Aging in Wyoming
Part II: Long-Term Care Eligibility Expansion

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an 1115 Demonstration Waiver

Submitted to the Federal

Department of Health and Human Services

Wyoming Department of Health

October 17, 2023

Wyoming Department of Health
401 Hathaway Building
Cheyenne, WY 82002
health.wyo.gov

October 17, 2023

The Honorable Xavier Becerra
Secretary of the United States Department of Health and Human Services
200 Independence Avenue, S.W.
Washington, DC 20201

Dear Secretary Becerra,

Wyoming is not unique in facing the challenge of caring for an aging population. Like all states, over the next 20 years, we will see a growing ratio of older Americans to working-age taxpayers and caregivers – many of whom are financially unprepared for the high costs of long-term care.

We both recognize that most of the financial cost of this challenge will fall on public payers like Wyoming Medicaid and its federal partner in the Centers for Medicare and Medicaid Services. Wyoming has not been idle in preparing for this; the primary policy lever we have been using has been the promotion of home- and community-based waiver services as an alternative to institutional settings. There has been some success in this regard; over the past ten years, the proportion of Medicaid long-term care members served in these settings has increased from 50% to over 65%.

Unfortunately, without further policy action, we project this positive trend to stagnate. Evidence suggests that the uptake of home-based services slows in older demographics, and these demographics will grow as the baby boomers age over the next twenty years.

This 1115 Demonstration waiver is a small, but potentially meaningful, way to maintain momentum. It explores the effectiveness of offering home-based care services to a 'pre-Medicaid eligible' population – people requiring long-term care who do not qualify for Medicaid. This population might resort to nursing home care as a default option, spend down their assets, and end up on Medicaid later. That transition would happen at a time and place where the odds of going back to the community are low.

Wyoming's requested waiver is small by design, only including incremental changes on the margins of Medicaid eligibility regarding income, assets, and long-term care needs. It also seeks to waive a significant barrier to enrolling in Medicaid -- the threat of asset recovery. As indicated by the capped budget, the waitlist, and associated randomized, controlled trial design, my

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

MARK GORDON
GOVERNOR OF WYOMING

307.777.7434 • GOVERNOR@WYO.GOV
HTTP://GOVERNOR.WYO.GOV

Department of Health intends to robustly demonstrate the effectiveness of this idea before potentially expanding the program.

If successful, we believe this demonstration project would provide strong evidence of the benefits of expanding access to home- and community-based alternatives, both for the people receiving services, and for the State and federal budgets. We believe this would strongly promote the objectives I have for fiscal conservatism and of the Medicaid program specifically outlined in the foundational §1901 of the Social Security Act.

Thank you for your time and consideration in promptly reviewing Wyoming's application.

Sincerely,

[redacted]

Mark Gordon
Governor

MG:rm:kh

200 WEST 24TH STREET
CHEYENNE, WY 82002-0010

MARK GORDON
GOVERNOR OF WYOMING

307.777.7434 • GOVERNOR@WYO.GOV
HTTP://GOVERNOR.WYO.GOV

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Executive Summary

Faced with an aging population that is increasingly unprepared for long-term care, Wyoming Medicaid will bear an increasing cost burden as a payer of last resort.

One of the best ways to bend the trajectory of long-term care costs is by promoting and expanding the use of home- and community-based services (HCBS).

Wyoming Medicaid already offers HCBS services to its long-term care members through the Community Choices Waiver (CCW), and members aging in place now make up over 65% of total long-term care enrollment.

Unfortunately, without further action, we project this percentage to stagnate. As described in the first report in this series, the take-up of HCBS services is higher for younger members, and as the baby boom generation enters into the "middle-old" and "oldest-old" demographics, we anticipate nursing home enrollment to grow.

This 1115 Demonstration Waiver —which we were directed by the Wyoming Legislature to develop — seeks to add momentum to our current HCBS trend by intercepting "pre-Medicaid eligible" individuals over 65 before they are forced to enter nursing homes, spend down their assets, and end up on Medicaid —at a point where diverting them back to the community is unlikely.

The demonstration would expand eligibility for Medicaid HCBS to people over 65 along three main dimensions:

- **Need**, by reducing the threshold for level-of-care required from 13 points on the LT-101 assessment to 11 points;
- **Income**, by increasing from the current 300% of the SSI standard to 400% of SSI; and,
- **Assets**, by increasing the resource limit from $2,000 to $10,000, while also waiving the requirement for the State to recover assets after death.

This demonstration would only cover a limited menu of home- and community-based services; no Medicaid medical services would be included.

Services would be provided through the existing network of Community Choices Waiver providers at the same rates and through the same fee-for-service (FFS) methodology.

For this demonstration, we propose a fixed annual budget of five million dollars ($5,000,000). Based on the estimated cost of providing the service menu, we would limit enrollment to 350 people at any point in time. This will necessitate the use of a wait list.

While slots will be limited, all individuals on the wait list will receive an equal chance of receiving services as they open up each month over the five year demonstration period.

We will use this randomized design to rigorously study the question of whether or not providing HCBS services to a "pre-Medicaid" population reduces costs to Medicaid through reduced nursing home stays.

What is the problem we're trying to solve?

As described in the Part I of this series (Aging in Wyoming: a Primer on Demographic Changes and Projected Medicaid Long-Term Care Costs), Wyoming Medicaid will face increasing financial strain over the next two decades. The report details the primary reasons why:

- Wyoming's population is growing older;
- Increasing chronic disease complicates long-term care;
- Long-term care is expensive;
- People are increasingly unprepared for long-term care costs; and,
- The private long-term care insurance market will likely not be a viable option in the future.

The primary recommendation from this report is for Wyoming Medicaid to focus on increasing access to home- and community-based long-term care services, as "aging in place" is both less costly to the taxpayer and also preferred by most people.

This waiver is focused on one small aspect of this problem: many people who do not currently qualify for Medicaid end up going into nursing homes because they have few home- or community-based options. While their initial days or months may be paid for either by Medicare or private dollars, ultimately Wyoming Medicaid ends up paying the bills for those who spend down their assets.

Once people reach this point, there are few opportunities to transition them back to the community.

The primary objective of this waiver is therefore to "intercept" these initially non-Medicaid eligible individuals and provide them a limited package of home- and community-based services in order to prevent or delay future institutionalization.

Section 1 - Program description

1.1. Demonstration summary

If this demonstration is authorized, we would expand Medicaid eligibility for a limited set of home- and community-based services (HCBS) to higher income, higher asset, and lower need individuals over sixty-five (65), with the intention of preventing or delaying future institutionalization of those served.

All services will be provided through Wyoming's existing network of long-term care HCBS providers, and paid by the State on a fee-for-service (FFS) basis. The demonstration will evaluate potential cost savings to the State and federal government from these avoided nursing home stays.

The directive for this demonstration application comes from Footnote 17 to Section 048 of the Budget Bill enacted by the Wyoming Legislature during its 2023 General Session. The footnote reads:

> 17. The director of the department of health, with the consent of the governor, shall enter into negotiations with the United States department of health and human services regarding the operation of a narrowly tailored, long-term care waiver under Section 1315 of Title XI, Part A of the federal Social Security Act, as amended, with the intent of expanding long-term home care and community-based services to individuals who may not currently qualify for such services under Medicaid as reported by the department of health to the joint labor, health and social services interim committee and the joint appropriations committee in accordance with footnote 6 of this section.

This footnote specifically requires the long-term care waiver to be "narrowly tailored" and with the intent of expanding services to those individuals who may not currently qualify for Medicaid.

1.2. Furthering the objectives of the Medicaid program

The primary objective of the Medicaid program, as articulated in §1901 of the Social Security Act, is to assist States in furnishing medical and rehabilitative assistance to eligible low-income and categorically-needy individuals.

Long-term care has been one of the bedrock services of federal-state medical assistance programs since the early 1950s, continuing through the Kerr-Mills Act of 1960, the birth of Medicaid in 1965, and the evolution of home-based alternatives to institutionalization in the last half of the 20th century.

The expansion of eligibility to "pre-Medicaid" individuals (i.e., those with demonstrated need for long-term care but who do not currently qualify based on institutional thresholds or financial resources) is a natural extension of this historic mission, because preventing or delaying future institutional stays both benefits those future Medicaid enrollees and potentially conserves taxpayer dollars.

1.3. Rationale for the demonstration

This hypothesis, while intuitive, must be tested.

We have little, if any, data on "pre-Medicaid" individuals, their likelihood of requiring institutional care, or the amount of Medicaid dollars that would be conserved if they were diverted into home-based services earlier in their long-term care trajectories.

1.4. Hypotheses that will be tested

We have three specific questions this demonstration will seek to answer:

- Does the provision of home-based services delay institutionalization among a 'pre-Medicaid' population?
- Are the Medicaid savings from delayed institutional stays greater than the costs of providing those home-based services?
- Is it more cost-effective to target either: (a) higher-need people who do not qualify for Medicaid due to asset and income requirements or (b) lower-need people who may qualify financially but do not meet the institutional level of care threshold?

1.5. Evaluation plan

To test these hypotheses, we propose a "stepped wedge" randomized evaluation to assess the cost-effectiveness of providing HCBS to "pre-Medicaid eligible" individuals. Randomized designs are the gold standard of research because they provide the best opportunity to discern actual causal effects that are unbiased by unobservable confounders.

1.5.1. Causal model

The specific research question we intend to evaluate can be described by the directed acyclic graph (DAG) in Figure 1.

On the figure, the randomized receipt of subsidized home- and community-based services is the exposure (red). The ultimate outcome, for the purposes of budget neutrality in this demonstration, is the federal cost of Medicaid (green), which is primarily a function of how long people end up on Medicaid-paid stays in a nursing home.

