

Grant Thornton LLP

Cost of Dispensing Study

An independent comparative analysis of U.S. prescription dispensing costs

January 2007

Grant Thornton 



Commissioned by:



COALITION *for* COMMUNITY
PHARMACY ACTION

NATIONAL COST OF DISPENSING (COD) STUDY
FINAL REPORT
JANUARY 26, 2007

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I. Executive Summary

A. Objective and Overview of the National Cost of Dispensing Study

Grant Thornton LLP was engaged by the Institute for the Advancement of Community Pharmacy (IACP), doing business as the Coalition for Community Pharmacy Action (CCPA) on behalf of the National Association of Chain Drug Stores (NACDS) and the National Community Pharmacists Association (NCPA), to perform an independent study to identify and quantify the costs incurred by pharmacies across the United States in dispensing prescriptions. The primary purpose of the study was to provide a comparative analysis of dispensing costs across all states and types of payers, including Medicaid. To perform this study, Grant Thornton partnered with The MPI Group.

Data were submitted for over 24,400 pharmacies, of which 23,152 provided complete and usable data and are included in the computations shown in this report. The survey requested data for the six months from March through August of 2006, a period selected to avoid any unusual, one-time expenses that some pharmacies may have incurred during the implementation of Medicare Part D. The 23,152 pharmacies reported filling more than 832 million prescriptions during this time, of which over 65 million – or 7.8% – were paid by Medicaid. National computations include data from all states.

The Cost of Dispensing Model uses five cost elements, which are explained in detail in the full report:

- Prescription department salaries and benefits
- Other prescription department costs
- Facilities costs
- Other store/location costs
- Allocated corporate overhead, where applicable

The overall cost of dispensing for all prescriptions reported by the pharmacies was computed first. The cost of dispensing specific to Medicaid prescriptions was then calculated by adjusting the overall COD to reflect differences in time required to fill Medicaid prescriptions, as reported by pharmacists, and the interest costs associated with carrying Medicaid receivables.

This report focuses on four views of the overall COD and the Medicaid COD:

- Cost of dispensing on a per-prescription basis.
- Cost of dispensing on a per-store basis (that is, every store is counted equally, regardless of its prescription volume).
- Cost of dispensing for prescriptions filled by stores in rural locations and in urban locations.
- Cost of dispensing on a per-prescription basis and a per-store basis by state.

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The full report provides detailed information about development of the survey instrument, distribution and tabulation of surveys, review of the data, confidentiality considerations, and the computational model for determining the cost of dispensing.

It should be noted that Grant Thornton did not conduct an audit of these data. Accordingly, with the publication of this report, our findings are not to be understood to express an audit or limited assurance opinion in accordance with auditing standards generally accepted in the United States of America.

B. Summary of Findings

Most charts in the report show cost of dispensing (COD) in two ways – per prescription and per pharmacy. One reason these numbers can vary significantly is that high-volume pharmacies typically have a lower COD than low-volume pharmacies. Therefore, the COD per prescription can be lower than the COD per pharmacy because lower-cost prescriptions make up a larger proportion of the population used to compute the COD. On the other hand, the COD per pharmacy treats every pharmacy equally, regardless of its prescription volume; a lower-volume, higher-cost pharmacy has the same impact on the COD per pharmacy as a higher-volume, lower-cost pharmacy. The COD per pharmacy provides the reader with information about the costs of the stores, regardless of how many prescriptions each one dispensed.

The overall COD was calculated for more than 832 million prescriptions dispensed by 23,152 pharmacies in all 50 states, the District of Columbia and Puerto Rico. The average (mean) overall COD per prescription was \$10.50; the average overall COD per pharmacy was \$12.10. This difference indicates there are substantial variations in the number of prescriptions filled per pharmacy and that pharmacies with the greatest volume of prescriptions have significantly lower dispensing costs compared with pharmacies with the lowest volumes. It is apparent that total prescription volume is a key variable related to a pharmacy’s cost of dispensing.

Overall Cost of Dispensing					
	Frequency	Mean ³	Median ⁴	25 th Percentile ⁵	75 th Percentile ⁵
COD per prescription ¹	832,377,163	\$10.50	\$9.86	\$8.48	\$11.70
COD per pharmacy ²	23,152	\$12.10	\$10.86	\$9.07	\$13.50

- ¹. Weighted data by volume of prescriptions; each prescription COD as one value (i.e., a pharmacy with 5,000 prescriptions has 5,000 values in the array of COD data).
- ². Unweighted data; each pharmacy’s COD as one value, regardless of the pharmacy’s prescription volume.
- ³. Mean is the average value
- ⁴. Median is the midpoint value of responses
- ⁵. Percentiles: The 25th percentile is the value below which 25% of responses fall. The 75th percentile is the value below which 75% of responses fall.

The Medicaid cost of dispensing was similarly computed for more than 65 million prescriptions filled by the 22,123 pharmacies that reported Medicaid prescriptions and for which a Medicaid COD could be computed. The national average COD was \$10.51 per prescription and \$12.81 per pharmacy. The average COD for Medicaid prescriptions does not differ significantly from the overall COD shown in the table above. However, the Medicaid COD per pharmacy is \$0.71 higher

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than the overall COD per pharmacy, suggesting that lower-cost, higher-volume pharmacies fill a disproportionately greater percentage of Medicaid prescriptions. As noted below, this may also be affected by lower-cost rural pharmacies' filling more Medicaid prescriptions than urban stores on a per-pharmacy basis.

Medicaid Cost of Dispensing					
	Frequency	Mean	Median	25th Percentile	75th Percentile
Medicaid COD per prescription ¹	65,037,250	\$10.51	\$9.87	\$8.52	\$11.62
Medicaid COD per pharmacy ²	22,123 ³	\$12.81	\$11.22	\$9.36	\$14.06

- ¹ Weighted data by volume of Medicaid prescriptions for which a Medicaid COD could be computed; each Medicaid prescription COD as one value.
- ² Unweighted data; each pharmacy's Medicaid COD as one value, regardless of its Medicaid prescription volume.
- ³ 1,029 pharmacies reported no Medicaid prescription volume and/or did not provide sufficient information to compute a Medicaid COD.

