Post-Acute and Long-Term Care Reform /

Estimating the Federal Budgetary Effects
of the AHCA/NCAL/Alliance Proposal

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Executive Summary

The United States spent about $230 billion in 2006 on a long-term care (LTC) system that inadequately protects today's elderly population from the financial devastation of a long-term disabling condition such as Alzheimer's disease or stroke. Private insurance covered only about 7 percent of this amount and private long-term care insurance an even smaller percentage.

To address the inadequacies of the current financing system, the American Health Care Association (AHCA), the National Center for Assisted Living (NCAL), and the Alliance for Quality Nursing Home Care (the Alliance) have developed a proposal that would reform the financing of both LTC and Medicare post-acute care (PAC) benefits. The proposal would create a new federal program that covers catastrophic LTC costs for the elderly, increases the amount of private funding used to pay for LTC, and bases PAC payments on individual service needs, not the location of where the services occur. The proposal would take effect in 2012.

AHCA, NCAL, and the Alliance engaged Avalere Health to estimate the federal budgetary impact (or "score") of this proposal. The following summarizes our key findings, the key elements of the proposal, and the methodology and assumptions we used to score the plan.

Key Finding

Avalere Health has analyzed the LTC and PAC components of this proposal and estimated that together they would reduce federal spending by $35 billion during the program's first 10 years (2012-2021). We also estimated that the net savings from the beginning of the program through the end of the current 10-year budget window – federal fiscal years 2012 through 2019 – would be $25 billion.

The AHCA/NCAL/Alliance Proposal

The AHCA/NCAL/Alliance proposal would create a new federal program to cover a wide variety of LTC services (e.g., home care, assisted living services, nursing home care) for the elderly. The following are highlights of the proposal.

- **Creates a voluntary federal catastrophic LTC program.** The new federal program would replace existing Medicaid coverage of LTC services for the elderly. The new program would cover home- and community-based services as well as care in an assisted living facility or nursing home.

- **Increases the amount of private funding used for LTC services.** The new federal program would require individuals to spend a certain amount of private funds, known as a personal responsibility amount (PRA), before receiving federally funded benefits. The PRA would vary based on an individual's earning history and assets, and possibly funded through a number of various qualified approaches. Low-income

individuals (defined as those with incomes below 150 percent of the federal poverty level) would not have a PRA.

- **Provides access for individuals without a PRA to federally funded benefits following spend down of assets.** Individuals who do not fund a PRA, as well as low-income individuals, would receive federally funded benefits only after spending nearly all of their personal assets, including any home equity that exceeds $50,000 in value, on LTC services. After spending down their assets, individuals not considered low income would also have to contribute most of their income toward the cost of their care; much like Medicaid does now with nursing home care.

- **Pays Medicare PAC according to patient need.** The proposal would also require the Centers for Medicare & Medicaid Services (CMS) to develop a new prospective payment system for all Medicare PAC services. The new payment system would base payments on each beneficiary's condition and service needs and not on the service setting. Those service needs would be determined using a new patient assessment tool that accounts for a range of factors, including acuity of needs, resource use, diagnoses, comorbidities, and age. CMS would also be required to develop patient and facility criteria to ensure that, under a site-neutral payment system, service providers have the capability to care for patients based on need.

Methodology and Assumptions

Avalere Health constructed separate models to estimate the LTC and PAC components of the AHCA/NCAL/Alliance proposal. In each case, we relied on a combination of survey and administrative data to first project federal spending on LTC and PAC services under current law, and then estimate how spending would change under the proposal.

LTC Model. To construct the LTC model, we first estimated how much the federal government would spend on Medicaid LTC services for the elderly under current law (i.e., baseline Medicaid spending). The government would save those amounts under the proposal by ending Medicaid coverage of LTC services for the elderly. We then estimated the maintenance of effort requirement payments that states would have to make under the proposal; states' share of Medicaid savings would form the basis of such payments.

We then estimated the costs of the new federal LTC program. The following summarizes our major assumptions. Details are available in the full report on the construction of our model, additional theories, and our data sources.

- **Disability Rates.** We estimated the costs of the new federal LTC program by first estimating the number of elderly individuals that would newly meet the program's disability standard (two or more activities of daily living (ADL) or severe cognitive impairment (SCI)) each year. While rates vary by age in our model, the overall rate of disability for the elderly is 15 percent.

- **Participation.** We estimated that about 20 percent of the elderly will provide funding for a PRA, another 50 percent will not comply with the PRA requirement and will

spend down their assets and income, and the remaining 30 percent will be exempt from the PRA requirement as low-income individuals.

- **Use of Services.** We assumed that the use of formal home care services by the disabled would double during initial periods of disability, mostly as a shift away from informal home care. We estimated a significant increase in the number of people receiving formal home health services and residing in assisted living facilities (ALFs) due to the changes made by this proposal. We also assumed that disabled individuals would be increasingly likely to use nursing home care if disabled for long periods.

- **Service Costs.** We assumed that annualized service costs in 2012 would be $12,500 for paid home care, $25,000 for care in an ALF (the program would cover only the service portion of that care and not the housing portion), and $75,000 for nursing home care.[1] We assumed that those costs would increase by 6 percent annually in subsequent years.

- **Availability of Assets and Income Among the Spend-Down Disabled.** For the spend-down disabled population, we assumed most assets and income would be spent down but discounted total asset values from 2006 by 25 percent to account for the decrease in home and liquid asset values due to the economic crisis.

