Insuring Americans for Long-Term Care: Challenges and Limitations of Voluntary Insurance

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Executive Summary

Under our current system, the financing options available to most individuals who need long-term services and supports (LTSS) are limited to Medicaid, personal savings and unpaid family caregivers. Medicare does not pay for long-term services and only between 7 and 9 million Americans have private long-term care insurance. Many older adults pay for LTSS (averaging $81,000 per year in a nursing home) out of their income and personal savings until they are poor enough to qualify for Medicaid, a means-tested welfare program.[i] In an effort to avoid exhausting their resources and relying on Medicaid, others depend on unpaid family support or go without needed services.

Among current sources of spending on LTSS, Medicaid is by far the largest payer, funding just over 62 percent ($131.4 billion in 2011) of LTSS expenditures.[ii] Our reliance on Medicaid to fund LTSS raises concerns about whether we can reasonably expect this program to continue in its dominant financing role when the baby-boom generation moves into the later part of old age (the first baby boomers will turn 80 in 2026). Without any change in the system, this demographic shift will produce rapid increases in Medicaid spending. It is not clear if the state and federal tax revenues that fund Medicaid will be sufficient, at their current levels, to cover the spending growth.

Congress established the Community Living Assistance Services and Supports (CLASS) Act as part of the Affordable Care Act. The CLASS Act would have provided working individuals with an option to purchase long-term care insurance through a public program. When Congress established the CLASS Act, it did not require individuals to enroll but instead left program participation as optional. The actuarial concerns about adverse selection that led Congress to enact an individual mandate for health insurance did not prevail with respect to long-term care insurance and, on October 14, 2011, the Obama Administration discontinued the program prior to implementation due to concerns about actuarial soundness and sustainability. The American Taxpayer Relief Act (ATRA) of 2012, signed by President Obama on January 3, 2013, repealed the CLASS Act.

At this juncture, in the wake of CLASS' repeal, policymakers could continue to consider policies that attempt to increase insurance coverage through encouraging greater voluntary participation in public or private insurance. But the challenges will remain: attracting a large and healthy enough population to create an adequate risk pool and keeping premiums low. Further there is a question about whether a voluntary approach can shift the predominant financing of LTSS from Medicaid to insurance.

New research from RTI International and Avalere Health demonstrates that policy solutions promoting voluntary enrollment into private or public insurance are unlikely to attract enough people, particularly individuals with disabilities, to reduce this country's dependence on Medicaid for LTSS financing. We used the Avalere long-term care policy simulator

(LTC-PS) to compare premiums, size of covered population, size of delayed spend-down population and Medicaid savings for a voluntary and mandatory public program. The LTC-PS is an Excel-based simulation model that enables us to assess how different approaches to a public long-term care insurance program could affect premiums and other policy outcomes. See *http://www.ltcpolicysimulator.org/model.html* for more information about the model.

As **Figure 1** shows, a 5-year, $50-per-day, mandatory LTSS insurance program that is available to working individuals reduces federal and state Medicaid spending by just over $49 billion over the first 15 years of the program compared to $5.6 billion for a comparable voluntary program. By the 15th year of the program, we estimate a mandatory approach would reduce the number of individuals reliant on Medicaid for LTSS by almost 36,000 people; compared to the voluntary program, which would decrease the number of Medicaid LTSS beneficiaries by less than a tenth of that number: about 3,000 people. The mandatory program is also more affordable to individuals, with average initial monthly premiums estimated at $35 compared to $49 for the voluntary program for the same benefits.

Figure 1: Comparison of Mandatory and Voluntary Program Designs for a 5-year, $50/day Benefit Available to Working Individuals

Outcomes	Mandatory	Voluntary
Year 1 Average Monthly Premium	$35.26	$48.58
Delayed Medicaid Enrollment by Year 15	35,863	2,979
Medicaid savings, Y1-Y15 (billions)	$49.2	$5.6

Source: Avalere Health analysis using the LTS-PS.

We also examined how a mandatory program affected Medicaid when the enrolled population expanded to include non-working older people in addition to working individuals. Using the program parameters for the program outputs presented above, a mandatory program that covers working individuals and non-working seniors produces 15-year federal and state Medicaid savings of nearly $276 billion.

Our analysis shows that policies aimed at increasing insurance coverage for LTSS through voluntary enrollment are implicitly making the choice to maintain Medicaid funding as the primary source of payment for LTSS in this country. There may be good reasons to make this choice. Policymakers may not want to require individuals to pay premiums or taxes. And, a voluntary approach can achieve important policy goals such as increasing the number of people with coverage. However, our research shows that the sheer number of enrollees will not be sufficient under voluntary insurance for it to be a major source of financing for long-term services and supports. Voluntary approaches to increasing coverage will not cover substantial numbers of people with disabilities or change the trajectory of Medicaid spending in any significant way. In order to accomplish that, mandatory coverage is needed.

Introduction

The search for better ways to finance long-term services and supports (LTSS) in this country has stalled. When Congress established a public insurance program for LTSS, the Community Living Assistance Services and Supports (CLASS) Act, it did not require individuals to enroll but instead left program participation as optional.[iii] The same actuarial concerns about adverse selection that led Congress to enact an individual mandate for health insurance did not prevail with respect to long-term care insurance and, on October 14, 2011, the Obama Administration discontinued implementation of the program due to concerns about actuarial soundness and sustainability.[iv] The American Taxpayer Relief Act of 2012, signed into law by President Obama on January 3, 2013, repealed the CLASS Act and established a new Long-Term Care Commission to examine financing options.[v]

Despite many years of debating and considering long-term care policies aimed at increasing the number of people covered by some type of private long-term care insurance (LTCi) coverage, we remain a nation almost entirely dependent on Medicaid, personal savings and unpaid family caregivers for LTSS. At this juncture, in the wake of CLASS' repeal, policymakers could continue to consider policies that attempt to increase insurance coverage through encouraging greater voluntary participation in public or private insurance. But the challenge will remain: keeping premiums low to attract a large and healthy enough population to create an adequate risk pool. Given this challenge, policymakers may want to look instead at the possibility of a mandatory insurance program for LTSS, despite its political risks.

New research from RTI International and Avalere Health demonstrates that mandatory LTSS insurance is likely the only option that will cover a substantial number of people with disabilities and replace future Medicaid spending in a meaningful way. The price and underwriting considerations necessary to create a sustainable voluntary LTSS insurance system or program (whether private or public) erect barriers that prevent a large enough enrolled population to affect Medicaid spending on LTSS. Also, the people most likely to need Medicaid in the future are less likely to enroll in a voluntary insurance program. Public policy may succeed eventually in establishing voluntary private or public LTSS insurance options that provide good coverage to some people but the research suggests that they will not result in insuring enough people to reach the population most likely to need Medicaid for LTSS.

The following paper presents our research results. Using Avalere's long-term care policy simulator (LTC-PS), we compare premiums, size of covered population, size of delayed spend-down population and Medicaid savings for a voluntary and mandatory public program.

Limitations of the Current System

The United States spent about $211 billion in 2011 providing LTSS to people who need help with the basic tasks of day-to-day life.[vi] Despite these expenditures, our LTSS system inadequately protects people from the financial devastation of a long-term disabling condition such as Alzheimer's disease or stroke. Medicare does not pay for long-term services and few people have private long-term care insurance. According to a recent report, the median cost of one year in a private nursing home room for individuals age 65 and over is more than $81,000 per year and the median cost of 30 hours per week of paid home care services is nearly $30,000 per year for individuals age 65 and over.[vii] Many older adults pay for LTSS out of their income and personal savings until they are poor enough to qualify for Medicaid, a means-tested welfare program. Others, in an effort to avoid exhausting their resources and relying on Medicaid, depend on unpaid family support or go without needed services.

