce and thus be poorly received by business.

Finally, the impact of LTSS financing reform on the cost to large employers, as well as for the State budget, was a priority concern for the group. Stakeholders would prefer an employee-only payroll tax and do not see the viability of including an employer-paid component within Option 1 (minimizing the cost impact to employers).

While it was agreed that the best design for Option 1 is a "limited coverage" benefit, significant discussion focused on whether this would provide front-end or catastrophic, back-end coverage. Stakeholders expressed concern that a back-end program would not be well received because people are being asked to pay today for something they may never receive or may not receive for a long time. While the need for a vesting period within the program design was understood, there was concern about how that would affect political support for the option. Stakeholders expressed interest in seeing options analyzed around different vesting periods.

Stakeholders were comfortable with a single plan design for Option 1 (rather than choices within it), in part because they felt it would simplify the program and also create a market opportunity for private products to fill in and offer variations. For example, if the public option focuses on reimbursing paid services, private options might emphasize reimbursement or support for family or informal care.

There was also interest in exploring different benefit amounts for home care and/or a disability-based benefit design such as higher benefits associated with greater degrees of loss. The group discussed the difference in care needs and service intensity associated with a loss of two ADLs versus the loss of a third ADL and/or severe cognitive impairment, wherein the former requires intermittent scheduled care, while the latter requires on-demand and more continual care.

When asked about affordability and price points, the group mentioned 0.4% to 0.8% payroll tax as feasible, or roughly $20 to $30 per month. The group discussed the fact that other revenue sources are limited or not feasible because the State has no income tax and sales taxes are already "maxed out." Finally, while there was a preference for Option 1 as a program financed and operated as a public entity, the group did not rule out some kind of private insurer role.

In comparison with the Hawaii plan, stakeholders preferred a two-year and not a one-year plan duration as they felt it would be more effective in avoiding reliance on Medicaid; the group hopes the analysis can explore alternative designs and durations, specifically with regard to how they would avoid or delay Medicaid reliance. There was interest in the idea of a LTC Partnership Program model for after the front-end program, such that asset disregard including estate recovery would be a component of the program for those who eventually did need to rely on Medicaid.

Given the strong sense of familial responsibility in long-term care, the group supports the idea of a limited benefit that would still allow families to play a role but not to the point where a family caregiver would have to leave employment to do so.

With respect to political support for Option 1, if and when it goes to voter referendum, stakeholders felt that helping families and keeping Medicaid budget pressures low would be popular and desirable program achievements. In particular, alleviating Medicaid budget pressure would have widespread support whereas "helping families" would mostly benefit those directly impacted by LTC needs. There was discussion of ways to frame the issue of a public sector finance option so that everyone benefits, not just those who might need LTC.

Stakeholders also raised the idea of looking at the history and evolution of unemployment insurance and workers' compensation because they are public programs funded with employee contributions that do not directly benefit all who contribute. A similar model for LTC is desired by the stakeholder group – providing a sense of community and public sector responsibility to address the issue.

The stakeholder group outlined its current thinking about coverage design for Option 1. Washingtonians for a Responsible Future (WRF) provided its "Vision of Option 1 Attributes" *(*see Attachment A, Appendix 5*).* Discussion focused on the following:

- $100 per day is a low benefit amount relative to facility care costs but helps make the program less costly and also emphasizes home care. For a front-end benefit, more people will start out with care needs at home than in a facility.

- There was some concern that provider groups might object to a benefit amount that isn't adequate to support all care settings.

- The lower daily benefit amount (DBA) also offers an opportunity for a private market "wraparound" product for those who want to supplement that from the outset (e.g., copay insurance).

- If there is a higher DBA, the group would like the modeling to inform what else in the design needs to be "dialed down" in order to support that (e.g., change the age or disability criteria for eligibility; change the inflation rate; or vary DBA based on disability level.)

Finally, there was a strong sense that a public finance program under Option 1 must be mandatory and that it needs to start early on in the life cycle in order to be financially feasible and successful. While consumer education and raising awareness are seen as vital components of any program, there was consensus that education alone would not be sufficient to sustain a program where participation is voluntary. It was felt that political will could be garnered for a mandatory program, given the proper balance of benefits and costs, along with a comprehensive educational campaign to raise support for that approach.

Stakeholder Input to Option 2

The discussion of Option 2 focused more on exploring and explaining what it might entail, rather than providing specific input to how it should be designed. That is due to the fact that this option is more of a departure from familiar LTC financing concepts. As part of the discussion, the project team presented a brief recap of other public reinsurance structures to help guide the conversation.

As part of the assessment of Option 2, it was felt that input from both the private LTC insurance market and the State Office of the Insurance Commissioner (OIC) would be important to obtain. Their perspectives could help identify factors that might encourage a renewed private market and ways to explore concerns with rate increases and loss of consumer confidence.

In discussing Option 2, State representatives were interested in other efforts besides reinsurance to promote the private market, such as education, modified Partnership-type programs, and others. Still, there was a strong feeling that, despite better-than-average private market "take-up" in Washington, the private market has failed. Stakeholders did express some interest in exploring other product variations like a 401(k)-type LTC option. State representatives also expressed interest in other "best practices" the State could undertake to help promote more take-up of private insurance, including product innovation, rate stability, revitalizing the employer/affinity market, and the like. They expressed interest in having a renewed look at the state employees' program, the state Partnership effort, and current regulatory issues facing private insurers in the state.

The concepts behind reinsurance as part of Option 2 were discussed. The notion was discussed that participating insurers would need to agree to some prescribed uniformity in performance features that impact risk (e.g., underwriting, benefit triggers, etc.) in order for a reinsurance pool to work. The group also briefly discussed an approach like the Federal Long Term Care Insurance Program (FLTCIP), where Option 2 would be a publicly designed and managed program but with a competitively selected private insurance vendor, supported exclusively by private premium payments.

Option 2 was discussed with respect to whether or not it would impact the supply of affordable private LTC insurance (i.e., would it draw more players into the market), and also regarding what impact this would have on demand (consumer confidence and purchase). There was some concern that neither demand nor supply might be sufficiently impacted under Option 2.

Stakeholders generally saw Option 1 as the only viable approach, given high levels of skepticism with regard to any solution that relies solely on a private market solution. There is, however, interest in designing Option 1 so that the private market role to provide supplemental coverage is encouraged. Stakeholders felt that Option 2, on its own, will not go far enough toward a broad and affordable solution.