PAC Model. To construct the PAC model, we first estimated how much the federal government would spend on Medicare PAC services under current law (i.e., baseline Medicare spending). We then estimated spending under the new PAC payment system. The difference between the two equals the savings attributable to this proposal.

The savings generally come from reductions in payment levels for certain lower acuity patients previously due payments at long-term acute care hospital and inpatient rehabilitation facility rates. These lower acuity patients would now receive payments at SNF and home health rates. The following summarizes our key assumptions in estimating spending under the new PAC system. Details are available in the full report on the construction of our model, additional assumptions, and our data sources.

Payment Rates for Similar Patients Treated in Different Settings. We assumed that for patients who share clinical and severity of illness profiles but currently receive care in different settings, the new Medicare PAC system would reimburse at the lower level-of-care rate. As an example, if the current Medicare payment for a patient is $10,000 in one setting of care but $5,000 in a lower-cost setting of care, we assumed that under the new system any setting of care willing to take that patient would receive $5,000 in reimbursement. In addition, we assumed that the payment system would make additional payments to protect providers who admit higher-acuity cases whose actual resource needs exceed the prospective payment level; this system would function similar to high-cost outlier payment systems present in several PAC settings under current law.

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[1] Individual home health, ALF and nursing home costs would vary depending on the LTC users' length of use of any of these settings.

- **Payment Rates for Areas of Specialization.** We assumed that the new payment system would adopt lower levels of payment except in cases where a provider specializes in a particular type of patient, such as ventilator care. In these cases, we assumed payment rates would remain at the level of the specialty provider.

- **Effectiveness of Assessment Tool.** We assumed that the single patient assessment instrument would effectively measure patient resource need and lead to changes in expected payments for patients relative to current payment rates.

- **Demand for PAC.** We assumed that future demand for PAC services in the new system would remain unchanged from projected demand for such services under the current system.

Limitations. Projecting the costs of such a far-reaching proposal requires making many judgments about how the proposal will affect the behavior of individuals, providers, and the federal government. Independent data and research determine those judgments, but such resources are often limited. When solid evidence from research or other programmatic experience was lacking, we used our best analytic judgment about the likely behavior of individuals and providers in response to the proposal's incentives.

For example, we accounted for the impact of the economic crisis on home equity and assets by reducing total asset values reported in 2006 by 25 percent. We used the S&P Case-Shiller housing index to determine this amount, taking the reduction in the index from the market peak in 2006 to the end of 2008.[i]

In addition, we had little real-world experience on which to base our assumptions about the share of the elderly that would fund PRAs or the proposal's impact on the use of LTC services. In both cases, we combined the information we could find with our best judgment about behavior under the program. We recognize that different judgments and assumptions about these key inputs would produce different estimates of the proposal's budgetary impact.

Finally, we estimated the overall impact of this proposal on the federal budget, but did not assess its effect on different segments of the elderly population relative to the current LTC system. Determining the magnitude of the proposal's distributional effects requires further analysis.

Introduction

The nation spent about $230 billion in 2006 on a long-term care (LTC) system that inadequately protects today's elderly population from the financial devastation of a long-term disabling condition such as Alzheimer's disease or stroke.[ii] Further, the system is ill prepared to meet the LTC needs of the baby boom generation as it reaches old age over the next 20 years.

Researchers, state and federal policymakers, advocates, and providers have repeatedly documented and raised concerns about the problems with our current system of LTC financing. This system provides very little support or financial resources to ensure the provision of critical services for the frail elderly and their families. Most elderly pay for LTC out of their personal savings until they are poor enough to qualify for Medicaid, which offers few choices other than institutionalization. Elderly individuals who have few private resources and seek to avoid Medicaid rely heavily on unpaid family support or go without needed services.

This patchwork system of financing has consequences for the financing of our healthcare system and the Medicare program. Although Medicare does not cover LTC, some Medicare PAC services that transition beneficiaries from acute to LTC settings may be filling a gap in the LTC financing system.[iii] As policymakers consider reform of the healthcare system, they should also consider the close linkage between the health and LTC needs of the Medicare population and seek to ensure greater efficiency and better coordination between these systems.

To address the inadequacies of the current financing system and the lack of coordination between acute and long-term care, the American Health Care Association (AHCA), the National Center for Assisted Living (NCAL), and the Alliance for Quality Nursing Home Care (the Alliance) have developed a proposal that would reform the financing of both LTC and Medicare post-acute care (PAC) benefits. The proposal would create a new federal LTC program and base PAC payments on individual service needs instead of the location where those services occur. The proposal would take effect in 2012.

AHCA, NCAL, and the Alliance engaged Avalere Health to estimate the federal budgetary impact (or "score") of this proposal. The following report summarizes the key findings of our analysis, briefly describes the major elements of the AHCA/NCAL/Alliance proposal, and provides an overview of the methodology and assumptions that we used to generate our estimate. We also include an appendix containing the key data sources utilized in our work.

Key Findings

Avalere Health has analyzed both the LTC and PAC components of this proposal and estimates that, together, they would reduce federal spending by $35 billion during the

program's first 10 years (2012-2021) (see Table 1). Spending on the new federal LTC program for catastrophic LTC costs would total $1.1 trillion, an amount that exceeds by $46 billion any savings from eliminating Medicaid LTC coverage for the elderly.

