



**MASSACHUSETTS**  
HEALTH POLICY COMMISSION

## **TECHNICAL APPENDIX**

**Examination of Payments for Behavioral Health Care  
Services (CY 2023)**

## Summary

This appendix describes the Health Policy Commission's (HPC) approach to observing payment rates for selected health care services in its report *Examination of Payments for Behavioral Health Care Services (CY 2023)*.

## Behavioral Health Analyses

Behavioral health (BH) is a medical field that addresses mental, behavioral, and substance use disorder conditions. In this report, the HPC analyzed the rates paid by public and private payers for common BH services. The HPC used several strategies in seeking to address this charge:

- Observation of 2023 commercial rates and utilization of BH office-based services, stratified by age group.
- Observation of 2023 commercial rates and utilization of BH facility services, stratified by age group.
- Comparison of the average commercial rate and five-year rate growth for psychotherapy to other healthcare services and economic measures.

The HPC also conducted a literature review regarding BH payment rates, analyzed reports from other states about BH rates, and held key informational interviews with BH stakeholders in the Commonwealth.

## Data Sources

This report used three main sources of data: commercial claims, public Medicare physician fee schedules, and rate data provided to the HPC by MassHealth.

The HPC's analyses of commercial rates for BH services used the Center for Health Information and Analysis (CHIA) All-Payer Claims Database (APCD). Unless otherwise noted, the analyses included seven commercial payers: Blue Cross Blue Shield of Massachusetts, Tufts Health Plan, Harvard Pilgrim Health Care, Health New England, Mass General Brigham Health Plan (MBGHP, formerly AllWays Health Partners), United Health, and Elevance (formerly Anthem and includes Wellpoint, a Group Insurance Commission offering). All commercial amounts included in this report represent estimates based on observed payments to providers across payers within the MA APCD and do not necessarily represent negotiated prices in contract between a specific payer and provider.

MassHealth, the Commonwealth's Medicaid program, provided HPC with rates for selected BH services and selected healthcare settings. HPC used data on the rates for Community Mental Health Centers (CMHCs), non-facility services and applied behavioral analysis providers in this analysis. MassHealth did not provide rates from Accountable Care Organizations or Managed Care Organizations (ACO-A/MCO). The MassHealth rates reflect fee for services under the fee-for-service, Primary Care Clinician plan, and Primary Care ACO (ACO-B) providers.

Medicare rates for selected BH services were derived from the [2023 Medicare Physician Fee Schedule](#) for the Boston Metro and other Massachusetts regions. For psychotherapy and psychiatric evaluation rates, the HPC used [CMS guidance](#) to create rates for non-physician providers.

## Analyses

The sections below summarize the methods for each exhibit.

### Psychotherapy Providers

For the exhibit “**Psychotherapy provider types in commercial claims data, 2023**”, psychotherapy utilization was identified using the following American Medical Association Current Procedural Technology (CPT)(copyright) codes: 90832, 90833, 90834, 90836, 90837 and 90838. Psychotherapy encounters were created by collapsing claim-lines for services provided on the same day, to the same patient, with the same CPT code, into psychotherapy visits. To ensure inclusion of only ambulatory services, inpatient, emergency department, residential, and other facility claims were excluded from this analysis. Analysis was limited to claims for individuals aged 0 to 64 years by the end of each calendar year. Provider groups were identified using a combination of taxonomy codes and CPT code modifiers.

### Office-based service rates

The HPC reported commercial and/or Medicare and MassHealth rates for the following exhibits. The table below also listed the associated CPT code (Table 1).

**Table 1: Office-based services exhibits**

Exhibit	CPT Codes
Average allowed amounts for in-network, 45-minute psychotherapy with medical services visits for adults by provider type and payer, 2023	90836
Average allowed amounts for in-network, 60-minute psychotherapy visits for adults by provider type and payer, 2023	90837
Average allowed amounts for in-network, psychiatric evaluations visits for adults by provider type and payer, 2023	90791
Average commercial in network allowed amounts for adult, in-person services provided by Master-Level clinicians by payer, 2023	90791, 90834, 90837, 90847
Average allowed amounts for in-network, in-person, neuropsychological testing for children by payer, 2023	96136, 96137
Average in-network allowed amounts for adaptive behavioral treatment by client age group and payer, 2023	97153
Average commercial allowed amounts for in-network visits for adults by setting, 2023	90791, 90792, 90832, 90833, 90834, 90836, 90837, 90838
Average commercial allowed amount of common psychiatric services used by adults by network status, 2023	90791, 90792, 90832, 90833, 90834, 90836, 90837, 90838

Commercial BH encounters were created by collapsing claim-lines services provided on the same day, to the same patient, with the same CPT code into a procedure-level visit. To ensure inclusion of only ambulatory services, inpatient, emergency department, residential, and other facility claims were excluded from this analysis. Analysis was limited to claims for individuals who were ages 0 to 64 years by the end of

each calendar year. Provider groups were identified using a combination of taxonomy codes and CPT code modifiers.