Other Concerns

Portability

The challenge of addressing portability in a state program was raised. One question for modeling or for discussion among the product design team would be how to protect insureds' investments for those who choose to move out of state after having participated in the program. One approach might be to set up a conversion coverage plan much the way the early employer true group LTC plans had done; whether this could be self-funded or would require a participating insurer is an open question. Another possibility is to have a limited value non-forfeiture component such as a reduced paid-up benefit. Additionally, it may be possible for the State plan to continue to administer and support the LTSS plan for those receiving care out of state. (Contributions might end once the insured leaves Washington, but participants would maintain their reduced paid-up coverage amount.)

Family Caregiving

State representatives expressed some concern about whether an insurance option would erode or replace the family caregiving component. There was also interest in having payment for informal caregivers and/or support for informal care through training, respite care, and other components. While a cash versus service reimbursement approach to Option 1 was not explicitly discussed at this initial stakeholder meeting, including "ancillary" benefits and/or a limited cash or family caregiver component seemed to be of interest to the participants.

Other Miscellaneous Concerns

- Even if consumers come to understand all risks and costs perfectly, the issue of affordability of private insurance is still seen by the group as a major obstacle that would preclude serious

consideration of a full private market solution. In thinking about an education campaign, it might be helpful to show impacts in terms of family finances and out-of-pocket spending as well as impacts on family caregiving. Individual rather than societal impacts may be more compelling.

- Actuarial analysis should explore the cost and care access impacts of varied approaches to payment: specifically, only paying licensed caregivers versus including a broader independent provider system.

- The public program option should be careful not to create incentives for people to quit their jobs, as this would lead to a loss in support from the business community and erode the source of payroll contributions into the program. It was felt that reimbursement for family care may have some unintended consequences in this regard.

- Some expressed concern that the payroll tax not be too heavily front-loaded such that people have to wait too long for benefits, as this will hinder political feasibility.

- Others mentioned that the tax should only kick in after a minimum level of income has been hit but that there also should not be a cap on earnings that are subject to the tax.

- There was some discussion that a comprehensive benefit design would be unpopular not only because of cost, but also because people feel an obligation to care for family members and what they are looking for is help when that becomes too burdensome.

- In positioning the issue of LTSS risk and financing, stakeholders felt it is important to expand the definition of risk to include the exposure experienced both by care receivers as well as caregivers (both formal and informal). Putting those two probabilities together was seen as important to ensure that the program has relevance to a broader audience.

ATTACHMENT A – APPENDIX 1

STAKEHOLDER INTERVIEW MATERIALS

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

Washington Department of Social and Health Services (DSHS) Long Term Services and Supports (LTSS) Feasibility Study Stakeholder Interviews

AGENDA

Monday April 25 – State representatives from DSHS

- 11:00am – 12:00pm –> Group Session
    - Discussion with State representatives regarding objectives for stakeholder interviews, background on interaction with stakeholders to date, highest order priorities for input, etc.
    - Understand level of familiarity with key issues with proposal, LTC finance reform options to be modeled, and other concerns
    - Discuss modifications to interview protocol for use with stakeholder groups
- Afternoon –> Individual Interviews
    - Follow interview protocol
    - Estimated 20 – 30 minutes for each interview

Tuesday April 26 – Washingtonians for a Responsible Future Coalition

- 8:00am – 9:00am –> Group Session
    - Brief overview of Washington LTC private market (product performance, penetration, major carriers, regulatory issues, etc.) and key LTSS performance parameters
    - Background and overview of Coalition
    - Discuss objectives for interviews
        - Stakeholders to complete Scoring Summary prior to session
- 9:00am – 1:00pm –> Individual Interviews
    - Follow interview protocol
    - Estimated 20 – 30 minutes for each interview

FORMAT

The group session will begin with a brief discussion and overview of the process with all participants. The consultants will provide some baseline data on the private LTSS insurance market in Washington and high level overview of key state parameters with regard to LTSS. This is intended to provide a common framework for subsequent interviews with regard to specific goals, strategies and concerns regarding LTSS financing reform options.

After the group session, the consultants will conduct individual interviews with stakeholder representatives, as mutually identified by the State, using a pre-approved interview guide. While we anticipate capturing open-ended thoughts and concerns, using a structured interview protocol ensures that all perspectives are gathered on certain key issues. However, this approach still allows for exploration of new thoughts and strategies which stakeholders may bring to the discussion.

Individual interviews are designed for a 20-30 minute timeframe in order to minimize burden on the interviewee and maximize interest in participation. The initial interviews will be conducted in-person on April 25-26 with as many stakeholder representatives as can participate. If needed, additional interviews can be conducted by telephone. Also, where follow-up is required to fully explore the various perspectives provided in the interview process, this will also be conducted by telephone as needed.

DELIVERABLE

Findings from each interview will be written up following a standardized summary format. These will be consolidated into a final report on stakeholder perspectives which will de-identify the opinions and concerns expressed but will give a sense of the extent to which the sentiment is a widely shared perspective, unique to a certain stakeholder type, or a more divergent perspective. With their permission, the list of individuals and organizations interviews will be included as a report appendix.

INTERVIEW PROTOCOL

Part A. Open-ended questions

1. How would you define the major problem with respect to LTSS financing today?

2. Do you feel there is broad-based consensus on this "problem definition" or are there important differences in perspective across various stakeholder groups?

3. As the state embarks on the feasibility study and actuarial analysis of LTSS finance reform options, what critical questions or issues should the analysis be sure to address?

4. Do you have a position or perspective on Option 1 vs. Option 2 in general? Why?

5. Which option (if either) is more politically feasible?

6. What should the key measure of "success" be under each option?

Part B. Option-specific questions – OPTION 1

1. Perspectives on voluntary vs. mandatory program? What are your preferences and concerns with regard to each approach?

2. A voluntary program requires methods to address adverse selection. How do you feel about the various options for addressing it?
    a. Rates that vary with expected benefit costs (e.g., gender, age, income)
    b. Exclude currently disabled
    c. Strong actively at work definition and specific enrollment opportunities
    d. Traditional industry underwriting or modified "at work" underwriting
    e. Long vesting/waiting period and/or slow "ramp up" of benefits
    f. Coverage limitation to limit risk (e.g., front-end limited coverage; catastrophic only)

3. Option 1 speaks of being a time-limited benefit. Should this be front-end or catastrophic? Or limited in some other way (lifetime dollar amount)? Rationale for your preference?

