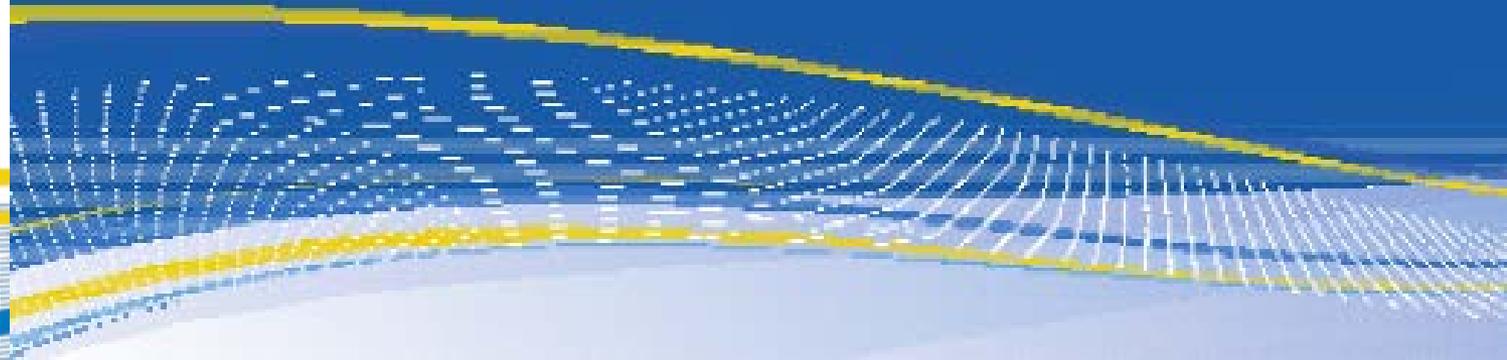


# Tiered Rates: Trends in Acuity-Based and Geography-Based Rate Variation

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



# Training Objectives

- Review definition of tiered rate setting in a HCBS Fee for Service (FFS) environment.
- Define two common types of tiered rate variants in HCBS FFS environment: acuity and geography-based.
- Discuss common methods used and considerations regarding tiered rates, based on Rate Contractors' experience in reviewing 1915(c) waiver applications.

# Overview of Tiered Rates

# Tiered Rates

## Definition

- Provider receives payment for services in which the rate varies by an identified characteristic of the individual, geography, provider or some combination of all three.\* Two of the most common options are:
  - Individual's acuity
  - Geographical area
- Procedure codes for the services can remain the same, but states can use modifiers to differentiate the tiered rate.
- States can also think creatively about other tier options, such as provider qualifications.

\* For a high-level overview of tiered rates, see the CMS training titled "Rate Methodology in a FFS HCBS Structure" available at <https://www.medicaid.gov/medicaid/hcbs/training/index.html>.

# Tiered Rates

## Example

**Tiered fee schedule for day support services based on Supports Intensity Scale (SIS) assessment levels.**

Support Level	Procedure Code	Tiered Rate	Unit
Level 1	S5100	\$8.60	Hour
Level 2	S5100	\$11.25	Hour
Level 3	S5100	\$13.31	Hour
Level 4	S5100	\$17.34	Hour

The support levels would be determined based on SIS assessment results of the individuals in the waiver program.

# Tiered Rates

## Why Use Tiered Rates?

- Tiers may improve the relationship between the cost of providing services and the amount paid to providers, impacting:
  - **Cost efficiency:** Allow adjustments for services that should cost providers less.
  - **Provider capacity:** Depending on the basis of tiers, providers can be incentivized to:
    - Provide services in areas with higher cost of living.
    - Provide services in rural/underserved areas.
    - Obtain additional qualifications.
    - Provide services to individuals who may have greater service needs.

# Acuity-Based Rate Variation

# Acuity-Based Rate Variation

## Definition

- Rates vary based on the complexity of a waiver participant's service needs.
- Services that most commonly include acuity-based rate variations in 1915(c) waiver applications are:
  - Day Habilitation
  - Supported Employment
  - Residential Habilitation
  - Residential Supported Living

# Process for Setting Acuity-Based Rates

Step 1: Establish a method for assessing individual needs.

Step 2: Establish a quality monitoring process during the implementation of the assessment.