Private Long-Term Care Insurance

Only between 7 and 9 million Americans have private long-term care insurance and the prospect for increasing this number substantially is low.[viii] In recent years, the private LTCi market has experienced significant challenges due to unexpectedly high numbers of policy holders receiving benefits and low rates of return on reserves. These two factors have forced most companies to increase premiums on existing policies and have driven several major insurance companies out of the market entirely.[ix]

Even before these most recent pricing challenges, the private market has failed to attract a large pool of participants. This is due in part to the product design and how companies sell it. Typically, insurance sales agents present the product on an individual basis to prospective buyers. If an existing disability does not immediately disqualify an applicant from purchasing insurance, the company will evaluate the applicant in more depth for the likelihood of having a disability in the near future (an underwriting process that 16 to 20 percent of applicants aged 50 – 59 fail).[x] The potential purchaser faces a dizzying array of benefit design options such as the length of benefit, the amount of coverage, inflation protection, deductibles and other features that all affect the premium, which can range from $2,000 to $4,000 per year.[1][xi] Even polices with the same design elements can differ from one insurance carrier to another in very subtle ways, making cross-provider benefits and comparisons of premium prices very challenging.

Some employers have simplified the process by narrowing the design options and preselecting the ones they believe offer the best value. In addition, some employers succeed in getting the initial underwriting process waived when the product is first introduced to the group. But, unlike the employer-sponsored health insurance market, most employers do not contribute to the cost of the premium for private long-term care insurance.

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[1] The average costs for LTCi are based on a $150 daily benefit and 4 to 5 years of coverage with a 90-day deductible and 5 percent inflation protection

In 2005, when Congress made major changes to the Medicare program by adding a prescription drug benefit, it made small changes to encourage the purchase of LTCi. At that time, Congress extended the Partnership for Long-Term Care Program, which allows individuals who purchase state-approved private long-term care insurance to receive Medicaid-financed LTSS while retaining a higher level of financial assets than usually allowed.[xii] This provision has done little, to date, to generate sales growth in this insurance market.[xiii]

The Medicaid Program

In the absence of any significant opportunities to expand the private long-term care insurance market, Medicaid has remained the primary payer of LTSS in the United States. As a safety-net program, Medicaid provides support to people who are poor or who become poor because of the high cost of medical care and LTSS. However, as the primary third-party payment program for LTSS, it presents significant challenges to its funders — states and the federal government — and to the individuals who rely on it.

Perhaps one of the greatest concerns among policymakers is whether a tax-funded welfare program can be reasonably expected to finance the majority of this country's LTSS when baby boomers start reaching their 80s. About a third of the Medicaid budget — a little over $100 billion annually — goes to LTSS.[xiv] Spending per person is much higher for the aged populations than for non-disabled adults and children (about $13,000 per beneficiary per month compared to about $2,000, respectively) so that when the aged population grows in the future, LTSS Medicaid spending could overwhelm other government budgetary obligations.[xv]

Medicaid beneficiaries must spend down their resources to qualify for coverage and the coverage is not guaranteed to include preferred services such as home-based care. Though states and the federal government have invested heavily in home- and community-based services in recent years,[xvi] budgetary restrictions may limit their ability to expand these service offerings in such a way that ensures access for all beneficiaries.

The CLASS Act

In the *Patient Protection and Affordable Care Act* (ACA) of 2010, Congress attempted to address limitations in the current system by providing an alternative to private LTCi and Medicaid LTSS coverage. Congress designed the CLASS program as a national, voluntary public long-term care insurance program. If implemented, the program would have been open to working adults and would not have been medically underwritten. Beneficiaries would have been able to enroll either through their employers or individually through an alternative mechanism made available by the federal government.[xvii]

The structure of CLASS presented a number of design and implementation challenges. Because CLASS was a voluntary, non-underwritten program, there was a significant risk that individuals who either were already disabled and individuals who were at higher risk of becoming disabled would enroll in the program. To keep the program actuarially sound therefore, it would have had to also enroll a significant number of healthy, non-disabled individuals. To do so, CLASS premiums would have had to be low enough to be attractive for the less risky populations while still being able to cover the program costs. The Secretary of the U.S. Department of Health and Human Services found that within the construct of the CLASS Act, it would not be possible to balance low premiums with the need to cover program costs and too few healthy individuals would be likely to enroll.[xviii] Therefore, the Obama Administration decided to stop the development and implementation of the program.[xix]

Research Examining Voluntary and Mandatory Options

In the absence of CLASS, the nation's Medicaid/private-pay system of financing remains intact, as does the debate over how and whether to increase insurance coverage. Two major pathways exist to increase insurance coverage. The first is to continue to develop policy options that would encourage individuals to enroll voluntarily in private or public insurance. Even if successful in increasing coverage among higher income individuals, this pathway may not attract enough people or increase coverage among moderate and lower income individuals sufficiently to reduce reliance on the Medicaid program.

Perhaps the most significant challenge of voluntary long-term care insurance, whether public or private, lies in setting premiums in a manner that ensures the program will have sufficient funds to pay benefits. This must be done while at the same time keeping premiums low enough to attract enough enrollees to spread risk and ensure affordable premiums in the future. Mandatorily enrolling all who are eligible — the second pathway to increasing LTSS insurance coverage — avoids this barrier by ensuring a larger and healthier risk pool. It increases the number of people for whom the insurance would lengthen the spend-down period prior to Medicaid eligibility and for whom the insurance would replace some Medicaid spending after reaching eligibility.

In order to better understand the trade-offs between mandatory and voluntary insurance, we compare the effects of these pathways using research results from Avalere Health's LTC-PS model.

The LTC-PS Methods

In 2009, The SCAN Foundation commissioned Avalere Health to build a simulation model that would enable policymakers to assess how different approaches to a voluntary public LTSS insurance program would affect premiums and other policy outcomes. An in-depth explanation of the methodology and output is available at the following website:

http://www.ltcpolicysimulator.org/LTC-Policy-Simulator-Technical-Paper.pdf. We revised the model in 2010, after passage of the ACA, under contract with the Department of Health and Human Services Office of the Assistant Secretary for Planning and Evaluation (DHHS/ASPE), in order to more closely approximate the specifications of the CLASS program. Both models were reviewed by technical expert panels. Extensive documentation of the revised ASPE model is available at: *http://aspe.hhs.gov/daltcp/reports/2011/class/appM.htm.*

For this study, we made significant changes to the model to enable us to better estimate the impact of LTSS insurance on Medicaid spending. The underlying data used in previous versions of the model had limited ability to estimate the impact of an insurance benefit on delaying the decline in assets as individuals spend down to Medicaid eligibility. Working with RTI International, we used data from the Health and Retirement Study (HRS) merged with Medicare data to create profiles of people with disabilities who transitioned from non-Medicaid to Medicaid eligibility over the course of 12 years. The HRS tracks individuals and their income, asset and disability status (among other characteristics) over time in two-year increments. This research enabled us to greatly improve our ability to estimate Medicaid savings resulting from a public LTSS insurance program. Appendix 1 provides a detailed description of the model and the changes that allow us to more precisely measure the impact on Medicaid.

Model Construction

The LTC-PS is an Excel-based model that tracks age-specific groups of public program enrollees for 75 years. The LTC-PS creates enrollment groups from the overall population and calculates the expected LTSS costs and insurance premiums for each enrollment group separately by age. For the most part, the same process is repeated for each consecutive group of annual enrollees. We make modifications to this repetition with estimates for expected enrollment, adverse selection and premiums.