Ending Medicaid LTC coverage for the elderly creates two sources of savings: $594 billion from ending federal Medicaid's coverage of LTC for the elderly and $448 billion from payments that the states would make to the federal government based on their share of the resulting Medicaid savings (similar to the maintenance of effort payments now made as part of the Medicare drug benefit).

The new payment method for PAC benefits would reduce spending by another $81 billion. The overall savings from the proposal would continue to grow after 2021, reducing federal budget pressures from retiring baby boomers.

TABLE 1 Estimated Impact of Proposal on Federal Spending (figures are in billions, by calendar year)

	2012-2021
Long-Term Care	
Federal LTC Program	$1,088
Federal Medicaid Savings	-$594
State Maintenance of Effort Requirement Payments	-$448
Subtotal, Long-Term Care	$46
Post-Acute Care	-$81
Total Impact of Proposal[2]	-$35

We also estimate a net savings of $25 billion from the beginning of the program through the end of the 10-year budget window (federal fiscal years 2012 through 2019).

The AHCA/NCAL/Alliance Proposal

The AHCA/NCAL/Alliance proposal would create a new federal program that covers LTC for the elderly (see Chart 1). The federal program would cover a variety of LTC services, ranging from paid home care to services in an assisted living facility (ALF) and nursing home care. The program would determine each individual's need for services using a common LTC assessment tool. The following summarizes the proposal.

Creates a Voluntary Federal Catastrophic LTC Program. The new federal program would replace existing Medicaid coverage of LTC services for the elderly and cover home- and community-based services as well as care in an ALF or nursing home.

Increases the Amount of Private Funding Used for LTC Services. The new federal program would require individuals to spend a certain amount of private funds, known as

[2] Totals may not sum due to rounding.

a personal responsibility amount (PRA), before receiving federally funded benefits. The PRA would vary based on an individual's earning history and assets. A number of various qualified approaches could fund the PRA spending. Individuals with incomes below 150 percent of the federal poverty level would not have a PRA. The PRA would range from $50,000 to $180,000 in 2012, depending on income, and be reduced for individuals who are already elderly when the proposal goes into effect.

CHART 1 Overview of New Federal LTC Benefit

Private funding used first

Individuals who comply with the PRA requirement	Use PRA funds to pay for LTC services	Federal program pays for LTC services once PRA funds are exhausted
Individuals who do not comply with the PRA requirement	Spend from personal assets (including any home equity above $50,000) to pay for LTC services	Federal program pays for LTC services once assets have been spent down; individuals must also contribute most of their income to the cost of their care
Low-income individuals (<150% of the poverty level)		Federal program pays for LTC services once assets have been spent down

Individual needs help with 2 or more ADLs or has SCI

Provides individuals without PRA access to federally funded benefits following spend down of assets. Individuals who do not fund a PRA, as well as low-income individuals, would receive federally funded benefits for LTC services only after spending nearly all of their personal assets, including any home equity that exceeds $50,000 in value. After spending down their assets, individuals not considered low income would also have to contribute most of their income toward the cost of their care; much like Medicaid does now with nursing home care.

Creates new PAC payment system. The proposal would also require the Centers for Medicare & Medicaid Services (CMS) to develop a new prospective payment system for Medicare PAC services (see Chart 2). The new payment system would base payments on each beneficiary's service needs not on the service setting (such as long-term acute care hospital (LTACH), inpatient rehabilitation facility (IRF), skilled nursing facility (SNF), or home health agency (HHA)).

Beneficiary service needs would be determined using a single patient assessment tool that accounts for a range of factors, including acuity of needs, resource use, diagnoses, comorbidities, and age. Providers would use the patient assessment tool throughout the patient stay to reevaluate care needs and to aid discharge planning. Reimbursement rates would be calculated using information provided by the assessment tool.

CHART 2 Overview of New Medicare PAC Payment System
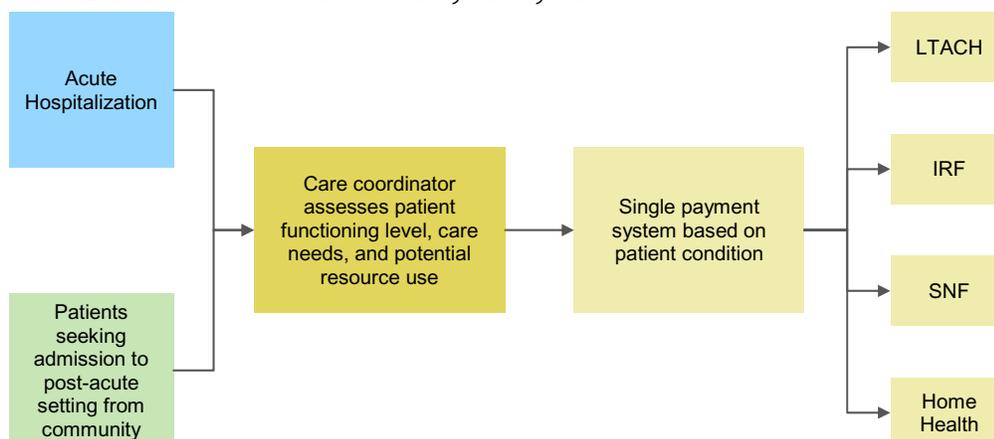
Overview of Methodology and Assumptions

Avalere Health constructed separate models to estimate the LTC and PAC components of the AHCA/NCAL/Alliance proposal. In each case, we relied on a combination of survey and administrative data to first project federal spending on LTC and PAC services under current law, and then estimate how spending would change under the proposal.