Of the 23,152 pharmacies in the database, 19,811 were classified as urban and 3,185 as rural by matching the stores' zip codes with Metropolitan Statistical Areas (156 pharmacies could not be classified by MSA). Rural stores' overall COD and Medicaid COD, per prescription, were approximately 8% below the COD's of urban pharmacies, but the overall prescription volume, per store, was about the same for both the urban and rural pharmacies. On the other hand, rural pharmacies filled 55% more Medicaid prescriptions per store than urban pharmacies. The majority of the 8% difference in COD between urban and rural pharmacies with comparable prescription volumes appears to be caused by lower payroll costs in rural stores.

Survey respondents were asked to estimate the average work time for all activities required to dispense a prescription for each type of payer – Medicaid, Medicare Part D plans, other third-party plans, and customers with no third-party payer. Survey respondents for which a Medicaid COD could be computed reported that, on average, prescriptions paid by Medicare Part D are the most time-consuming (12.5 minutes), followed by Medicaid (11.7 minutes), other third-party payers (10.6 minutes) and prescriptions paid directly by customers (8.7 minutes).

Similarly, the survey asked respondents to report the average time to receive payment for Medicaid, other third-party (including Medicare Part D), and customer-paid prescriptions. The responses for Medicaid varied significantly from one state to another, but on average, the pharmacies reported receiving payment from Medicaid 19.9 days after billing, compared with 23.7 days for other third parties (including Medicare Part D). On a state-by-state basis, the survey shows that Medicaid programs' days to pay range from a high of 50.6 days average (30 days median) in Illinois to a low of 9.9 days average (10 days median) in Texas. The COD model used in this study added approximately \$.01 per day to the COD for each day payment was outstanding, based on the average prescription selling price and interest rates applicable during the study period.

The full report, for which this is the Executive Summary, presents more detailed data nationally and for most states. State-level information for Alaska, the District of Columbia, Hawaii, Maine, North Dakota, and Puerto Rico is omitted, either because the number of pharmacies for which complete data were submitted was very small or due to confidentiality concerns if the data were presented fully.

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II. Cost of Dispensing Study Methodology

A. Overview

Grant Thornton LLP was engaged by the Institute for the Advancement of Community Pharmacy (IACP), doing business as the Coalition for Community Pharmacy Action (CCPA) on behalf of the National Association of Chain Drug Stores (NACDS) and the National Community Pharmacists Association (NCPA), to perform an independent study to identify and quantify the costs incurred by pharmacies across the United States in dispensing prescriptions. The primary purpose of the study was to provide a comparative analysis of dispensing costs by considering different states, population densities, and types of payers, including Medicaid. To perform this study, Grant Thornton partnered with The MPI Group.

B. Survey Development

The 2006 National Cost of Dispensing (COD) Study focused on collecting the actual costs incurred by community retail pharmacies that were related to dispensing prescription drugs. Data were gathered to identify costs that could be dependent on the type of payer, including Medicaid, and encompassed both independent and chain retail pharmacies across all states. In designing the study, Grant Thornton and The MPI Group performed the following steps:

1. Analyzed prior studies performed at the request of state agencies to ensure that the methodology would be compatible with the needs of the state agencies.
2. Interviewed members of an Expert Panel assembled by the CCPA to provide Grant Thornton with the perspective of experienced academics and state Medicaid program experts. This panel also reviewed the first draft of this report and provided feedback. The members of the panel were:

David Kreling, Ph.D.
Professor, Social and Administrative Pharmacy Division
University of Wisconsin, School of Pharmacy

George L. Oestreich, PharmD, MPA
Deputy Division Director, Clinical Services
Missouri Department of Social Services, Division of Medical Services

Ann E. Rugg, Deputy Director
Office of Vermont Health Access
Agency of Human Services
State of Vermont

Michael T. Rupp, Ph.D.
Managing Partner, Desert Mentors LLC/PharmAccount
Midwestern University, College of Pharmacy

Jude Walsh, Special Assistant
Governor's Office of Health Policy and Finance
State of Maine

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3. Visited several pharmacies, including an independent pharmacy, an 11–store regional chain, pharmacies from large chains with over 1,000 stores and a closed-door pharmacy serving only long-term care facilities.
4. Drafted a pilot survey for collecting the data required for computing the cost of dispensing. Pharmacies from several regions of the United States, including chain drug stores and independent pharmacies, responded to the pilot survey. Suggestions from the pilot participants, including ways to clarify questions, minimize reporting requirements or improve accuracy, were then incorporated into the final survey instrument.
5. Created a spreadsheet version of the survey instrument that could be used by retail pharmacy chains that were reporting data for multiple locations.
6. Developed an online survey.
7. Developed the mathematical model for computing the cost of dispensing.

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C. Distribution and Tabulation of Surveys

After the design of the survey was completed, the survey was distributed starting on October 8, 2006. NCPA provided hard-copy surveys to a portion of its membership at the 108th NCPA Annual Meeting held during October 7-11, 2006. NACDS and NCPA, who represent the retail pharmacies operating in the United States, notified their membership, as well as retail pharmacy chains who are not members, of the COD study.

On October 17, the NACDS emailed to its members a letter encouraging participation in the COD Study, the COD Study questionnaire, a COD Study instruction sheet and a spreadsheet that enabled organizations to submit data on multiple pharmacies in one electronic document. On the same day, NCPA also emailed to its members a letter encouraging participation along with the COD Study questionnaire, the COD Study instruction sheet, and a Web link that enabled respondents to participate via an online survey.