The LTC-PS assumes that any public program will be required to be actuarially balanced over a 75-year window. This, in short, means that the present value of total expected costs of the program, including benefit payments, administrative costs and subsidies, must equal the present value of total expected income of the program, including premiums and interest payments. The estimated premium represents the average premium required in the initial year across all ages.

One of the key questions in a voluntary LTSS insurance program is the expected size and composition of the enrolled population. Given that there is little evidence regarding how many people would enroll in a government-run, premium-financed LTSS program, we make assumptions about the composition of enrollment and then test the impact of different enrollment sizes. Using rates of enrollment in the Federal Long Term Care Insurance Program (FLTCIP) for different ages of federal employees, we assumed in a voluntary program that participation rates will increase by age.

In order to construct these expected costs and expected income, we estimate for each enrollment group the number of people participating in the program and receiving benefits as well as the number of people participating in the program and paying premiums. To calculate the total costs of the program and the total income, the major functions of the model are applied to each age group above 18-years-old for 75 consecutive years. In addition, each enrollment year is modeled separately.

To estimate differential rates of enrollment in a voluntary program among disabled and healthy individuals (adverse selection), based on eligibility criteria we describe below, we first developed an estimate of the number of people by age who will develop a severe disability over the next five years. Next, for a given rate of assumed overall participation in the program, we compared the number of people that we assumed would enroll in the program against the total estimated incidence of disability for the entire eligible population over the next five years. Under a pure adverse selection scenario, people who would develop a severe disability over the next five years would all enroll in the program, which we termed "perfect knowledge." To calculate the impact of this scenario, we created alternate incidence rates using the individuals who develop a severe disability over the next five years in the numerator and the estimated enrollment in the program (which we calculated separately) in the denominator. As the total estimated enrollment increases, the alternate incidence rate declines until it reaches the overall population incidence rate for a program enrollment of 100 percent.

To address the unlikely nature of perfect knowledge, we adjusted these alternate incidence rates downward to account for a portion of the population that would not have perfect knowledge but would instead represent the overall average incidence rate. We also changed this weighting factor over time to account for the likely pent-up demand in the early years of this new social program. We began with an assumed 75 percent weighting on perfect knowledge incidence and 25 percent on average incidence, declining to 25 percent on perfect knowledge incidence within 10 years. Each of these rates was also unique to each age as well as each assumed level of overall participation. However, we applied the impact of adverse selection only to the voluntary portion of the model.

Programmatic Design Assumptions

As a base case for comparing mandatory versus voluntary enrollment, we use a modified version of the ACA-established CLASS program, under which working adults would have had the option to participate. The former program would have paid cash benefits averaging at least $50 per day over the lifetime of anyone who had become vested in the program and disabled (defined as needing assistance with two or more activities of daily living). These benefits could have been used to pay for LTSS such as home care, durable medical equipment or home modifications.

As with the original CLASS program, the program design assumed in the simulations reflects a low-income subsidy of $5 available to eligible enrollees with incomes below 100 percent of the federal poverty level. The subsidy is internally financed, meaning that the premiums paid by non-low-income policyholders are higher to cover the costs of subsidizing the low-income enrollee premiums. The model also assumes that the program requires enrollees to pay premiums for five years prior to qualifying for benefits (a vesting period).

An important change we made to the underlying program relative to the CLASS program is an assumption of a stronger work requirement for initial enrollment. As CLASS was originally written, a person had to have annual wages in three of five years of at least the amount necessary for one calendar quarter of Social Security credit ($1,130 in 2012) in order to enroll in the program. However, in our model we define "working population" for the purposes of defining the eligible-to-enroll population as individuals who have been working for at least three of the five years during the vesting period and earn an income of at least $12,000 per year. This change reduces the likelihood that someone who already has a severe disability will be eligible to enroll in the program, thereby decreasing the effects of adverse selection on a voluntary program where healthy people are not required to enroll.[2] We define the "disabled population" as anyone (including children) needing hands-on assistance for two or more activity of daily living limitations or with a cognitive impairment or a developmental disability.

Adverse selection is an issue in any voluntary insurance product that does not exclude individuals based on health status (i.e., a non-underwritten policy). When all individuals are allowed but not required to enroll, actuaries make assumptions that certain individuals will have knowledge of their own likelihood for developing a severe disability (termed "asymmetric information"). People with asymmetric information or people who already have severe disabilities will be more likely to enroll in a program that covers the costs of LTSS. The enrolled population may therefore receive benefits at a higher rate than would occur if the entire population eligible for the program enrolled. This pattern, called adverse selection, leads to higher total program costs, which must be addressed by higher premiums.

Benefit design features such as a vesting period and restricting enrollment to the working population reduce the effects of adverse selection somewhat. Because mandatory programs enroll everyone eligible, adverse selection does not occur and the costs are spread as broadly as possible. In the mandatory options we model below, we further alter benefit design to eliminate the vesting period and to extend enrollment to all people of all ages and work status, not just those who meet our definition for the working population.

One of the most critical policy design elements in determining the cost of the program and the subsequent effect on premiums and enrollment is the length of the benefit. A lifetime benefit, as specified in the CLASS Act, is much more expensive and therefore

[2] The program design also assumes that premiums are indexed for inflation and that enrollees receiving benefits continue to pay premiums.

requires a higher premium than a five-year benefit, for example, all other things being equal. In considering the pathways to increasing LTSS insurance coverage in the future, policymakers need to understand the trade-offs between program costs, premiums and benefit design elements such as length of benefit. For that reason, we show alternatives to the underlying CLASS Act design and examine the impact of four different benefit length options: lifetime, five years, three years and one year. Nearly 70 percent of individuals age 65 and older will need LTSS during their lifetime and the average length of service use is three years.[xx] Younger people with disabilities will need services, on average, for a much longer period.

The assumption most central to determining the impact of a voluntary program, its premium in particular, is the initial participation rate. This rate reflects the percentage of people who are eligible to enroll and actually do so. The lower the participation rate, the more the risk pool is occupied by people who are likely to need benefits (adverse selection) and the higher the premium must be to cover the costs on a per person basis.

There is little real life experience to inform what the initial participation assumption for a voluntary public long-term care insurance program should be. If a low rate is assumed, the premiums will be high and few people will enroll except those who expect to use the benefit. However, a lower initial premium level, generated by an assumption of higher participation, may endanger the financial viability of the program if it proves too optimistic.

We evaluate the following elements in our comparison of voluntary and mandatory programs:

1. **Premium levels**
   What is the effect of voluntary and mandatory insurance programs on premiums under different program designs? The relationship between the initial participation assumption and the resulting premium, including an assumption of including 100 percent participation (i.e., mandatory insurance) is analyzed.
2. **Enrollment (population covered by LTC insurance)**
   How many Americans enroll under a mandatory program versus a voluntary program when the premium is the same in each?
3. **Medicaid spend-down**
   How well does a voluntary versus mandatory public program protect beneficiaries from catastrophic out-of-pocket expenditures that deplete individual savings and force people onto Medicaid?
4. **Medicaid spending on LTSS**
   How does a voluntary versus mandatory public program impact the amount of Medicaid spending on LTSS?

