Health Insurance Claims Analysis Guide for Employers

CDC Foundation: Building the Business Case for Hypertension Control

Prepared for the CDC Foundation by the Center for Healthcare Economics and Policy at FTI Consulting

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Developing The Business Case for Hypertension Control

Project Background

Roughly half of all adults in the United States (U.S.) have diagnosed or undiagnosed hypertension.[1] Among individuals with hypertension, only 48% have their blood pressure under control.[2, 6] Further, between 15% and 31% of workers in the U.S. workforce have hypertension, and the percent of people with hypertension increases with age. Of employees aged 45-64, 38% have hypertension, and of employees over 65, 57% have hypertension.[1,2-6] Employees with hypertension had 32% higher healthcare costs, including total medical and pharmacy costs, deductibles, copayments, and coinsurance, compared to employees without hypertension.[7]

Given the amount of time employed adults spend at work and employers' role in providing healthcare coverage, employers are uniquely positioned to improve hypertension control in their employee populations. The CDC Foundation has created a toolkit to support employers who want to better understand hypertension and its impact in their workforce and use the information to design and implement changes including health benefit design and wellbeing programs.

This toolkit provides key insights about hypertension for four key categories of data and information as shown in **Figure 1**.

*Figure 1: **Toolkit Data on Hypertension***
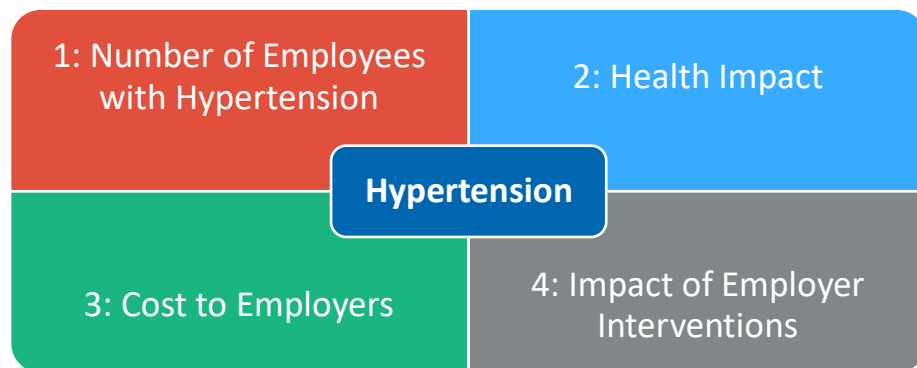
The toolkit supplements the general information about hypertension in the employee population from previous research with two specific tools for understanding *employer-specific* impact of hypertension:

1. **Budget Impact Model (BIM).** Employers can enter basic information about their workforce (number of employees, industry, and more granular data, if desired) and estimate the cost of hypertension for their workforce. The BIM supplements general hypertension data with estimates of employer-specific costs in data category 3 (e.g., productivity and medical costs).