4. Should the objective of an Option 1 be to provide a partial coverage solution to a large number of people with qualifying loss? Or should it provide fuller coverage to a more targeted population with the highest level of need?

5. Should there be a state contribution to the funding or should it be exclusively based on payroll tax or other participant contributions? If there is a role for state contributions, what would be the purpose, nature and scope of such subsidies?

6. Which are your top three concerns with this approach (Option 1)?

7. What do you see as the top three advantages of this approach?

8. Who would be the champions for this approach? Who would the key opposition be? And what drives each of their perspectives?

9. Overall, on a scale of 1 to 10, how feasible do you feel it would be to implement Option 1? What factors are important to the score you gave? What needs to change to "improve" the feasibility rating you believe this option has?

Part C. Option-specific questions – OPTION 2

1. Which are your top three concerns with this approach (Option 2)?

2. What do you see as the top three advantages of this approach?

3. Who would be the champions for this approach? Who would the key opposition be? And what drives each of their perspectives?

4. What key financing objective(s) are best met with Option 2? And which ones are less well met?

5. Do you believe that this approach will lead to significant increase in supplier activity in the state? What about anticipated impact on stimulating consumer demand? Why/why not?

6. Should the state act primarily as an organizer/administrator for insurers to pool risk or as a reinsurer of last resort?

7. Should there be subsidies or other consumer incentives for purchase of insurance under Option 2?

8. Should employers be mandated to offer insurance? Or to play an educational role with or without state support?

9. Overall, on a scale of 1 to 10, how feasible do you feel it would be to implement Option 2? What factors are important to the score you gave? What needs to change to "improve" the feasibility rating you believe this option has?

SCORING SUMMARY QUESTIONS

*** 1. 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 - Most Important	2	3	4	5	6	7	8	9	10 - Least Important
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 both future and the currently 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 in coverage and broad in terms of the population it addresses	○	○	○	○	○	○	○	○	○	○
12. It focuses exclusively on today's non-disabled population	○	○	○	○	○	○	○	○	○	○

*** 2. Which of the above is the MOST important objective for LTC finance reform? (Choose the number that corresponds to the options #1 through #12 above.)**

*** 3. Which of the above is the LEAST important objective for LTC finance reform? (Choose the number that corresponds to the options #1 through #12 above.)**

4. What issues or areas of inquiry are of greatest importance to you as the state explores LTC finance approaches? What critical question(s) do you feel must be answered to help inform next steps?

Long-Term Services and Supports (LTSS) Feasibility Study for Washington State Department of Social & Health Services (DSHS)

Stakeholder Interviews – LTSS Snapshot for State of Washington

Private LTC Insurance Market

- Market penetration in the state of Washington for stand-alone long-term care insurance (LTCI) is approximately 6.8% for individuals age 40 and older. This compares with the US National average of approximately 4.8%. Washington ranks ninth (#9) compared to all other states.
- Profile of LTCI Coverage, 2015, LifePlans data

	2015 Washington State	2015 US
Policy Characteristics		
Policy Type		
Nursing Home Only	0%	0%
Nursing Home & Home Care	100%	100%
Daily Benefit Amount for NH Care	$150	$159
Daily Benefit Amount for Home Care	$148	$152
Nursing Home Only Elimination Period	…….	…….
Integrated Policy Elimination Period	98 days	93 days
Nursing Home Benefit Duration	3.9 yrs.	3.8 yrs.
Partnership Policy	52%	45%
Inflation Protection	77%	75%
Annual Premium	$2,772	$2,772

Attributes of Policies	**2015 Washington State**	**2015 US**
Policy Type		
NH Only	0%	0%
NH and Home Care	100%	100%
Home Care Only	0%	0%
NH Duration		
1-2 years	14%	17%
3 years	55	44
4 years	15	18
5 years	4	12
6 -8 years	1	2
Lifetime Benefits	11	7
Average Duration	3.9 years	3.8 years
NH Daily Benefit		
up to $59	2%	3%
$60 to $89	4	4
$90 to $119	24	18
$120 and Over	70	75
Average Daily Benefit	$150	$159
HH Care Duration		
1-2 years	13%	13%
3 years	55	29
4 years	16	16
5 years	4	16
6-8 years	1	12
Lifetime Benefits	11	14
Average Duration	3.9 years	4.8 years