Step 3: Construct a system that groups individuals with similar needs.

Step 4: Develop a method to link reimbursement to acuity.

# Process for Setting Acuity-Based Rates

## Step 1: Establish a Method for Assessing Individual Needs.

### ➤ Commonly used methods:

- Supports Intensity Scale (SIS).
- Inventory for Client and Agency Planning (ICAP).
- State's own functional assessment tools.
- States are encouraged to use other methods as necessary.

### ➤ Supports Intensity Scale (SIS)

- Created by the American Association of Intellectual and Developmental Disabilities (AAIDD) to gauge the intensity of support an individual needs.<sup>1</sup>
- Based on an individual's ability to perform life activities combined with medical and/or behavioral support needs and supplemental protection and advocacy activities.<sup>1, 4</sup>
- States typically designate internal assessment teams or contract with independent assessment agencies.<sup>1</sup>

# Process for Setting Acuity-Based Rates

## Step 1: Establish a Method for Assessing Individual Needs.

### ➤ SIS (continued)

- Considerations:
  - Inter-coder reliability among the assessors is critical for valid results, which can be promoted through training.
  - SIS is designed to gauge the frequency, intensity and type of support needed to function in the community. <sup>3</sup>
  - SIS is designed for individuals ages 16 and older. <sup>3</sup>

# Process for Setting Acuity-Based Rates

## Step 1: Establish a Method for Assessing Individual Needs.

### ➤ Inventory for Client and Agency Planning (ICAP)

- The ICAP is a standardized assessment instrument that measures adaptive (e.g., motor, social, communication, personal and community living skills) and maladaptive (i.e., problem) behavior to determine the type and amount of assistance an individual may need.<sup>2</sup>
- Considerations<sup>3</sup>
  - Can reliably measure adaptive and problem behavior.
  - Can be used for early childhood to adults.
  - Standardized administration and scoring.
  - Not developed to support rate determination and resource allocation.
  - Does not directly assess support needs—rather, support needs are inferred from the obtained scores.

# Process for Setting Acuity-Based Rates

## Step 1: Establish a Method for Assessing Individual Needs.

### ➤ State's Own Functional Assessment

- States may also develop their own functional needs assessment tool to classify an individual's needs on an established scale if this tool better aligns with state needs.
- Considerations
  - Assessment tools must be rigorously tested since an unreliable tool can undermine the credibility of assessment results.

# Process for Setting Acuity-Based Rates

## Step 2: Establish a quality monitoring process during the implementation of the assessment.

- Establish a review process to ensure the accuracy of assessment results.
- Determine whether there are any conflict of interest issues with the party responsible for surveying the individuals.
  - Basic requirements for Conflict of Interest criteria is listed in 42 CFR 441.301(c)(1)(vi).
  - Under this regulation, states are required to separate Person-Centered Service Plan (PCSP) development from the service delivery functions.
  - If the assessor has a conflict of interest with the service delivery, then the assessor could be pressured to change the assessment scoring.

# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- In 1915(c) waivers with acuity-based rates, many states group individuals using statistical methods that incorporate some or all of the following:
  - Claims data
  - Assessment data
  - National data for the same assessment (if available)
  - Any other information that predicts total individual expenditures. (e.g., community living arrangements)
  - States have flexibility to use other methods and tools as necessary.
- This analysis allows the state to establish groups with characteristics strongly correlated with total expected state expenditures per individual.

**Note:** Steps 3 and 4 (develop a method to link reimbursement for groups of participants to predicted utilization) are strongly related and should be considered together.

# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- To determine how best to group waiver participants, collect claims data, demographic data, assessment data, and any other information that the state believes may predict HCBS service costs.
- Consider collecting the same data on a non-waiver group to use as a baseline of comparison for the waiver participant data collection.
- **State example:** One state implemented a pilot program to gather a statewide sample of SIS scores. This involved:
  - Gathering SIS scores and cost information for a large, representative sample of the waiver population
  - Gathering SIS scores and cost information for a non-waiver group as a basis of comparison for validating the data.

