



APPENDIX J TRAINING: ESTIMATING AND DOCUMENTING FACTOR D IN 1915(C) WAIVER APPLICATIONS

**Division of Long Term Services and Supports
Disabled and Elderly Health Programs Group
Center for Medicaid and CHIP Services**

Training Objectives

- Discuss the importance of adequately documenting both the basis and methodology used for developing Factor D estimates.
- Discuss states' challenges in estimating Factor D.
- Review Factor D estimation strategies and methodologies.
- Discuss strategies for trending Factor D estimates.
- Review promising practices for documenting and estimating Factor D.

Federal Guidance

- [§1915\(c\)\(2\)\(D\) of the Social Security Act](#) requires that states assure that the average per capita expenditure under the waiver during each waiver year will not exceed 100 percent of the average per capita expenditures that would have been made during the same year for the level of care provided in a hospital, nursing facility, or ICF/IID under the State Plan had the waiver not been granted.
- [42 CFR §441.302\(e\)](#) requires that the expenditures upon which the cost neutrality demonstration is based be **reasonably estimated** and **well-documented** and that the estimate must be annualized and cover each year of the waiver period.
- Refer to previous trainings for additional information regarding financial accountability and cost neutrality.
 - [Cost Neutrality](#)
 - [Financial Accountability](#)

Factor D Background

- Per **1915(c) Technical Guide, Page 272**, Factor D represents the estimated average annual per capita Medicaid costs for home and community-based services for individuals in a waiver program.
 - Per capita costs refer to the estimated expenditures during each year of the waiver divided by the number of unduplicated service recipients during each waiver year.
- Per **1915(c) Technical Guide, Pages 276-277**, Factor D estimate is comprised of the following elements that must be adequately documented and described in Appendix J-2-c of the 1915(c) waiver application.
 - Estimated number of Users,
 - Average Units Per User; and
 - Average Cost Per Unit.

Importance of Accurately Estimating Factor D

- Since 2017, CMS has been tracking information requests made for Appendices I and J in 1915(c) waiver applications.
- CMS' internal research indicates that the most commonly requested information is related to insufficient documentation of Factor D derivation explanations in Appendix J-2-c.
- States that used CMS-372(S) reports as their basis to calculate Factor D reported actual expenditures that more closely aligned with estimates than those who used alternate data sources.
- CMS requests additional information explaining the variance when states report a significant change between 372(S) reports and estimates reported in Appendix J-2-d. Occasionally, CMS may require states to submit an amendment addressing significant variances.

Importance of Accurately Estimating Factor D

Adequate documentation of Factor D in J-2-c and reasonable Factor D estimates in Appendix J-2-d will:

- Improve waiver transparency by clearly outlining the state's expectations for waiver costs.
- Provide a record of both the data source and methodology used to develop the cost estimates easing state transition processes including employee turnover and programmatic changes.
- Expedite the waiver review process by potentially reducing the number of additional clarification / information requests from CMS.
- Ease administrative burden by reducing the likelihood of submitting future amendments due to inaccurate estimates.
- Allow the waiver application estimates to serve as a resource for the state's budget process and as a demonstration of potential cost savings.

State Challenges with Estimating Factor D

- CMS noted that states face the following challenges when estimating Factor D:
 - **Challenge 1:** Establishing a data source to project Factor D estimates.
 - **Challenge 2:** Developing reasonable unduplicated participant estimates.
 - **Challenge 3:** Projecting a reasonable growth rate and/or selecting a trend basis to estimate waiver cost growth.
 - **Challenge 4:** Accounting for waiver changes (e.g., programmatic changes, phasing in/out services, etc.).
 - **Challenge 5:** Providing sufficient detail to adequately address and describe the basis and methodology used to develop the Factor D estimate.