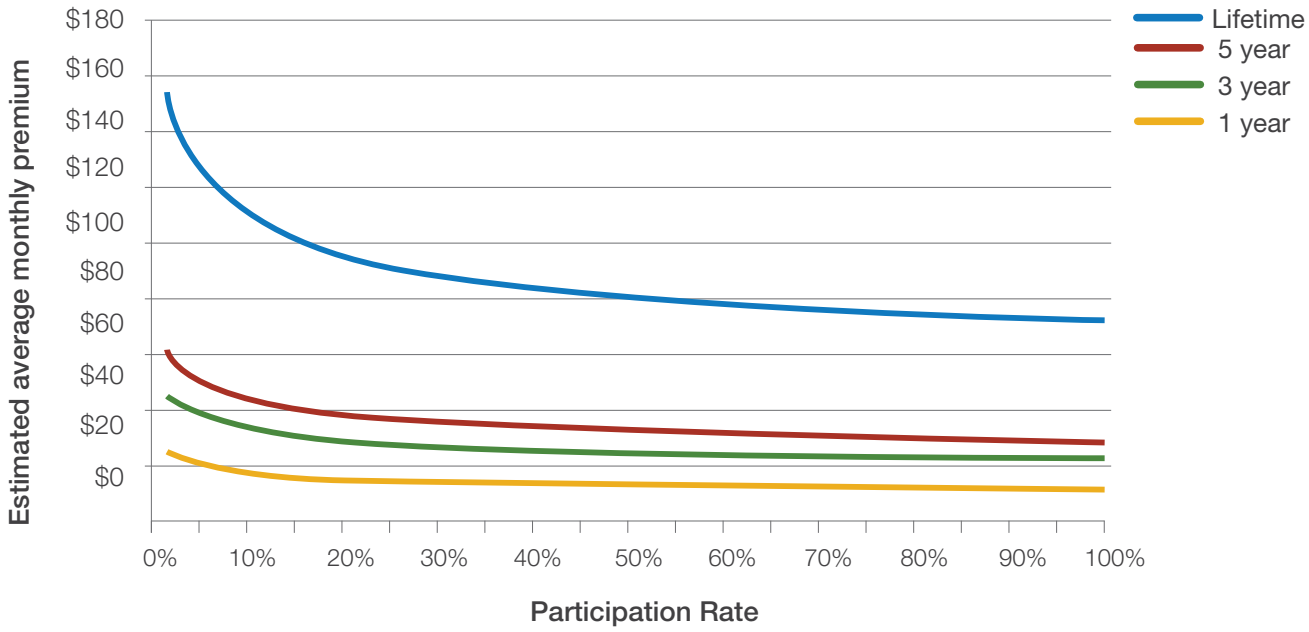
Results from the LTC-PS

Figure 1 shows the relationship between participation rate assumptions, premiums and length of benefit.

A lifetime public insurance program with an assumed participation rate of 5 percent would require an initial premium of about $120 per month. When participation approaches 100 percent, thereby eliminating the effects of adverse selection and simulating a mandatory program, the lifetime benefit still requires a monthly premium of about $70 to ensure sustainability.

Premium levels drop precipitously when the program is assumed to pay benefits for less than a lifetime period. For a policy that pays benefits for five years, a 5 percent participation rate assumption for a voluntary program requires a monthly premium of about $50 whereas a nearly 100 percent assumption or mandatory program requires a monthly premium of just over half that: $28. When the benefit length drops to three years, 5 percent participation yields premiums of roughly $35 per month, and nearly 100 percent participation produces premiums of $21 per month. For a one-year benefit length, when the program is close to 100 percent participation, the premium is about $11 per month.

Figure 1: Estimated Average Monthly Premiums by Participation Rate Assumption for Various Benefit Designs



The role of adverse selection in these voluntary programs can be seen with the flattening of the premium curves in **Figure 1.** As noted above, with limited enrollment in a voluntary program, actuaries estimate that individuals who actually enroll will be more likely than average to use benefits. However, as enrollment increases, the estimated utilization begins to resemble the overall population utilization, minimizing the effect on program costs. As one additional "average" person enrolls in the program, there is little effect on overall average costs and subsequent premiums.[3]

Another way to evaluate this relationship is in examining the participation rate necessary to support a particular premium level. There is some research to suggest substantial portions of the U.S. population would be willing to pay about $30 per month to enroll in a public long-term care insurance benefit.[xxi] The relationship between premiums and participation rates shown in **Figure 1** suggest that, in order for a $30 per-month premium to be sustainable, a five-year benefit program would need 74 percent of the eligible individuals to enroll, which may not be possible under a voluntary option. In order to set a premium of $30 for a three-year benefit, only 15 percent of the eligible individuals would need to enroll. At a one-year benefit level, the premium never needs to be any higher than $22.

Figure 2 shows that even if a voluntary program that paid benefits for five years succeeded in enrolling 74 percent of the people who were eligible to participate, by the 15th year of operation it would only cover 8.8 percent of the entire population with a severe disability, largely due to the initial exclusion of nearly all individuals over the age of 65 at the start of the program. However, because such a large number of people would be required to enroll to sustain a $30 initial premium and because they would receive benefits over a five-year period, Medicaid would save $34 billion over the first 15 years of the program. In addition, this particular benefit design would prevent nearly 30,000 people from enrolling in Medicaid in the 15th year of the program.

To achieve a $30 average monthly premium with a three-year benefit, the required participation rate drops to 15 percent which is a high, but more plausible, participation rate. This particular benefit design and participation rate would save Medicaid approximately $10 billion over the first 15 years of the program, and in the 15th year would delay approximately 8,200 people from enrolling in Medicaid in that year. It would also be paying benefits to slightly more than 2 percent of the total disabled population in the 15th year of operation.

[3] For a more thorough discussion of how we model the effects of adverse selection, we recommend reading the first methodological paper we wrote for The SCAN Foundation at http://www.ltcpolicysimulator.org/LTC-Policy-Simulator-Technical-Paper.pdf.

Figure 2: Performance of a Voluntary Program at $30 per Month[4]

Output for a $30 per-Month Premium	5 years	3 years	1 year
General program			
Participation rate	74%	15%	1%
Y1 average premium	$29.93	$29.89	$24.12
Total lives enrolled, Y15	73,554,567	21,885,935	2,397,023
Receiving benefits, Y15	950,962	242,947	16,889
Total disabled population*, Y15	10,759,580	10,759,580	10,759,580
Percent of total disabled population receiving benefits, Y15	8.8%	2.3%	0.2%
Premiums collected, Y1-Y15 (millions)***	$390,338	$102,272	$7,948
Benefits paid, Y1-Y15 (millions)***	$188,692	$61,427	$6,538
Premiums collected, Y15 (millions)***	$28,962	$8,181	$618
Benefits paid, Y15 (millions)***	$24,540	$6,293	$439
Medicaid ($ are federal + state)			
Medicaid enrollment, Y15 w/out program**	338,606	86,019	6,816
Medicaid enrollment, Y15 w/ program	308,613	77,846	5,980
Delayed Medicaid enrollment, Y15	29,993	8,173	836
Medicaid savings, Y1-Y15 (millions)***	$34,031	$10,142	$1,003
Medicaid savings, Y15 (millions)***	$4,868	$1,249	$104

* We define the "disabled population" as anyone (including children) who needs hands-on assistance for two or more activity of daily living limitations or has cognitive impairment or a developmental disability.

**The number of people who are enrolled in the insurance program (out of the total lives enrolled) who are also enrolled in Medicaid.

*** Following the federal budgeting process, all dollars are shown without discounting.

Ultimately, however, the only way to set a premium for a voluntary program is to assume enrollment levels for a particular program. Given the expensive nature of a program that provided lifetime benefits, the experts advising the government on CLASS were wary to assume program enrollment above 2 percent. As **Figure 3** shows, at that participation level, the premium for a modified version of the CLASS program is nearly $143 per month and the Medicaid savings for the first 15 years is $5.6 billion. This modified CLASS program would have delayed approximately 1,400 people from enrolling in Medicaid in the 15th year of operation.