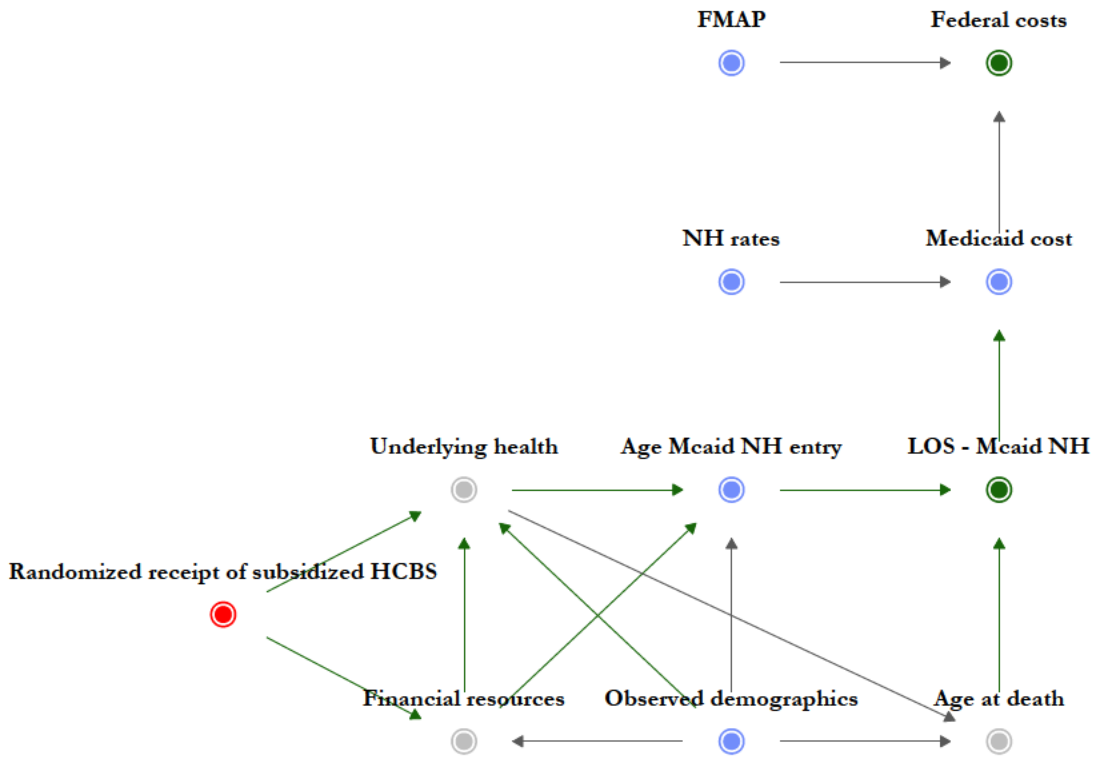
This model outlines the three primary causal paths that we anticipate the waiver will affect, shown as green arrows:

- Services paid for by the waiver will improve recipients' health, which delays or prevents institutionalization, which reduces Medicaid nursing home cost exposure.
- Subsidized HCBS conserves recipients' finances, which delays the age of going on Medicaid once in a nursing home.
- Conserving recipients' finances also improves health, which delays institutionalization.

Only the total effect of being on the waiver can be estimated through this model; we cannot estimate the effect of each individual pathway separately with the data we can collect.

Nevertheless, knowing whether or not waiver services actually delayed or prevented institutionalization is important to three stakeholders:

Figure 1: Directed acyclic graph for evaluation model



- The Department of Health, who needs to manage the program within budget;
- The Federal government, as 1115 waivers must be budget-neutral — including all potential savings from reduced nursing home stays; and,
- The Wyoming Legislature, which has consistently asked the Department questions on the cost-effectiveness of alternatives to nursing home care.

Randomized designs do have ethical concerns. We do not test whether or not parachutes work, for example, by randomly assigning skydivers to real and placebo rigs.[1]

In this, case, however, we have a capped budget, which necessitates a wait list. This reality allows us to ethically allocate waiver slots on a randomized basis, since everyone on the wait list would have an equal shot, each month, at getting access to the program. We have considered other allocation methods — i.e., first come, first served, or needs-based, for example —but all come with tradeoffs, and the 'lottery' approach is the only one that allows us to answer this question rigorously.

The "stepped wedge" form of the evaluation allows individuals to move from the wait list (i.e., the "control" group) to the program ("treatment group") as slots open up, while allowing the Department to count their experience in either group on a 'person-month' basis.

1.5.2. Data collection

Identifying information, basic demographics, and LT-101 need assessments will be collected as people register on the wait list. We will then merge those identifiers with existing Medicaid claims data and vital records data to determine the long-term care trajectories of people both in the demonstration and on the wait list.

1.5.3. Statistical modeling

As data is collected, we will transform the data into a person-month dataset and model individual trajectories as discrete-time transition probabilities. Figure 2 sketches out the basic model.

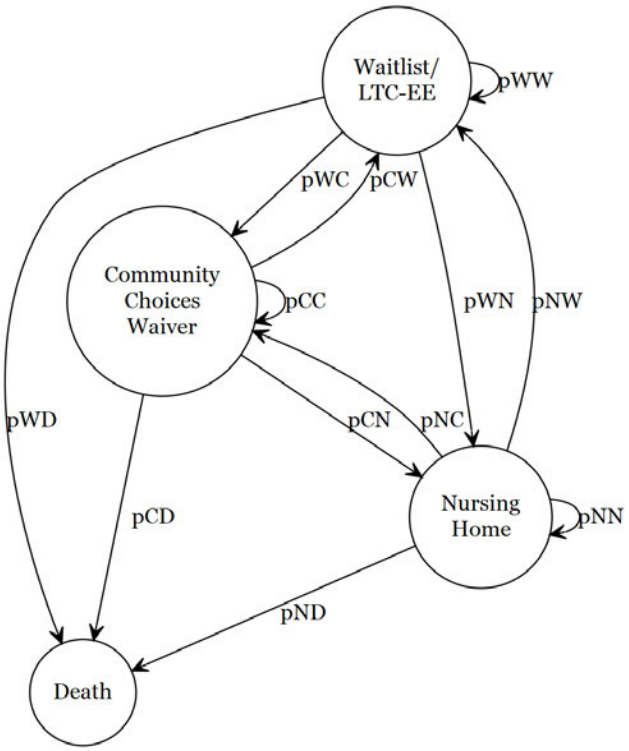
On the figure, there are four basic long-term care states people can be in each month:

- In the demonstration (LTC-EE) or on the waitlist;
- On the Medicaid Community Choices Waiver;
- On a Medicaid-paid stay in a nursing home; and,
- Deceased.

In any given month, people can move between states. If they are in the demonstration, for example, the arrow "pWW" on the figure indicates the probability of staying in the demonstration; "pWC" indicates the probability of transitioning to the Community Choices Waiver, "pWN" indicates the probability of going to a Medicaid-paid nursing home stay, and "pWD" indicates the probability of dying.

[1] Smith GC, Pell JP. Parachute use to prevent death and major trauma related to gravitational challenge: systematic review of randomised controlled trials. BMJ. 2003 Dec 20;327(7429):1459-61. doi: 10.1136/bmj.327.7429.1459. PMID: 14684649; PMCID: PMC300808. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC300808/

Figure 2: Model diagram



Death is considered an 'absorbing' state: no one knows what happens after we die, but we certainly won't be going back to nursing homes or Medicaid waivers.

The specific transition probability we are interested in is "pWN" —the probability of going from the community to a nursing home —and, to a lesser extent, "pWC" and "pWD". However, the model we construct will include treatment effects on all plausible transitions, and we will then use the model to predict counterfactual long-term care trajectories in order to evaluate the overall effect of the waiver on Medicaid costs.

The technical appendix (Section 10) has more detail on the formal structure of our proposed evaluation model.

1.6. Where the demonstration will operate

The demonstration will operate on a Statewide basis.

1.7. Proposed timeframe for the demonstration

We propose to operate over the standard five (5) year demonstration timeframe. While our evaluation methodology allows us to 'look' at results at any interval, it will likely take some time for the hypothesis of diversion to be observed.

1.8. Other affected components

This demonstration will not affect other components of the State's current Medicaid and CHIP programs outside of eligibility, benefits, cost sharing or delivery systems

Section 2 - Demonstration eligibility

2.1. Standards and methodologies for eligibility

The demonstration would expand eligibility for long-term care services to Wyomingites over sixty-five (65) years old along three dimensions:

2.1.1. Need

This is measured by the standard LT-101 assessment of assistance required for Activities of Daily Living (ADLs, to include things like bathing, eating, toileting and grooming) and Instrumental Activities of Daily Living (IADLs, such as meal preparation and socialization). The current threshold for determining a need for nursing home level of care, and thus eligibility for Medicaid services on this dimension, is 13 points on a scale ranging from 0 to 52.

We intend to lower this threshold to eleven (11) points.

Decreasing the threshold for demonstrated long-term care need from 13 to 11 points is a relatively modest change on a scale ranging from 0 to 52. While not meeting an institutional threshold, people scoring above 11 points still require significant assistance with activities of daily living (ADLs).

2.1.2. Resources

We intend to increase the Medicaid eligibility threshold of countable resources (e.g., excluding the value of a primary residence) from $2,000 to $10,000.

The demonstration would also waive the requirement to recover assets after death.

2.1.3. Income

We would also raise the monthly income threshold from 300% of the Supplemental Security Income (SSI) standard, which is approximately $2,742 per month, to 400% of SSI, or around $3,656 per month.

2.1.4. Income and resource thresholds justified by spend-down

These two thresholds are defined by the higher likelihood that individuals under these limits will ultimately spend down their resources and end up as Medicaid-eligible in a nursing home setting. If thresholds are set too high, people would be likely to be able to cover their nursing home stays with private dollars, and there would be no savings to Wyoming Medicaid against which these demonstration costs could be offset.

The income threshold (400% SSI) was set as a meaningful but limited increase from the existing institutional and HCBS waiver standard.