Long-Term Care

As noted above, the proposal would create a new federal program to replace the Medicaid program as the main source of public funding for LTC services for the elderly. To project the budgetary impact of the proposal, we first estimated how much the federal government would spend on Medicaid LTC services for the elderly under current law (i.e., baseline Medicaid spending). The government would save those amounts under the proposal by ending Medicaid coverage of LTC services for the elderly. We then estimated the maintenance of effort requirement payments that states would have to make under the proposal (based on the states' share of Medicaid savings).

Our estimates of the federal Medicaid baseline savings and the subsequent capture of state savings serve as the basis for one of the major sources of savings associated with this plan: the elimination of Medicaid coverage of LTC services for the elderly. These funds then finance the new federal LTC program.

Finally, we measured the costs of the new federal LTC program. The following summarizes our major modeling assumptions across five key areas:

1. **Disability Rates.** We anticipated the costs of the new federal LTC program by first estimating the number of elderly individuals that would newly meet the program's disability standard (two or more activities of daily living (ADL) or severe cognitive impairment) each year. While rates vary by age in our model, the overall rate of disability for the elderly is about 15 percent.

2. **Participation.** We estimated that about 20 percent of the elderly will provide funding for a PRA, another 50 percent will not fund a PRA and spend down their assets and income, and the remaining 30 percent will be exempt from the PRA requirement as low-income individuals.

3. **Use of Services.** We assumed that the use of formal home care services by the disabled would double during initial periods of disability, mostly as a shift of away from informal home care although we assumed that some informal service use would continue. We estimated a significant increase in the number of people receiving formal home health services and residing in ALFs due to the changes made by this proposal. We also assumed that disabled individuals would be increasingly likely to use nursing home care if disabled for long periods.

4. **Service Costs.** We assumed that annual service costs in 2012 would be $12,500 for paid home care, $25,000 for care in an ALF (the program would cover only the service portion of that care), and $75,000 for nursing home care. We assumed those costs would rise by 6 percent annually in subsequent years.

5. **Availability of Assets and Income Among the Spend-Down Disabled.** We had to determine the amount of the spend-down population's assets and income available for LTC. We assumed the spend down of most assets and income, but discounted total asset values from 2006 by 25 percent, which corresponds to the value drop in the Case-Shiller housing index from the 2006 peak to the 2008 trough. In addition, we assumed that asset values would grow very slowly over the next decade, at an annual rate of 1 percent.

We describe our methodology in making these assumptions and the data we use in each of the areas in more detail below.

Baseline Medicaid Spending. We used data from the Form CMS-64 to determine how much Medicaid spent on LTC services in 2007, and then used data from the Medicaid Statistical Information System to estimate how much of that spending was for the elderly. (Spending data for 2008 is not yet available.) We then projected spending through 2021 by taking the spending for 2007 and adjusting it for three factors.

- The expected growth in the size and composition of the elderly population using the Census Bureau's 2008 population projections.

- Increases in the cost of LTC services using the intermediate projections of wage growth from the Social Security Trustees' 2008 report.

- Changes in utilization patterns by assuming that spending on home- and community-based services will continue to grow more quickly than spending on institutional services.

Finally, we assumed that the federal government would pay for 57 percent of the overall costs of Medicaid LTC services, with states paying 43 percent (based on existing Medicaid spending data).

State Maintenance of Effort Payments. As noted above, the federal government and the states would both realize savings by ending Medicaid's coverage of LTC services for the elderly. The proposal would require states to make payments to the federal government based on their share of the savings, effectively passing most of their savings on to the federal government. Those payments would resemble the payments that states now make as part of the Medicare drug benefit.

Number of Disabled Individuals Under Federal LTC Program. We used the Census Bureau's detailed projections to determine the size and age distribution of the elderly population over the next decade. We then factored in a number of disability-related variables from the 2006 Health and Retirement Survey (HRS) and the 2005 Medicare Current Beneficiary Survey (MCBS) to estimate the percent of the elderly population that would meet the new program's disability requirement.

We calculated that disability rate by treating HRS respondents as disabled if they indicated one of three things: (1) they get help with two or more ADLs; (2) they get help or have difficulty with two or more ADLs; or (3) they have a memory-related disease. These variables resulted in an overall disability rate of about 12 percent for the elderly population. The HRS does not include data on individuals living in institutions (the vast majority of whom are disabled), so we increased that figure based on data from the MCBS, which surveys the institutionalized population.

Researchers have found that disability rates have declined over time and generally agree the trend will continue. As a result, we assumed that disability rates for the elderly would decline by 0.6 percent annually over the next decade, the level included in the Lewin Group's LTC microsimulation model.[iv]

Individuals Complying with PRA Requirement. Using income data from the HRS, we first estimated that about 30 percent of the disabled population would meet the new federal program's low-income standard (income less than 150 percent of the federal poverty level) and would not have a PRA. We then estimated the share of the remaining individuals that would comply with the PRA requirement. The amount of the PRA in 2012 would vary based on income and assets, as shown below in Table 2:

TABLE 2 Personal Responsibility Amounts in 2012, by Income and Asset Levels

Income	PRA if Countable Assets Are Less Than $200,000	PRA if Countable Assets Are More Than $200,000
$10,001 to $20,000	$50,000	$60,000
$20,001 to $30,000	$75,000	$90,000
$30,001 to $60,000	$100,000	$120,000
$60,001 to $80,000	$125,000	$150,000
More than $80,000	$150,000	$180,000

Although the proposal would give individuals a number of ways to meet their PRA requirement, we assumed that most individuals would do so by purchasing LTC insurance. We analyzed data from the HRS on the likelihood of having LTC insurance at different income levels. (The share of individuals with LTC insurance increases sharply as income rises and premiums become more affordable.) The amount of coverage needed to satisfy the PRA requirement would generally be lower than the coverage provided by existing LTC insurance policies, so premiums would therefore be more affordable at most income levels.