2. **Claims Analysis Guide.** Employers can analyze their own data to understand the number of employees with hypertension, the health impact, and healthcare utilization and costs of hypertension to employers. This guide supplements general hypertension data with employer-specific information in categories 1, 2, and 3.
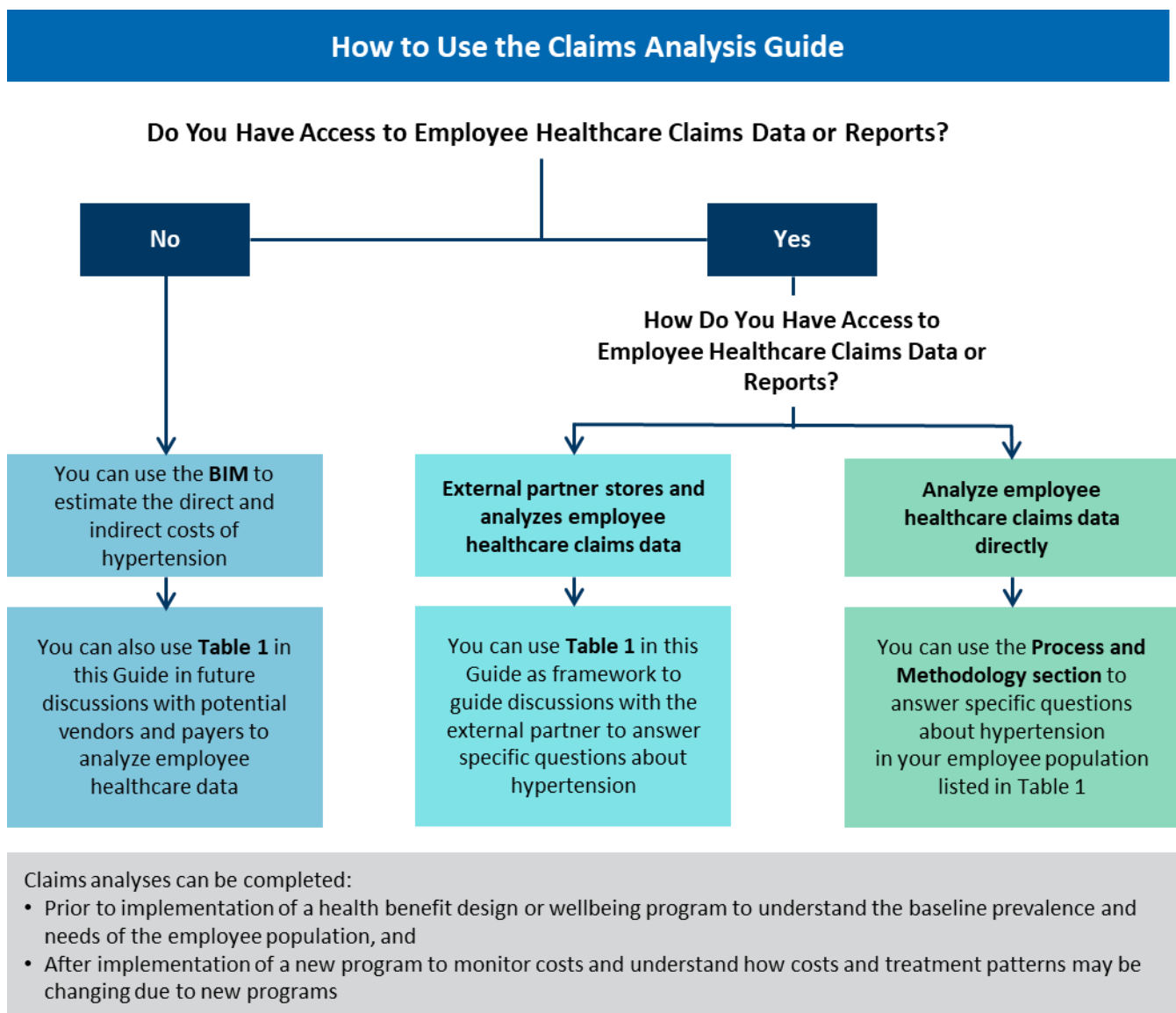
Both the BIM and the Claims Analysis Guide can provide data to motivate and support action such as health benefit design and employee wellbeing programs to manage hypertension control and costs among employees and their dependents.

Claims Analysis Guide: Overview

How to Use the Claims Analysis Guide

This Claims Analysis Guide provides a framework for employers to see how claims data can help them understand how hypertension affects their workforce. Given the variation in employers' experience with claims data, employers may use this guide in different ways (see **Figure 2**).

Figure 2. **How to Use the Claims Analysis Guide**

How to Use the Claims Analysis Guide

Do You Have Access to Employee Healthcare Claims Data or Reports?

No / **Yes**

How Do You Have Access to Employee Healthcare Claims Data or Reports?

You can use the **BIM** to estimate the direct and indirect costs of hypertension

You can also use **Table 1** in this Guide in future discussions with potential vendors and payers to analyze employee healthcare data

External partner stores and analyzes employee healthcare claims data

You can use **Table 1** in this Guide as framework to guide discussions with the external partner to answer specific questions about hypertension

Analyze employee healthcare claims data directly

You can use the **Process and Methodology section** to answer specific questions about hypertension in your employee population listed in Table 1

Claims analyses can be completed:
- Prior to implementation of a health benefit design or wellbeing program to understand the baseline prevalence and needs of the employee population, and
- After implementation of a new program to monitor costs and understand how costs and treatment patterns may be changing due to new programs

Data to Support Decision Making

This guide is organized based on three key questions that employers can ask to obtain *data to inform decision making* on workforce hypertension control (see **Table 1**). These questions can be answered using claims data for the employees and dependents (referred as employees below) who are covered by the employer health plan.