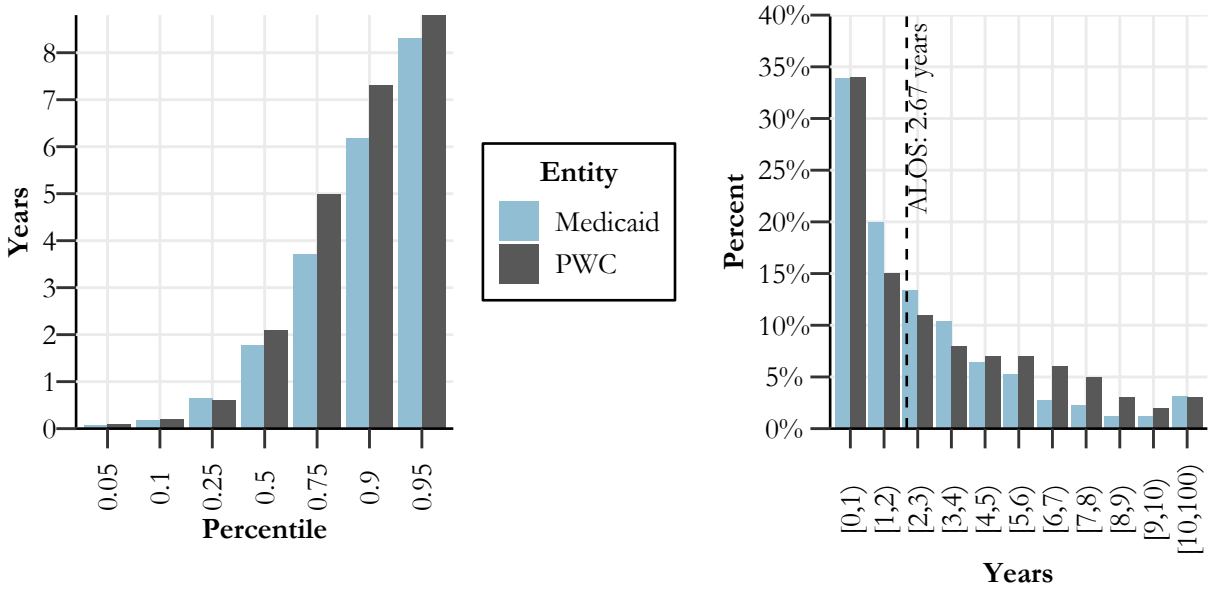
To arrive at the asset threshold, given this decision on income, we made the following assumptions:

- People turning 65 have even odds of requiring paid long-term care[2]

[2] Friedberg et al. "Long-term care: how big a risk?" Center for Retirement Research. Nov 2014. https://crr.bc.edu/wp-content/uploads/2014/11/IB_14-18_508_rev.pdf

- For Medicaid members who do use nursing home care, the average length of stay over a lifetime is 32.6 months (shown in the right pane of Figure 3). For Medicaid members using HCBS services, the expected length of stay is 50.5 months.

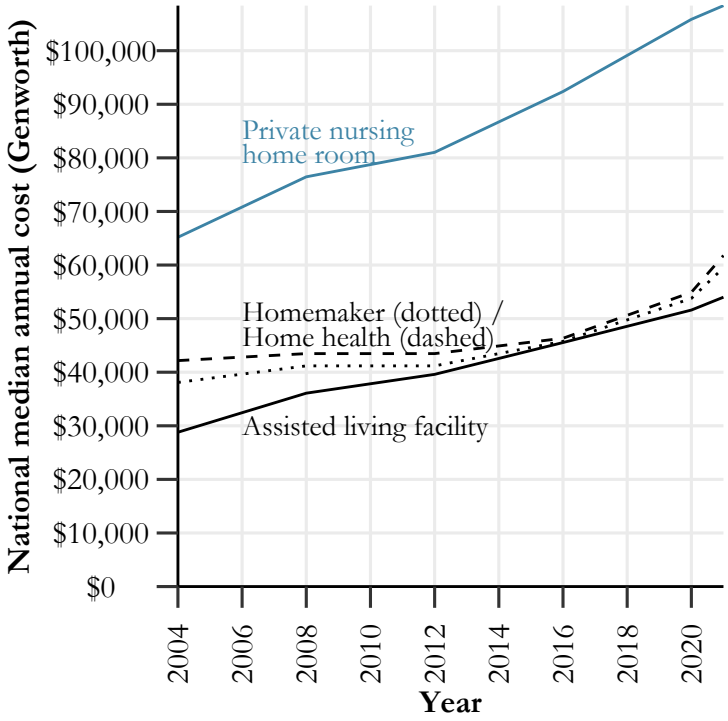
Figure 3: Est. duration of Medicaid (blue) and private (gray) nursing home stays



- The PMPM cost to Wyoming Medicaid for nursing home stays is $4,915 (SFY 23). The PMPM cost for the demonstration services will be ~ $1,110 (described in later sections).
- For someone entering the demonstration, the expected average lifetime cost is therefore 50.5 months × $1,100 $55,550. For Wyoming Medicaid to break even on the demonstration, this is the required expected cost for nursing home care in its absence. At current PMPM rates, this translates into 11.3 months of Medicaid-paid nursing home.
- Given the odds of requiring nursing home care and the expected length of stay, this means that we can only allow people with the resources to spend down a minimum of 5 months [(50% × 32.6) - 11.3 5] on to the demonstration.
- At monthly private-pay nursing home costs of ~ $7,634.58[3], less monthly income at 400% SSI ($3,656), individual assets would spend down at a rate of $3,978.58 per month.
- 5 months of that burn rate translates into an overall asset limit of ~ $20,000. This assumes, of course, that individuals are diverted from nursing home entirely due to the HCBS services provided by the demonstration.
- 100% diversion is unlikely, so we choose an overall asset limit of half this estimate, or $10,000. The demonstration itself will allow us to estimate the actual success at diversion and resulting cost savings.

[3] Figure 4 illustrates how the Genworth cost of care index has trended nationally. https://www.genworth.com/aging-and-you/finances/cost-of-care.html

Figure 4: Cost of private long-term care, per Genworth Cost of Care Survey



2.2. Affected populations

Tables 1 and 2 show our estimate of how the total count of people over 65 in Wyoming breaks into the proposed eligibility categories, either "CCW" for the existing Community Choices Waiver, "LTC-EE" for this proposed demonstration, and "Not eligible" for everyone else.

We anticipate that, if there were no waitlist, this demonstration waiver would have approximately **1,300 - 1,400** new people enrolled in any given month.

This is slightly larger than the current number of people over 65 who are on the existing CCW (~1,200).

There are some significant caveats to note with this estimate that make it fairly rough. The estimates calculated here came from the following methodology:

- The base data used are American Community Survey (ACS) Public Use Microdata Samples (PUMS), extracted from the Integrated Public Use Microdata Series (IPUMS) database[4]. ACS data have a relatively small (~2,000 people per year in Wyoming) sample size and thus the estimates come with underlying noise.
- The ACS data include important variables like age, sex, race/ethnicity, household income, year of the interview, education, and whether or not the person was in group quarters like a nursing home.
- We augment this microdata with three modeled estimates for each person: non-housing financial

[4]Steven Ruggles, Sarah Flood, Ronald Goeken, Josiah Grover, Erin Meyer, Jose Pacas and Matthew Sobek. IPUMS USA: Version 12.0 [dataset]. Minneapolis, MN: IPUMS, 2022. https://doi.org/10.18128/D010.V12.0

Table 1: Estimate of eligible populations

Income	Resources	LT-101	Group	Count	Percent of 65+
0 - 300% SSI	$0 - $2,000	< 11 points	Not eligible	2,623	2.5%
0 - 300% SSI	$0 - $2,000	11 - 12 points	LTC-EE	1,052	1.0%
0 - 300% SSI	$0 - $2,000	13 + points	CCW	4,229	4.1%
0 - 300% SSI	$2,000 - $10,000	< 11 points	Not eligible	1,574	1.5%
0 - 300% SSI	$2,000 - $10,000	11 - 12 points	LTC-EE	515	0.5%
0 - 300% SSI	$2,000 - $10,000	13 + points	LTC-EE	1,366	1.3%
0 - 300% SSI	$10,000 +	< 11 points	Not eligible	7,357	7.1%
0 - 300% SSI	$10,000 +	11 - 12 points	Not eligible	2,007	1.9%
0 - 300% SSI	$10,000 +	13 + points	Not eligible	4,174	4.0%
300 - 400% SSI	$0 - $2,000	< 11 points	Not eligible	1,055	1.0%
300 - 400% SSI	$0 - $2,000	11 - 12 points	LTC-EE	388	0.4%
300 - 400% SSI	$0 - $2,000	13 + points	LTC-EE	1,009	1.0%
300 - 400% SSI	$2,000 - $10,000	< 11 points	Not eligible	478	0.5%
300 - 400% SSI	$2,000 - $10,000	11 - 12 points	LTC-EE	150	0.1%
300 - 400% SSI	$2,000 - $10,000	13 + points	LTC-EE	297	0.3%
300 - 400% SSI	$10,000 +	< 11 points	Not eligible	3,645	3.5%
300 - 400% SSI	$10,000 +	11 - 12 points	Not eligible	907	0.9%
300 - 400% SSI	$10,000 +	13 + points	Not eligible	1,300	1.3%
400% + SSI	$0 - $2,000	< 11 points	Not eligible	7,961	7.7%
400% + SSI	$0 - $2,000	11 - 12 points	Not eligible	2,778	2.7%
400% + SSI	$0 - $2,000	13 + points	Not eligible	6,733	6.5%
400% + SSI	$2,000 - $10,000	< 11 points	Not eligible	2,860	2.8%
400% + SSI	$2,000 - $10,000	11 - 12 points	Not eligible	867	0.8%
400% + SSI	$2,000 - $10,000	13 + points	Not eligible	1,617	1.6%
400% + SSI	$10,000 +	< 11 points	Not eligible	29,818	28.9%
400% + SSI	$10,000 +	11 - 12 points	Not eligible	6,984	6.8%
400% + SSI	$10,000 +	13 + points	Not eligible	9,370	9.1%

Table 2: Estimate by group

Group	Count	Percent of 65+	Enrollment Est.
Not eligible	94,108	91.3%	0
LTC-EE	4,777	4.6%	1,355
CCW	4,229	4.1%	1,200

wealth, a count of eleven (11) possible activities of daily living (ADLs) where individuals required assistance, and a count of eight (8) possible chronic medical conditions.