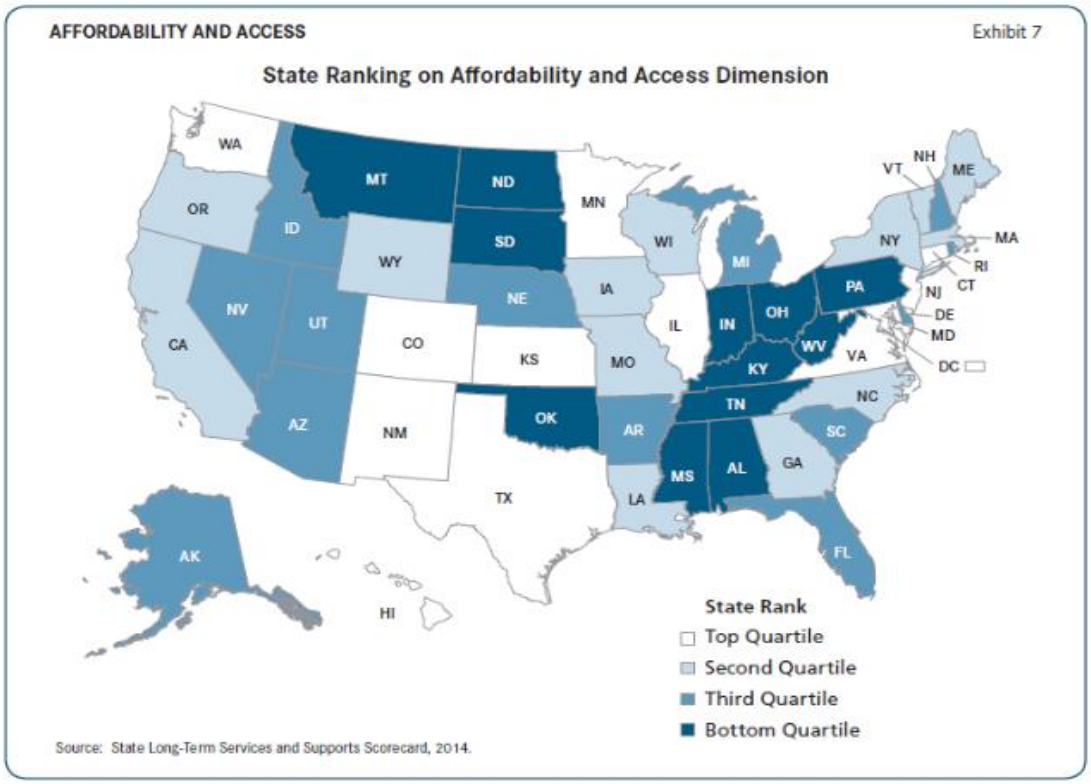
LTSS Characteristics

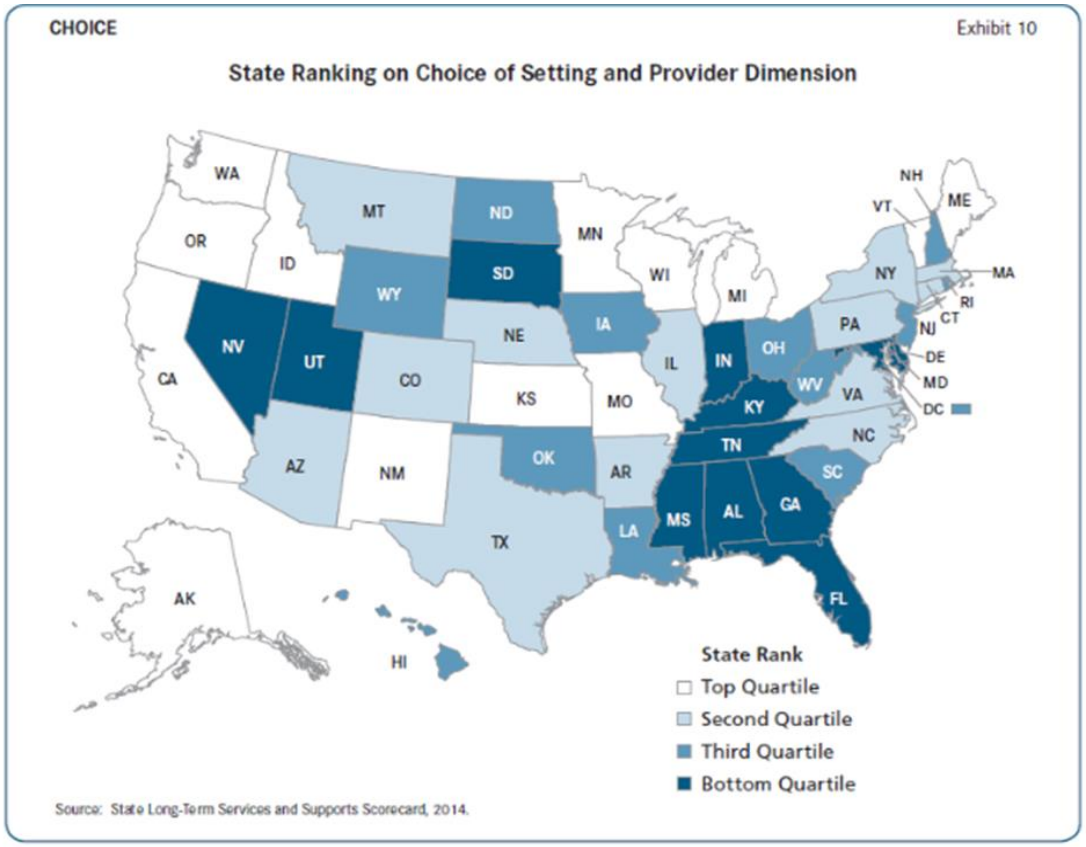
Characteristic	Washington	US
Medicaid nursing home rate/rank	$168 – 25th	$178
Private pay nursing home rate/rank	$224 – 16th	$193
Private pay ALF/month	$4,000 – 9th	$3,261
Adult day care	$60 – 27th	$60
Home health aide hourly	$22 – 8th	$19
ALF per 1,000 people 65+	4.14 6th	1.46
Home care aides/65+	19 – 16th	17
Nursing home beds per 1,000	27 – 44th	42
Nursing home occupancy	82%	83%
Nursing facility staff turnover	52%	40%
Residents with dementia	45% - 31st	46%
Residents with low care needs	10% - 5th	17%
Residents with Medicaid as primary payer	60% - 37th	63%
Residents with "other" as primary payer	22% - 22nd	22%

Demographics & Others

Characteristic	Washington	US
Percent population 65+ - 2012	13%	14%
Percent population 65+ 2050	22%	20%
Median household income 65+	$39,207	$34,381
At below poverty 65+	7%	9%
Economic value of family caregiving per hour	$12.94	$11.16