Results from the 2006 COD Study were fielded through November 29, 2006. Options for completing the survey were provided to the respondents:

1. The survey could be accessed and completed on-line for each individual store.
2. The survey could be completed and mailed or faxed for each individual store.
3. A spreadsheet version for reporting multiple stores within a group could be completed and sent electronically.

In total, the spreadsheet version of the survey was used by 39 organizations with more than one pharmacy to submit data on 23,382 pharmacies. There were 1,042 surveys submitted by individual pharmacies using mail, fax or online surveys.

During this time, Grant Thornton responded to participants' questions to ensure that the information submitted by respondents was as complete and accurate as possible.

Review of Data

Grant Thornton reviewed the data submitted for completeness and reasonableness on a pharmacy-by-pharmacy basis. Where data necessary to compute the cost of dispensing were either missing or appeared unusual, Grant Thornton contacted the responding pharmacy to verify that the data originally submitted were correct or, if not, to obtain revised data. Similarly, respondent data that came in via mail, fax, or the online site were reviewed by Grant Thornton for each pharmacy for completeness and reasonableness.

To finalize the data, Grant Thornton performed the following procedures:

- Made corrections where the nature of the error was apparent. For example, zeroes were inserted where appropriate for certain data elements that had been left blank and obvious arithmetic errors were corrected.
- Contacted respondents to obtain missing data for data elements required to compute the cost of dispensing, where the correct value was not readily apparent. In these cases, Grant Thornton either updated the original survey or spreadsheet as instructed by the respondent, or the respondent sent a revised survey or spreadsheet to Grant Thornton.

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- Contacted respondents regarding data that appeared unusual for individual stores or for the organization as a whole. Grant Thornton discussed these apparent anomalies with the identified contacts at the organization and resolved the questions. In some cases, these conversations resulted in revised spreadsheets and, in others, the data were confirmed to be correct as originally reported.
- Contacted respondents whose data were inconsistent within the survey, e.g., a total did not match the sum of the component numbers. Again, Grant Thornton either agreed with the respondent to make the corrections on the original survey or the respondent provided an updated survey instrument with the corrections made.

Grant Thornton then forwarded the final data to The MPI Group for loading into the COD database, and following additional review, 23,152 surveys submitted for the 24,424 pharmacies passed standards of completeness and reasonableness and were incorporated into the final database (i.e., cost of dispensing could be calculated for all pharmacies, and, after removing 14 extreme outliers, the database was reduced further to pharmacies with CODs within four standard deviations of the mean, based on cost of dispensing per pharmacy). All of the analyses presented in this report were prepared using this database of 23,152 pharmacies.

It should be noted that Grant Thornton did not conduct an audit of these data. Accordingly, with the publication of this report, our findings are not to be understood to express an audit or limited assurance opinion in accordance with auditing standards generally accepted in the United States of America.

Confidentiality

To secure participation by a large number of pharmacies, potential respondents to the COD Study were informed that all data would be kept confidential, and data would be reported and shared only in aggregate form to protect confidentiality. Where this report includes state-level data, some states have been excluded to ensure confidentiality of respondents. Upon completion of the analysis, contact information fields, zip codes and other information that might make it possible to identify a specific pharmacy and/or retail chain were purged from the database.

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D. Computation Model for Determining Cost of Dispensing

The 2006 Cost of Dispensing (COD) study was designed to generate the following:

- The overall cost of dispensing for all prescriptions filled during the period of March 2006 through August 2006.
- The cost of dispensing prescriptions that were billed specifically to a state's Medicaid program.
- A cost of dispensing for pharmacies in urban and in rural areas.
- A cost of dispensing for pharmacies serving long-term care (LTC) facilities.

Time Period Covered by the Study

The time period covered by this study was March 1 through August 31, 2006. The primary reason for choosing this period was the implementation of the Medicare Part D drug program, which became available to eligible Medicare participants as of January 1, 2006. As a result, a large number of Medicaid enrollees who had previously received drug coverage through Medicaid ("dual eligibles") were enrolled in Part D Prescription Drug Plans, which reduced significantly the number of prescriptions paid by state Medicaid programs. This abrupt change in volume led to the conclusion that data from 2005 would not be representative of the Medicaid programs going forward and therefore would not be appropriate as a basis for making decisions on future payments to cover pharmacies' cost of dispensing.

Additionally, some pharmacies in the pilot survey group reported that January and, to some extent, February of 2006 were atypical months in terms of operational costs of pharmacies due to the large volume of new Medicare Part D enrollees and the additional effort required for pharmacists and other staff to work with these individuals and the new insurance plans. These concerns were not universal, but were expressed with some frequency, and led to the decision to begin the survey period in March, 2006. The timing of the survey allowed for collecting six months of data.

In two cases, respondents provided spreadsheets that covered a different time period from the one requested, March 1 through August 31, 2006, or the company's fiscal periods that most closely approximated these six months. The two exceptions were respondents who reported that their financial and other systems limited their ability to extract and report data for periods that do not correspond to their fiscal years. One of these respondents provided data for six months and the other for seven months, all in 2006, that did not correspond exactly to the survey period. In both cases, the respondents represented to Grant Thornton that the difference in time periods did not materially affect the data as it relates to computing the COD. These two respondents' prescriptions comprise 2.5% of the total prescriptions, and 2.2% of the Medicaid prescriptions, included in this study.

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Overall Cost of Dispensing

The overall cost of dispensing computed for this study comprises the following cost elements:

1. Prescription Department Payroll (including compensation, benefits, and payroll taxes)

This cost element includes all compensation for employees working in the prescription department. The payroll costs for employees who divide their time between the prescription department and other departments within the store are pro-rated to include only the percentage of their time applicable to the prescription department. Any payroll costs for employees who spend all of their time working outside of the prescription department (for example, in the cosmetics department) are excluded.