- These estimates come from a joint model fitted on national Health and Retirement Survey (HRS) data.[5] The Health and Retirement Study is sponsored by the National Institute on Aging (grant number NIA U01AG009740) and is conducted by the University of Michigan. We use the same ACS demographic variables as predictors for each outcome, and include correlated individual-level intercepts.
- Once the HRS model is applied to the ACS data, we attempt to calculate a proxy LT-101 score based on the sum of 11 possible ADLs and 8 possible chronic conditions. We then rescale this composite score to match the mean and standard deviation of actual LT-101 scores for people in nursing homes. While potentially close, this measure is not directly comparable to the actual LT-101, and so estimates here need to be taken with a grain of salt.
- On Table 2, we have applied an estimate to adjust the estimated count down to the number of people we anticipate actually enrolling. This is based on the ratio of the actual count of enrollees over 65 on the Community Choices Waiver (~ 1,200) to the estimate (~ 4,300) from this modeling exercise.

2.3. Enrollment limits

Because the exposure to both federal and State funds must be limited, the proposed budget of $5,000,000 for this demonstration requires that enrollment be capped. This cap, and associated wait list, will also allow the rigorous evaluation described in Section 1.

We propose a total cap of **350 people**. Based off the average per-member per-month (PMPM) cost of the proposed HCBS benefit package, which is described in Section 3 and will likely be between $900 and $1,200 PMPM at the target level, this cap will approach, but is unlikely to break, the $5M budget.

Figure 5 shows how the total program cost would scale with enrollment. Each black line is a draw from a simulation where we vary assumptions based on factors impacting enrollment (e.g. need, income and assets). The red line shows the $5M budget constraint, and the dashed vertical red line shows the range of costs we can expect for 350 people ($3.8M - $5.1M).

2.4. Projected demonstration eligibility

2.4.1. Populations currently served

Wyoming Medicaid currently serves two primary long-term care populations:

- People on the Community Choices Waiver (CCW); and,
- People in nursing homes.

[5] Health and Retirement Study, (RAND HRS Longitudinal File 2018 (V2)) 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, (July 2022). RAND HRS Longitudinal File 2018 (V2). Produced by the RAND Center for the Study of Aging, with funding from the National Institute on Aging and the Social Security Administration. Santa Monica, CA (July 2022).

Figure 5: Total demonstration cost vs. enrollment

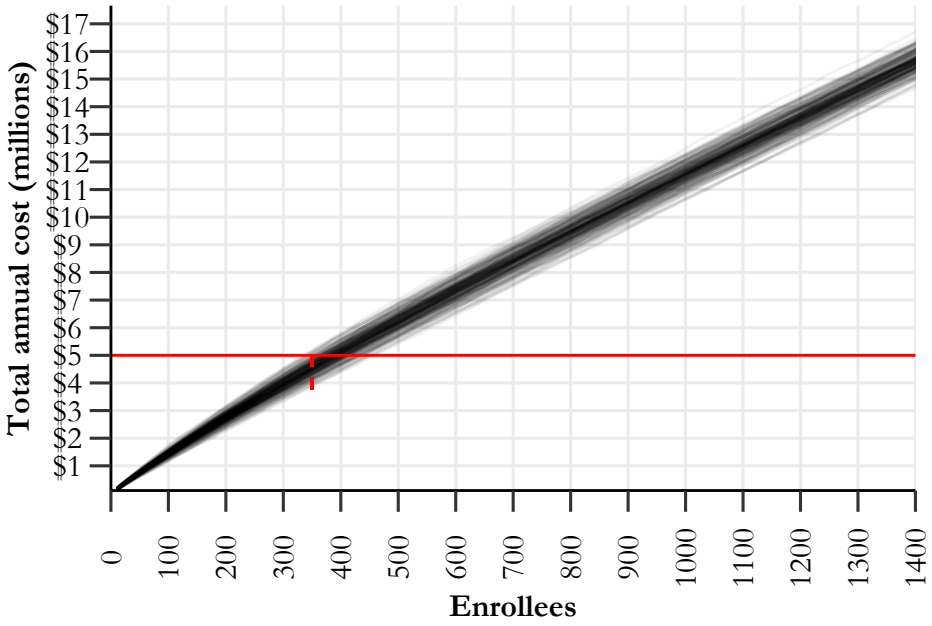


Figure 4 shows past and projected enrollment for both, with the CCW in green and nursing home in yellow. Part I of this report series (the primer) describes in more detail how we arrived at these enrollment projections.

The primary focus of this demonstration is on the nursing home population, though not directly: if successful, this demonstration should depress the trajectory of the nursing home enrollment trend. This change is the primary source of savings against which the costs of the demonstration will be offset.

In other words, by serving the pre-nursing home population through targeted home-based services, we hope to bend the cost curve of Medicaid nursing home stays downward. More detail on the "without waiver" and "with waiver" trajectories is shown in the Budget Neutrality section.

2.4.2. New populations served

As noted previously, we intend to serve a maximum number of 350 individuals in this demonstration. These individuals will be similar to our existing HCBS members, but may have slightly lower institutional need scores, and higher assets and income.

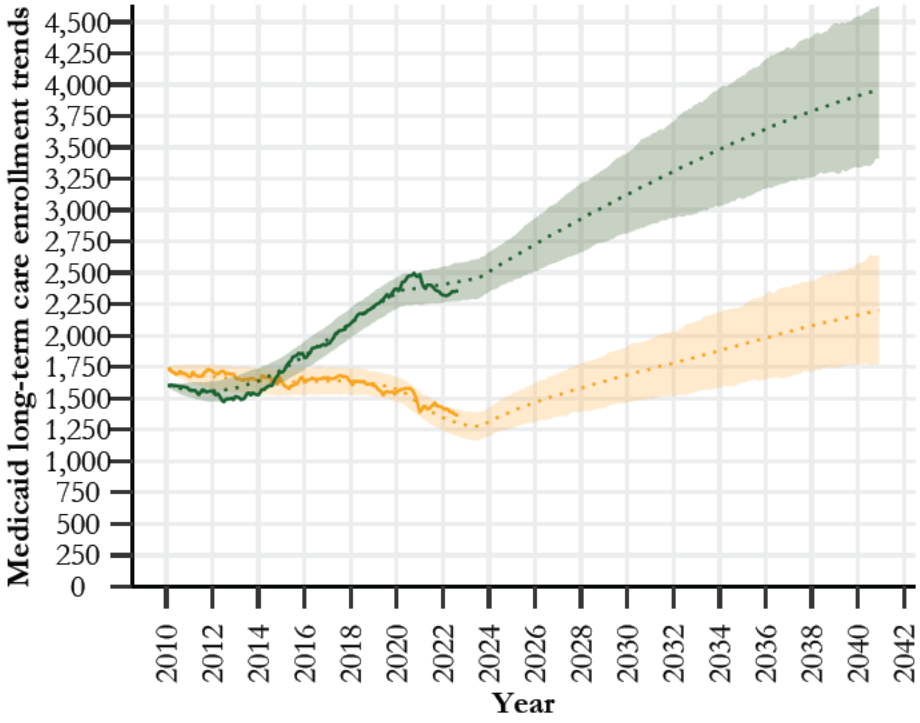
2.5. Post-eligibility treatment of income

We do not anticipate any changes to how income is treated post-eligibility.

2.6. Changes to eligibility procedures

We do not anticipate any changes to eligibility procedures.

Figure 6: Enrollment projections



Section 3 - Demonstration cost sharing and benefits

3.1. Benefit plan

This demonstration will only include the home- and community-based services listed in the table below.

No State Plan or other Medicaid medical services will be offered to this population. Since all eligible members must be over the age of 65, the vast majority will have Medicare benefits to cover any medical needs.

Table 3: LTC-EE HCBS Benefits

HCBS Service Offered on CCW	Included in demonstration
Adult Day	Yes
Assisted Living Facility	No
Case management	Yes, by unit (not month)
Home modification	Yes, limited
Home-delivered meals	Yes
Home health aide	Yes
Homemaker	Yes
Non-emergency medical transportation	Yes
PERS / remote monitoring	Yes
Personal support	Yes
Respite	Yes
Transition intensive case management	No
Skilled nursing	No
Transition setup	No

Note that we also intend to offer self-direction as a service delivery option under this demonstration, under the same parameters as allowed under the existing Community Choices waiver. This will allow members to hire their own providers for personal care and homemaker services, which can be a significant benefit in rural and frontier areas where professional or credentialed providers are sparse.

3.2. Expected benefit costs

As noted in Section 2.3, we are projecting that the limited HCBS benefit plan shown in Table 3 will cost Wyoming Medicaid an average per-member per-month (PMPM) between $900 and $1,200 —depending on the population mix applying for the wait list.

The technical appendix section has more detail on how we arrived at this range.

3.3. Cost sharing

While not currently built into the cost model, the State requests to reserve the ability to impost cost-sharing, in the form of coinsurance collected by providers, not to exceed existing statutory limits.

Section 4 - Delivery system and payment rates

4.1. Delivery system changes

We do not expect the delivery system to change. All services will be paid on a fee-for-service (FFS) basis through the existing network of Community Choices Waiver providers and case managers.

As noted in the benefits section, only the service menu will be limited, and case management will be required to be billed in 15-minute units for all members in the demonstration.

Section 5 - Implementation of the demonstration

5.1. Implementation schedule

This demonstration will be implemented once approved by CMS and funding is appropriated by the Wyoming Legislature.

We anticipate operating the demonstration in three (3) phases:

- A **preparatory** phase, where the wait list will be opened up for individuals to sign up. LT-101 assessments will be conducted for all individuals on the wait list.
- An **initial** phase that begins when internal machinery is ready to implement the demonstration. At this point, we will begin randomly assigning slots to individuals off the wait list, with a monthly target until we reach full capacity of 350 slots.
- A **maintenance** phase, where, as slots become available due to churn, we assign them to individuals off the waiting list on a randomized basis.

5.2. Notification of demonstration participants

All demonstration participants must first register and apply on the wait list, where they will be assessed for eligibility. As slots on the demonstration open up, wait list participants will be randomly selected, notified, and, if still interested in receiving services, moved from the wait list to the demonstration itself.

Section 6 - Financing and budget neutrality

6.1. How the demonstration will be financed

The State proposes to finance the non-federal share of expenditures under the demonstration using State General Funds, appropriated by the Legislature.

Providers will receive and retain total Medicaid expenditures claimed by the State, including both the federal and non-federal shares.

There are no intergovernmental transfer or UPL programs directly affected by or utilized in this demonstration.

6.2. Historical and projected annual enrollment and expenditures, without waiver

Table 4 shows annual enrollment, expenditures and PMPM for Wyoming Medicaid nursing home, in the absence of the demonstration. CY 2023 through 2028 are from the same projections that created Figure 6.