Assuming a more optimistic participation rate of 5 percent for a five-year benefit and 7 percent for a three-year benefit length (to account for the less expensive benefit) yields monthly

[4] The lifetime benefit is not applicable here because it is not possible to fund a lifetime benefit at $30/month premium. As Figure 1 shows, the lowest premium possible for a lifetime benefit (assuming nearly 100 percent participation) is about $70/month.

premiums of $49 and $34, respectively, and 15-year estimated Medicaid savings of $5.6 billion and $5.8 billion, respectively. However, in all cases, the number of people enrolled in the insurance program who would delay Medicaid enrollment by one year would be fairly low, between about 1,300 and 10,000 persons, primarily because of the low overall participation rate in the program, and a low resulting population receiving benefits.

The most promising scenario would at first appear to be a 1-year benefit, which, if it attracted 20 percent of the eligible population, would have a first-year average premium of $15. This program would provide benefits to approximately 1.4 percent of the entire disabled population in the 15th year of operation, and would save the Medicaid program more than $1 billion during those first 15 years.

Figure 3: Estimated Premiums for Alternative Voluntary Enrollment Assumptions

Benefit parameters				
Length of benefit	Lifetime	5 years	3 years	1 year
Eligible population	Working	Working	Working	Working
Income threshold	$12,000	$12,000	$12,000	$12,000
Vesting period	5 years	5 years	5 years	5 years
Pay premiums while on benefit	Yes	Yes	Yes	Yes
Daily benefit amount	$50	$50	$50	$50
Participation rate assumption	2%	5%	7%	20%
General program				
Y1 average monthly premium	$142.96	$48.58	$34.48	$15.07
Total lives enrolled, Y15	3,928,150	8,387,072	11,250,812	27,917,000
Receiving benefits, Y15	251,263	158,780	137,260	152,249
Total disabled population*, Y15	10,759,580	10,759,580	10,759,580	10,759,580
Percent of total disabled population receiving benefits, Y15	2.3%	1.5%	1.3%	1.4%
Premiums collected, Y1-Y15 (millions)	$85,760	$60,847	$57,976	$66,451
Benefits paid, Y1-Y15 (millions)	$47,787	$40,893	$38,264	$40,525
Premiums collected, Y15 (millions)	$7,112	$4,890	$4,649	$5,249
Benefits paid, Y15 (millions)	$6,468	$4,099	$3,557	$3,947
Medicaid ($ are federal+state)				
Medicaid enrollment, Y15 w/out program**	62,021	46,653	45,945	74,901
Medicaid enrollment, Y15 w/ program	60,652	43,674	41,906	64,307
Delayed Medicaid enrollment, Y15	1,369	2,979	4,039	10,593
Medicaid savings, Y1-Y15 (millions)	$5,643	$5,638	$5,815	$8,764
Medicaid savings, Y15 (millions)	$768	$632	$655	$1,191

* We define the "disabled population" as anyone (including children) who needs hands-on assistance for two or more activity of daily living limitations or has cognitive impairment or a developmental disability.

**The number of people who are enrolled in the insurance program (out of the total lives enrolled) who are also enrolled in Medicaid.

Comparison to Mandatory Program Options

Mandatory programs have the advantage that they cover all people and would have premium contributions from all people, reducing average costs. **Figure 4** provides a comparison of the impacts of different versions of a mandatory program with one, three or five years of benefit payments. We eliminated the vesting period because its purpose, which is to prevent adverse selection, is no longer needed in a mandatory program. Benefit costs increase as a result but the population over which these costs are spread has increased significantly as well. We also test the impact of a program that enrolls all ages of the population rather than one focused only on the working-population (defined in the programmatic design section above).

For a three- and five-year benefit length covering the working population (defined for the mandatory options in the same manner as the voluntary options), our model produces monthly premiums for a mandatory program of about $26 and $35, respectively. These premiums are slightly lower than the premiums for voluntary benefits of the same length, which are $35 (three years) and $49 (five years). When all people over the age of 18 are included in a mandatory program, the premiums climb to $72 for a three-year benefit and $89 for a five-year benefit.

By extending the population eligible to enroll to include everyone, notably non-working older adults, the required premium for the program increases substantially, but the program also covers a much higher percentage of disabled individuals than any realistic assumptions for a voluntary program. For a three-year program, the percentage of the disabled population receiving benefits in year 15 increases from 1.3 percent in a voluntary program to 6.6 percent in a mandatory program when enrollment eligibility is limited to the working population and to 19.3 percent for a mandatory program when enrollment eligibility is expanded to all ages. The reason more disabled individuals are not covered, even in a mandatory program for all ages, is because the benefit is limited to three years and so there are disabled people whose disability has continued into a fourth year but who are no longer receiving benefits, and are therefore, not covered.

Perhaps most dramatically, the Medicaid program saves substantially more under any mandatory program than any realistic voluntary one. When a mandatory program covers the working-age population for three years, the program premium is about $26 a month (compared to the $35 premium under the three-year voluntary program) but the Medicaid savings hits $43 billion compared to $5.8 billion under the voluntary program. When all ages are covered in a mandatory program (an impossibility in a voluntary program), a three-year benefit requires a premium of $72 a month but produces 15-year Medicaid savings of $234 billion. Again, the higher savings result from a much larger enrolled population and the subsequent larger population receiving benefits.

Figure 4: Mandatory Programs, Comparisons by Benefit Designs (1, 3 and 5 Years)

Benefit parameters						
Length of benefit	1 year	1 year	3 years	3 years	5 years	5 years
Eligible population	Working	All ages	Working	All ages	Working	All ages
Vesting period	0 years	0 years	0 years	0 years	0 years	0 years
Pay premiums while on benefit	Yes	Yes	Yes	Yes	Yes	Yes
Daily benefit amount	$50	$50	$50	$50	$50	$50
General program						
Y1 average monthly premium	$14.16	$43.36	$26.39	$71.99	$35.26	$89.03
Total lives enrolled, Y15	86,726,046	165,359,420	86,726,046	165,359,420	86,726,046	165,359,420
Receiving benefits, Y15	377,115	1,075,728	709,227	2,073,350	979,394	2,873,292
Total disabled population, Y15	10,759,580	10,759,580	10,759,580	10,759,580	10,759,580	10,759,580
Percent of total disabled population receiving benefits, Y15	3.5%	10.0%	6.6%	19.3%	9.1%	26.7%
Premiums collected, Y1-Y15 ($ millions)	$215,240	$706,303	$405,688	$1,330,267	$547,726	$1,770,811
Benefits paid, Y1-Y15 ($ millions)	$121,383	$515,853	$217,913	$964,221	$286,935	$1,272,855
Premiums collected, Y15 ($ millions)	$15,664	$41,317	$29,548	$76,846	$40,007	$102,507
Benefits paid, Y15 ($ millions)	$11,241	$31,969	$21,147	$61,536	$29,180	$85,156
Medicaid						
Medicaid enrollment, Y15 w/out program	256,137	802,588	328,359	1,055,576	386,955	1,256,725
Medicaid enrollment, Y15 w/ program	220,274	693,094	292,495	946,081	351,091	1,147,230
Delayed Medicaid enrollment, Y15	35,863	109,495	35,863	109,495	35,863	109,495
Medicaid savings, Y1-Y15 (millions)	$34,135	$169,635	$42,967	$234,129	$49,193	$275,654
Medicaid savings, Y15 (millions)	$4,019	$13,210	$4,852	$16,398	$5,527	$18,932

Note: “All ages” refers to individuals 20 and older.