2. Prescription Department Costs

This cost element includes costs other than payroll that are incurred only by the prescription department. These costs are not shared with other departments within the store. The survey provided nine subcategories of costs that could be included in this category:

- Prescription containers, labels and other pharmacy supplies
- Professional liability insurance for pharmacists
- Prescription department licenses, permits and fees
- Dues, subscriptions and continuing education for the prescription department
- Delivery expenses (only prescription-related)
- Bad debts for prescriptions (including uncollected co-pays)
- Computer systems (related only to the prescription department)
- Transaction fees
- Other prescription-department-specific costs

3. Facilities Costs

These facility costs include costs that are shared with other departments within the store. Facilities costs are allocated to the cost of dispensing based on the percentage of the store building's total square footage that is occupied by the prescription department. It includes storage, waiting/counseling area, prescription counter, etc. The survey provided eight subcategories of costs that could be included in this category:

- Rent
- Utilities, e.g., gas, electric, water and sewer
- Real estate taxes

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- Facility insurance
- Maintenance and cleaning
- Depreciation
- Mortgage interest
- Other facility costs

4. Other Store/Location Costs

There are other store costs that are not solely associated with the prescription department and not included in facilities costs. These costs are allocated to the cost of dispensing based on prescription sales as a percentage of total store sales. The survey provided 11 subcategories of costs that could be included in this category:

- Marketing and advertising
- Professional services (e.g., accounting, legal, consulting)
- Telephone and data communication
- Computer systems and support
- Other depreciation and amortization
- Office supplies
- Other insurance
- Taxes other than real estate, payroll or sales taxes
- Franchise fees, if applicable
- Other interest
- Other costs not included elsewhere

5. Corporate Costs Allocated to the Prescription Department

This cost element applies only to stores that are part of a group of stores or larger business enterprise for which centralized services are performed at district, regional or central corporate locations. Individual stores without central support perform or acquire similar services for themselves; instead of reporting corporate costs, the stores would have added these costs into one or more of the other categories: Prescription Department Payroll, Prescription Department Costs, Facilities Costs and Other Store/Location Costs. For stores that do have corporate support, the survey instructions defined a method to calculate the appropriate portion of corporate costs applicable to each store/location by dividing these costs into three categories:

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- Central or corporate costs that were incurred totally in support of the prescription departments of the stores, such as corporate pharmaceutical procurement, third-party payment processing or compliance with pharmacy regulations. These costs are allocated 100% to the cost of dispensing.
- Corporate costs that support only non-prescription products and services. None of these costs are included in the cost of dispensing.
- Central or corporate costs that can be related to both the prescription departments and other store/location operations, such as general administration, accounting, human resources, information systems, general marketing, etc. These costs are allocated to the cost of dispensing based on the group's prescription sales as a percentage of total sales.

The total of the corporate costs applicable to all stores' prescription departments, as computed in the previous steps, is then allocated to each individual store based on that store's prescription sales as a percentage of all stores' prescription sales.

An example of the computation of an overall COD is shown in Appendix D.

Medicaid Cost of Dispensing

The scope of this study included the calculation of the cost of dispensing related specifically to those prescriptions paid by state Medicaid programs. The computation of this cost of dispensing differs from the overall cost of dispensing in two categories - payroll and interest costs. All other elements of the overall cost of dispensing are calculated in the same way for the Medicaid cost of dispensing.

1. Prescription Department Payroll (including compensation, benefits, and payroll taxes)

Prescription department payroll allocated to the overall cost of dispensing is adjusted to reflect pharmacists' estimates of the difference in work time typically required to dispense Medicaid prescriptions as compared with prescriptions covered by Medicare Part D and other third parties, and prescriptions for customers paying with cash, check, credit card or store account (i.e., no insurance plan is involved). It should be noted that this study relied on the pharmacists' time estimates for this allocation; Grant Thornton did not perform time studies or other procedures to validate the estimates. Some of the pharmacies and retail chains may have performed time studies to develop their estimates, whereas others consulted with their more experienced pharmacists to make these estimates.

The Medicaid payroll cost component is calculated using the minutes to fill each type of prescription and the number of prescriptions of each type filled by the store. Store payroll costs are then allocated proportionately to Medicaid prescriptions based on Medicaid minutes as a percentage of total minutes. This computation can result in a reduction, increase, or no change in the payroll cost per prescription assigned to Medicaid when compared with the store's overall cost of dispensing.

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2. Interest Costs Related to Carrying Accounts Receivable for Medicaid Prescriptions

Carrying receivables for unpaid insurance claims creates actual or implicit interest and other costs. In this study, these costs may be included either in other store/location costs or in the corporate costs. Different states' Medicaid programs have different payment cycles; compared with other insurance payers, Medicaid programs may pay their claims in fewer days, about the same, or more days. Survey respondents reported the average days that receivables were outstanding for each type of payer.

Using an estimated average interest rate charged to retailers for the six months covered by the survey, costs were reallocated from the overall cost of dispensing to the Medicaid cost of dispensing to reflect each state's payment cycle as experienced by the stores. Recognizing that retailers' short-term borrowing rates vary depending on their size, credit history, debt ratios and other factors, the rate used was LIBOR plus 200 basis points, which averaged 7.17% for the period covered by the study. No other carrying costs that might be attributable to accounts receivable were added. In some states, this allocation increased the Medicaid cost of dispensing as compared with the overall cost of dispensing, whereas in other states the opposite was true. This approach resulted in allocating approximately one cent (\$0.01) of interest to the COD for each day payment was outstanding.

An example of the computation of a Medicaid COD is shown in Appendix D.

Urban and Rural Cost of Dispensing

The survey requested respondents to identify the zip code for each store for which data were submitted. These zip codes were matched to the Metropolitan Statistical Areas as defined by the United States Office of Management and Budget (OMB) – see Appendix F for a complete list. The computation of the cost of dispensing for urban and rural stores is the same so that costs can be compared for the two types of regions.