Challenge 1: Establishing a Data Source to Project Factor D Estimates

Establishing a Data Source to Project Factor D Estimates

Guidance for Selecting Data Source for Factor D Estimates

- Determining the data source to project Waiver Year 1 estimates establishes a baseline for the remainder of the waiver years.
- Per 1915(c) Technical Guide, pages 276 – 277, CMS recommends the Factor D estimate be based on “actual experience as reported via 372(S) reports” **or** that the state “detail the source of the information upon which the estimate is based.”
- Most common sources include:
 - 372(S) reports.
 - Historical experience, such as claims data.
 - Similar waivers serving a similar population and/or similar institutional programs.
 - Using similar programs and populations from other programs within and outside the state are particularly helpful when a state is submitting an initial waiver.

Establishing a Data Source to Project Factor D Estimates

Guidance for Selecting Data Source for Factor D Estimates (Continued)

- The 1915(c) Technical Guide recommends using 372(S) reports as a basis, however if there are concerns with the data in the 372(S) reports, or they do not exist, CMS recommends using a data source that aligns with state expectations and projections.
 - Due to the lag period associated with 372(S) reports, they may not capture recent waiver program changes and therefore may not be appropriate to use as the basis for estimates. Examples of these changes include: merging waivers or changing waiver populations, transitioning to managed care, adding or removing services, and/or waiver funding changes.

Establishing a Data Source to Project Factor D Estimates

- Recommendations for determining the right data sources include the following:
 - Reviewing multiple years of 372(S) reports to determine whether the data is useful for projecting expenditures/Factor D.
 - Reviewing multiple years of 372(S) reports data to calculate and apply the utilization trends to the Factor D estimates. States must be cognizant of potential outliers and/or annual variances that were not anticipated. These variances or outliers must be accounted for when developing estimates.
 - Evaluating similar waivers, when waiver changes or updates are not reflected in the 372(S) reports.
- States must document the reasoning for deviating from 372(S) reports.
- During additional discussions with CMS, it is helpful for the state to provide the data used for estimates when electing to use an alternate data source.

Establishing a Data Source to Project Factor D Estimates *Case Study*

- **Background:**

- A state recently updated its waiver program to remove the minimum age requirement thus expanding its waiver population. The waiver program population has expanded by more than thirty percent. In addition, the state also experienced an uptick in waiver service utilization alongside the expanded population. Due to the 18 month lag period for the 372(S) reports, the most recent 372(S) reports do not reflect the recent influx of participants or the changes in utilization.

- **Challenge:**

- Selecting a basis for the total projected costs of providing waiver services.

Establishing a Data Source to Project Factor D Estimates

Case Study Solution

- The state elects to use the most recent completed year of claims data rather than the 372(S) reports as the basis for the estimates.
 - The state's claims data captures the recent changes to the waiver program and thus serves as a more accurate resource to base the state's estimates.
 - The state must document why they elected to use an alternate data source rather than the 372(S) reports.

Establishing a Data Source to Project Factor D Estimates *Case Study Solution*

Example to Include in Appendix J-2-c:

The state's unduplicated participant and utilization estimates are based on 2017 actual claims data. The state's CMS-372(S) reports were not used as the basis for estimates as the reports do not capture the waiver expansion that went into effect January 1, 2017.

The CMS-372(S) reports also do not capture the changes in utilization experienced and expected as a result of the expansion. The state will continue to monitor utilization and participant growth and amend the waiver as necessary to update the waiver estimate basis or address any potential waiver cost estimate discrepancies as more information becomes available.

Challenge 2: Developing Unduplicated Participant Estimates

Developing Unduplicated Participant Estimates

- Inaccurate participant estimates impacts projected costs. Per the 1915(c) Technical Guide, “*the number of unduplicated participants specified for each waiver year constitutes the **maximum** limit served by the waiver program.*”
- The number of participants served should be based on a careful appraisal of the resources that the state has available to underwrite the costs of waiver services.
- States should implement a reasonable growth trend for participants using historical data and state knowledge/experience about the waiver program.