A mandatory program appears to provide more for the average premium dollar than a voluntary program. An approximate $34 per-month premium buys a three-year benefit under a voluntary program but only covers about 1.3 percent of the disabled population in year 15 and saves Medicaid only $5.8 billion. Further, the voluntary approach requires its enrolled population to wait five years to qualify for benefits even if a disability occurs during that time.

In contrast, for a $26 per-month, three-year benefit, the mandatorily enrolled working population can qualify for benefits immediately upon becoming disabled, 6.6 percent of the disabled population would receive benefits in year 15 and Medicaid would save $43 billion over the first 15 years of the program. For $10 more per month ($35), the program provides a five-year benefit, covers 9.1 percent of the disabled population in year 15 and saves Medicaid $49 billion over the first 15 years of the program.

Voluntary Private Insurance Fails to Ease Medicaid Burden

Even though the model was designed to evaluate public insurance programs, we found no evidence that voluntary enrollment into private insurance would do any better in reducing Medicaid spending. Therefore, the broader conclusions about the ability of voluntary insurance enrollment to affect Medicaid spending are applicable to considerations of private insurance as well.

Policy Implications

This analysis demonstrates that the voluntary and mandatory approaches to increasing LTSS insurance coverage come with important trade-offs, and that it is critically important to match the policy goal with the right policy. One potential policy goal may be to do as much as possible to increase insurance without mandating coverage. This analysis shows that it is possible to create a voluntary public insurance option with a premium around or below $30 per month. The three- and one-year voluntary public insurance benefits that are otherwise structured similar to the CLASS Act would require monthly premiums of about $34 and $15 per month, respectively.

It is key for policymakers to understand, however, that while these voluntary public approaches will avoid the challenge of mandating enrollment for a public insurance program, they will not cover substantial numbers of people with disabilities or change the trajectory of Medicaid spending in any significant way. These approaches cover only about 1.3 percent or 1.4 percent of the disabled population and may reduce total (federal and state) Medicaid spending by between $5.8 and $8.8 billion over the first 15 years

of the program. In other words, a voluntary approach would slightly reduce Medicaid spending and cover some people, but it would not substantially transform the nation's LTSS system so that Medicaid would no longer be the primary payer.

This analysis shows that a substantial change in the way that we finance LTSS likely requires a large number of people to purchase insurance. As with the health insurance marketplace, the problems associated with voluntary enrollment and adverse selection appear to be almost impossible to surmount in order to achieve a wholesale change in the manner in which we pay for LTSS. Under a mandatory approach, even if we just provide a three-year benefit covering only the working population, most people would have some coverage and Medicaid would save $42 billion over the first 15 years of the program.

We designed this analysis mainly to illustrate these trade-offs. Any policy discussion that seriously entertains a mandatory approach would examine many other program design elements that affect the premiums, costs and savings to Medicaid. Other program design parameters of interest include the amount of the daily benefit (modeled at $50 here), the possibility of requiring a deductible or elimination period, and changes to the low-income subsidy — including whether it should be financed internally solely by policyholders as it is in the model analyzed here, or subsidized with tax revenues. Analyses of these elements would enable policymakers to consider the trade-offs inherent within the mandatory pathway.

Summary and Conclusion

Needing LTSS means needing assistance with the most basic of personal, private activities such as eating, moving around the house, taking a bath and getting dressed. The need for this care creates an intensive, interdependent relationship between the caregiver (whether paid, unpaid, in-home or nursing home) and the receiver. These caregivers and receivers navigate a very lean and limited system to finance and support their relationship. This system may be the product of our ethos of self-reliance and individualism, at times in conflict with some of the most fundamental truths of the human community: that our friends, family members and neighbors get sick, they grow old, they are born with different physical and mental abilities and they need care from others.

We may decide that maintaining Medicaid as the dominant payer of LTSS is acceptable, particularly when weighed against the costs of change. While Medicaid has limitations, states are innovating to improve access to home- and community-based services. Over the last 15 years, Medicaid has increased dramatically the funding for such services relative to spending on institutional care.[xxii]

Incremental changes in Medicaid and in improving access to better and more affordable private LTCi could reduce the devastation that needing LTSS can trigger. While increasing access to private insurance coverage is not likely to change Medicaid's role significantly, it can help upper-middle income and wealthy individuals protect themselves. Even if these individuals and families would never need Medicaid, they are still vulnerable to the indignities and challenges of the current system. While future tax increases may be necessary in order to sustain Medicaid's LTSS commitment, such increases may be preferable to a mandatory insurance requirement.

However, this research shows that policymakers should not promote voluntary insurance enrollment under the assumption that it would bend the cost curve in Medicaid, alleviate the need for future tax increases or provide a new avenue of protection for people most likely to spend down. Our analysis shows that addressing these issues requires a mandatory insurance approach, and that, even within a mandatory program, there will be critical trade-offs between monthly premium levels and Medicaid savings. The more the new insurance program costs, the less Medicaid will have to pay but the funds have to come from individual premiums. Both approaches require trade-offs and neither is a silver bullet. Policymakers must decide their goals first and then design the program to meet those goals.

Notes

[i] AARP Public Policy Institute. A New Way of Looking at Private Pay Affordability of Long-Term Services and Supports. AARP Public Policy Institute with support from The SCAN Foundation and The Commonwealth Fund. 2012; http://www.aarp.org/home-family/caregiving/info-10-2012/private-pay-affordability-ltss-insight-AARP-ppi-ltc.html. Accessed on December 28, 2012

[ii] O'Shaughnessy, C. V. National Spending for Long-Term Services and Supports (LTSS), 2011. National Health Policy Forum. 2013; http://www.nhpf.org/library/the-basics/Basics_LTSS_02-01-13.pdf. Accessed March 1, 2013

[iii] The Patient Protection and Affordable Care Act of 2010. (PL 111-148, March 23, 2010). Text from *Public Law by Law Number.* Available from: Thomas (Library of Congress); http://thomas.loc.gov/home/thomas.php. Accessed December 11, 2012

[iv] Pear, R. Health Law to be Revised by Ending a Program. *New York Times.* October 14, 2011; http://www.nytimes.com/2011/10/15/health/policy/15health.html. Accessed November 30, 2012.

[v] The American Taxpayer Relief Act of 2012. (PL 112–240, January 2, 2013). Text from *Public Law by Law Number.* Available from: Thomas (Library of Congress). http://thomas.loc.gov/home/thomas.php. Accessed March 5, 2013

[vi] O'Shaughnessy, C. V. National Spending for Long-Term Services and Supports (LTSS), 2011. National Health Policy Forum. 2013; http://www.nhpf.org/library/the-basics/Basics_LTSS_02-01-13.pdf. Accessed March 1, 2013

[vii] Houser A. A New Way of Looking at Private Pay Affordability of Long-Term Services and Supports. 2012; http://www.aarp.org/home-family/caregiving/info-10-2012/private-pay-affordability-ltss-insight-AARP-ppi-ltc.html. Accessed December 28, 2012.

[viii] America's Health Insurance Plans (AHIP). Who Buys Long-Term Care Insurance in 2010-2011? A Twenty Year Study of Buyers and Non-Buyers (In the Individual Market). 2012; http://www.ahip.org/Issues/Long-Term-Care-Insurance.aspx. Accessed December 31, 2012.

[ix] Gleckman, H. What's Killing the Long-Term Care Insurance Industry? *Forbes Magazine,* August 29, 2012; http://www.forbes.com/sites/howardgleckman/2012/08/29/whats-killing-the-long-term-care-insurance-industry/. Accessed December 13, 2012

[x] Merlis M. Private Long-Term Care Insurance: Who Should Buy It And What Should They Buy? 2003; http://www.kff.org/medicaid/loader.cfm?url=/commonspot/security/getfile.cfm&PageID=14370. Accessed August 1, 2011.