Question 1: How many employees have hypertension?
- Provides data points for decision making including current number of employees with hypertension and number of employees newly diagnosed.

Question 2: What are the costs related to hypertension?
- Provides detailed insights on hypertension-related direct medical costs broken out by various categories such as age group, race/ethnicity, type of care (e.g., inpatient hospitalization, physician office visit), treatment category, and neighborhood characteristics as measured by the Social Deprivation Index (SDI).[8]

Question 3: How many employees are treated with medication for hypertension?
- Provides data on hypertension treatment and adherence as measured by proportion days covered (PDC).[9]

Table 1: Key Questions to Support Data-Driven Decision Making

Employees with Hypertension

Question	Decision Data Point
1. Of individuals currently employed by your organization, what number and percent have been diagnosed with hypertension to date?	**Number and Percent** of current employees diagnosed with hypertension to date.
1A. Of individuals currently employed by your organization, what number and percent are newly diagnosed with hypertension each year?	**Number and Percent** of current employees newly diagnosed with hypertension each year.
1B. Of individuals who are no longer employed by your organization, what number and percent who left the organization in the past year have been diagnosed with hypertension?	**Number and Percent** of employees diagnosed with hypertension who have left the employer in the past year.

💵 Hypertension Costs

> **Key Decision Data Point**: Per-Member-Per-Month (PMPM) or Per-Member-Per-Year (PMPY)
>
> Health insurance companies and employers that offer healthcare benefits often calculate PMPM or PMPY to determine the average cost of healthcare for each of their members or covered employees. These estimates also help companies estimate how much each individual member should be charged for coverage. All cost estimates here are provided in terms of PMPY medical costs to provide a uniform basis for comparison across the various categories. See more under Key Terms.

Question	Decision Data Point
2. What are the per-employee, per-year direct medical costs for employees diagnosed with hypertension compared to those without hypertension?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees diagnosed with hypertension and for employees without hypertension.
2A. How do the per-employee, per-year hypertension-related direct medical costs vary among the following age groups: 18-49, 50-64, and 65+?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees diagnosed with hypertension between the ages of 18-49, 50-64, and 65+.
2B. How do the per-employee, per-year hypertension-related direct medical costs vary among race/ethnicity categories of interest?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees diagnosed with hypertension for race/ethnicity categories of interest.
2C. What are per-employee, per-year hypertension-related direct medical costs for the following service lines: Emergency Department (ED), Inpatient, and Outpatient?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees diagnosed with hypertension for the following service line categories: Emergency Department, Inpatient, and Outpatient.
2D. How do the per-employee, per-year hypertension-related direct medical costs vary by employees who are treated and untreated for hypertension?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees diagnosed with hypertension who are both treated and untreated for the disease.
2E. How do the per-employee, per-year hypertension-related direct medical costs vary by characteristic of the areas in which residents live - low, medium, and high Social Deprivation?	**Per-Member-Per-Year (PMPY) Direct Medical Costs** for employees residing in areas associated with a low, medium, and high SDI.

Hypertension Treatment

Question	Decision Data Point
3. Of employees diagnosed with hypertension, how many were treated with medication in the past year?	**Number and percent of Employees** diagnosed with hypertension who were treated with medication in the past year.
3A. Of employees treated for hypertension, how many adhere to their treatment plan as measured by the Proportion of Days Covered (PDC)?	**Number and percent of Employees** diagnosed with hypertension who adhere to their treatment plans, as measured by a PDC of 80% or greater.

The data points above can be used to create dashboards to identify key metrics, set priorities, or track metrics over time.

Conclusion

Hypertension among U.S. adults continues to be an important issue for employers and their employees in terms of employee wellbeing and productivity. Employers are in a unique position to help improve hypertension control among their employees by developing interventions to prevent and/or manage their high blood pressure.

This Claims Analysis Guide can provide employers with a useful tool to quantify the impact of hypertension and gain a better understanding of health and cost outcomes among their employees, including the types of key questions discussed in this document.