Developing Unduplicated Participant Estimates

- When developing unduplicated participant estimates, states should avoid:
 - Developing participant estimates without regard to the state's budget and resources.
 - Stagnating participant estimates unless the state's data suggests that this is appropriate.
 - Including participants from waiver waiting list totals that the state may not have the capacity to serve.

Developing Unduplicated Participant Estimates: *Case Study*

- **Background:**

- State ABC is currently in the process of renewing a waiver for the second time. Due to increased awareness and rising demand for waiver services, the state was able to secure funding to increase the number of available waiver slots.
- However, this expected increase in participants was not captured in the state's previous 372(S) reports. The state expects both the average units per user and average cost per unit to remain consistent with historical data.

- **Challenge:**

- Selecting and describing an estimate methodology that captures both historical and new data. The state must identify why they elected to deviate from the actual historical data found in the state's 372(S) reports for its unduplicated participant estimates.

Developing Unduplicated Participant Estimates: *Case Study Solution*

- The state must describe why they are electing to augment 372(S) reports with more recent data to estimate the unduplicated participant count. This information must be provided in Appendix J-2-c of the 1915(c) waiver application.
 - *“The unduplicated participant estimates are based on both the 2017 372(S) reports and the new state budget approved September 1, 2018 which includes the addition of 150 new slots in Waiver Year 1 and 50 new slots for Waiver Year 2-5. The state does not anticipate using all slots immediately but does anticipate a steady increase of participants into the waiver program with the most noticeable increase reflected in Waiver Year 1.”*

Challenge 3: Projecting Waiver Program Cost Growth

Projecting Waiver Cost Growth

- In general, state waiver costs do not remain stagnant year-to-year resulting in the need to implement a growth rate for waiver estimates.
- Common growth rate bases include:
 - Historical growth captured in 372(S) reports.
 - Historical growth captured in claims data.
 - Average Length of Stay (ALOS) growth.
 - BLS Consumer Price Index (CPI) information or other inflation indices.
 - Participant or projected utilization growth.
 - Other; as explained in the waiver application.
- States apply the growth trend to unduplicated participants, average cost per unit and/or average units per user estimates to capture projected growth.

Projecting Waiver Cost Growth

- When electing to use 372(S) reports as the basis for a waiver's growth, the state must be sure that the historical data is most representative of the state's expectations for growth.
- The state must also consider outliers and unsustainable growth trends that may not be indicative of future performance.
 - For example, a state experienced a 25 percent increase in personal care utilization in 2016. However, it may be unreasonable to expect personal care expenditures to continually increase by 25 percent each year over a five-year period. The state should not project for this trend to continue without multiple years of data suggesting otherwise.

Projecting Waiver Cost Growth

- States should consider using CPI indices or other inflation indices as appropriate when the state determines that historical data is not a good resource for trending state estimates.
- States may apply a growth rate to the unduplicated participant, average cost per unit and/or average units per user estimates. This growth rate trend should be based on the Factor D element(s) most likely to experience change. For example, if the waiver program has continued to experience participant growth, reflect this growth in the estimates.
 - Conversely, the same principle applies for factors that have not experienced growth. E.g., If the state's waiver service rates have not increased in 5 years and no rate increases are expected in the near future, do not apply a growth rate trend to the average cost per unit estimate. Applying a flat growth rate of 0 percent is applicable in this scenario as it aligns with historical data.

Projecting Waiver Cost Growth

- When projecting waiver costs, the state should avoid:
 - Trending estimates based on outliers or unsustainable growth.
 - The state must clearly identify these outliers in the 372(S) reports and in the application and provide reasons as to why 372(S) reports data was not used to trend the estimates.
 - The state must clearly identify if they are disregarding a single 372(S) report in their trend analysis.
 - Projecting stagnant waiver estimates over a five year waiver renewal period.