Pharmacies Serving Long-term Care Facilities

The survey also asked respondents to report the number of prescriptions filled for long-term care (LTC) facilities and the percentage of time spent by prescription department employees for all the activities required for LTC prescriptions. However, due to the small number of respondents reporting significant LTC prescription volumes, these data are not included in this report.

Computation of National and State Costs of Dispensing

In the primary aggregation of individual stores' cost of dispensing into national or state costs, every prescription was given equal weight; that is, the COD of stores with high prescription volumes contribute more prescriptions to the national and statewide per-prescription averages and other statistics than stores with small volumes. For example, a store reporting 40,000 total prescriptions filled during the six months covered by the study would have twice the impact on a given mean compared to a store with 20,000 total prescriptions.

In addition to these per-prescription statistics, this report shows cost of dispensing per store, where each pharmacy in the survey receives equal weight, regardless of the number of prescriptions

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dispensed. Using the example above, in the per-store statistics, the small-volume store and the large-volume store would carry equal weight.

Both sets of results provide important information because they reflect two ways of thinking about cost of dispensing among retail pharmacies. Weighting by prescription reflects the costs of dispensing where most prescriptions are filled. The per-prescription mean could be used, for example, to compute the total cost of dispensing for all prescriptions in the nation or in a state by multiplying this average by the number of prescriptions filled.

However, giving equal weight to each pharmacy provides insights into the variation of costs by pharmacies, whether they fill large or small volumes of prescriptions. The per-store statistics give recognition to the fact that some pharmacies serve a smaller customer base, which tends to make their COD higher.

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III. Findings

A. Findings – National Data

The overall cost of dispensing (COD) was calculated for more than 832 million prescriptions dispensed by 23,152 pharmacies in all 50 states, the District of Columbia and Puerto Rico/U. S. Caribbean territories. These prescriptions represent total dispensing activity over a six-month period (March through August, 2006) for the pharmacies participating in the study. Mean and median values are shown in each table; mean values are the average while the median is the midpoint, with half of all values higher and half lower than the median. Both mean and median are shown to illustrate the distribution of the data. When these two numbers are similar, it usually suggests that the data has a relatively symmetrical distribution. For many tables in this report, the mean exceeds the median. This suggests that the COD's are somewhat asymmetrically distributed, with values below the mean clustered more closely together than values above the mean.

Most tables also show the 25th and 75th percentiles. The 25th percentile is the point in the data where one quarter of the values are lower and three quarters are higher; the 75th percentile is the reverse. The median, 25th and 75th percentiles can provide interesting perspectives on the data beyond the information conveyed by the simple mean. They help the reader understand how the values are dispersed around the average – whether, for example, the values are tightly clustered around the mean, widely scattered, or skewed in one direction.

Overall Cost of Dispensing – All Prescriptions

Table 1 shows that the mean national overall COD per prescription was \$10.50; the average overall COD per pharmacy was \$12.10. This difference indicates that there are substantial variations in the number of prescriptions filled per pharmacy, with pharmacies with higher costs filling fewer prescriptions. The difference between the mean and median for COD's per pharmacy is even greater than the difference between the mean and median per prescription, suggesting that the per-pharmacy values are more skewed than the per-prescription values. In addition, the 25th and 75th percentiles suggest that pharmacies with the greatest volume of prescriptions have significantly lower dispensing costs compared with pharmacies with the lowest volumes. It is apparent that total prescription volume is a key variable related to a pharmacy's cost of dispensing.

Table 1: Overall Cost of Dispensing					
	Frequency	Mean	Median	25th Percentile	75th Percentile
COD per prescription ¹	832,377,163	\$10.50	\$9.86	\$8.48	\$11.70
COD per pharmacy ²	23,152	\$12.10	\$10.86	\$9.07	\$13.50

^{1.} Weighted data by volume of prescriptions; each prescription COD as one value (i.e., a pharmacy with 5,000 prescriptions has 5,000 values in the array of COD data).

^{2.} Unweighted data; each pharmacy's COD as one value, regardless of the pharmacy's prescription volume.

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Cost of Dispensing – Medicaid Prescriptions Only

The Medicaid cost of dispensing was computed for approximately 65 million prescriptions for the 22,123 pharmacies that reported Medicaid prescriptions and for which a Medicaid COD could be computed. As shown in Table 2, the national average Medicaid COD was \$10.51 per prescription and \$12.81 per pharmacy. The average COD per Medicaid prescription does not differ significantly from the overall COD per prescription; however, the COD per pharmacy is higher when compared to overall COD per pharmacy. This indicates that, on average, pharmacies filling a smaller number of Medicaid prescriptions have higher COD's and are more numerous than pharmacies with lower COD's, which fill more Medicaid prescriptions. In other words, there are more higher-cost pharmacies filling Medicaid prescriptions, but the volume filled by them is low.

Table 2: Medicaid Cost of Dispensing					
	Frequency	Mean	Median	25th Percentile	75th Percentile
Medicaid COD per prescription ¹	65,037,250	\$10.51	\$9.87	\$8.52	\$11.62
Medicaid COD per pharmacy ²	22,123 ³	\$12.81	\$11.22	\$9.36	\$14.06

1. Weighted data by volume of Medicaid prescriptions for which a Medicaid COD could be computed; each Medicaid prescription COD as one value.
2. Unweighted data; each pharmacy's Medicaid COD as one value, regardless of its Medicaid prescription volume.
3. 1,029 pharmacies reported no Medicaid prescription volume and/or did not provide sufficient information to compute a Medicaid COD.

Cost of Dispensing Components – Overall and Medicaid

The mean COD's presented above in Tables 1 and 2 are presented again in Table 3 showing the five major cost components of the COD model. This table shows that payroll costs constitute 62% or more of the total costs of each COD. Payroll costs are also the principal factor causing the COD per pharmacy to exceed the COD per prescription, most likely because higher-volume pharmacies can spread their payroll costs over a larger number of prescriptions than lower-volume pharmacies. Facilities costs and other store/location costs show a similar pattern, although the impact on COD is much smaller.