Claims Analysis Guide: Overview of Health Insurance Claims

Commercial health insurance claims are maintained and stored by private health plans (payers) as large, highly secure data tables, and reflect the claims submitted by providers to payers on a patient's behalf to be reimbursed for provided healthcare services. The data can be organized in various ways depending on the payer organization that insures employees under what is known as a Group Health Plan (GHP).[10] These tables contain demographic, clinical, and payment information for patients that have engaged with the healthcare system (e.g., primary care physician, specialist, ED, outpatient clinic visit). Pharmacy claims are submitted for patients filling a medication prescription from a provider at a pharmacy. Claims data include demographic and clinical parameters with individual information about each patient that uses her or his health insurance plan to receive care from a medical professional (see Error! Reference source not found.). Employers can leverage historical data maintained by commercial payers aggregated across individuals to measure hypertension-related costs and service utilization for their employee populations by each parameter.

Table 2: *Patient Demographic and Clinical Parameters Found in Claims Data*

Parameter Type	Parameter Name
Demographic Parameters	Age
	Sex
	City
	State
	Zip Code
	Race / Ethnicity
Clinical Parameters	Medication
	Disease Conditions
	Lab Test Indicators
	Therapeutic Classes
	Emergency Department (ED) Visits
	Medical Procedures and Tests
	Primary Care Physician (PCP) Visits

Claims Analysis Guide: Quantifying Hypertension Impact

This section is a guide for employers, or third parties on their behalf, to seek and obtain answers for each of the key questions described in **Table 1** above. The term employer refers to an employer or others developing data and conducting analyses on their behalf.

Claims data and its use and reporting are subject to many regulatory, privacy, and other limitations that are not addressed in this high-level framework. This guide is framed to show the range of data available for employers to understand the key questions of interest, actual practice and use would be subject to relevant restrictions, including aggregation of data.

Process and Methodology: Generating Decision Data Points from Key Questions 1, 2, and 3

Below are a set of steps that describe the relevant data and analytic concepts for answering each of the three key questions. Note the analyses can be executed only for employees who are covered under the organization's health plan and their dependents. Analyses could focus only on covered employees, covered dependents, or all covered lives (employees plus dependents). In the following section we refer to "employees" for ease of exposition.

👥 Decision Data Point: Employees with Hypertension

Question 1: *Of individuals currently employed by your organization, what percent have been diagnosed with hypertension to date?*

(1) **Step 1:** Identify current employees and flag those who have at least one prior claim with a hypertension diagnosis as defined by the ICD-10-CM codes listed in **Table 2** at the end of this guide.

(2) **Step 2:** Count the number of unique employees flagged in Step 1 above. This represents the number of current employees with hypertension.

(3) **Step 3:** Divide the number in Step 2 by the total number of current employees to calculate the percent of employees diagnosed with hypertension to date.

> Result: **Number and percent** of currently covered employees diagnosed with hypertension to date.

Question 1A: *Of individuals currently employed by your organization, what percent are newly diagnosed with hypertension each year?*

(1) **Step 1:** Identify current employees and choose the analysis year of claims that will be used to quantify the percent of employees newly diagnosed with hypertension.

(2) **Step 2:** Using claims from the analysis year and prior years, remove employees and associated claims who were diagnosed with hypertension (defined by the ICD-10-CM codes in **Table 2**) prior to the beginning of the analysis year selected. This process allows the user to isolate claims records for employees who are *newly diagnosed* within the analysis year.

(3) Step 3: Within the analysis year selected, identify the employees who have at least one claim with a hypertension diagnosis as defined by the ICD-10-CM codes in **Table 2**.

(4) Step 4: Divide the number in Step 3 by the total number of current employees to calculate the percent of employees newly diagnosed with hypertension within the analysis year selected.

> Result: **Number and percent** of currently covered employees with a new hypertension diagnosis each year.

Question 1B: *Of individuals who are no longer employed by your organization, what percent who left the organization in the past year have been diagnosed with hypertension?*

(1) Step 1: Using an external file that contains employee IDs associated with employees who have left the employer, isolate the claims records associated with employees who have left the organization within the past year.

(2) Step 2: Use the subset of claims records identified in Step 1 to isolate the claim records with the appropriate diagnosis (ICD-10-CM) codes for hypertension in **Table 2**.

(3) Step 3: Count the number of unique employees included in the subset of claims records identified in Step 2.

(4) Step 4: Divide the number in Step 3 by the total number of unique employees who have left the organization within the past year to calculate the percent of employees diagnosed with hypertension who have left the employer in the past year.