# Process for Setting Acuity-Based Rates

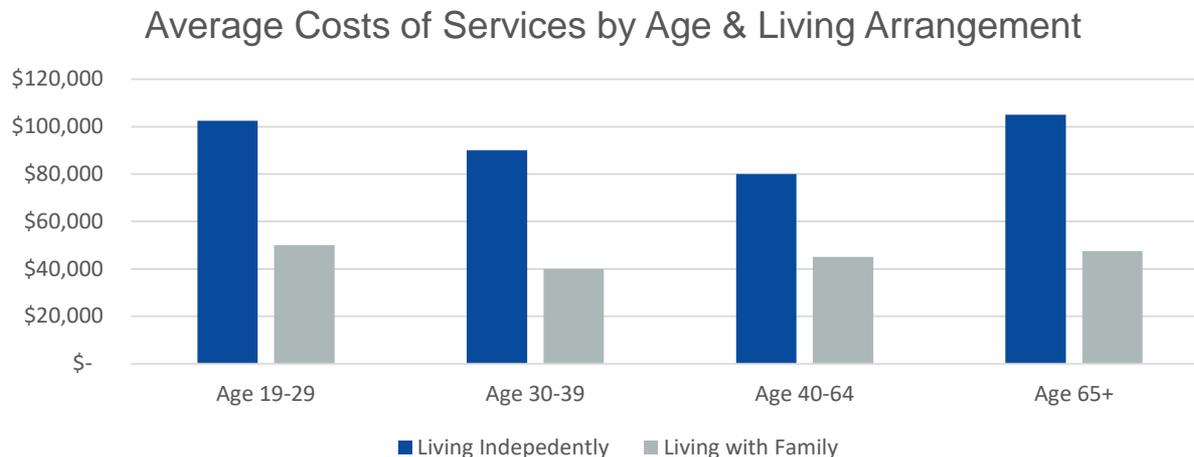
## Step 3: Construct a System that Groups Individuals with Similar Needs.

- When possible, check the reasonableness of the data collected by comparing the collected data to national results or results from other states.
  - **State example:** One state compared the SIS scores it collected from its waiver program participants to the national average SIS scores for adults with disabilities. They found their scores, like most waiver programs serving individuals who live at home or with family, were slightly lower than the national average.
  - See the weblink attached for a list of states using SIS:  
<https://aaidd.org/sis/sisonline/states-using-sis#.WQy5Z1XytQI>
- Compare the results of the waiver data to the non-waiver baseline collected by the state. This can be a useful way to validate the results, particularly for states using their own functional assessment tools.

# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- Analyze the relationship between the collected data and the individual's costs.
  - Using statistical methods can help illustrate relationships between data and costs.
  - A common method involves using regression to identify which data is the best predictors of costs, then use graphs to illustrate the relationship to assist in bucketing.
  - **State Example:** One state found that among other variables, living arrangements and age impacted costs of their waiver participants:



# Process for Setting Acuity-Based Rates

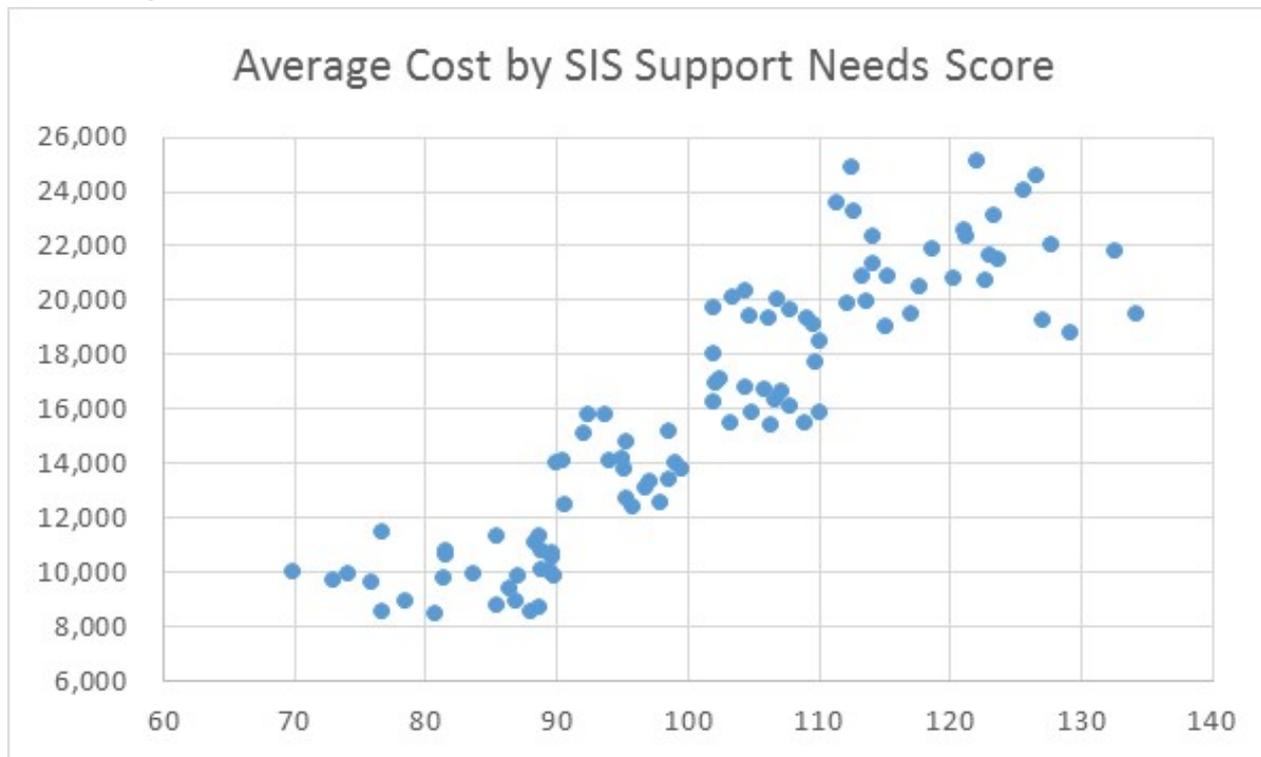
## Step 3: Construct a System that Groups Individuals with Similar Needs.

- Create tiers based on the relationship between the assessment data and the individual's costs. Although choosing tiers is subjective, some general principles to follow are:
  - There must be enough tiers to explain differences between groups, but not so many that groups are too small to be statistically credible.
  - The relationship between tiers should reasonably explain costs (e.g., someone in a tier marked as greater support needs should have greater costs than someone with mild support needs).
  - Tiers should be based on variables that have been identified as statistically significant in a regression or other analysis.
  - Software is available to assist in making tier decisions.

# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- Example: Hypothetical distribution of SIS Support Needs scores and costs for a sample of 100 individuals.



# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- Example: From this data, we can break the SIS Support Needs scores into four tiers.
  - Within the third tier, it would be worth investigating if there is a way to identify those individuals closer to \$20,000 than \$16,000 (such as different medical or behavioral health scores).



# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- **State Example:** One state used regression on SIS scores and found that SIS support needs, medical, and behavioral health scores explained much of the variation in costs. They used this information to create a six tier system for grouping individuals. An example of which is below:

Tier	Tier Description	Service Costs
1	Low Support Needs	
2	Moderate Support Needs	
3	Severe Support Needs	
4	Severe Support Needs w/ Moderate Behavioral & Medical Needs	
5	Severe Support Needs w/ High Behavioral Needs & Moderate Medical Needs	
6	Severe Support Needs w/ High Behavioral Needs & High Medical Needs	

# Process for Setting Acuity-Based Rates

## Step 3: Construct a System that Groups Individuals with Similar Needs.

- Based on the previous examples, new waiver participants would be assigned to a tier based on their SIS score.
- Some states have allowed an “exception process” for individuals with extraordinary needs who can be evaluated and reviewed individually as necessary.

# Process for Setting Acuity-Based Rates

## Step 4: Develop a Method to Link Reimbursement for Groups of Individuals to Acuity.

- Collect and determine provider's costs.
  - Provider cost survey
  - Collect paid claims data from the state's MMIS system
- States may use other methods of determining the provider costs.
- Refer [to HCBS Rate Setting - Data Validation](#) training for more information.