LTSS Scorecard





State Ranking on LTSS System Performance by Dimension

Overall Rank*	State	Affordability & Access Rank	Choice of Setting and Provider Rank	Quality of Life & Quality of Care Rank	Support for Family Caregivers Rank	Effective Transitions Rank
50	Alabama	47	51	44	47	46
5	Alaska	38	3	2	4	8
21	Arizona	31	24	33	23	7
40	Arkansas	28	23	47	16	49
9	California	14	2	24	24	22
4	Colorado	5	14	7	16	11
12	Connecticut	4	22	6	30	39
29	Delaware	27	47	18	26	14
11	District of Columbia	1	29	30	2	35
43	Florida	35	41	43	40	14
36	Georgia	26	44	36	5	40
6	Hawaii	2	36	9	1	9
22	Idaho	38	9	27	42	3
15	Illinois	9	21	28	10	43
47	Indiana	44	42	45	51	33
13	Iowa	19	27	4	20	38
17	Kansas	11	10	20	35	37
51	Kentucky	51	50	50	46	42
37	Louisiana	24	30	41	7	51
10	Maine	23	12	23	29	6
23	Maryland	6	45	16	33	20
18	Massachusetts	17	14	15	41	26
31	Michigan	32	13	26	44	18
1	Minnesota	3	1	1	3	12
49	Mississippi	49	48	42	28	50
35	Missouri	21	11	46	32	34
26	Montana	41	18	11	49	10
20	Nebraska	37	25	10	18	25
41	Nevada	32	40	40	24	32
32	New Hampshire	29	39	13	38	19
26	New Jersey	13	37	21	22	36
14	New Mexico	12	6	38	37	17
25	New York	22	20	34	6	45
28	North Carolina	24	19	35	31	21
33	North Dakota	48	34	3	27	29
44	Ohio	42	32	39	39	27
45	Oklahoma	45	27	51	9	48
3	Oregon	20	5	13	14	1
42	Pennsylvania	46	25	37	36	28
38	Rhode Island	36	38	31	19	31
34	South Carolina	29	35	29	34	16
24	South Dakota	40	43	5	13	24
48	Tennessee	43	49	31	48	44
30	Texas	10	16	49	11	47
39	Utah	34	46	25	50	2
6	Vermont	15	8	17	12	5
19	Virginia	8	17	22	45	23
2	Washington	7	4	19	7	4
46	West Virginia	50	30	48	43	41
8	Wisconsin	18	7	7	14	13
16	Wyoming	16	33	12	21	30

* Final rank for overall LTSS system performance across five dimensions.
Source: State Long-Term Services and Supports Scorecard, 2014.

Caveats and Limitations

Statistics are prepared by ET Consulting, LifePlans, and Milliman to aid stakeholder interview process as part of the LTSS feasibility for Washington DSHS. This information is for discussion purposes only. It may not be appropriate, and should not be used, for other purposes. Results represent summaries of historical data; actual future results will vary from the figures shown.

ATTACHMENT A – APPENDIX 2

INTERVIEW PROTOCOL

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

ATTACHMENT A – APPENDIX 2

INTERVIEW PROTOCOL

Part A. Open-ended questions

1. How would you define the major problem with respect to LTSS financing today?

   (e.g., Medicaid budget, low private finance take-up, environment discourages private financing, uninsurable population, affordability, poor service infrastructure, doesn't serve currently disabled, no solution for middle class, flawed private market solutions, population awareness/resistance to plan, etc.)

2. Do you feel there is broad-based consensus on this "problem definition" or are there important differences in perspective across various stakeholder groups?

3. As the state embarks on the feasibility study and actuarial analysis of LTSS finance reform options, what critical questions or issues should the analysis be sure to address?

4. Do you have a position or perspective on Option 1 vs. Option 2 in general? Why?

5. Which option (if either) is more politically feasible?

6. What should the key measure of "success" be under each option?

Part B. Option-Specific questions – OPTION 1

1. Perspectives on voluntary vs. mandatory program? What are your preferences and concerns with regard to each approach?

2. A voluntary program requires methods to address adverse selection. How do you feel about the various options for addressing it?

   a. Rates that vary with expected benefit costs (e.g., gender, age, income)
   b. Exclude currently disabled
   c. Strong actively at work definition and specific enrollment opportunities
   d. Traditional industry underwriting or modified "at work" underwriting
   e. Long vesting/waiting period and/or slow "ramp up" of benefits
   f. Coverage limitation to limit risk (e.g., front-end limited coverage; catastrophic only)

3. Option 1 speaks of being a time-limited benefit. Should this be front-end or catastrophic? Or limited in some other way (lifetime dollar amount)? Rationale for your preference?

4. Should the objective of an Option 1 be to provide a partial coverage solution to a large number of people with qualifying loss? Or should it provide fuller coverage to a more targeted population with the highest level of need?

5. Should there be a state contribution to the funding or should it be exclusively based on payroll tax or other participant contributions? If there is a role for state contributions, what would be the purpose, nature and scope of such subsidies?

6. Which are your top three concerns with this approach (Option 1)?

7. What do you see as the top three advantages of this approach?

8. Who would be the champions for this approach? Who would the key opposition be? And what drives each of their perspectives?

9. Overall, on a scale of 1 to 10, how feasible do you feel it would be to implement Option 1? What factors are important to the score you gave? What needs to change to "improve" the feasibility rating you believe this option has?

Part C. Option-Specific questions – OPTION 2

1. Which are your top three concerns with this approach (Option 2)?

2. What do you see as the top three advantages of this approach?

3. Who would be the champions for this approach? Who would the key opposition be? And what drives each of their perspectives?

4. What key financing objective(s) are best met with Option 2? And which ones are less well met?

5. Do you believe that this approach will lead to significant increase in supplier activity in the state? What about anticipated impact on stimulating consumer demand? Why/why not?

6. Should the state ask primarily as an organizer/administrator for insurers to pool risk or as a reinsurer of last resort?

7. Should there be subsidies or other consumer incentives for purchase of insurance under Option 2?

8. Should employers be mandated to offer insurance? Or to play an educational role with or without state support?

9. Overall, on a scale of 1 to 10, how feasible do you feel it would be to implement Option 1? What factors are important to the score you gave? What needs to change to "improve" the feasibility rating you believe this option has?

ATTACHMENT A – APPENDIX 3

PRE-INTERVIEW SURVEY TOOL

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

ATTACHMENT A – APPENDIX 3

PRE-INTERVIEW SURVEY TOOL

Washington

1. 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 - Most Important	2	3	4	5	6	7	8	9	10 - Least Important
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 both future and the currently 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	○	○	○	○	○	○	○	○	○	○

ATTACHMENT A – APPENDIX 3

PRE-INTERVIEW SURVEY TOOL

10. It provides comprehensive coverage for a specific targeted population	○	○	○	○	○	○	○	○	○	○
11. It is both comprehensive in coverage and broad in terms of the population it addresses	○	○	○	○	○	○	○	○	○	○
12. It focuses exclusively on today's non-disabled population	○	○	○	○	○	○	○	○	○	○