> Result: **Number and percent** of covered employees diagnosed with hypertension who have left the employer in the past year.

💳 Decision Data Point: Hypertension Costs

Question 2: *What are the per-employee, per-year direct medical costs for employees diagnosed with hypertension compared to those without hypertension?*

(1) Step 1: Identify employees **who do have** at least one ICD-10-CM diagnosis code for hypertension on their associated claims and identify employees **who do not have** any ICD-10-CM diagnosis codes for hypertension on their associated claims.

(2) Step 2: Aggregate direct medical expenditures for (1) those employees **with** at least one ICD-10-CM diagnosis code for hypertension, and (2) for those employees **without** any ICD-10-CM diagnosis codes for hypertension.

(3) Step 3: Calculate the number of *member-years* for employees **with** and **without** at least one ICD-10-CM diagnosis code for hypertension. This can be accomplished by summing the number of days each employee is enrolled in a GHP during the enrollment year and dividing this sum by 365, separately for employees with and without hypertension. The *member-year* is a fractional value that accounts for an employee's partial enrollment throughout an enrollment year.

(4) Step 4: Separately for employees **with** and **without** an ICD-10-CM diagnosis code for hypertension, divide the aggregated direct medical expenditures produced in Step 2 by the *member-year* values produced in Step 3 to calculate per-member, per-year (PMPY) direct medical expenditures.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for currently covered employees with and without hypertension.

Question 2A: *How do the per-employee, per-year hypertension-related direct medical costs vary among the following age groups: 18-49, 50-64, and 65+?*

(1) Step 1: Using the list of diagnosis codes in **Table 2**, identify employees who have at least one ICD-10-CM diagnosis code for hypertension on their associated claims.

(2) Step 2: Create a new variable that groups each employees' age into one of the three age groupings: 18-49, 50-64, and 65+.

(3) Step 3: Aggregate direct medical expenditures for all employees in this subset of claims produced in Step 1 by each of the three age groupings noted in Step 2.

(4) Step 4: Similar to Step 3 in *Question 2* above, sum the number of *member-years* for each employee and by each of the three age groupings noted in Step 2.

(5) Step 5: For each age grouping, calculate PMPY values for each age grouping by dividing the aggregated expenditures from Step 3 into the respective, summed *member-year* values for each age grouping from Step 4.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for currently covered employees diagnosed with hypertension by age category (18-49, 50-64, and 65+).

Question 2B: *How do the per-employee, per-year hypertension-related direct medical costs vary among select race/ethnicity categories?*

(1) Step 1: Repeat Step 1 through Step 4 under *Question 2A* above, using each employee's race/ethnicity category of interest instead of age grouping.

(2) Step 2: Similar to Step 5 in *Question 2A* above, using each employees' race/ethnicity category of interest, calculate PMPY values by dividing aggregated expenditures into the respective, summed *member-year* values for each race/ethnicity category of interest.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for currently covered employees diagnosed with hypertension by race/ethnicity categories of interest.

Question 2C: *What are per-employee, per-year hypertension-related direct medical costs for the following service lines: ED, Inpatient, and Outpatient?*

    (1) Step 1: Repeat Step 1 through Step 4 under *Question 2A* above, using each employee's service line categories instead of age grouping.

    (2) Step 2: Similar to Step 5 in *Question 2A* above, using the claim type on employees' claim records that identifies the service line category associated with the claim, calculate PMPY values by dividing aggregated expenditures into the respective, summed *member-year* values for each service line category: ED, Inpatient, and Outpatient.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for currently covered employees diagnosed with hypertension for the following service line categories: ED, Inpatient, and Outpatient.

Question 2D: *How do the per-employee, per-year hypertension-related direct medical costs vary by employees who are treated and untreated for hypertension?*

    (1) Step 1: Using the list of diagnosis codes in **Table 2**, identify employees who have at least one ICD-10-CM diagnosis code for hypertension on their associated claims and generate a list of unique employees from this subset of claims records.

    (2) Step 2: Identify pharmacy claim records for the list of unique employees generated in Step 1 to produce the universe of pharmacy claim records for employees who have been diagnosed with hypertension.