[xi] America's Health Insurance Plans (AHIP). Guide to Long-Term Care Insurance. 2012; http://www.ahip.org/Issues/Long-Term-Care-Insurance.aspx. Accessed December 28, 2012.

[xii] United States Government Accountability Office. Long-Term Care Insurance: Partnership Programs Include Benefits That Protect Policyholders and Are Unlikely to Result in Medicaid Savings. 2007; http://www.gao.gov/new.items/d07231.pdf. Accessed December 11, 2012.

[xiii] Douglas, J. LTCI Sales: Who? Where? What? Interactive Exchange on the New DRA Partnership: Part I. The Tenth Annual Intercompany Long Term Care Insurance Conference. March 15, 2010.

[xiv] O'Shaughnessy, C. V. National Spending for Long-Term Services and Supports (LTSS), 2011. National Health Policy Forum. 2013; http://www.nhpf.org/library/the-basics/Basics_LTSS_02-01-13.pdf. Accessed March 1, 2013

[xv] Kaiser Commission on Medicaid and the Uninsured. Infographic: Medicaid Spending and Enrollment: Who is Covered and What Does the Program Spend on their Care? 2013; http://www.kff.org/medicaid/medicaid_infographic.cfm. Accessed February14, 2013

[xvi] Eiken S, Sredl K, Burwell B, Gold L. Medicaid Expenditures for Long-Term Services and Supports: 2011 Update. 2011; http://www.hcbs.org/files/208/10395/2011LTSSExpenditures-final.pdf. Accessed October 12, 2012.

[xvii] *Public Health Service Act,* 42 U.S.C. 201 et seq. §3201-3210

[xviii] Greenlee, K. Memorandum on the CLASS Program to Secretary Sebelius. October 14, 2011; http://aspe.hhs.gov/daltcp/Reports/2011/class/CLASSmemo.shtml . Accessed February 14, 2013.

[xix] Pear, R. Health Law to be Revised by Ending a Program. *New York Times.* October 14, 2011; http://www.nytimes.com/2011/10/15/health/policy/15health.html. Accessed November 30, 2012.

[xx] Kemper, P, Komisar H, Alecxih L. Long Term Care Over an Uncertain Future: What Can Current Retirees Expect. *Inquiry,* 2005/2006. 42:335-350. http://www.alisprotect.com/UncertainFuture.pdf. Accessed on February 14, 2013.

[xxi] Khatutsky, G, Wiener, J. M.. Assessing policy options for long-term care reform in Hawaii: Results from the Hawaii Long-Term Care Survey. Prepared for the Hawaii Long-Term Care Commission. Washington, DC: RTI International. 2011.

[xxii] Eiken S, Sredl K, Burwell B, Gold L. Medicaid Expenditures for Long-Term Services and Supports: 2011 Update. 2011; http://www.hcbs.org/files/208/10395/2011LTSSExpenditures-final.pdf. Accessed October 12, 2012.

Appendix

Basic Model Construction

As described in the paper, the *Long-Term Care Policy Simulator* (LTC-PS) is an Excel-based model that tracks age-specific groups of public program enrollees for 75 years. The LTC-PS creates enrollment groups from the overall population and calculates the expected costs and premiums for each enrollment group separately by age. For the most part, the same process is repeated for each consecutive group of annual enrollees. We make exceptions to this repetition with estimates for expected enrollment, adverse selection, and premiums.

The LTC-PS assumes that any public program will be required to be actuarially balanced over a 75-year window. This, in short, means that the present value of total expected costs of the program, including benefit payments, administrative costs, and subsidies, must equal the present value of total expected income of the program, including premiums and interest payments. The estimated premium represents the average premium required in the initial year for each age of estimated enrollment to accomplish an actuarially balanced model.

In order to construct these expected costs and expected income, we estimate for each enrollment group the number of people participating in the program and receiving benefits as well as the number of people participating in the program and paying premiums. Depending on the policy options selected, these may or may not be mutually exclusive categories. In order to calculate the total costs of the program and the total income, the major functions of the model are applied to each age group above 18-years-old for 75 consecutive years. In addition, each enrollment year is modeled separately. The following provides an overview of the major functions of the model and the conceptual sequence of these functions.

Estimating Program Enrollment. In order to determine costs and income, we first estimate how many people are enrolled in the program. This step entails determining the overall program eligibility requirements as well as estimating the impact of voluntary versus mandatory participation. We also account for individuals eligible for a low-income subsidy via the program enrollment estimates.

- Eligibility requirement. For this analysis, we assumed an eligibility requirement similar to the CLASS program, which would have been available to individuals over the age of 18 who have at least three years of active work experience and had a minimum amount of wages each year. The precise level of wages was subject to debate; the ACA indicated that workers must earn at least $1,120 in a year. However, such a low threshold could be one of the factors that caused the program to be unsustainable. As such, we have increased this threshold to

$12,000 per year. At the onset of the program, we assume that the work requirement will prevent most of the currently disabled population from being able to participate. We make an exception for individuals who have a severe disability and are currently working (approximately 5 to 7 percent of the severely disabled population is employed). We incorporate these individuals through estimates of adverse selection.

- Voluntary participation. Voluntary enrollment is based on how an individual would value the benefit relative to what he or she would have to pay in premiums. We assume that a person's age would also affect his or her likelihood of participating.
- Mandatory participation. For the estimates derived from a program with mandatory enrollment, we assume all eligible workers in a given year will enroll and pay premiums. Each subsequent year of enrollment reflects new workers; as such, most subsequent years of enrollment in a mandatory program have a much lower average age than the first year of enrollment.
- Low-income subsidy. Part of the original CLASS program included a reduced premium for low-wage individuals. We have assumed any eligible enrollees who earn less than the federal poverty limit will be eligible for a subsidy of $5 per person. The design of the low-income subsidy in the CLASS program called for internal financing paid for by higher premiums to non-subsidized participants.

Estimating Enrollees Qualified to Receive Benefits. Once the model has calculated the enrolled population, we must estimate how many enrolled are eligible to receive benefits, followed by the number of eligible individuals who have a disability that qualifies them to receive benefits. For each age and year in the model, there are two components of the disabled population: newly disabled and continuing disabled.

- Eligible to receive benefits. One of the features of the CLASS program was a requirement that enrollees wait five years before they are eligible to receive benefits. Part of the rationale for the five-year delay was to allow an accumulation of premiums that could then be used to pay for benefits while keeping overall premiums lower. If the five-year waiting period were discarded, starting premiums would need to be higher.
- Newly disabled. Using age-specific incidence rates we calculate the number of individuals who are eligible to receive benefits who develop a severe disability in a given year. The calculated incidence rates are for an entire calendar year, but for modeling purposes we track the average number of people who would receive benefits in their first year of need. We therefore discount a portion of the incident population in each year, and include the remaining incident population in our total estimates for the following calendar year.

- **Continuing disabled.** We also adjust the prior-year age-specific population with a disability to account for the estimated number of individuals who cease to be severely disabled, either through death or improvement in condition. This is done via the continuance estimates as described later.

Estimating the Disabled Who Are Receiving Benefits. While a person might be enrolled in the program and meet the disability requirements to receive benefits, that person could have exhausted benefits in a program that pays for a specified period of time less than lifetime (i.e., one or three years). For any policy options with a limited benefit of less than lifetime, we apply a factor to account for people with disabilities who have already received the maximum amount of allowable benefits in the program.