2. Which of the above is the most important objective for LTC finance reform? (write number below)

3. Which of the above is the least important objective for LTC finance reform? (write number below)

ATTACHMENT A – APPENDIX 4

SCORING SUMMARY RESULTS

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

ATTACHMENT A – APPENDIX 4

SCORING SUMMARY RESULTS

Scoring Summary: Non-State Stakeholders Only

Principle	Importance (1 = most)	Most Important	Least Important
1. Financially sound and sustainable	1.71	14%	
2. Affordable for middle market	1.57	29%	
3. Easy to understand	2.83	14%	
4. Alleviate Medicaid budget issues	3.43	14%	
5. Safety net for the poor	5.57		14%
6. Coverage choice and premium/contribution options	3.33		14%
7. Addresses needs of both current and future disabled	4.83		
8. Encourages private planning for those who can afford to do so	2.33	14%	
9. Modest coverage but for a broad population	2.67	14%	
10. Comprehensive coverage for narrow target population	5.33		
11. Both comprehensive and broad	3.14		14%
12. Focuses only on today's nondisabled	5.33		57%

Scoring Summary: State Department Representatives Only

Principle	Importance (1 = most)	Most Important	Least Important
1. Financially sound and sustainable	1.00	67%	
2. Affordable for middle market	2.44	11%	
3. Easy to understand	3.11		11%
4. Alleviate Medicaid budget issues	3.44	11%	
5. Safety net for the poor	4.00		
6. Coverage choice and premium/contribution options	3.00		
7. Addresses needs of both current and future disabled	3.00		
8. Encourages private planning for those who can afford to do so	3.11		
9. Modest coverage but for a broad population	4.00		
10. Comprehensive coverage for narrow target population	4.89		22%
11. Both comprehensive and broad	3.78	11%	
12. Focuses only on today's nondisabled	7.89		67%

Summary of Scoring:

- Stakeholders and state department representatives agree on the "Top Two" finance reform principles:
  - Financially sound and sustainable
  - Affordable for the middle market
- The state respondents place slightly greater importance on alleviating Medicaid budget issues than do stakeholders.

ATTACHMENT A – APPENDIX 4

SCORING SUMMARY RESULTS

- Both groups place similar levels of importance on a reform that encourages private planning for those who can afford to do so and that a reform solution be relatively easy to understand.

- Stakeholders give greater importance to the objective of providing modest coverage for a broad population than do state representatives.

- There was more consensus within the state representatives with respect to the most important principle—that it be financially sound and sustainable.

- Stakeholders more often cited middle market affordability as the most important principle.

- Stakeholders valued sustainability, ease of understanding, encouraging private planning, providing modest coverage for a broad population, and alleviating Medicaid issues as equally "most important" after affordability.

- Both groups seemed to have difficulty identifying any of the principles as least important. However, they both agreed that "focusing only on today's nondisabled" was the least important principle for finance reform. We suspect that was chosen most often as less important more because of the greater importance of other principles, rather than because respondents feel strongly about a reform that includes the current disability population. While that population's needs are important, subsequent discussions emphasized a reform option that focuses largely on those who do not currently need LTC but are likely to need care in the future, for which they are financially unprepared. Perhaps the group's assumption that Option 1 would be a mandatory (inclusive) program without underwriting is also reflected in the way this attribute was scored.

When asked in the online survey what other issues are important for a LTC finance reform to address, respondents cited the following:

- How to make this sustainable
- How to pay for it
- Enticing the currently healthy to begin to save for future LTSS needs
- How best to balance the need to protect taxpayers with family needs for LTSS
- Shows real help for middle-income and state budgets
- Helps a large population
- Politically feasible
- Actuarially sound
- Is there the political will to pass a mandatory public-private LTSS financing program?
- What can the near-poor and middle-income citizens afford to pay and for what package of benefits?
- What can we put in place that can carry us into the future and be sustainable?
- How to evaluate public versus private finance approaches

ATTACHMENT A – APPENDIX 5

WASHINGTONIANS FOR A RESPONSIBLE FUTURE VISION OF OPTION 1 ATTRIBUTES

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

ATTACHMENT A – APPENDIX 5

WASHINGTONIANS FOR A RESPONSIBLE FUTURE VISION OF OPTION 1 ATTRIBUTES

Domain	Description
Structure	Mandatory, front-end program
Daily Benefit	$100
Duration	1 year to 3 years
Type	Pool of dollars
Inflation	2-3% annual increase (adjusted by trustees)
Payment	Benefit paid out for documented/eligible services
Elimination period	TBD – need more information
Care covered	All LTSS settings
Underwriting	No
Trigger	2 ADLs or cognitive impairment
Eligible to enroll	Need more information TBD
Other Eligibility	If a worker has paid in and becomes disabled, should be able to access benefit proportionate to what they've paid in.
Carve Outs	Those who are categorically poor should not have to pay in. Question of whether those who are retired should have to somehow continue to pay in
Age for benefit receipt	Age 65 plus or disabled who have vested
Vesting	Ten years, or can get proportionate percent of benefit if vested for less time before needing benefit
Benefits payable	Need more information
Funding	Payroll tax (0.4% to 0.8%) or $20-$50/month premiums
Solvency	75 years

ATTACHMENT B

DRAFT MODELING SPECIFICATIONS FROM INTERVIEW PROCESS USED TO FACILITATE STAKEHOLDER FEEDBACK

[Note: See Report Section II – Option 1 and Section III – Option 2 for final plan parameters modeled]

Washington Department of Social and Health Services (DSHS)
Long Term Services and Supports (LTSS) Feasibility Study
Option 1

General Overview

The Aging and Long Term Services Administration and Home and Community Services Division of the Washington State Department of Social and Health Services (DSHS) are conducting a feasibility study regarding public and private options to help Washingtonians prepare to meet their Long-Term Services and Supports (LTSS) needs. The two options are defined as follows:

- Option 1: A public long-term care insurance benefit for workers, funded through a payroll deduction that would provide a time-limited long-term care insurance benefit;

- Option 2: A public-private reinsurance or risk sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of their catastrophic long-term services and supports losses in order to provide additional insurance capacity for the state.

These LTSS programs can take many forms. As the analysis for this feasibility study begins, the scope and parameters of these programs need to be further defined in order to produce relevant actuarial modeling. In the last few weeks, our efforts have been focused on discussing the proposed specific program features for Option 1 with DSHS and key stakeholders (e.g., insurance department, providers, unions, advocacy groups/associations for elderly, private market carriers). The proposed specifications for Option 2 will be released and reviewed at a later date.