We have very little real-world experience on which to base our assumptions about how many people would participate in the program – that is, the size of the elderly population that would choose to fund a PRA. To help estimate a rate of participation, we used the 2006 HRS income data to calculate the rate of LTC insurance within $10,000 increments of income. For example, about 25 percent of the individuals with incomes between $50,000 and $60,000 indicated that they had a LTC insurance policy. We then calculated the relationship between the annual premium for an average LTC insurance policy (one typically purchased) and the rate of coverage within an income band. These relationships indicated, for example, that about 30 percent of individuals would purchase LTC insurance when the premium ranged less than 2 percent of their income.

Then we assumed rough premium levels for coverage amounts under the proposal and estimated rates of insurance coverage within $10,000 increments of income using the relationships between insurance purchase and income that we initially determined.

Individuals Spending Down Their Income and/or Assets. Once we calculated the number of individuals that would either meet the low-income definition or participate in the program, we then categorized all individuals that would not comply with the PRA requirement and have to spend down their income and assets as "everyone else" – about 50 percent of the elderly. As noted earlier, the proposal would require all individuals lacking PRA funds to spend down most of their assets before receiving federal LTC benefits. We used HRS data to estimate the amount and distribution of assets available to those individuals.

Next, we used HRS data to calculate asset levels separately for elderly individuals who meet the proposal's disability criteria and for the entire elderly population. That analysis indicated that the elderly disabled have fewer assets than the elderly as a whole. However, the difference may partly reflect the fact that the HRS generally surveys disabled individuals some time after the point when they first become disabled. The onset of disability probably makes it more likely that those individuals will need to spend some of their assets, with the result that available assets are lower by the time of the survey. We accounted for this by calculating the mid-point between these two values and by assuming that disabled individuals would have this amount available to pay for LTC services before qualifying for the federal benefit.

In addition, we calculated the average income available for the spend-down population and reserved $5,000 in annual income, on average, per person to account for any income set-asides that may occur under the program. This calculation took place with the understanding that these set-asides may be much lower in institutional settings and higher in the community.

Need for LTC Services and Mix of Services Used. To create a baseline for LTC service use, we consulted earlier research by Peter Kemper, Harriet Komisar, and Lisa Alecxih. Their research used a microsimulation model to project LTC needs among the elderly and assumed that disabled individuals would need LTC for an average of three years.[v] The research also found a significant variation around that average.

To create a baseline for the mix of LTC services the elderly would use under current law, we used the Kemper study to project the mix of LTC services that individuals would use during the time of disability. Initially, the vast majority of individuals would receive care at home. Under current law, most of that care is informal, unpaid care provided by family members or other caregivers. As individuals remain disabled for longer periods, we assumed their use of informal care would decline, and that a larger share would instead use paid home care or, ultimately, services in an ALF or nursing home.

We assumed that the proposal would alter this pattern of LTC service use among the elderly. In particular, the creation of a federal benefit that covers paid home care and care in an ALF (albeit just the service portion of that care) would increase the use of those services at the expense of informal, unpaid home care and nursing home care, respectively. However, a significant number of individuals would continue to receive informal care (particularly after they first become disabled) or nursing home care (particularly after they have been disabled for several years).

Cost of LTC Services. Based on existing costs for LTC services, we assumed that the annual cost of services under the new federal program in 2012 would be $12,500 for paid home care, $25,000 for care in an ALF (the program would cover only the service portion of that care), and $75,000 for nursing home care. We assumed that those costs would increase by 6 percent annually in subsequent years, which is slightly higher than the projections of wage growth in the Social Security Trustees' 2008 projections.

Post-Acute Care

As noted above, the proposal would create a new Medicare PAC payment system to base payments on beneficiaries' condition, severity of illness, and intensity of services required rather than on the setting of care. To construct the PAC model, we first estimated how much the federal government would spend on Medicare PAC services under current law (i.e., baseline Medicare spending). We then estimated spending under the new PAC payment system. The difference between the two estimates is the savings attributable to this proposal.

The savings generally come from reductions in payment levels for certain lower acuity patients in specific diagnoses previously paid at LTACH and IRF rates, although we also anticipate minor savings for patients previously paid at SNF rates. Providers admitting these lower acuity patients would receive payments under the proposal at SNF and HHA rates. The following summarizes our major assumptions in estimating spending under the new PAC system.

1. **Payment Rates for Similar Patients Treated in Different Settings.** We assumed that, for patients who share clinical and severity of illness profiles but currently receive care in different settings, the new Medicare PAC system would reimburse at the lower level-of-care rate. As an example, if the current Medicare payment for patients with the same clinical profile is $10,000 in one setting of care but $5,000 in a lower-cost setting of care, we assumed that under the new system any setting of care willing to take that patient would receive $5,000 in reimbursement. In addition, we assumed that the payment system would make additional payments to protect providers who admit higher-acuity cases whose actual resource needs exceed the payment level; this system would function similar to high-cost outlier payment systems present in several PAC settings under current law.