Commercial rates were generated from visits that had a primary BH diagnosis, allowed amounts that were greater than zero, and whose payer and cost-sharing amount were equivalent to the allowed amount. Due to the large share of behavioral health claims paid via capitation, all claims from MGBHP are excluded from the analysis except for the exhibit **“Average commercial in-network allowed amounts for adult, in-person services provided by Master-Level clinicians payer, 2023”**. by Average prices by CPT code were computed by averaging the allowed amount for each service for the given unit in question. Any visits whose quantity was greater than one was adjusted to a rate for a quantity of 1 or removed from analysis. Price trimming was performed to remove extreme outliers at the 1<sup>st</sup> percentile and 99<sup>th</sup> percentile.

For each commercial BH visit, an overall rate by network status (in or out-of-network) and member age group (child (0-18), adult (19+)) was generated. HPC further stratified these rates by setting (in-person or telehealth) and by provider type (physicians (MDs), psychologists (PhDs), advance practice nurses (APRNs), or master’s level clinicians (MAs)). Telehealth status was determined by claims modifiers and/or site of service. Any incidence-to-billing claims were excluded.

For Medicare rates, the Boston-Metro area non-facility payment rate was reported. Medicare rates for psychologists, advanced practice nurses, and master’s level clinicians were generated from the percentage of charge reported by Medicare for physicians. HPC calculated Medicare rates for master’s level clinicians, advance practice nurses, and psychologists from reported Medicare MD rates (non-facility prices) for the Boston Metro Region under the 2023 Physician Fee Schedule (PFS). Medicare rates were calculated as follows using a percentage of the physician charge: master’s level clinicians (75%), advanced practice nurses (85%), and psychologists (100%). All Medicare rates were rates for services provided to adults.

For MassHealth rates, HPC received from MassHealth a listing that included fees for Community Mental Health Centers (CMHCs), non-facility services, and applied behavioral therapist services. CMHC rates were chosen by the HPC to represent the average MassHealth rate, as they were among the most common service setting for MassHealth enrollees seeking BH care in 2023. When the rates for each provider type were available, HPC reported the provider rate. When rates were not available with a specific provider, HPC reported only the non-facility rate. MassHealth used slightly different age groups for children and adults than the commercial insurers, with children being ages 0-21 for some services, and adults being over age 22.

## **Inpatient admission rates**

The HPC reported commercial inpatient facility and professional rates for the exhibits **“Average commercial allowed amount per diem for inpatient behavioral health stay by hospital type, 2023”** and **“Average commercial allowed amount per diem for adult BH inpatient stays in GAC and freestanding psychiatric hospitals, 2023”**.

The HPC constructed a dataset of adult and child inpatient stays in which all APCD claims were combined into inpatient stays based on member id, hospital id, and overlapping admission, discharge and service dates on the claims. The total payment for each discharge was defined as the total of allowed amounts for facility and professional claims associated with the discharge. Behavioral health inpatient stays were identified by primary diagnosis code.

The total price for an inpatient stay included both the facility and professional payments for services received during the stay, unless stated otherwise (e.g. “facility price”). Since each inpatient stay may vary in total services received (e.g., inpatient stay spending included both the facility DRG claim and any professional components delivered during the inpatient stay), this analysis refers to inpatient stay as price - even though each inpatient stay may be comprised of different services as it is part of one inpatient episode.

Using the total length of stay and total allowed amount, HPC generated a dataset of total inpatient days, and for each day, an average per diem payment per day. Extreme price outliers that were above 99th percentile of the median price or below 1<sup>st</sup> percentile of the median price were excluded from final analysis. From this dataset, HPC observed per-diem inpatient rates for general acute care (GAC) hospitals and non-acute care inpatient facilities (“hospitals”). Hospitals were identified as GAC by the percentage of admissions that fit GAC category. For exhibit **“Average commercial allowed amount per diem for adult BH inpatient stays in GAC and freestanding psychiatric hospitals, 2023”** a separate sub-analysis focused on adult encounters in GAC hospitals and free-standing psychiatric hospitals. Any facility with less than 30 encounter days was excluded from the sub-analysis.

## Residential treatment rates

The HPC reported commercial residential rates for the exhibits **“Average commercial allowed amounts per diem for adult detoxification treatment by facility type, 2023”** and **“Average commercial allowed amounts per diem for adult residential treatment by facility type, 2023”**.

The HPC constructed a dataset of adult residential stays in which all APCD claims were combined into a residential stay based on member id, hospital id, overlapping admission, and discharge and service dates on the claims. Only rates for adults were reported. The total payment for each discharge was defined as the total of allowed amounts for facility (Revenue Codes 1002 and 1001) and professional claims (Healthcare Common Procedure Coding System [HCPCS] H0010, H0011, H0017) associated with the stay. HPC reported on specific combinations of revenue and professional claims to distinguish between psychiatric or SUD residential visits.

The total price for a residential stay included both the facility and professional payments for services received during the stay, unless stated otherwise. Using the total length of stay and total allowed amount, HPC generated a dataset of total residential days, and for each day, an average per diem payment per day for each facility type. Facility types analyzed included general acute care hospitals, BH hospitals, SUD facilities, and other BH facilities. HPC only reported rates for GAC Hospitals, BH Hospitals, and SUD facilities. HPC excluded rates for other BH facilities as they were a mix of residential facility types including eating disorder clinics and rehabilitation centers. Each reported facility type was required to have rates for more than 30 encounter days to be reported. Extreme price outliers that were 10 times higher than median price or below 20% of the median price were excluded from final analysis.