- As an example, if the program were to have a one-year benefit, the model calculates for each age the number of persons with a severe disability who are still disabled for more than one year. We remove them from the count of total disabled to construct the premium estimate for this program variation.
- One of the limitations of the model lies in the interaction of a limited benefit and the non-continuance population. We are not able to estimate the number of persons who develop a disability, receive benefits for a short time, stop receiving benefits due to an improvement in their condition, but then develop a disability a second time and start receiving benefits again. While an actual long-term care program would be able to track these individuals and stop benefits in a limited-benefit situation, we are unable to do the same from a modeling perspective.
- We do not model the impact of a delayed receipt of benefit in the CLASS program, either under a lifetime or limited benefit. We assume that once a person enrolled in the program has developed a disability severe enough to qualify for benefits, he will begin receiving payments from the program.

Amount of benefit payment. After determining the number of people receiving benefits, the model next calculates the amount paid for each recipient. The LTC-PS can model any cash amount (as well as a services benefit). Regardless of the amount, the model increases it by the estimated annual increase in the CPI-U, set at the first year that benefits are paid in the program. The cash benefit is paid to all of the "disabled receiving benefits" population in the model. In the aggregate, we assume that every beneficiary receives the full amount of the average cash payment. We incorporate these differences for each age-specific estimate of disability and setting.

Administrative costs. Any insurance program has administrative costs associated with marketing, premium collection, benefit payments and other operational costs. The CLASS program was required to limit administrative costs to 3 percent of total premiums; we use the same assumption, although we note that many LTC experts feel this low level is not realistic.

Fund balance. For most insurance programs, there is an annual difference between premiums collected and benefits paid. Given that a public program like CLASS would be a new program that pays for a relatively low occurrence but high-cost event, the program will collect significant amounts of premiums in the early years. As the program, and the population, ages, it then pays out these funds. For any annual excess collections, our baseline assumptions use the current expectations for Treasury bonds rates to calculate the interest income of surplus funds.

Premium calculations. Finally, after making all of the above calculations, we develop the total expected cost of the program for the next 75 years for each enrollment group and each age. These values are adjusted to 2012 dollars (or first year of the program) via the expected rate of inflation for each of the next 75 years. Once the total present value of all spending is estimated, we estimate the level of premiums required over the course of the same 75 years such that the 2012 present value of these payments equal the total costs.

- Age-adjusted premiums. Since each age is separately modeled, each age also has an actuarially-balanced premium. Note, given the interactions with adverse selection, low-income, age ranges, and other items that will impact the first enrollment group more than subsequent enrollment groups, it is sometimes possible for subsequent years of enrollees to have lower age-specific premiums than prior years' enrollees.

Medicaid Spend-Down Methodology

To determine the role that a public long-term care insurance program could have on Medicaid spending, we made assumptions about how enrollment in a CLASS-like program could affect Medicaid spending. The cash provided by this new LTCi program would have two potential impacts on Medicaid: disabled individuals who were already eligible for Medicaid would require less Medicaid program spending due to the cash provided by the CLASS program; and other individuals would delay eligibility for Medicaid as the CLASS program cash supplemented income and assets needed to pay for care. We account for each of these groups separately in our model.

Using the 1996-2008 waves of the Health and Retirement Study (HRS)[5] we first identified individuals with two or more activities of daily living, cognitive impairment, developmental disability or other measure of disability that we determined could be a benefit trigger under a public long-term care insurance program.[6] The HRS tracks individuals over time

[5] The Health and Retirement Study is a longitudinal study that surveys a representative sample of over 26,000 Americans every two years, collecting data on income, work, assets, pension plans, health insurance, disability, physical health and functioning, cognitive functioning and health care expenditures.

[6] University of Michigan. *Health and Retirement Study, 2010. Core public use dataset.* Produced and distributed by the University of Michigan with funding from the National Institute on Aging (grant number NIA U01AG009740). Ann Arbor, MI, 2011.

in two-year increments. Once we identified these individuals, we constructed a profile of their most recent information, including variables such as age, income, assets and insurance coverage.

Using a methodology patterned after an analysis by RTI, we tracked individuals through multiple waves of the HRS and identified how many of them went from non-Medicaid to Medicaid enrolled status over the course of the 12 years (the "spend-down" population).[7] We also identified individuals who were always eligible for Medicaid (the "always-Medicaid" population). The key difference in our process compared to the methodology described by RTI was we focused entirely on individuals with a disability, rather than the entire HRS population. Based on this approach, we calculated that approximately 20 percent of the disabled population qualified for Medicaid and another 20 percent of the disabled population would spend down to Medicaid. In addition, we did not identify a significant difference in these percentages by age. Note that these rates are much higher than the total population (6 percent were always Medicaid and 10 percent were spend down).

To determine the pace of spend down for disabled individuals, we started with the total spend down population analyzed by RTI. Researchers there found that it took on average 6.8 years for an individual to spend down to Medicaid. Using the average income and assets for this population, we calculated the average spending necessary for an individual to deplete their assets within 6.8 years. We next turned to our disabled spend-down population. Using the average income and assets specific to this population (which was approximately 10 to 20 percent lower than the overall spend-down population), we estimated the amount of time necessary for this population to deplete their assets and enter Medicaid. We also assumed a faster spend-down pattern for disabled individuals, using data calculated by Cutler et. al. that found spending by disabled individuals was approximately twice the level of non-disabled individuals.[8] Via this process, we estimated the average disabled spend-down individual would qualify for Medicaid in 1.2 years. We varied this rate by age using the regression model calculated by RTI to measure the factors that influence the pace of spend down. We modified the regression for the 20 to 30-year-old age group relative to the data in HRS to account for differences in behavior for this population.

Finally, we calculated a separate spend-down pace for individuals enrolled in the CLASS-like program. We assumed these individuals would be able to use the cash payments from the LTCi program to delay Medicaid eligibility; we also assumed these individuals would have even higher costs due to the availability of the cash payments. Prior evidence

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[7] Wiener JM, Khatutsky G, Anderson W, Yevgeniya K, O'Keefe J. Medicaid Spend Down: New Estimates and Implications for Long-Term Services and Supports Financing Reform. Prepared for The SCAN Foundation; Draft.

[8] D.M. Cutler and E. Meara. The Concentration of Medical Spending: An Update. NBERWorking Paper no. w7279, Cambridge, Mass.: National Bureau of Economic Research; 1999.

has found that low-income individuals increase their LTC spending when provided more resources.[9] Based on our estimates, enrollees in the CLASS-like program will spend down to Medicaid in approximately 2.4 years, a delay of 1.2 years relative to no CLASS program.

Once we measured the size of "always-Medicaid" as well as the "spend-down" populations, we determined how much Medicaid spending would be avoided due to the CLASS-like program. For the always-Medicaid individuals as well as the spend-down population after entry into Medicaid, we estimated the percentage of individuals who would be receiving either institutional or community care, and multiplied by the estimated Medicaid costs for these services. For the spend-down population prior to entry into Medicaid, we estimated total Medicaid payments for these individuals using the average 2010 Medicaid payment for aged/disabled individuals (approximately $16,000[10]). We adjusted this amount using the same 2x factor from Cutler. Note that this amount includes payments for long-term care as well as all other medical care.

Once we included the change in spending and utilization due to the existence of a public long-term care insurance benefit, we measured the expected impact on Medicaid costs and spending. We constructed these estimates for each expected enrollment cohort in the public LTCi program, and estimated total Medicaid savings over the next 5, 10 and 25 years.

[9] Department of Social Security. Disability, household income, & expenditure: a follow-up survey of disabled adults in the Family Expenditure Survey. Social Security Research HMSO, Research Report No. 2. 1990.

[10] Avalere Health analysis of 2010 Medicaid Statistical Information System State Summary Dataset

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