2. **Payment Rates for Areas of Specialization.** We assumed that the new payment system would adopt lower levels of payment except in cases where a provider specializes in a particular type of patient, such as ventilator care. In these cases, we assumed payment rates would remain at the level of the specialty provider.

3. **Effectiveness of Assessment Tool.** We assumed that the single patient assessment instrument would effectively measure patient resource need and lead to changes in expected payments for patients.

4. **Demand for PAC.** We assumed that demand for PAC services in the new system would remain unchanged relative to demand for PAC service use in the current system. While we acknowledge that certain kinds of lower acuity patients will be less attractive to higher-cost settings accustomed to higher payments, we do not believe this policy would fundamentally change the demand for PAC services by patients, patient eligibility for PAC, nor reduce access to PAC services.

5. **Provider Response.** We assumed providers would still choose to participate in the Medicare program. The proposal changes the conditions of participation for Medicare PAC providers, requiring all providers to meet a minimum set of patient and facility criteria; in addition the proposal would create standards facilities must meet in order to treat higher-acuity patients. We expect providers who currently specialize in certain kinds of cases or in higher-acuity patients to seek those voluntary certifications. We base this assumption on the continued attractiveness of the payment rates for those cases.

   The proposal creates different incentives for providers than currently exist. It is likely that the current mix of provider types would change over time, with more entities that resemble current-day SNFs and HHAs participating in Medicare than would have without a policy change.

6. **Three-Day Prior Hospitalization Requirement.** The proposal would eliminate the three-day prior hospitalization requirement. Based on our analysis of Medicare claims data, we estimated that slightly more patients might use SNFs with the elimination of the three-day stay, including some patients coming directly from the community and some patients lacking a three-day hospital stay and possibly discharged to home health.

7. **Hospice and Home Health Part B.** We did not assume that the presence of the new federal long-term care program would produce savings in Medicare Hospice or Home Health Part B spending. We believe that the percentage of elderly we estimate in the spend-down population is too high to produce a significant change in the use of these services. This population would still have a LTC financing gap that these benefits might fill.

We describe our methodology in making these assumptions and the data we use in each of those areas in more detail below.

Medicare PAC Baseline. Table 3 below displays the projections of Medicare PAC baseline spending. To create a Medicare PAC baseline through the first 10 years of the program, we used existing Congressional Budget Office (CBO) and the CMS Office of the Actuary (OACT) baselines that project PAC spending through 2018 and 2013, respectively. We extended the baselines to 2021 using the 2012-2018 growth rates, adjusting modestly for additional assumptions about population growth, Medicare Advantage enrollment, and policy changes.

**TABLE 3** Medicare Post-Acute Care Fee-for-Service Baseline Projections in Billions

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Calendar Year Projections										
Skilled Nursing Facilities[1]	$27.1	$28.8	$30.7	$32.9	$35.1	$37.7	$40.4	$43.2	$46.3	$49.5
Home Health Agencies (Part A)	$7.9	$8.8	$9.8	$11.0	$12.2	$13.7	$15.3	$16.8	$18.0	$19.2
Inpatient Rehabilitation Facilities[2]	$5.5	$5.9	$6.3	$6.7	$7.1	$7.5	$8.0	$8.5	$9.0	$9.6
Long Term Acute Care Hospitals	$6.6	$7.0	$7.5	$7.9	$8.5	$9.0	$9.6	$10.2	$10.9	$11.6
Medicare Advantage[3]	$19.2	$20.6	$22.2	$23.9	$25.7	$27.7	$29.9	$32.2	$34.4	$36.7
TOTAL BASELINE SPENDING	**$66.4**	**$71.7**	**$76.5**	**$81.3**	**$88.6**	**$95.6**	**$103.2**	**$110.9**	**$118.5**	**$126.6**

1. SNF and HHA baseline estimates are from CBO.
2. IRF and LTCH baseline estimates are from CMS Office of the Actuary.
3. Medicare Advantage numbers are estimated by Avalere.

The 10-year programmatic savings amount of $81 billion represents about 9 percent of total projected spending on PAC services over that same period (see Chart 3 below).

CHART 3 Medicare PAC Savings Estimate Relative to Baseline
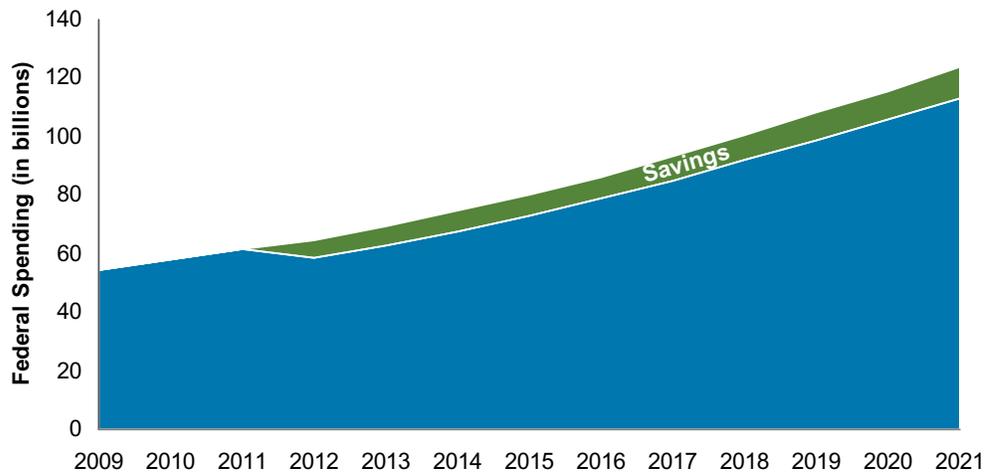
Spending Under New Program. Chart 4 below provides more detail about how we estimated the savings associated with this proposal.