Projecting Waiver Cost Growth

- The state should apply a growth rate that is:
 - Applicable to Factor D (e.g., unduplicated participants, average cost per unit, average units per user estimates) with a sufficient explanation.
 - Reflective of historical waiver program changes and/or growth. This can be completed by evaluating historical data and reviewing all available data sources before determining how to apply the trend.
 - Reasonable and does not overstate estimates, particularly in the latter years of the renewal period.
 - For example, a 5 percent growth rate compounded over a 5 year period results in cost growth of over 20 percent in comparison to the Waiver Year 1 values. Ensure that the projected growth in the latter years aligns with state expectations.

Projecting Waiver Cost Growth

Case Study

- **Background:**

- A state experienced continued fluctuation in both average units per user and costs for its waiver program. Due to these fluctuations, the state does not feel comfortable using historical average units per user data as a basis for future growth.

- **Challenge:**

- Implementing a growth rate in the absence of reliable historical utilization and cost data.

Projecting Waiver Cost Growth

Case Study Solution

- The state elects to use the 2017 BLS CPI-U value of 2.1 percent as a resource for trending waiver estimates.
 - The state selected CPI-U data based on the absence of reliable utilization data. In addition, the CPI-U provided the most reasonable resource for trending waiver estimates.
- The state applies the annual 2.1 percent growth rate to the average units per user estimate. The state trends the unit per users, as it is most likely to grow or increase during the five year renewal period.

Challenge 4: Accounting for Waiver Changes

Accounting for Waiver Changes

- Uncertainty in waiver programs is primarily caused by programmatic changes such as:
 - Phasing in/out services.
 - Transitioning to managed care.
 - Implementing new provider qualification standards.
 - Adjusting the waiver's population.

Accounting for Waiver Changes

- Occasionally there is no existing data for estimates (e.g., the state is implementing a new waiver). For these instances, states should consider using the following:
 - Knowledge base from existing waiver programs to serve as a guide for projecting costs.
 - Similar programs in other states.
 - State Plan experience and data.
 - Stakeholder engagement and feedback obtained to help ascertain the demand for these new services.
- States are encouraged to submit an amendment if initial estimates are inaccurate and are not aligning with actual data.
- Review similar programs to use as a guide for developing estimates as referenced in the example on the next slide.

Accounting for Waiver Changes

Case Study

- **Background**

- State ABC is adding respite services to its TBI waiver. This is the first year this service is being implemented in this waiver.

- **Challenge**

- Finding a source to base and trend the estimates for this new service.

- **Solution**

- Use data from similar programs to base and trend estimates.
 - *The state based its respite utilization and cost estimates on the 2017 Elderly Waiver respite claims data. The state selected this waiver as the respite service payment rate proposed for the TBI waiver is identical to the rate paid in the Elderly Waiver, and the state expects similar utilization.*

Challenge 5: Documenting Factor D

Adequately Documenting Factor D

- State's Factor D estimates must be explained in Appendix J-2-c and the estimates and derivation explanation must align.
- CMS will request an explanation if it identifies deviations from the basis described in the application.
 - For example, if the state's growth rate does not align with the basis reported in Appendix J-2-c, additional information will be requested.

Adequately Documenting Factor D

- Noting that participant estimates are based on a data source is not sufficient in addressing the documentation requirements in Appendix J-2-c.
 - The terminology “based on” is subjective and therefore the methodology for how the data source was used is necessary.
- The state must identify outliers in Appendix J-2-c, or services or data elements that require an alternate source or methodology.
 - This may require the identification of multiple sources or methodologies if it is not possible to use one source or one methodology that applies to all services or Factor D.

Adequately Documenting Factor D *Case Study*

- **Background:**

- The ABC Community Health Waiver contains two waiver services, personal care and respite services, and the state is currently renewing this waiver. The state submits its application and the following Appendix J-2-c, Factor D derivation explanation below.
- *“The Factor D values were estimated based on information obtained from the 2016 372(S) report.”*

- **Challenge:**

- Updating Factor D derivation explanation to adequately describe the basis and methodology used for calculating its waiver estimates.