# Process for Setting Acuity-Based Rates

## Step 4: Develop a Method to Link Reimbursement for Groups of Individuals to Acuity.

- Incorporate costs into the rate setting methodology development.
  - Adjustment to cost factors.
    - States most commonly adjust staffing ratios, productivity, base wage and program support percentages.
    - States can use multiple methods for calculating this adjustment.
    - For example, a state determines that higher need individuals on average require more staff attention than those in a lower acuity level. The state adjusts its staffing ratio to account for this, thus incurring a higher rate for high needs individuals.
- States must document the basis for tier adjustments in Appendix I-2-a of the waiver application.

# Process for Setting Acuity-Based Rates

## Step 4: Develop a Method to Link Reimbursement to Acuity.

- **Example:** The table below shows an example as to how acuity based tiers can affect rate setting.
- This example demonstrates how a state may use staffing ratios to account for acuity tiers, when a state determined that higher acuity required a lower staffing ratio for the individual.
- The staffing ratio directly impacts the cost per individual, which ultimately would affect the final payment rate.
- Staffing ratios can be determined by using a time study of the facility employees and/or survey of the providers and their employees.

	Tier 1	Tier 2	Tier 3
Cost Per Hour	\$13.00	\$13.00	\$13.00
Staffing Ratio	1:4	1:3	1:2
Cost per Individual	\$3.25	\$4.33	\$6.50

# General Considerations

- The assessment the state chooses should produce consistent results, independent of the assessor.
- The state should ensure provider surveys and assessment data include sufficient information to allow for comparison between assessed needs and staffing levels.
- Tiers should be designed to account for acuity outliers.
- States should monitor the accuracy and quality of the assessments during implementation. It is important to address any conflict of interest from the assessor to obtain the most accurate and objective results.
- States must document the basis for tier adjustments and rate add-ons in Appendix I-2-a of the waiver application.

# General Considerations – Number of Tiers

- Choosing the number of tiers is important. Having too many tiers can lead to:
  - Difficulty distinguishing between tiers.
  - Administrative burden of having more rates to manage.
- Having too few tiers can lead to:
  - Not enough distinction between costs and acuity by tier.
  - The need for exceptions when outliers within the tier are difficult to manage within the set rate.
- Creating tiers using a structured approach that examines costs in combination with the acuity of the individuals will help states create a reliable model of tiered rates.

# Geography-Based Rate Variation

# Geography-Based Rate Variation

## Definition

- Rates are adjusted based on differences in costs across state-established geographic regions.
- Most common reasons for geography-based rate variation:
  - High cost of living (e.g., metropolitan areas).
  - Rural region with few providers.

## General Process for Developing Geography-Based Rate Variation

- Step 1: Develop and identify the Geographical Areas / Regions.
- Step 2: Link reimbursement to predicted utilization and costs for each geographic region.
- Step 3: Monitor for the changes in cost of living and number of providers.

# General Process for Setting Geography-Based Rates

## Step 1: Develop and Identify the Geographical Areas / Regions.

- Examples of Geographic Areas or Regions include:
  - County
  - US Census Bureau statistical areas (<https://www.census.gov/population/metro/>)
  - State-defined regions
- **State example:** One state outlined eight geographic regions used to develop rates in its state regulations.
  - State's regulations include a detailed table with the counties in each of the eight regions.
  - Regions were established using economic data collected and analyzed by the state.
  - State uses these regions to establish rates across various state plan and waiver services.

# General Process for Setting Geography-Based Rates

## Step 2: Link Reimbursement to Predicted Utilization and Costs for each Geographic Region.

- States can link reimbursement to these projections using:
  - Adjustment to cost factors.
    - Most commonly, adjust cost factors for wages, benefits and administrative overhead.
    - For example, a state elects to use a higher base wage in the northern region of its state to account for higher labor costs and higher cost of living.

# General Process for Setting Geography-Based Rates

## Step 2: Link Reimbursement to Predicted Utilization and Costs for each Geographic Region

- **State example:** The table on the next slide shows the cost factors one state used to develop rates for two geography-based tiers.
- The state updated the **base wage**, **benefits factor** and **program support cost** for each geography-based tier by factoring in the cost of living for each area.
  - **Base Wage:** The periodic (hourly, quarter-hour, etc.) amount paid to direct support staff, excluding benefits and taxes.
  - **Benefits Factor:** The amount or percentage that must be added to the base wage rate to account for employee benefits such as employee related taxes, health benefits, etc.
  - **Program Support:** Costs that are neither administrative nor direct care; are program specific, but not directly billable (e.g., program development, quality assurance, staff training and expenses associated with these staff).