The "Program Modeling Specification" section of this document includes a grid that outlines the proposed financing, eligibility, and benefit parameters for Option 1. Several "options" have been presented within many of the program feature categories for sensitivity testing based on initial discussions with DSHS and key stakeholders. The "Comments" section provides additional items for consideration.

We ask you to review the modeling specifications for Option 1 contained in the remainder of this document. We welcome any feedback to further improve or refine the modeling specifications.

Program Modeling Specifications

PROGRAM FEATURE	Sample Front-end
Start of payroll taxes or premiums	2020
Start of program benefits	Option 1: 2023 – corresponds with 3 year vesting Option 2: 2025 – corresponds with 5 year vesting Option 3: 2030 – corresponds with 10 year vesting
Payroll tax structure	Medicare wage base Employee only (no employer contribution) Medicaid eligible population does not contribute
Premium payment structure	Option 1: None Option 2: Nominal Premium (i.e. $25 or $50)

Washington Department of Social and Health Services (DSHS)
Long Term Services and Supports (LTSS) Feasibility Study
Option 1

Percent of program costs that taxes / premiums cover?	100%
Program benefit eligibility	No underwriting Three vesting options: 3 year, 5 year, and 10 year Three age requirement options: All adults age 21+, 40+, and 65+
Benefit eligibility criteria	Private market HIPAA benefit trigger ▪ 2 of 6 ADLs, substantial assistance ▪ Severe cognitive impairment ▪ Chronically ill (condition to last >= 90 days) In-state residency requirement
Daily benefit amount (2017)	Option 1: $100, service reimbursement Option 2: $150, service reimbursement
Daily benefit inflation level	Option 1: Indexed to home care costs, annual compound Option 2: Index to wage trends
Benefit pool inflation level	Option 1: Indexed to home care costs, annual compound Option 2: Index to wage trends Inflates remaining pool after any paid claims
Premium inflation	N/A
Benefit deductible (also known as elimination period)	Option 1: 90 days, calendar time Option 2: 180 days, calendar time
Benefit pool (2017) or duration	Pool of Money Option 1: Lasts 1 year if full daily benefit used each day Option 2: Lasts 2 years if full daily benefit used each day Option 3: Lasts 3 years if full daily benefit used each day
Low-income premium subsidy	TBD as applicable
Low-income cost sharing subsidy	TBD as applicable
Administrative costs	TBD: % of revenue (taxes, premium) and % of claims
Coordination with other programs	New program pays first

Comments

Financing / Benefits

- Broadly speaking, the structure will follow a social insurance design. This means benefits are an earned right based on contributions by each individual or on behalf of each individual (not means tested). Benefits are not necessarily proportional to contributions.
- A long-term care (LTC) “Trust Fund” (Fund) will be established that receives all earmarked income (payroll taxes and/or premiums) and interest, and pays all benefits and administrative expenses.

Washington Department of Social and Health Services (DSHS)
Long Term Services and Supports (LTSS) Feasibility Study
Option 1

- The Fund will be self-supporting and not receive any funding from general government sources.
- Individual contributions will be tracked through payroll taxes and/or premiums.
- Indexing
    - Payroll tax income to the program will naturally go up with average wages.
    - Retired individuals' ability to pay premiums (if applicable) will go up with a price index (such as CPI).
    - If benefits are indexed faster than financing, then tax rates will have to be increased in the long run.
    - If benefits are indexed slower than financing, then the funding will be more stable but benefits to individuals (relative to the cost of LTC) will erode over time.

Connection of Financing and Eligibility

- Need to consider intergenerational transfers and eligibility delays. Individuals receiving the transfer will be more likely to support the program, while those paying the transfer will be less likely to support the program.
- For example, consider a program where payroll tax is the only financing source and all individuals over 21 are immediately eligible for the program.
    - Workers pay a payroll tax their entire working lifetime (roughly age 21 thru age 64, or 44 years).
    - However, individuals currently no longer working can receive benefits right away without paying any contributions to the program, such as a person age 75 currently in a nursing home.
    - The amount of the transfer would be extremely small for any who is age 22 at the start of the program, but it would be extremely valuable to anyone over age 80 (or who is already frail) at the start of the program.

- Examples of methods to try to strike a balance between minimizing intergenerational transfers and long delays before being eligible for benefit payments:
    1. Start payroll tax at later age (e.g., 40) instead of entire working lifetime.
    2. Require a minimum number of years of payroll tax before becoming eligible for benefits.
    3. Require premium contributions starting at age 65, where presumably the aged would continue to pay for a benefit that is more valuable to them than to younger generations. This would also stretch out the paying period and lower the necessary payroll tax rate. Even if there is premium for those over 65, a minimum number of years of tax payment for vesting still could make sense for several reasons:
        - The premium would pay for only a small portion of the benefit,
        - The program would not incur the high cost of covering those already frail when the program starts, and
        - It would prevent those already frail in other states from moving into Washington and becoming immediately eligible for benefit

Premium Contributions Starting at Age 65

- Lowers needed payroll tax rate
- Helps identify those that are insured under the program
    - The state would lose track of many who stop paying taxes at 65 (or retirement) unless they continue to pay a premium.
    - Those who do not pay the premium may have moved out of state or died.
    - Assists in measuring/projecting the plan expected benefit payments.

- A “low” premium at 65 (compared to the value of the continuing coverage) would have similarity to Part B of Medicare.
- Potential funding changes affect all age groups, not just the workers.

Caveats and Limitations

This information is prepared for the internal use of Washington DSHS and should not be distributed, in whole or in part, to any external parties without the prior permission of Milliman except for the Aging and Disability Joint Legislative Executive Committee. We do not intend this information to benefit or create a legal liability to any third party even if we grant permission to distribute this information to such third party. This information is designed to provide proposed program features for Plan Option 1 as the part the LTSS feasibility study. It may not be appropriate, and should not be used, for other purposes. The terms of Personal Service Contract with WA DSHS effective February 26, 2016 apply to this engagement.

Washington Department of Social and Health Services (DSHS)
Long Term Services and Supports (LTSS) Feasibility Study
Option 2

General Overview

The Aging and Long Term Services Administration and Home and Community Services Division of the Washington State Department of Social and Health Services (DSHS) are conducting a feasibility study regarding public and private options to help Washingtonians prepare to meet their Long-Term Services and Supports (LTSS) needs. The two options are defined as follows:

- Option 1: A public long-term care insurance benefit for workers, funded through a payroll deduction that would provide a time-limited long-term care insurance benefit;

- Option 2: A public-private reinsurance or risk sharing model with the purpose of providing a stable and ongoing source of reimbursement to insurers for a portion of their catastrophic long-term services and supports losses in order to provide additional insurance capacity for the state.