Table 5 summarizes the total without waiver member months and costs for the demonstration period (2024-2028).

Table 4: Without waiver - historical enrollment and projections

CY	MM (NH)	Cost (NH)	PMPM (NH)
2016	19,853	$88,661,739	$4,466
2017	20,030	$87,138,508	$4,350
2018	19,519	$85,574,611	$4,384
2019	18,742	$83,517,048	$4,456
2020	18,645	$92,311,367	$4,951
2021	17,181	$76,405,374	$4,447
2022	16,609	$80,162,119	$4,826
2023	15,429	$73,048,278	$4,735
2024	16,235	$78,109,619	$4,811
2025	17,160	$83,879,113	$4,888
2026	17,947	$89,106,391	$4,965
2027	18,623	$93,890,339	$5,042
2028	19,285	$98,712,796	$5,119

Table 5: Without waiver - 2024 through 2028 totals

MM (Total)	Cost (Total)
89,250	$443,698,258

6.3. Historical and projected annual enrollment and expenditures, with waiver

Tables 6 and 7 show the same information, but with the addition of the demonstration program (LTC-EE).

Table 6: With waiver - historical enrollment and projections

CY	MM (NH)	Cost (NH)	PMPM (NH)	MM (LTC-EE)	Cost (LTC-EE)	PMPM (LTC-EE)
2016	19,853	$88,661,739	$4,466			
2017	20,030	$87,138,508	$4,350			
2018	19,519	$85,574,611	$4,384			
2019	18,742	$83,517,048	$4,456			
2020	18,645	$92,311,367	$4,951			
2021	17,181	$76,405,374	$4,447			
2022	16,609	$80,162,119	$4,826			
2023	15,429	$73,048,278	$4,735			
2024	15,635	$75,222,837	$4,811	4,200	$5,000,000	$1,190
2025	16,053	$78,467,137	$4,888	4,200	$5,000,000	$1,190
2026	16,840	$83,609,285	$4,965	4,200	$5,000,000	$1,190
2027	17,515	$88,308,257	$5,042	4,200	$5,000,000	$1,190
2028	18,178	$93,045,549	$5,119	4,200	$5,000,000	$1,190

Table 7: With waiver - 2024 through 2028 totals

MM (Total)	Cost (Total)
105,221	$443,653,066

6.4. Change in projected enrollment and expenditures with waiver

Looking just at the demonstration period, Table 8 shows our assumptions that LTC-EE enrollment will divert ~ 2.85 nursing home member months per year for each person enrolled in the demonstration. (Note that we include a ramp in the first year).

This is the minimum required diversion level for the demonstration to be budget neutral, as shown in the summary Table 9. The actual amount of nursing home member months that are diverted —and associated costs —will be the primary focus of this evaluation.

Note that, while Inter-Governmental Transfer (IGT), provider tax, and other UPL programs are not directly affected by the demonstration, any reduction to nursing home enrollment will indirectly reduce associated UPL costs to the federal government. These estimates are **not** included in this budget neutrality demonstration, but would only increase potential savings.

Table 8: With waiver - change in projections

CY	MM (NH)	Cost (NH)	MM (LTC-EE)	Cost (LTC-EE)
2024	-600	$-2,886,782	4,200	$5,000,000
2025	-1,107	$-5,411,976	4,200	$5,000,000
2026	-1,107	$-5,497,105	4,200	$5,000,000
2027	-1,107	$-5,582,082	4,200	$5,000,000
2028	-1,107	$-5,667,247	4,200	$5,000,000
Subtotal	-5,028	$-25,045,192	21,000	$25,000,000

Table 9: With waiver - total change, 2024 through 2028

MM (Total)	Cost (Total)
15,972	$-45,192

Section 7 - Proposed waivers

Wyoming seeks to waive the following provisions of the Social Security Act for the purposes of this demonstration:

Table 10: Waiver authorities

Section	Provision	Rationale
1902(a)10)(B)	Amount, Duration, and Scope of Services	To be able to offer the reduced benefit package shown in Table 3.
1902(a)(10)	Comparability	To be able to offer the reduced benefit package, as well as lower the eligiblity level of care threshold from 13 to 11 points.
1902(a)(23)	Any Willing and Qualified Provider	To allow the State to restrict the provider network to existing CCW waiver providers.
1902(a)(10)(C)(i)(III)	Income and Resources	To expand income eligibility from 300% of SSI to 400%.
1917(b)(1)(C)(i)	Asset Recovery	To allow the State to not pursue asset recovery for anyone in the Demonstration.
1902(a)(4) and 1902(a)(19)	Assurance of Transportation	Non-emergency transportation (NEMT) is the only related benefit in the HCBS service package.
1902(a)(8)	Reasonable Promptness	To allow the State to cap enrollment at 350 people and maintain a waitlist.
1902(a)(34)	Retroactive Eligibility	To allow the State to provide limited benefits once members have been taken off the waitlist.

Section 8 - Public notice

8.1. Public comment period

The 30-day public comment period ran from August 21st, 2023 until September 22nd, 2023. The Tribal public comment period ran concurrently, with consultation with the Northern Arapaho and Eastern Shoshone Tribes beginning on August 3rd, 2023.

Individuals could submit comments in three ways:

- Online, at the same link (ltcexpansion.wyo.gov);
- Via email;
- Or by mail to the following address:

  Wyoming Department of Health
  478 Hathaway Building
  Cheyenne, WY 82001

8.2. Public notice certification

The Department of Health issued a press release on the LTC-EE waiver on Monday, August 7th, 2023. The press release summarized the short public notice available on the website, and directed outlets to the link for more.

Outlets that reported on the story included:

- Television interview with KGWN, Cheyenne.
- Television interview with KTWO-TV, Casper.
- Oilcity.news and affiliates.

Figure 7 is a screenshot of the banner ad rotating on the main health.wyo.gov site, pointing to the ltcexpansion.wyo.gov site.

8.3. Public meeting certification

The State held two public hearings to seek public input on the demonstration.

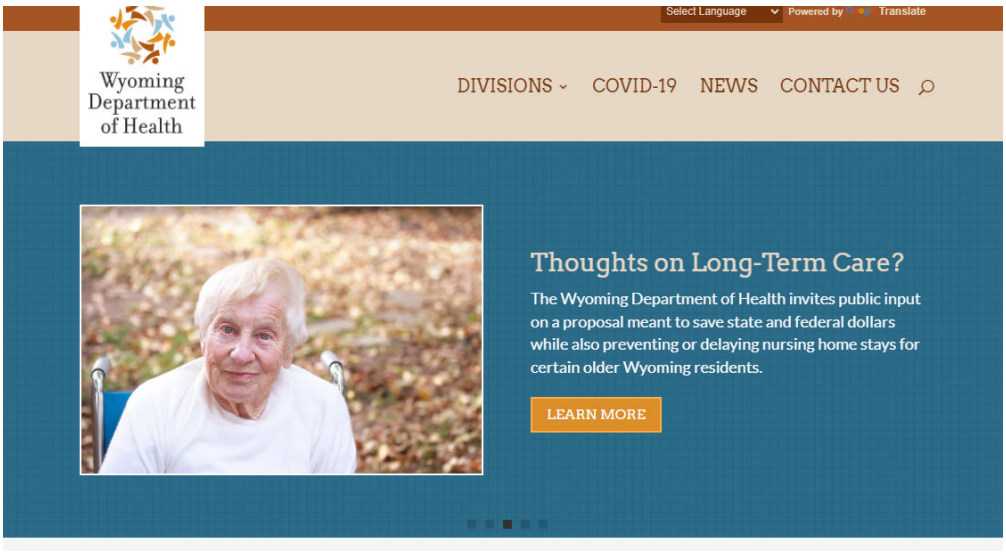
8/24/2023
Cheyenne, WY
Laramie County Library - Willow Room
12:00 pm - 3:00 pm

8/25/2023
Casper, WY
Thyra Thomson State Office Building - Turntable Room (3017)
12:00 pm - 3:00 pm

Recordings of these public meetings, which allowed remote participation, are at the following links:

- Cheyenne:

Figure 7: Department of Health banner advertisement



https://drive.google.com/file/d/1mH-jItvoOA4Oul3GesAL1UUUo 2jKPrt/view?usp sharing

- Casper:

  https://drive.google.com/file/d/1igr5IV3Qu8KerjjeVu23Ij78Zye1-ZNM/view?usp sharing

The State also presented the LTC-EE Waiver at the Legislative Joint Labor, Health, and Social Services Committee meeting on the 21st of September in Saratoga, WY.

8.4. Mailing list certification

The Department maintained an electronic mailing list, gathered from submissions from the ltcexpansion.wyo.gov site, sign-in sheets, and members from known interested associations.

8.5. Comments received

Comment:

> I am in favor of this new program

Comment:

> Some of the charges you pay for need to be checked or limited! When my Mother was in the nursing home, she was charged for 9 hours a day of therapy. There is no way an eighty year old person can do 9 hours of physical therapy. I did question it at the time and was told that I had no input since I didn't pay the bill. The therapy charge was the largest item on the monthly bill. I was visiting my Mother enough each day to know she wasn't getting that much therapy. She did have therapy 3 times a week for an hour at the most, less if she didn't feel good.

Comment:

This waiver program was already in place, the governor cut it. It was called Project Out, it assisted people in long-term care due to loss of income during rehab return to independent living in addition to deferring placement into long-term care. Hopefully this passes because Project Out was an amazing program and helped many people.

Comment:

Please add me to your email update list. Thank you.

Comment:

You are having a public comment time during a weekday and work time. You clearly don't want the working people to be involved. Oh wait, I have to keep working to afford the changes and maintain the program you propose.

Comment:

I am 91, live Independently via Medicaid Waiver. I have been on this program for a few years and am so enthused about my life at this age. I have absolutely NO DESIRE to ever have to enter a nursing home other than illness. I feel 100% "my own person" – no one to tell me when I have to eat, shower, sleep, etc. It has offered me a lot of mental relief in that I was beginning to have a tremendous amount of worry about living a totally different lifestyle within a nursing home environment. I absolutely love the wavier program and would be more than happy to tell anyone how great it is.