    (3) Step 3: For the unique employees in the subset produced in Step 2, isolate the pharmacy claim records **that indicate** that a medication to treat hypertension was dispensed from a pharmacy to an employee. This subset will be known as the **Treated Group**. Then, isolate the pharmacy claim records for unique employees **that do not indicate** that a medication to treat hypertension was dispensed. This will be known as the **Untreated Group**.

    (4) Step 4: Generate a new list of unique employees for both the **Treated Group** and **Untreated Group** produced in Step 3 and identify two new sets of claims records: (1) one that includes claims records for the **Treated Group** of employees, and (2) one that includes claims records for the **Untreated Group** of employees.

    (5) Step 5: Repeat Steps 3 and 4 under *Question 2A* above for both the **Treated Group** and the **Untreated Group**.

    (6) Step 6: Calculate PMPY values by dividing the aggregated expenditures for the **Treated Group** and the **Untreated Group** by the respective, summed *member-year* values for the **Treated Group** and the **Untreated Group**.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for treated and untreated currently covered employees diagnosed with hypertension.

Question 2E: *How do the per-employee, per-year hypertension-related direct medical costs vary by characteristic of the areas in which residents live - low, medium, and high Social Deprivation?*

(1) **Step 1:** Using the list of diagnosis codes in **Table 2**, identify employees who have at least one ICD-10-CM diagnosis code for hypertension on their associated claims.

(2) **Step 2:** Download the Social Deprivation Index (SDI)[7] Score by zip code. Merge the SDI Score onto the list of employees with hypertension by zip code.

(3) **Step 3:** Create a new SDI grouping variable defined as low for SDI Scores of 0-33, medium for SDI Scores of 34-66, and high for SDI Scores of 67-100.

(4) **Step 4:** Merge the dataset of the list of employees with hypertension and the associated SDI grouping variable with the claims files containing direct medical costs. Sum the direct medical costs by SDI grouping.

(5) **Step 5:** Calculate the number of *member-years* for employees with hypertension in each SDI grouping. This can be accomplished by summing the number of days each employee is enrolled in a GHP during the enrollment year and dividing this sum by 365, separately for employees in each SDI grouping.

(6) **Step 6:** Similar to Step 5 in *Question 2A* above, using each of the three SDI groupings, calculate PMPY values by dividing aggregated expenditures into the respective, summed *member-year* values for each SDI grouping.

> Result: **Per-Member-Per-Year (PMPY) direct medical costs** for currently covered employees residing in areas with a low, medium, and high SDI.

Decision Data Point: Hypertension Treatment

Question 3: *Of employees diagnosed with hypertension, how many employees were treated with medication in the past year?*

(1) **Step 1:** Using the list of diagnosis codes in **Table 2**, identify employees who have at least one ICD-10-CM diagnosis code for hypertension on their associated claims. Generate a list of unique employees from this subset of claims records.

(2) **Step 2:** Identify pharmacy claim records for the list of unique employees generated in Step 1 to produce the universe of pharmacy claim records for employees who have been diagnosed with hypertension.

(3) **Step 3:** Identify the pharmacy claim records **that indicate** that a medication to treat hypertension was dispensed from a pharmacy to an employee. Medications to treat hypertension can be identified through **Therapeutic Sub-Class Codes** related to **Vasodilators**.[12, 13] This subset will be known as the **Treated Group**.

(4) **Step 4:** Count the number of unique employees in the **Treated Group** identified in Step 3 to calculate the number of employees diagnosed with hypertension who have also been treated through medication.

> Result: **Number and percent** of currently covered employees diagnosed with hypertension who were treated with medication in the past year.

Question 3A: *Of employees treated for hypertension, how many adhere to their treatment plan as measured by the Proportion of Days Covered (PDC)? Note: Medication adherence is defined as a PDC of ≥ 80%.*

(1) Step 1: Repeat Step 1, Step 2, and Step 3 under *Question 3* above.

(2) Step 2: Within this subset of pharmacy claim records, determine each unique employee's treatment period for each corresponding pharmacy claim record, which is defined as the length of time between when a prescription was filled and the end of the analysis year, until disenrollment, or until death, whichever occurs first. This calculated field will be known as the **Number of Treatment Days**.

(3) Step 3: Within the treatment period for each unique employee**,** count the number of days that an employee was covered by at least one medication used to treat hypertension. This calculation will be known as the **Number of Covered Days**.