# General Process for Setting Geography-Based Rates

## Step 2: Link Reimbursement to Predicted Utilization and Costs for each Geographic Region (continued)

- These individual inputs affect the final rate, ultimately resulting in a higher payment rate for the metropolitan area

Cost Factor	Metropolitan Area	Non-Metropolitan Area
Base Hourly Wage (A)	\$12.00	\$10.00
Benefits Factor (B)	\$1.50	\$1.20
Program Support Cost per Individual, Hourly (C)	\$2.25	\$1.50
Final Rate (A + B + C)	\$15.75	\$12.70

- Metropolitan areas may not always have higher payment rates when implementing geography-based rates.
  - Rates can also be higher in rural areas for reasons including but not limited to: provider access, transportation, and geographic considerations.

**Note:** This is not a complete rate model but rather a demonstration of individual inputs that may be adjusted to account for cost of living differences.

# General Process for Setting Geography-Based Rates

## Step 3: Monitor for changes in cost of living and number of providers.

- CMS encourages states to continue to monitor the cost of living in specific geographic areas. Then, update the applicable cost factors as needed.
- Implementing geography-based rate variations is one method of addressing rate insufficiency.
  - If a state is experiencing a lack of providers in specific geographical region, consider reviewing the rate sufficiency.
  - Refer to the CMS SOTA presentation [Ensuring Rate Sufficiency: Rate Review and Revision Strategies](#) for more information.

# General Considerations

- The state should consider what costs / cost factors vary by geographic regions when setting rates.
- The state should verify that costs / cost factors are comparable within the geographic boundaries established.
- States must document the reason for geography-based rates and how the state included this variation as part of the rate methodology in Appendix I-2-a of the waiver application.

# Summary

- Tiered rates are one method of making provider service payments more reflective of the actual costs for providing services.
- Tiered rates can assist states in cost efficiency as it allows for funds to be allocated based on the individual acuity of participants and/or the cost of living within the state.
- Details of the tiered rates must be described in Appendix I-2-a of the 1915(c) waiver application.

# References

1. Engquist, PhD, G., Johnson, C., & Johnson, PhD, W.C. (2012). Systems of Care for Individuals with Intellectual and Developmental Disabilities: A Survey of States. *Center for Health Care Strategies, Inc.* Retrieved from [http://www.chcs.org/media/IDD\\_State\\_Priorities\\_and\\_Barriers\\_Snapshot\\_082812.pdf](http://www.chcs.org/media/IDD_State_Priorities_and_Barriers_Snapshot_082812.pdf)
2. *Inventory for Client and Agency Planning*. Retrieved from <http://icaptool.com/>
3. MacLean, Jr., PhD, W.E., Heath, MPA, D., & Carter, C. (2013). Comparison of the Inventory for Client and Agency Planning and the Supports Intensity Scale. *American Association on Intellectual and Developmental Disability*. Retrieved from [https://www.researchgate.net/publication/283711843\\_Comparison\\_of\\_the\\_Inventory\\_for\\_Client\\_and\\_Agency\\_Planning\\_and\\_the\\_Supports\\_Intensity\\_Scale](https://www.researchgate.net/publication/283711843_Comparison_of_the_Inventory_for_Client_and_Agency_Planning_and_the_Supports_Intensity_Scale)
4. American Association on Mental Retardation (AAMR), Supports Intensity Scale Information (2004). Retrieved from <https://aaid.org/docs/default-source/sis-docs/sisoverview.pdf>

# Additional Resources

- Please note that this training assumes the audience is familiar with the basics of FFS rate setting. Please reference the trainings below as needed;
  - [Rate Methodology in a FFS HCBS Structure](#)
  - [Fee Schedule HCBS Rate Setting: Developing a Rate for Direct Service Workers](#)
  - All HCBS webinars are also accessible through this website:  
<https://www.medicaid.gov/medicaid/hcbs/training/index.html>

# Questions & Answers

---

# For Further Information

**For questions contact:**

**[HCBS@cms.hhs.gov](mailto:HCBS@cms.hhs.gov)**

**Thank you for  
attending our session!**