Comment:

August 25, 2023

Stefan Johansson
Franz Fuchs
Wyoming Department of Health
401 Hathaway Building
Cheyenne, WY 82002

Director Johansson and Mr. Fuchs,

It is our intention to use this letter to deliver public comments on behalf of AARP Wyoming regarding the state's 1115 waiver application to the Centers for Medicare and Medicaid Services (CMS).

After I joined AARP Wyoming in 2017, the Wyoming Department of Health's Long Term Care Study became our roadmap for work in the home and community based services (HCBS) space. It was very clear that the Department of Health had a strong understanding of the demographic shifts taking place in the state, as well as the fiscal and quality-of-life impacts home services offer our citizens.

Borrowing from that 2017 LTC report, the Department wrote, "The primary lever that the State has in influencing these future costs lies in encouraging healthy aging at home, by supporting long-term care in home and community-based settings instead of institutions.

Staying at home is not only often preferable to older people, but it also represents a significant cost savings to the State."

Your commitment to funding and looking for new areas of growth for HCBS has been appreciated. AARP Wyoming has long felt our organizations are pulling in the same direction when it comes to finding ways to best serve older adults in Wyoming through home services. We have tremendous appreciation for the fact those who administer these services at the state level are never more than a phone call away. Thank you for sharing your research, perspective, and time.

How We Got Here

Roughly three years ago, AARP Wyoming began work with its national office to ask what options may exist that would incorporate the use of federal funding into the state's home services portfolio. We hoped by tying state dollars to matching federal HCBS dollars might increase the state's buying power and save future HCBS programs. That led to AARP Wyoming asking the state legislature to allow the Department of Health to examine an 1115. Wyoming's financial picture appears to have stabilized in the short term thanks to an influx of federal funding, but we feel the state needs to examine all its HCBS options for a time when the state's general fund may not be so flush.

We appreciate the work that the Department has put into this 1115 application and overall, we feel it is a strong proposal. We believe it supports an intent to keep people aging in their community and is consistent with AARP policy, though we do have some concerns.

AARP Policy Around HCBS

AARP's national policy can be found in our publicly-available policy book. AARP policy specific to HCBS reads, "States should fund the services needed to meet individuals' LTSS needs and allow them to remain in the community. Services should be offered in a range of settings. This includes supportive housing and adult day centers.

"These services should be offered through Medicaid, state-funded LTSS programs, the Social Services Block Grant, and OAA programs. States should expand HCBS options to include a range of residential choices, home modifications, and assistive technologies. States should support family caregiver services that can delay or decrease the likelihood of needing to enter a nursing facility. These include education and training, counseling, legal consultations, and respite care."

AARP believes the 1115 waiver holds the same intent and is consistent with AARP policy, though we do have some concerns listed below.

Comments on the 1115 waiver application

The Wyoming Legislature and citizens of the state are currently engaging in a conversation about the role of government in providing services to older adults as they age. That is due to the fact we are aging as a state very, very quickly as you are very aware. The Legislature's Labor/Health Committee meeting in Saratoga in September will be the next steps in that discussion. It is assumed the Department of Health will present an overview of the 1115 waiver we are discussing today to that committee.

Before you present the waiver application, AARP and its members would like to better understand what role you believe the 1115 would play in the suite of long term services and supports in Wyoming. As mentioned, the state's Wyoming Home Services, or WyHS program, already offers HCBS services for pre-Medicaid and pre-nursing home-eligible clients. Is it the Department of Health's intent to augment or replace WyHS with services delivered through the 1115 waiver? Clarity on this point would be welcome by all involved.

As the discussion about Wyoming's suite of long term care services and supports will no doubt be a policy decision for lawmakers, we feel a matrix or menu of services currently offered and being considered may be warranted. Wyoming offers a vast number of services to older adults and has a relatively inexperienced Labor/Health committee. Helping this group and the public at large understand the role of the 1115 should be clarified.

We feel that on its face, the 1115 seems like a great addition to the suite of services, but worry that it could replace other programming and result in fewer clients served.

On that point - According to the Wyoming Department of Health's HealthStat from 2022, the WyHS program served approximately 1,500 people at an average cost of $1,654 per person. For the biennium, the state's cost is around $5.4 million. According to the 1115 waiver, a $5 million investment in the 1115 would allow for 350 demonstration program participants.

While we understand there is a far different level of services proposed for 1115 waiver clients as opposed to WyHS clients, we are worried that if the 1115 completely replaces the WyHS program, we will see a large decrease in the number of older adults served in Wyoming. It is our hope that WyHS for those who could use a light touch, and the 1115 can somehow co-exist to address those who have high needs while proving the effectiveness of HCBS.

One of the common questions we have gotten from lawmakers regarding WyHS over the years has been, "how do we know this program works?" We have yet to find a skilled nursing home diversion calculator or any real scientific evidence that WyHS is working for lack of data collected. The interest and goal of proving the effectiveness of HCBS through the 1115 process is noble and a tremendous intellectual exercise. The Randomized Control Trial process concerns AARP. We wonder if:

Does it make sense to ask for more data reporting from WyHS providers to seek greater clarity on the effectiveness of that program? We would suggest patient satisfaction surveys in addition to metrics such as institutional diversion.

As you seek to achieve a control group to use the stepped wedge evaluation offers us concern. We aren't aware of many, if any states that are using the RCT to prove cost neutrality to CMS. We'd be interested to know if there are other states who do use this method and if not, why not?

My fear is that randomization could work against the program politically. If someone who needs services is told to wait and a neighbor who applies for services at a later date is served sooner, political pressures could undermine the effort to get the data you seek.

If someone is desperate for services, can they be moved up on the list, or are they moved

directly into CCW services?

I did want to offer my compliments of the plan as well. I think your hypothesis asking if it is more cost-effective to target higher-need people who do not qualify for Medicaid due to asset and income requirements, or lower-need people who may qualify financially, but do not meet the institutional level of care threshold could be fairly revolutionary.

At AARP, we are big fans of self-directed services and appreciate that at least some services in this waiver would be self-directed. We would love to see non-medical transportation added to that list of eligible services and budgetary authority be considered to allow clients the most flexibility in service providers possible in this tight market.

Our AARP experts in long term care have noted to me that multiple 1115's have also allowed for covering those who are presumptively eligible for Medicaid as well. Getting someone started through the presumptive eligibility process can get the ball rolling on home services for clients, but put the state at financial risk if the client turns out not to be eligible for Medicaid. It is my understanding CMS is no longer requiring states who guess wrong on presumptive eligibility to pay back what Medicaid has already spent on that client.

Our final comment is to thank you for applying for a higher Medicaid eligibility threshold ($2,742 per month to $3,656) and the increase in assets from $2,000 to 10,000. Removing asset recovery is also a welcome component.

As always, we appreciate the feeling like we have a strong advocate for HCBS in the Wyoming Department of Health. Thank you for the work put into this project and for being genuinely curious if there is a better way to help our older adults age in-place.

Sincerely,

Tom Lacock
Associate State Director, State Advocacy and Communications
AARP Wyoming
307-432-5802
tlacock@aarp.org

Comment:

September 22, 2023

Franz Fuchs
Wyoming Department of Health
478 Hathaway Building
Cheyenne, WY 82001

Submitted via email

Re: Long-Term Care Eligibility Expansion (LTC-EE) Section 1115 Waiver

Justice in Aging appreciates the opportunity to provide feedback on Wyoming's Long-Term Care Eligibility Expansion (LTC-EE) Section 1115 waiver application. Justice in Aging is an advocacy organization with the mission of improving the lives of low-income older adults.

We use the power of law to fight senior poverty by securing access to affordable healthcare, economic security, and the courts for older adults with limited resources. We focus our efforts primarily on those who have been marginalized and excluded from justice such as older adults of color, older women, LGBTQ+ older adults, older adults with disabilities, and older adults who are immigrants or have limited English proficiency.

Justice in Aging has decades of experience with long-term care and Medicaid home- and community- based services (HCBS) programs. We work with policymakers and advocates across the country to ensure equitable access to home-based care. Medicaid is the largest public payer of long-term care. However, as you know, strict eligibility rules, underfunding of HCBS, and federal Medicaid law's bias towards institutional care leaves many low-income older adults without the support they need to live at home, forcing those who cannot afford to pay out of pocket or who do not have family caregivers into nursing facilities. For the same reasons, it is very difficult for someone who is in an institutional setting to return home because they may not be able to get the help they need to do so safely. These biased rules also put some older adults in the position of having to impoverish themselves to become eligible for Medicaid long-term care.

We support the aim of the LTC-EE waiver to prevent unnecessary and undesired institutionalization. By "intercepting" people before they spend down their assets in an institution, the program would also help to prevent poverty among older adults. We are particularly supportive of the provision that would waive Medicaid estate recovery. When Justice in Aging examined this policy, we found Medicaid estate recovery perpetuates poverty and inequality for minimal return.1 Estate recovery often forces heirs to sell a family home that otherwise would have been passed down. Because home ownership is one of the few ways to build generational wealth for lower-income families, the burdens of estate recovery fall disproportionately on economically oppressed families and communities of color. Moreover, because of this discriminatory policy, some older adults choose to forgo Medicaid HCBS they need and are entitled to out of fear of financially burdening their families.

To ensure this policy does not exacerbate intergenerational poverty for families who are already experiencing it, we recommend extending the waiver of estate recovery to all HCBS populations. Eliminating estate recovery for people eligible through the state's 1915(c) waiver would remove a barrier that prevents some people from applying for Medicaid even if they are already financially eligible. It would also promote equity, ensuring that the state's HCBS system provides women, Native[6] and Latino families, and others who experience disproportionate rates of poverty the same access and protections as people with higher income and resources.

Ensuring prompt access to HCBS is also key to preventing unnecessary institutionalization. Often LTC needs arise or increase rather quickly for older adults after a fall or stroke, for example. Unfortunately, under federal Medicaid policy, people cannot easily rely on retroactive coverage of HCBS while their Medicaid application is being processed like they can for nursing facility care. In practice, this means that people who need LTSS can enter a nursing

[6]Justice in Aging et al, Medicaid Estate Claims: Perpetuating Poverty & Inequality for a Minimal Return, Issue Brief (April 2021).

facility immediately and worry about Medicaid coverage later, but cannot start HCBS until Medicaid coverage and the service plan is approved. We appreciate that LTC-EE applicants would be screened for eligibility prior to being placed on the waiting list. However, to ensure there is no delay in getting services started, we recommend utilizing provisional plans of care which allows federal matching funds pursuant to CMS guidance in Olmstead Letter No. 3.[7]

As with estate recovery, this policy for provisional plans of care should be extended to all HCBS programs to not exacerbate disparities in HCBS access or institutionalization for people with lower income and resources.