(4) Step 4: Divide the **Number of Covered Days** calculated in Step 3 by the **Number of Treatment Days** calculated in Step 2 to obtain the *Proportion of Covered Days (PDC)* for each unique employee. This calculated field will be known as the **PDC Percent**.

(5) Step 5: Use the **PDC Percent** to count the number of unique employees in this subset of pharmacy claims who had a PDC of 80% or greater. This threshold indicates which employees diagnosed with hypertension have adhered to their treatment plan.

> Result: **Number and percent** of currently covered employees diagnosed with hypertension who adhere to their treatment plans, as measured by a PDC of 80% or greater.

Appendix 1: Diagnosis Code Categories and Definitions

Diagnosis Code Classification

International Classification of Disease (ICD-10-CM) Codes[11] are used to identify individual patients with hypertension. The diagnosis field, commonly denoted by "DX," is generally present on the majority of commercial claims data types. The diagnosis coding classification system in use today, ICD-10-CM codes, are all alpha-numeric codes that contain between three (3) and seven (7) positions, with a decimal after the third position that separates the overall disease condition from the disease sub-categories. For example, "Hypertensive Heart Disease with Heart Failure" has an ICD-10-CM code of I11.0, where the first three positions of the code denote the overall disease condition and the positions after the decimal, or modifier positions, denote the sub-category of the disease.[14]

Table 2. Diagnosis Codes to Identify Hypertension

ICD-10-CM Diagnosis Codes [14]	Diagnosis Code Definition
I10	Essential (Primary) Hypertension
I11	Hypertensive Heart Disease
I11.0	Hypertensive Heart Disease with Heart Failure
I11.9	Hypertensive Heart Disease without Heart Failure
I12	Hypertensive Chronic Kidney Disease
I12.0	Hypertensive Chronic Kidney Disease (CKD) with Stage 5 Chronic Kidney Disease (CKD) or End-Stage Renal Disease (ERSD)
I12.9	Hypertensive Chronic Kidney Disease (CKD) with Stage 1 Through Stage 4 Chronic Kidney Disease (CKD), or Unspecified Chronic Kidney Disease (CKD)
I13	Hypertensive Heart and Chronic Kidney Disease
I13.0	Hypertensive Heart and Chronic Kidney Disease (CKD) with Heart Failure and Stage 1 Through Stage 4 Chronic Kidney Disease (CKD), or Unspecified Chronic Kidney Disease (CKD)
I13.1	Hypertensive Heart and Chronic Kidney Disease without Heart Failure
I13.2	Hypertensive Heart and Chronic Kidney Disease (CKD) with Heart Failure and with Stage 5 Chronic Kidney Disease (CKD), or End-Stage Renal Disease (ERSD)
I15	Secondary Hypertension
I15.0	Renovascular Hypertension
I15.1	Hypertension Secondary to Other Renal Disorders
I15.2	Hypertension Secondary to Endocrine Disorders
I15.8	Other Secondary Hypertension
I15.9	Secondary Hypertension, Unspecified
I67.4	Hypertensive Encephalopathy

Key Terms

Social Deprivation Index (SDI): The SDI is a measure of the levels of advantage and disadvantage across ZIP codes and other small geographic areas and is calculated from demographic characteristics from the American Community Survey. The measures include percent living in poverty, percent with less than 12 years of education, percent single-parent households, the percentage living in rented housing units, the percentage living in the overcrowded housing unit, percent of households without a car, and percentage nonemployed adults under 65 years of age.[7]

Proportion Days Covered (PDC): The PDC is a measure of medication adherence, or the extent to which a patient takes their medication as prescribed. It is calculated by taking the number of days in a given period and assessing for what portion of those days did the patient have their medication available to them. Medication availability is based on the dates of prescription fills and the associated quantity of the drug in the given fill (e.g., 30-day supply, 60-day supply). Patients are considered adherent, or taking their medication properly, if the PDC measure is 80% or higher, meaning the patient had the prescribed drug in their possession for 80% or more of the days in the relevant time period.[9]

Per-Member Per-Year (PMPY): Health care costs are often measured on a per-member per-year basis to account for members who are not enrolled in a healthcare plan for a full year. The PMPY healthcare costs are calculated by summing the total annual healthcare costs across a population and dividing by the number of member-years. If all members were enrolled in a plan for the full year, the PMPY would be equivalent to dividing the total annual healthcare costs by the number of members.

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