

**COMMONWEALTH OF MASSACHUSETTS**  
**HEALTH POLICY COMMISSION**

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**TECHNICAL APPENDIX B7**  
**BEHAVIORAL HEALTH**

**ADDENDUM TO 2014 COST TRENDS REPORT**

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## 1 Summary

This technical appendix describes the Health Policy Commission's (HPC) approach in calculating spending differentials between patients with and without behavioral health conditions.

## 2 Definition of behavioral health conditions

To determine each patient's clinical conditions, we used Optum's Symmetry Episode Risk Group (ERG) risk adjustment grouper. For technical specifications on Optum's ERG please refer to the "Health Status: Patient Risk Scores" section of the following technical appendix: <http://www.mass.gov/anf/docs/hpc/apcd-almanac-technical-notes.pdf>

Working together with clinical consultants, we refined Optum's ERG clinical conditions into 17 chronic conditions (arthritis, asthma, child psychology, blood, diabetes, epilepsy, glaucoma, cardiology, HIV/AIDS, hyperlipidemia, hypertension, mental health, multiple sclerosis (MS) and ALS (amyotrophic lateral sclerosis), psychiatric disorders, renal failure, mood disorders, and substance abuse). We categorized five of these conditions as behavioral health (child psychology, mental health, psychiatric disorders, mood disorders and substance abuse) and the remainder as chronic medical.

These condition indicators were used to identify patients with no behavioral health conditions and patients with one or more behavioral health conditions, as well as to identify the presence of chronic conditions.

## 3 Data

For analyses of the commercial population, we used data from the APCD for the three largest payers. For analyses of Medicare we also used data available via the APCD.

## 4 Analysis

In order to study spending on episodes of care by medical conditions, we used version 82 of Optum's Symmetry Episode Treatment Groups (ETG), which evaluates diagnosis codes as well as claim types to classify claim lines into related episodes of care for a patient throughout a single year of treatment. More information on Optum's ETG software can be found at: <https://www.optum.com/providers/analytics/health-plan-analytics/symmetry/symmetry-episode-treatment-groups.html>.

We used the 4-digit base class of the ETG to identify medical conditions. Average levels of spending for the two aforementioned subsets of patients (those with and without behavioral health conditions) were calculated by 4-digit ETG and by category of service, using 2011 Medicare and 2012 commercial claims. For detailed definitions of categories of service, see

CHIA and HPC publication, “Massachusetts Commercial Medical Care Spending,” released in July 2014.

The aggregate difference was calculated as the number of cases for people with at least 1 behavioral health condition times average difference in spending per episode of care between people with and without behavioral health (BH) conditions, among patients with at least one chronic medical condition.