Step 1: We analyzed Medicare claims data to identify and classify patients according to their diagnosis-related group (DRG) and severity of illness (SOI) level at the point of discharge from the short-term acute care hospitals. The claims data also provided us with the discharge destination of these patients so that we could determine which patients with overlapping clinical profiles received treatment in different PAC settings.

Step 2: As discussed above, we assumed that the assessment tool would place the patients with overlapping clinical profiles into the lower-level care category.

We developed the following algorithm to guide the assignment of payment rates.

- For cases where one setting of care specializes in a particular treatment (where one provider has significantly more of a share of the discharges than average), we assumed the dominant setting of care payment rate would remain the same.

- In cases where there was significant overlap across settings of care, our algorithm assigned payment at the lower cost-setting rate. For example, if a majority of cases in a particular DRG and SOI score 2 are discharged to home health (and no other setting of care specializes in that DRG) then the algorithm would assign the home health rate for all patients discharged with that DRG and SOI score.
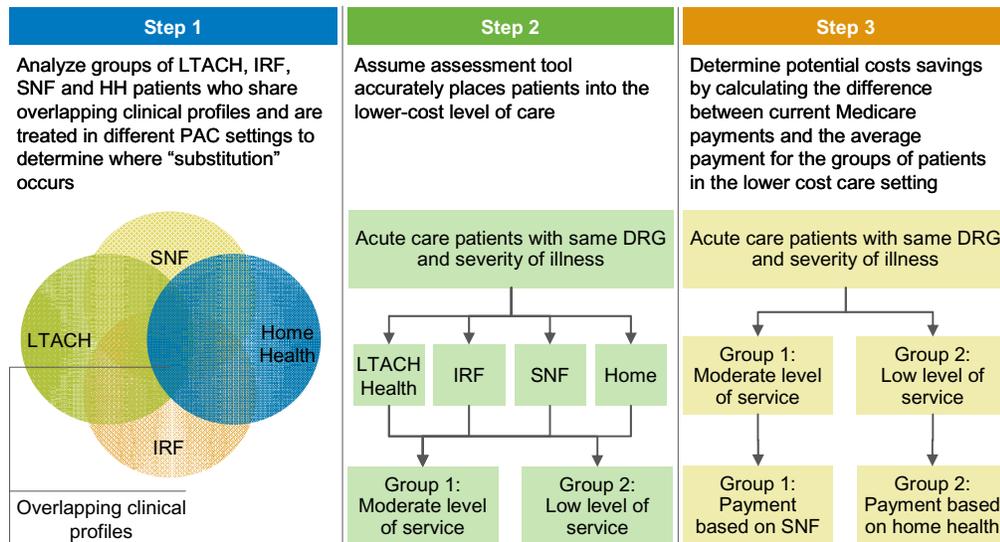
In no case, did the LTACH and IRF settings exclusively share patients with overlapping clinical profiles. Always, patients with overlapping profiles who were served in LTACH and IRF settings were also served in SNF and HHA settings, and in those cases, were paid at the SNF rate (Group 1, moderate level of service). When SNFs and HHAs shared overlapping patients, we assumed the HHA rate (Group 2, low level of service) except when the clinical profile accounted for more than 50 percent of the SNF discharges. In

these cases, we maintained the current rate. All provider types specialized in some types of patients; therefore, each kept higher payment rates for those patients.

To account for higher costs resulting from unmeasured patient severity and complexity, Avalere built in an outlier system into the model. This system would adjust payments in cases where actual patient resource need was higher than the predicted rate level.

Step 3: After assigning the overlapping patients to either Group 1 or Group 2, we determined cost savings by calculating the difference between current Medicare payments for these patients and the average payment for groups of patients in the lower cost care setting.

CHART 4 **PAC Modeling Steps**

Step 1	Step 2	Step 3
Analyze groups of LTACH, IRF, SNF and HH patients who share overlapping clinical profiles and are treated in different PAC settings to determine where "substitution" occurs	Assume assessment tool accurately places patients into the lower-cost level of care	Determine potential costs savings by calculating the difference between current Medicare payments and the average payment for the groups of patients in the lower cost care setting

Limitations and Discussion

Estimating the budgetary impact of such a far-reaching proposal inevitably requires making numerous judgments about how the proposal will affect the behavior of individuals, providers, and the federal government. The basis of those judgments is the data and research we note above, but those resources are often limited or not directly relevant. In any event, human behavior is difficult to predict, and uncertainty is an inherent feature of preparing a budget estimate. When solid evidence from research or other programmatic experience was lacking, we used our best analytic judgment about the behavior of individuals and providers under the incentives in this proposal. We acknowledge that changing these assumptions would have a corresponding change on our estimate of the program's budgetary impact. The following are several of these key assumptions.

- **Economic Assumptions.** As described above, we take into account the current economic crisis on housing and non-housing assets by reducing the value of those

amounts by 25 percent. However, we cannot predict the economy's future and the long-term impact of the current crisis on asset values. In addition, we were not able to predict the impact of the crisis on income levels or on the willingness of the elderly to fund PRAs through the purchase of insurance or other mechanisms.