Table 3: Components of Overall and Medicaid Mean Costs of Dispensing				
	Overall COD per Prescription- Mean	Overall COD per Pharmacy - Mean	Medicaid COD per Prescription - Mean	Medicaid COD per Pharmacy - Mean
Payroll Costs	\$6.55	\$7.86	\$6.63	\$8.57
Prescription Dept. Costs	\$0.66	\$0.69	\$0.71	\$0.69
Facilities Cost Allocation	\$0.40	\$0.52	\$0.36	\$0.52
Other Store/Location Costs	\$1.54	\$1.72	\$1.50	\$1.72
Corporate Cost Allocation ¹	\$1.35	\$1.31	\$1.31	\$1.31
Total	\$10.50	\$ 12.10	\$10.51	\$12.81

1. See the section entitled "Corporate Costs Allocated to the Prescription Department" on page 11 for a detailed description of this cost category.

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Relationship of Pharmacies' Overall Cost of Dispensing to Prescription Volume

As noted above, the study shows that the number of prescriptions filled by a pharmacy is an important factor in its cost of dispensing. Tables 4 and 5 show mean and median COD's for the 25% of prescriptions filled in the highest-volume pharmacies (2,560 pharmacies, or 11.1% of the total pharmacies) and for the 25% of prescriptions filled in the lowest volume pharmacies (10,727 pharmacies, or 46.3% of the total). In Table 4, the quarter of all prescriptions (208 million) filled by the highest-volume pharmacies had a mean COD of \$8.98. At the other end of the spectrum, the 208 million prescriptions filled by the lowest-volume pharmacies showed a COD of \$13.38. Table 5 shows similar results when the COD is computed per pharmacy rather than per prescription - \$9.01 compared with \$14.84.

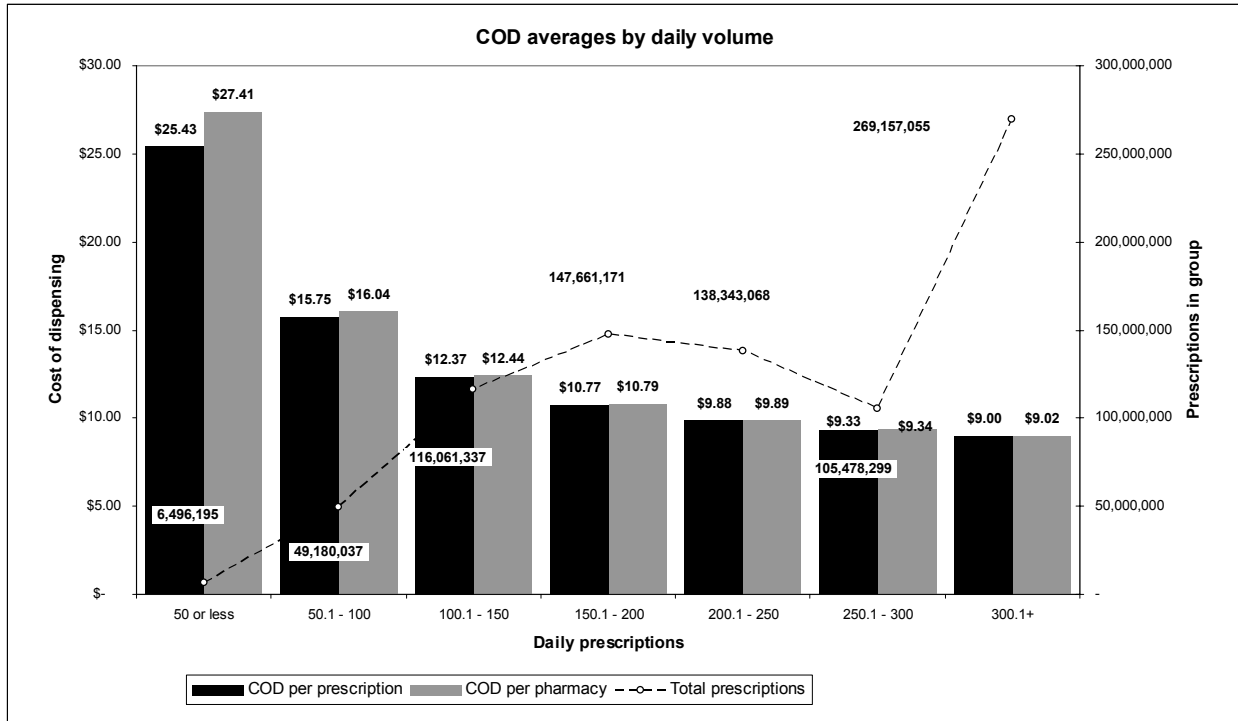
Table 4: Overall COD per prescription by volume			
	Frequency - Prescriptions	Mean	Median
COD for pharmacies with prescription volume of more than 62,122 — per prescription ¹	208,092,812	\$8.98	\$9.00
COD for pharmacies with prescription volume of less than 29,929 — per prescription ²	208,109,313	\$13.38	\$12.58
Table 5: Overall COD per store by volume			
	Frequency - Pharmacies	Mean	Median
COD for pharmacies with prescription volume of more than 62,122 — per pharmacy ³	2,560	\$9.01	\$9.03
COD for pharmacies with prescription volume of less than 29,929 — per pharmacy ⁴	10,727	\$14.84	\$13.39

1. Pharmacies with more than 62,122 prescriptions account for 25% of prescription volume and 11.1% of pharmacies; data are weighted by prescription volume.
2. Pharmacies with less than 29,929 prescriptions account for 25% of prescription volume and 46.3% of pharmacies; data are weighted by prescription volume.
3. Pharmacies with more than 62,122 prescriptions account for 25% of prescription volume and 11.1% of pharmacies; each pharmacy's COD appears as one value, regardless of prescription volume.
4. Pharmacies with less than 29,929 prescriptions account for 25% of prescription volume and 46.3% of pharmacies; each pharmacy's COD appears as one value, regardless of prescription volume.