Adequately Documenting Factor D

Case Study Solution

- The state described the basis of its estimates by noting that the Factor D estimate was based on 2016 372(S) report data. However, no additional information was specified.
 - Without the state’s estimate methodology, it is unclear what “based on” is referencing. Are the estimates identical to the 372(S) reports? Was a growth trend applied? Providing the data source and no additional information is not sufficient.
- The state should also explicitly document the basis for the number of users, average units per user, and average cost per unit estimates. The state did not mention these individual elements in its initial submission.

Adequately Documenting Factor D Case *Study Solution*

The information provided below in the Revised Submission accurately documents Factor D estimates:

- **Initial Submission**

- *“The Factor D values were estimated based on historic information obtained from the 2016 372(S) reports.”*

- **Revised Submission (Unduplicated Participants)**

- *Factor D values were estimated using historic information obtained from the 2016 372(S) reports. Unduplicated participant estimates were based on the 2016 372(S) reports value of 100 participants. A 5 percent growth trend was applied to the 2016 value to arrive at the Waiver Year 1 (2018) estimate of 105 participants. This growth rate is consistent with the 2.5 percent average annual participant growth rate experienced for the period as reflected in the previous 372(S) reports from 2010-2016. Participant estimates are trended at a rate of 2.5 percent for WY 2-5.*

Adequately Documenting Factor D

Case Study Solution

- **Revised Submission Continued. (Average Cost Per Unit)**
 - *The average cost per unit estimates are identical to the 2017 fee schedule rates. We do not project a growth rate for the average cost per unit as rates were increased in 2017 and we do not anticipate any additional increases during the waiver renewal period. The waiver will be amended to reflect and capture any potential rate related changes.*
- **Revised Submission Continued. (Average Units Per User)**
 - *The average units per user estimate is consistent with utilization captured in the 2016 372(S) reports. Participant utilization is also based on the 2016 372(S) reports results as 70 percent of participants utilized personal care services and 40% of participants utilized respite care services. These utilization trends remain consistent for WY 2-5.*

Summary

- Improving Factor D estimation and documentation is important for waiver program transparency and reducing administrative burden for states.
- States must provide a basis and methodology for developing their number of users, average cost per unit and average units per user estimates. This explanation is captured in Appendix J-2-c of the 1915(c) waiver application.
- When submitting an amendment or renewal application that includes updates to waiver estimates, states should update Appendix J-2-c, Factor D derivation to account for any changes in the basis or underlying source for the new estimates.
- Effectively addressing each of the first three bullets helps states reduce additional information requests.
- Properly predicting waiver program growth will assist the state in addressing budgetary projections with their legislatures.

Additional Resources

- Copies of the HCBS Training Series – Webinars presented during Medicaid Monthly Update calls are located at the link below:
<https://www.medicaid.gov/medicaid/hcbs/training/index.html>
- The 1915(c) Technical Guide is located here:
<https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf>
- CMS offers Technical Assistance for rates and fiscal integrity topics. Refer to the website below for more information.
<https://www.medicaid.gov/medicaid/hcbs/technical-assistance/index.html#Fiscal>
 - Note that Rate TA requests require State Medicaid Director approval upon submission.

Questions & Answers

DLTSS Feedback Survey

- Please complete a survey to help us improve the training.
- Five ways to access the survey:

Option 1: Click the link below or type the link address to your web browser:

www.surveymonkey.com/r/factord

Option 2: Use your smartphone to scan the QR code below to access the survey on your mobile device.



Option 3: Survey will open after you close the WebEx session.

Option 4: Post-conference call follow up email will include the survey link.

Option 5: Email CMSHCBSMonthlyCall@navigant.com for the survey link.

For Further Information

For questions contact:

HCBS@cms.hhs.gov