- **Use of Formal Home- and Community-Based Services.** The lack of real-world experience in creating an entitlement to these services hampers any attempt to model spending under an expansion of home- and community-based services. Literature exists to support the notion that creating an entitlement to new home care services results in a net spending increase because the reduction in expensive institutional services is not enough to offset the more dramatic rise in less expensive home care services.[vi] In addition, CBO has estimated increases in costs associated with home- and community-based care expansions.[vii]

  We assume that several factors could limit somewhat the take-up of these services under this proposal. First, the proposal envisions a single point of entry, with case management and assessment. States have reported success in managing LTC costs using these types of management approaches. Second, a high percentage of people will be required to spend down home equity, which will likely reduce their incentive to use formal LTC services of any kind. Finally, some recent studies have found that raising the availability of home- and community-based services under Medicaid has not resulted in dramatic increases in LTC spending.[viii] Therefore, we assumed that a significant share of individuals with PRAs and low-income individuals would use home- and community-based services, while individuals lacking PRAs and not low income would use those services at lower rates.

- **Compliance with PRA Requirement.** This proposal would encourage individuals to dedicate private funding for their future LTC needs. We lack real-world experience about the extent to which elderly individuals would do so in the presence of a federal catastrophic LTC benefit. As described above, we developed a rule about participation based on the relationship between premium amounts and income. We did not assume significant increases in participation above these amounts based on the potential appeal of the catastrophic program or the need to protect housing assets against spend-down levels. Therefore, we assume only about 20-percent participation in the first 10 years of the program. If we assumed more individuals would fund PRAs, our cost estimates would likely increase. This would occur because the average amount of private funding provided by the PRAs would be less than the value of the assets that those individuals would otherwise have to spend.

- **Distributional Impacts.** We estimated the overall impact of this proposal on the federal budget, but did not analyze the effect on different segments of the elderly population relative to the current LTC system. Elderly individuals who provide funding for PRAs would likely benefit under the proposal because they would have fewer out-of-pocket expenses for LTC and better access to home- and community-based services. In many cases, low-income individuals would have better access to home- and community-based services under the plan, but some would also be required to spend down more of their personal assets. Finally, individuals who do

not qualify as low income and do not fund PRAs would often be required to spend down more of their assets than Medicaid now requires before receiving publicly funded care. The magnitude of these potential distributional effects requires further analysis.

Finally, this project was limited to estimating the net spending impact of the PAC and LTC system changes. We did not construct a separate revenue model to estimate the impact of creating tax-favored LTC savings accounts as specified in the plan. In addition, we did not estimate the administrative costs associated with the proposal.

Estimating the Federal Budgetary Effects of the AHCA/NCAL/Alliance Proposal

Appendix: Key Data Sources

Current Population Survey (CPS)

The CPS collects information from a sample of approximately 50,000 households representative of the civilian, non-institutionalized population in the United States. The survey provides a variety of data on the labor force, demographics, school enrollment, and health. The Census Bureau conducts the CPS for the Bureau of Labor Statistics.

Health and Retirement Study (HRS)

The HRS is a longitudinal study that examines issues related to health, retirement, and aging. Every 2 years, the HRS conducts a survey of more than 22,000 Americans over the age of 50. The study provides data on this population's physical and mental health, insurance coverage, financial status, family support systems, labor market status, and retirement planning. The National Institute on Aging supports the survey and the University of Michigan administers the program.

Medicare Current Beneficiary Survey (MCBS)

The MCBS uses a nationally representative sample of aged, disabled, and institutionalized Medicare beneficiaries, and provides data on their health status, healthcare use and expenditures, health insurance coverage, and socioeconomic and demographic status. CMS sponsors the MCBS and the agency's Office of Strategic Planning conducts it through a contract with Westat.

Medicare Standard Analytical Files (SAFs)

The SAFs contains final action data on claims submitted by Medicare providers. There are separate SAFs for each institutional and non-institutional setting (e.g., inpatient hospitals, skilled nursing facilities, home health, hospice, etc.). CMS constructs the SAFs using information from the Medicare National Claims History database. They first release SAF data about six months after the end of each year and update it quarterly.

Endnotes

[i] Standard and Poors' Case-Shiller housing index; accessed at: http://www2.standardandpoors.com/spf/pdf/index/CSHomePrice_History_022445.xls

[ii] Tumlinson, A. and Aguiar, C. Long-Term Care – an Essential Element of Healthcare Reform. Prepared by Avalere Health LLC for The SCAN Foundation, December 2008.

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[iv] Wiener, J., Freiman, M. P., and Brown D. The NIC Compendium Project: A Guide to Long-Term Care Projection and Simulation Models. Prepared for Robert G. Kramer and Anthony J. Mullen, National Investment Center for the Seniors Housing & Care Industry by RTI International. December 2007.

[v] Kemper, P., Komisar, H.L., and Alecxih. L. Long-Term Care Over an Uncertain Future. What Can Current Retirees Expect? *Inquiry*, 42(4), 335-350, Winter 2005/2006.

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[vii] Congressional Budget Office, Budget Options, Vol. 1 Health Care, December 2008.

[viii] Kaye, H.S., LaPlante, M.P., and Harrington, C. Do Noninstitutional Long-Term Care Services Reduce Medicaid Spending? *Health Affairs*, January/February 2009.

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