The following graph further illustrates how overall COD is related to the volume of prescriptions filled by a pharmacy. The graph shows that pharmacies dispensing fewer than 50 prescriptions per day had COD's nearly three times higher than those filling more than 300 per day. Even pharmacies filling 50 to 100 prescriptions daily have COD's about 50% higher than those filling 200 or more.

It should be noted that pharmacies with low daily prescription volumes were more likely to have been open for less than one year, compared with higher-volume stores. For all pharmacies in the study, only 3.7% reported that they had begun operations in the last year, but for the pharmacies dispensing fewer than 50 prescriptions per day, 15.6% had been open for less than one year.

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Relationship of Pharmacies’ Medicaid Cost of Dispensing to Medicaid Prescription Volume

Tables 6 and 7 present similar volume-based statistics for Medicaid prescriptions. The distribution of prescription volume across stores is even more skewed when only Medicaid prescriptions are included – the highest-volume pharmacies that fill 25% of Medicaid prescriptions represent only 5.1% of all pharmacies, while it requires 67.6% of the lowest volume pharmacies to make up 25% of the Medicaid prescriptions. This suggests that Medicaid prescriptions are filled disproportionately by the highest-volume pharmacies, which tend to have the lowest COD’s.

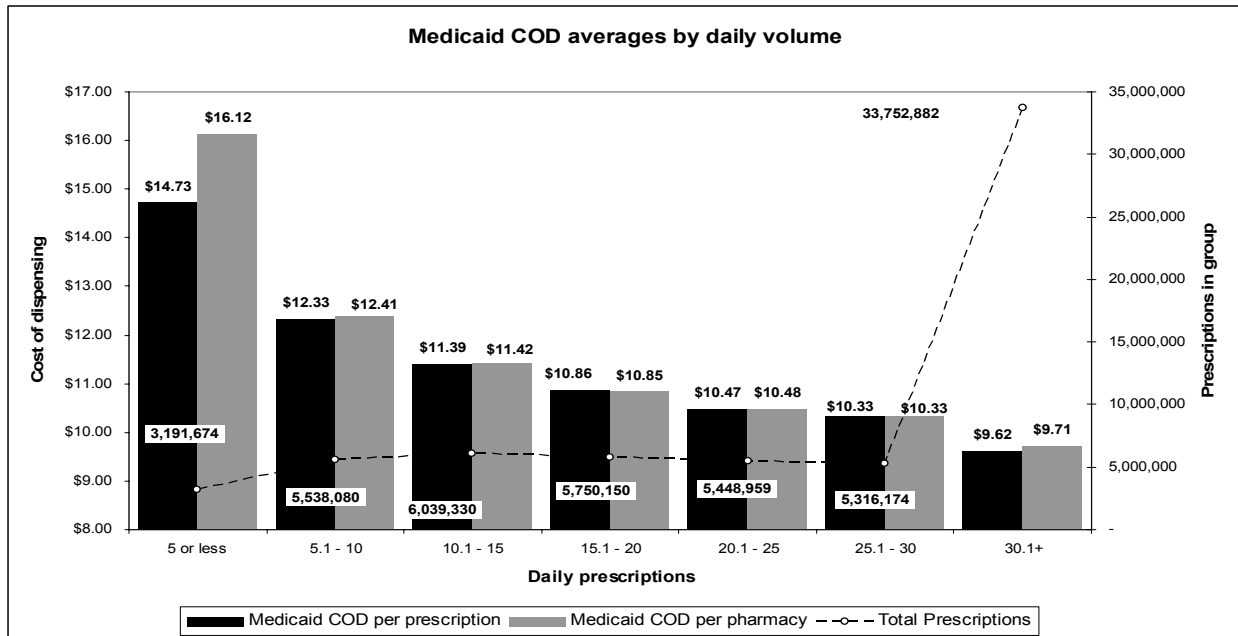
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Table 6: Medicaid COD ¹ per prescription by volume			
	Frequency - Prescriptions	Mean	Median
Medicaid COD for pharmacies with Medicaid volume of more than 10,023 — per prescription ²	16,256,988	\$9.41	\$9.11
Medicaid COD for pharmacies with Medicaid volume of less than 2,990 — per prescription ³	16,271,229	\$12.32	\$11.39
Table 7: Medicaid COD per store by volume			
	Frequency - Pharmacies	Mean	Median
Medicaid COD for pharmacies with Medicaid volume of more than 10,023 — per pharmacy ⁴	1,121	\$9.40	\$9.13
Medicaid COD for pharmacies with Medicaid volume of less than 2,990 — per pharmacy ⁵	14,956	\$14.08	\$12.26

- ^{1.} 1,029 pharmacies reported no Medicaid prescription volume and/or did not provide sufficient information to compute a Medicaid COD.
- ^{2.} Pharmacies with more than 10,023 Medicaid prescriptions account for 25% of Medicaid prescription volume and 5.1% of pharmacies for which a Medicaid COD could be computed; data are weighted by Medicaid prescription volume.
- ^{3.} Pharmacies with less than 2,990 Medicaid prescriptions account for 25.02% of Medicaid prescription volume and 67.6% of pharmacies for which a Medicaid COD could be computed; data are weighted by Medicaid prescription volume.
- ^{4.} Pharmacies with more than 10,023 Medicaid prescriptions account for 25% of Medicaid prescription volume and 5.1% of pharmacies for which a Medicaid COD could be computed; each pharmacy's Medicaid COD appears as one value, regardless of Medicaid prescription volume.
- ^{5.} Pharmacies with less than 2,990 Medicaid prescriptions account for 25.02% of Medicaid prescription volume and 67.6% of pharmacies for which a Medicaid COD could be computed; each pharmacy's Medicaid COD appears as one value, regardless of Medicaid prescription volume.