These LTSS programs can take many forms. As the analysis for this feasibility study begins, the scope and parameters of these programs need to be further defined in order to produce relevant actuarial modeling. In the last week, our efforts have been focused on discussing the proposed specific program features for Option 2 with DSHS and key stakeholders (e.g., insurance department, providers, unions, advocacy groups/associations for elderly, private market carriers). The proposed specifications for Option 1 were recently released in an earlier communication entitled "LTSS Modeling Specs for JLEC Feedback_Option 1".

The "Program Modeling Specification" section of this document includes a grid that outlines the proposed financing, eligibility, and benefit parameters for Option 2. Several "options" have been presented within many of the program feature categories for sensitivity testing based on initial discussions with DSHS and key stakeholders. The "Comments" section provides additional items for consideration.

We ask you to review the modeling specifications for Option 2 contained in the remainder of this document. We welcome any feedback to further improve or refine the modeling specifications.

Program Modeling Specifications

PROGRAM FEATURE	Sample Back-end
Funding source	Premium tax on private policies with LTC coverage No payroll tax
Start of payroll taxes or premium taxes	2020, new policies only
Start of program benefits	Scenario 1: 2020 Scenario 2: 2025, new policies starting with 2020 sales (consistent with a 5-year vesting period)
Payroll tax structure	N/A

Washington Department of Social and Health Services (DSHS)
Long Term Services and Supports (LTSS) Feasibility Study
Option 2

Premium payment structure	Percentage of premium
Percent of program costs that taxes cover?	100%
Program eligibility	Individual purchases private insurance Underwriting protocol similar to today's market
Benefit eligibility criteria	Private market HIPAA benefit trigger
Benefit levels	Consistent with offerings in existing private market
Low-income premium subsidy	N/A
Low-income cost sharing subsidy	N/A
Reinsurance pool entity assuming risk	Alternative 1: Reinsurance partnership pool comprised of contributing direct private carriers (non-profit) Alternative 2: Entity that is for-profit
Reinsurer retention costs (administration, profit, contingency margin)	Admin = X% of reinsurance revenue Profit = Alternative 1: 0% Alternative 2: > 0% Contingency Margin = Z% of reinsurance revenue
Primary reinsurance structure	Alternative 1 – Reinsurance program <u>does not</u> cover probability/risk of claim incurring: ➔ Reinsurance pool pays LTSS benefits for years X (e.g., four) and later for known claims Alternative 2 – Reinsurance program <u>covers</u> probability/risk of claim incurring: ➔ Reinsurance pool pays for present value of lifetime LTSS benefits per cohort grouping above $X (equal to Y% share of total costs)
Vesting period before reinsurance pool reimburses carriers for LTSS benefits paid	Alternative 1: No vesting period Alternative 2: No reinsurance pool payments for first five years after policy sold (i.e., insurance carrier selling policy retains all risk for first five years)

Comments

Reinsurance Pool Considerations

- Direct private market carriers are looking for "certainty" in how a program will be governed. Rules need to be clear and not subjective.
- Should the reinsurance pool borrow concepts from ACA and Medicare Part D programs, which utilize(d) the following principles with their reinsurance structure:
  - Risk adjustments
    - How are reinsurance pool charges and payments adjusted for the relative risk of covered policies?

  - Risk corridors
    - Should additional protection be provided by the reinsurance pool covering period-to-period fluctuations in experience of direct private market carriers?
- Will existing policies be able to participate in the reinsurance pool, or will program only be open to new policies?
- What other changes should be required (if any) to the existing private market policy designs to better pair with a new reinsurance design?

Reinsurance Pool Mechanics

- How are gains and losses treated when expected reinsurance payments deviate from predicted amount?
  - Gains used to fund:
    - Lower premium tax charges?
    - Build-up of margin to smooth future losses?
  - Losses funded by:
    - Higher premium tax charges?
    - Contingency margin built into reinsurance costs?
    - Raise threshold when reinsurance payments begin?
- Who will oversee and approve adjustments to the reinsurance pool taxes/charges? Will insurance department be involved in process?
- What time period and what process will be used to measure and recognize gains/losses for potential reinsurance pool adjustments? LTC claims experience fluctuates for private carriers due to mispricing and random nature of claims.
  - If a longer period is used for measurement, this has the benefit of smoothing random fluctuations before any adjustments are made.
  - If a shorter period is used for measurement, the reinsurance pool may not be able to take action soon enough to ensure financial soundness given lack of credible data.
- For reinsurance pool designs covering both incidence (likelihood a claim happens) and severity (how long a claim lasts) risks, will standardized tables be used to evaluate program performance?
- Assuming the reinsurance pool only applies to policies sold to individuals living in Washington, are any adjustments needed for individuals who move out of state?

Reinsurance Alternative

- Another alternative could be to use a “loss ratio” reinsurance approach, which measures the ratio of claim payments to revenue. For example, it was common for older LTC policies to be sold with an expected 60% loss ratio. This means 60% of premiums would cover expected claim payments while 40% of premium would be used to cover administrative and profit charges over the life of a policy.
- Under an alternative reinsurance structure, direct private market carries would be responsible for adverse claims experience up to some higher loss ratio amount (e.g., 90%).
- The threshold would be set such that direct private market carriers still bear a significant level of pricing risk and could have financial losses if claims experience is significantly worse than originally expected.
- However, direct private market carriers would have their lifetime losses capped, where the reinsurance pool would provide payments once the loss ratio trigger is reached.
- This alternative would be subject to many of the same considerations outlined above. Additional considerations would include items such as:

- Grouping of policies – pool payments evaluated on a grouping of policies with similar benefits/demographics, grouping for a given issue year, grouping at a product level, etc.
- Adjustments for company size
- Standardized approach for measuring direct private market carrier performance
- Treatment of rate increases
  - Are they still allowed?
  - If allowed, how does it factor into loss ratio reinsurance threshold? What would be the insurance department process for approving rate increases?

Caveats and Limitations

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