## Partial Hospitalization Program and Intensive Outpatient rates

The HPC reported commercial partial hospitalization (PHP) and intensive outpatient (IOP) rates for the exhibits **“Average commercial allowed amounts per diem for in-network, in-person, adult PHP visits by facility, 2023”** and **“Allowed amounts per diem for in-network, in-person, adult IOP visits by facility and**

**payer, 2023**". The HPC also reported MassHealth's rate for adult intensive outpatient (H0015, S9480) per unit of service using data provided by MassHealth.

The HPC constructed a dataset of adult commercial PHP and IOP visits in which all APCD claims were combined into a visit based on member id, hospital id, overlapping admission, and discharge and service dates on the claims. Only rates for adults were reported. The total payment for each visit was defined as the total allowed amounts for facility (Revenue Codes 0905, 0906, 0912, 0913) and professional claims (HCPCS H0015, H0035, S0201, S9480) associated with the stay. HPC reported on specific combinations of revenue and professional claims to identify psychiatric or SUD visits and to better understand billing patterns. Any PHP or IOP professional claims without revenue codes were excluded.

The total price for a PHP or IOP visit was generated using total payments and total days billed for those payments. Often, payments were per day or per week. Using the total length of stay and total allowed amount, HPC generated a dataset of total PHP or IOP days, and for each day, an average per diem payment per day for each facility type. Facility types analyzed included general acute care hospitals, BH hospitals, SUD facilities, and other BH facilities. HPC only reported rates for GAC Hospitals, BH Hospitals, and SUD facilities. HPC excluded rates for other BH facilities as they were a mix of residential facility types including eating disorder clinics and rehabilitation centers. Each reported facility type was required to have rates for more than 30 encounter days to be reported. Extreme price outliers that were above 99<sup>th</sup> percentile of the median price or below 1<sup>st</sup> percentile of the median price were excluded from final analysis.

## Comparison of work-time equivalent rates

The HPC reported the differences in the rates paid to physicians for psychotherapy, office-visits, and low-intensity specialty medical care in the exhibit **"Adjusted allowed amounts per 30 minutes of work time for physicians, by visit type, commercial insurance, 2023"**. HPC also reported on the trends in rates paid to physicians for psychotherapy, office-visits and compared these trends over time to the Boston-Metro consumer price index (CPI) in the exhibit, **"Trends in commercial insurance adjusted allowed amounts per 30 minutes of work time for physicians by visit type and the consumer price index (2019-2023)"**.

For these exhibits, the HPC constructed a price index to compare the average price for a basket of common specialty procedures to the average price for 30 minutes of primary or behavioral health care delivered in ambulatory settings. For all calculations, the HPC excluded allowed amounts that were more than 10 times the statewide median or less than 20% of the statewide median for a given procedure code and site of service. The methods used for these rates are similar to those performed for the [2025 Cost Trends Report Primary Care and Behavioral Health Chartpack](#). However, for this analysis rates were limited to services performed by physicians.

To present a meaningful comparison of an "average" primary care services and behavioral health services, average prices for 99213 (20-minute E&M visit, established patient) and 90837 (60-minute individual psychotherapy session) are presented alongside the specialty service composite.

The basket of specialty services was identified by first identifying the 15 most common physician specialty types, excluding general practitioners, family practitioners, and pediatricians, by volume in the ambulatory claim file (based on the taxonomy code reported on the professional component of each claim). These specialties are as follows: allergy/immunology, anesthesiology, dermatology, emergency medicine, hospitalist, internal medicine, OB/GYN, ophthalmology, otolaryngology, pathology, physical medicine/rehab, psychiatry and neurology, radiology, surgery, and urology.

For each physician specialty, the HPC included the ten most common procedures (as identified using the RBCS taxonomy) that can be safely performed in either an office or hospital outpatient department (commonly referred to as “crossover services”) and excluded procedures with fewer than 300 claims across specialty types. Crossover services were identified using the ambulatory payment classification system groupings in the [June 2022 MedPAC report](#), Chapter 6 (“Aligning fee-for-service payment rates across ambulatory settings”). This restriction to crossover services is intended to exclude specialty services that require intensive equipment and technology. For example, common lower-acuity procedures such as destruction of benign skin lesions, diagnostic laryngoscopies, and nasal endoscopies were included, but higher-intensity services such as joint replacements, colonoscopies, and inpatient procedures were not.

To standardize comparisons between these procedures, average prices for each were scaled to 30-minute increments, using CMS physician work time estimates for 2025. The median pre-service, intra-service, and post-service work time estimates were identified for each procedure code of interest, and average allowed amounts were multiplied by the ratio of 30 minutes (the median pre-, intra- and post-service work time for 99213) to the sum of this value. For more details on these methods, please see [the Cost Trends Report Technical Appendix](#).