We are concerned by the proposal to use a lottery system to select participants from the waiting list as waiver slots become available. We recommend giving priority to individuals at immediate risk of institutionalization. There are often disparities in who has access to the information to even join a waiting list in the first place. Those who join the waiting list "late" may have greater needs and not be able to wait for their lucky draw in the lottery.

Finally, to further the goals of the LTC-EE, we also recommend the state create a Money Follows the Person (MFP) program. The MFP program provides enhanced federal funding to support people who are currently institutionalized to return to the community and receive HCBS.[8] More than 45 states and territories (including all of Wyoming's neighboring states except Utah) and over 100,000 older adults and people with disabilities have participated in this program since it was signed into law by President Bush in 2005. A national study found that about 25% of older adult MFP enrollees would have remained institutionalized without the program.[9]

In addition to helping older Wyomingites stay in their own communities, the state would benefit financially from MFP by reducing the number of institutionalized Medicaid enrollees.

Thank you for the opportunity to provide feedback. If any questions arise concerning this submission, please contact Natalie Kean, Director of Federal Health Advocacy, at nkean@justiceinaging.org. Sincerely,

Amber Christ
Managing Director of Health Advocacy

8.6. State response to comments

The Department did receive comments that were not germane to the waiver content itself.

To these, we responded to the individuals directly (e.g., the second comment likely refers to potential Medicare fraud or abuse, so we directed the person to CMS IG resources).

[7] The guidance recommends a "provisional written plan of care which identifies the essential Medicaid services that will be provided in the person's first 60 days of waiver eligibility, while a fuller plan of care is being developed and implemented."

[8] See Justice in Aging, Make the Medicaid Money Follows the Person Program Permanent

[9] Eric D. Hargan, Acting Sec'y of the Dep't of Health & Human Servs., Report to the President and Congress, The Money Follows the Person Rebalancing Demonstration (June 2017).

Other comments are positive, and speak for themselves.

Substantive concerns raised in the comments include:

Concern: Is it the Department's proposal to replace the State-funded Wyoming Home Services (WyHS) program? Can the two program co-exist?

> **Response:** No. This waiver application will be presented without reference to or recommendation regarding WyHS. We are also recommending restoring WyHS funding in our upcoming biennial budget request.

Concern: The randomized controlled trial as part of this evaluation will work against the program politically, when people on the wait list may see neighbors receive services before they do. There also may be people with higher needs that join the waitlist later. Additionally, other States have used non-RCT approaches to study health policies under 1115 frameworks.

> **Response:** When resources are constrained and a wait list is required, then there is no "best" way to apportion services. A "first-come first-served" methodology would provide a sense of fairness in the sense that everyone has to wait in line, but if someone with severe needs were to join the line at a later date, they might never receive a slot on the waiver. Conversely, a "needs-based" methodology would have the same problem of people cutting the line that our proposed "lottery" method has. Additionally, outside of standardized evaluations like the LT-101 it is very difficult for the state to truly know who is neediest.
>
> Of these methods, the "lottery" design —one where everyone has an equal chance of receiving a slot each month —is also the only one that will allow us to rigorously estimate any causal effects. And since the primary purpose of an 1115 Waiver is to demonstrate the effectiveness of potential policies in advancing the objectives of the Medicaid program, as well as budget neutrality to the federal government, this rigor is necessary.
>
> While other states may have used different evaluation techniques in their 1115 designs, there is nothing more rigorous than an RCT. The most famous Medicaid lottery design —the Oregon Health Insurance Experiment —has produced some of the best evidence on the effects of being covered by health insurance.

8.7. Tribal consultation certification

The Department consulted with the Northern Arapaho and Eastern Shoshone Tribes during our regularly-scheduled meeting on August 3rd, 2023. The link to the agenda is here:

https://drive.google.com/file/d/1g90VWeX50jDVsPuteR1sO-VdcWbNQeQP/view?usp sharing

Section 9 - Demonstration administration

The primary point of contact for this demonstration application is:

Franz Fuchs
Chief Policy Analyst
Wyoming Department of Health
401 Hathaway Building
Cheyenne, WY (307) 777-2865

Section 10 - Technical appendix

10.1. Evaluation model

This section sketches out, formally, the model we intend to use for evaluating the success or failure of the demonstration.

The model estimates individual counterfactual long-term care trajectories using a series of time-varying (non-homogeneous) individualized transition matrices, shown below for an individual i in month j. The matrix $\mathbf{T}_{ij}$ shows the probabilities of an individual transitioning **from** three different origins (the Waitlist/Demonstration, the Medicaid Community Choices Waiver, and Medicaid Nursing Home) **to** four destinations (the three origins plus the potential of death).

$$\mathbf{T}_{ij} = \begin{bmatrix} \mathbf{w}_{ij}^k \\ \mathbf{c}_{ij}^k \\ \mathbf{n}_{ij}^k \\ \mathbf{d}_{ij}^k \end{bmatrix} = \begin{bmatrix} w_{ij}^w & w_{ij}^c & w_{ij}^n & w_{ij}^d \\ c_{ij}^w & c_{ij}^c & c_{ij}^n & c_{ij}^d \\ n_{ij}^w & n_{ij}^c & n_{ij}^n & n_{ij}^d \\ 0 & 0 & 0 & 1 \end{bmatrix}$$

We estimate the transitions **from** the three origins **to** the four destinations separately, modeling each using a categorical distribution:

$$\begin{aligned} \text{Transition from Waitlist/Demonstration}_{ij} &\sim \text{Categorical}(\mathbf{w}_{ij}^k) \\ \text{Transition from CCW}_{ij} &\sim \text{Categorical}(\mathbf{c}_{ij}^k) \\ \text{Transition from Nursing Home}_{ij} &\sim \text{Categorical}(\mathbf{n}_{ij}^k) \\ k \in \{\text{Waitlist/Demonstration (w), CCW (c),Nursing Home (n), Death (d)}\} & \end{aligned}$$

In the statistical model, each categorical distribution uses a softmax link function to derive a simplex (i.e., four transition probabilities that add up to 100%) from four linear "scores," denoted by $s_{ij}^1, s_{ij}^2, \ldots, s_{ij}^4$ below:

$$\begin{aligned} \Pr(k \mid s_{ij}^1, s_{ij}^2, s_{ij}^3, s_{ij}^4) &= \frac{\exp(s_{ij}^k)}{\sum_{n \in k} \exp(s_{ij}^n)} \\ s_{ij}^1 &= 0 \end{aligned}$$

Because the model sets one of these scores to zero in order to identify the others, we now have nine (9) score equations to estimate statistically (three for each of the three origins). Each person-month score is the linear combination of an overall intercept (α_x), the receipt of randomized services by that person in that month ($\beta_x \times \text{Demonstration}_{ij}$), and a person-level varying intercept ($\alpha_{\text{Person[i]}}$). This will be the bare minimum specification —we can also add covariates like age, gender, and LT-101 score in order to

improve precision.

$$
\begin{aligned}
s_{ij}^{wc} &= \alpha_1 + \beta_1 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{wc} \\
s_{ij}^{wn} &= \alpha_2 + \beta_2 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{wn} \\
s_{ij}^{wd} &= \alpha_3 + \beta_3 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{wd} \\
s_{ij}^{cw} &= \alpha_4 + \beta_4 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{cw} \\
s_{ij}^{cn} &= \alpha_5 + \beta_5 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{cn} \\
s_{ij}^{cd} &= \alpha_6 + \beta_6 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{cd} \\
s_{ij}^{nw} &= \alpha_7 + \beta_7 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{nw} \\
s_{ij}^{nc} &= \alpha_8 + \beta_8 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{nc} \\
s_{ij}^{nd} &= \alpha_9 + \beta_9 \times \text{Demonstration}_{ij} + \alpha_{\text{Person[i]}}^{nd}
\end{aligned}
$$

Importantly, we intend to estimate correlations between all the person-level varying intercepts. This allows us to share information across the three categorical distributions we are trying to estimate.

Priors for the intercepts, demonstration effects, and person-level intercepts are shown below. Generally speaking, they are conservative and regularizing, designed to ease computation and induce some initial skepticism of large effect sizes.

$$
\begin{aligned}
\alpha_1,\, \alpha_2,\, \ldots, \alpha_9, &\sim \mathcal{N}(0, 2) \\
\beta_1, \beta_2,\, \ldots, \beta_9 &\sim \mathcal{N}(0, 1)
\end{aligned}
$$

$$
\begin{bmatrix} \alpha_{Person[i]}^{wc} \\ \vdots \\ \alpha_{Person[i]}^{nd} \end{bmatrix} \sim \mathcal{N}\left(\begin{bmatrix} 0 \\ \vdots \\ 0 \end{bmatrix}, \mathbf{SRS} \right)
$$

$$
\mathbf{S} = \mathbf{I}_9\{\sigma_1, \sigma_2, \ldots, \sigma_9\}
$$

$$
\mathbf{R} = \begin{bmatrix} 1 & \rho_{1,2} & \cdots & \rho_{1,9} \\ \rho_{2,1} & 1 & \cdots & \rho_{2,9} \\ \vdots & \ddots & \ddots & \vdots \\ \rho_{9,1} & \rho_{9,2} & \cdots & 1 \end{bmatrix}
$$

$$
\begin{aligned}
\sigma_1, \sigma_2, \ldots, \sigma_9 &\sim \mathcal{N}(0, 1) \\
\mathbf{R} &\sim \text{LKJ}(2)
\end{aligned}
$$

Once specified, we will use Bayesian methods (via Markov Chain Monte Carlo sampling) to estimate the model effects. This has several advantages:

- We can fully incorporate the hierarchical structure of the model (person-months nested within people), as well as varying effects on any population coefficients. This will help provide better estimates with a potentially unbalanced sample, while leveraging shrinkage to help prevent the model from overfitting.
- We can run the model periodically through the five-year waiver period without the frequentist problem of taking multiple looks at the data;
- We get the full joint posterior distribution of all parameters, allowing us to propagate error through to the final estimates. This means that the result of all this analysis will be an overall distribution in the effect, not just a point estimate with a confidence interval.

Whatever method we use, however, unless the effect is overwhelmingly powerful, we probably won't have a single, clear-cut answer. Our chances of being able to detect any effect are directly proportional to the sample size in the study —the number of people on the waiver and on the wait list. This is limited by the program budget, meaning that the precision of any results will therefore be affected by the choice the Legislature makes in funding the number of slots for the program.

10.1. Demonstration PMPM model

To model this cost, we began with fee-for-service (FFS) line-level claims data for waiver services received by members on the existing Community Choices Waiver between January 1st, 2016 and January 1st, 2020.

All rates were then adjusted based on assumptions and recent trends (e.g. 150% multiplier for home-delivered meals based on recent Legislative appropriations).

We then excluded claims from any member who:

- Used any of the services not included in the demonstration (e.g., ALF, nursing);
- Had less than $1,000 total utilization during the four year claims period;
- Had fewer than 18 member-months of experience;
- Were under 65 or over 95 years old; and,
- Had an LT-101 score over 40 points.

The final dataset for modeling contained ~16K observations (months) for 518 unique individuals.

The model for PMPM cost in month i for member j is a Generalized Linear Mixed Model (GLMM) that assumes an underlying Weibull likelihood to model the variance. This was chosen because PMPM costs tend to be positive, right-skewed, but —in the case of HCBS costs —with a relatively light tail.

$$\text{Cost}_{ij} \sim \text{Weibull}\left(\lambda_{ij}, \kappa\right)$$

Here, the scale parameter λ_{ij} is parameterized by the mean μ_{ij} and shape parameter κ, and μ_{ij} is modeled using a log link of a linear combination of age, LT-101 score and gender, but also including varying intercepts for individuals α_j.

$$\lambda_{ij} = \frac{\mu_{ij}}{\Gamma(1 + \frac{1}{\kappa})}$$
$$\log(\mu_{ij}) = \alpha + \beta_0 \text{Gender} + \beta_1 \text{Age} + \beta_2 \text{LT-101} + \alpha_{[j]}$$

Finally, we assign the following priors to each parameter, chosen to keep most probability mass within the likely space and thus aid in computation.

$$\begin{aligned} \alpha &\sim \mathcal{N}(0, 3) \\ \beta_0 \dots \beta_2 &\sim \text{Student}(3, 0, 1) \\ \alpha_{[j]} &\sim \mathcal{N}(0, 1) \\ \kappa &\sim \mathcal{N}(1, 3) \end{aligned}$$

The output from the model, using MCMC methods with Stan[10], the cmdstanr[11] interface and the brms[12] wrapper, is below:

```
 Family: weibull
  Links: mu = log; shape = identity
Formula: CCWEE ~ 1 + GENDER + zLT + zAge + (1 | ID)
   Data: ccw_lts (Number of observations: 15958)
  Draws: 4 chains, each with iter = 4000; warmup = 1000; thin = 1;
         total post-warmup draws = 12000

Group-Level Effects:
~ID (Number of levels: 518)
              Estimate Est.Error l-95% CI u-95% CI Rhat Bulk_ESS Tail_ESS
sd(Intercept)     0.71      0.02     0.66     0.75 1.01      218      403

Population-Level Effects:
          Estimate Est.Error l-95% CI u-95% CI Rhat Bulk_ESS Tail_ESS
Intercept     6.91      0.07     6.79     7.05 1.04      108      226
GENDERM      -0.02      0.07    -0.15     0.13 1.04      109      285
zLT           0.16      0.06     0.05     0.28 1.04      170      296
zAge          0.27      0.02     0.23     0.32 1.01      366      808

Family Specific Parameters:
      Estimate Est.Error l-95% CI u-95% CI Rhat Bulk_ESS Tail_ESS
shape     3.75      0.03     3.70     3.80 1.00    11089     8211

Draws were sampled using sample(hmc). For each parameter, Bulk_ESS
and Tail_ESS are effective sample size measures, and Rhat is the potential
scale reduction factor on split chains (at convergence, Rhat = 1).
```

This model fits the data well enough for both averages and in the (fairly light) tails, though you can see on the posterior predictive check in Figure 8 that some of the apparent bimodality (i.e., with a peak around

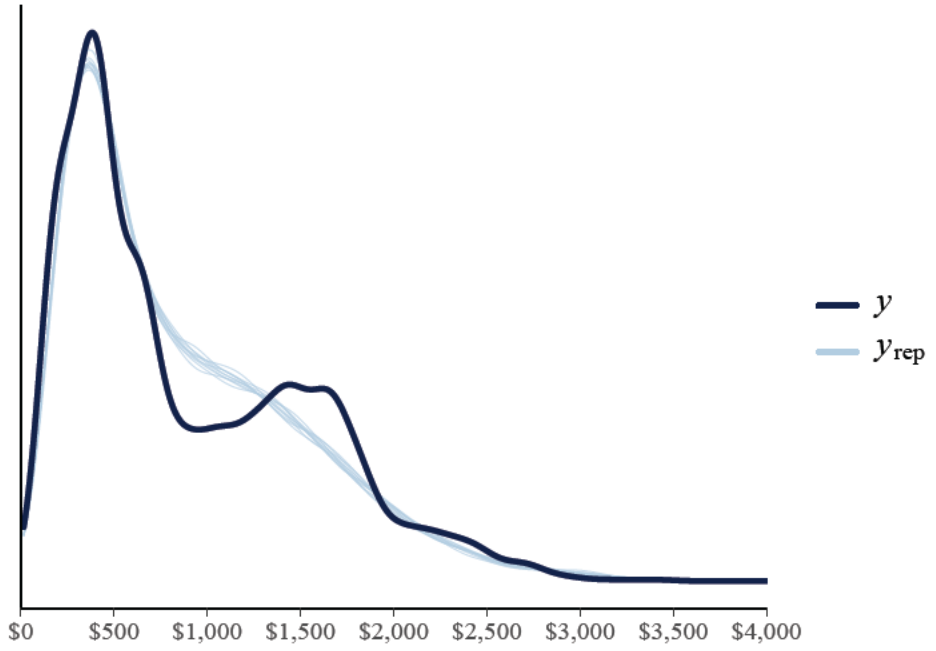
[10] Stan Development Team. 2023. Stan Modeling Language Users Guide and Reference Manual, 2.32. https://mc-stan.org

[11] Gabry J, Češnovar R, Johnson A (2023). cmdstanr: R Interface to 'CmdStan'. https://mc-stan.org/cmdstanr/, https://discourse.mc-stan.org.

[12] Bürkner P (2017). "brms: An R Package for Bayesian Multilevel Models Using Stan." Journal of Statistical Software, 80(1), 1 28. doi:10.18637/jss.v080.i01.

$500 PMPM and a peak around $1,500) isn't fully captured, despite the individual-level intercepts.

Figure 8: Distribution of monthly costs



The primary effects of age and LT score are positive, as expected. Figure 9 shows the relationship for both variables, assuming zero varying effects.

We then apply this model to the post-stratified ACS IPUMS data described in Section 2, and make the following assumptions about takeup:

- People who have higher LT-101 scores are more likely to sign up;
- People with lower incomes are more likely to sign up;
- People with lower assets are more likely to sign up.

Because we're unsure about the relative importance of these factors, however, we simulate a variety of scenarios where income and asset weights are fixed at -1 and the relative weight on LT-101 score varies between ~ 0.3 and ~ 1.6.

The resulting average PMPM for an enrollment cap of 350 people are illustrated in Figure 10. The total cost for various enrollment scenarios was shown previously in Figure 5.

Figure 9: Variables affecting PMPM

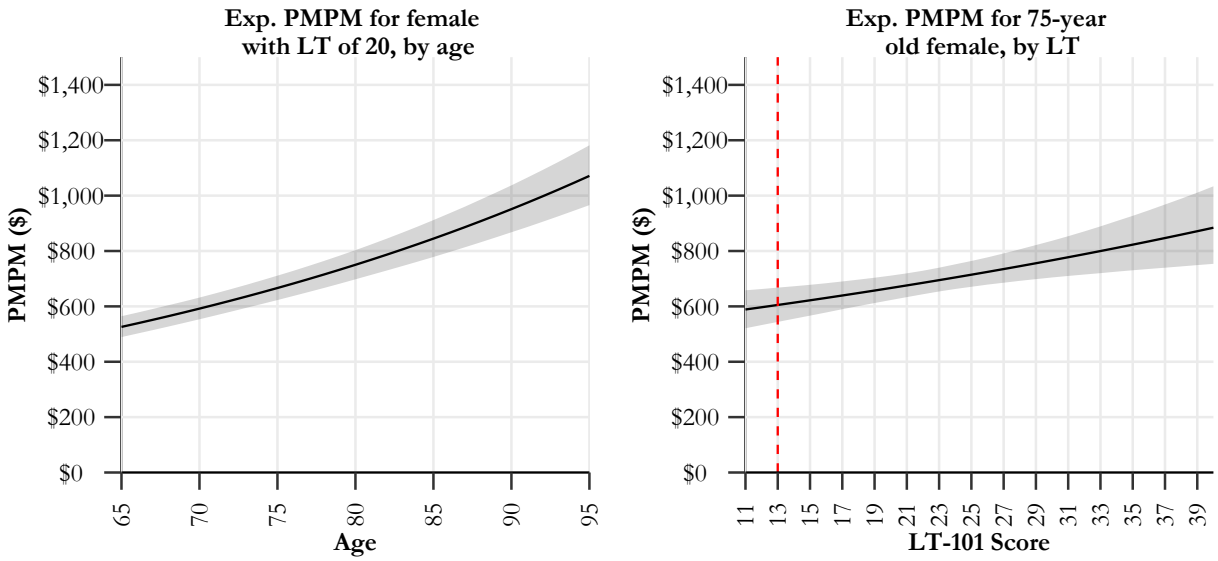


Figure 10: Average PMPM given population