The following graph, which plots Medicaid COD's versus the number of Medicaid prescriptions filled daily, shows the relationship of Medicaid COD's to prescription volume. This graph, similar to the data shown in Tables 6 and 7, illustrates the extent to which the lowest-cost, highest-volume pharmacies disproportionately serve Medicaid participants. Stores that averaged more than 30 Medicaid prescriptions per day had the lowest Medicaid COD (\$9.62 per prescription and \$9.71 per pharmacy) and filled over 50% of all Medicaid prescriptions.

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Cost of Dispensing for Urban and Rural Pharmacies – Overall and Medicaid COD’s

Of the 23,152 pharmacies in the database, 19,811 were classified as urban and 3,185 as rural by matching the stores’ zip codes with Metropolitan Statistical Areas (156 pharmacies could not be classified by MSA). Rural stores’ overall COD and Medicaid COD, per prescription, were approximately 8% below the COD’s of urban pharmacies, as shown in Tables 8 and 10. However, the average prescription volume, per store, was about the same for both the urban and rural pharmacies (36,053 vs. 34,809, respectively).

Table 8: COD per prescription for urban and rural pharmacies ¹					
	Frequency - Prescriptions	Mean	Median	25 th Percentile	75 th Percentile
Urban COD per prescription ²	714,251,542	\$10.61	\$9.96	\$8.61	\$11.82
Rural COD per prescription ³	110,865,626	\$9.79	\$9.13	\$7.66	\$11.00
Table 9: COD per store for urban and rural pharmacies					
	Frequency - Pharmacies	Mean	Median	25 th Percentile	75 th Percentile
Urban COD per pharmacy ⁴	19,811	\$12.30	\$11.01	\$9.22	\$13.73
Rural COD per pharmacy ⁵	3,185	\$10.90	\$9.94	\$8.13	\$12.28

1. 22,996 pharmacies for which a COD is computed by urban/rural groups; 156 pharmacies with a computed COD could not be classified into urban/rural groups.
2. Pharmacies in urban areas as classified by zip codes into MSAs; data are weighted by prescription volume.
3. Pharmacies in rural areas as classified by zip codes into MSAs; data are weighted by prescription volume.
4. Pharmacies in urban areas as classified by zip codes into MSAs; each pharmacy’s COD is one value.
5. Pharmacies in rural areas as classified by zip codes into MSAs; each pharmacy’s COD is one value.

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It is noteworthy that pharmacy payroll costs account for the majority of the difference between urban and rural COD's. The average payroll component of the COD was \$8.02 for urban stores and \$6.91 for rural pharmacies. This lower payroll cost in rural pharmacies was the primary factor in explaining the 8% difference in COD between urban and rural stores with similar prescription volumes.

The average Medicaid COD was higher for urban pharmacies than for rural, mirroring the results for overall COD's. The average volume of Medicaid prescriptions, per store, was 55% higher among rural pharmacies (4,201) than urban pharmacies (2,713), indicating that rural stores fill more Medicaid prescriptions, relative to their number, than urban pharmacies.

Table 10: Medicaid COD per prescription for urban and rural pharmacies ¹					
	Frequency - Prescriptions	Mean	Median	25th Percentile	75th Percentile
Urban Medicaid COD per prescription ²	51,253,797	\$10.69	\$10.01	\$8.69	\$11.77
Rural Medicaid COD per prescription ³	13,083,057	\$9.82	\$9.23	\$7.73	\$11.09
Table 11: Medicaid COD per store for urban and rural pharmacies					
	Frequency – Pharmacies	Mean	Median	25th Percentile	75th Percentile
Urban Medicaid COD per pharmacy ⁴	18,892	\$13.03	\$11.38	\$9.53	\$14.29
Rural Medicaid COD per pharmacy ⁵	3,114	\$11.45	\$10.23	\$8.40	\$12.78

- ¹. 22,006 pharmacies for which a Medicaid COD are computed by urban/rural groups; 117 pharmacies with a computed Medicaid COD could not be classified into urban/rural groups.
- ². Pharmacies in urban areas as classified by zip codes into MSAs; data are weighted by Medicaid prescriptions.
- ³. Pharmacies in rural areas as classified by zip codes into MSAs; data are weighted by Medicaid prescriptions.
- ⁴. Pharmacies in urban areas as classified by zip codes into MSAs; each pharmacy's Medicaid COD is one value.
- ⁵. Pharmacies in rural areas as classified by zip codes into MSAs; each pharmacy's Medicaid COD is one value.

Relationship of Pharmacies' COD to Medicaid Prescription Volume as a Percentage of Total Volume

Tables 12 and 13 present information for Medicaid prescriptions divided into quartiles according to a pharmacy's Medicaid prescription volume as a percentage of its total prescription volume. Table 12 shows the Medicaid COD per prescription and Table 13 the Medicaid COD per pharmacy. These tables indicate that pharmacies with higher Medicaid volumes relative to total prescriptions have lower Medicaid COD's.

In Table 12, the frequency column shows the number of Medicaid prescriptions in each quartile. It is noteworthy that 60.2% of all Medicaid prescriptions are filled by the pharmacies in the upper quartile, that is, those with approximately 10.9% or more of their total volume in Medicaid prescriptions. On the other hand, only 3.5% of Medicaid prescriptions are filled by the one quarter of pharmacies for which Medicaid prescriptions are less than approximately 2.4% of their total.

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Table 13 shows similar information on a per-pharmacy basis. Using the same quartiles as Table 12, which comprise approximately 5,531 pharmacies per quartile, the Medicaid COD statistics in each category – mean, median, 25th percentile and 75th percentile – decline as a pharmacy’s Medicaid prescriptions increase as a percentage of total prescriptions filled.

Table 12: Medicaid COD ¹ by Medicaid Prescription Volume as a % of Prescription Volume — Quartile Groups Per Prescription			
	Frequency - Prescriptions	Mean	Median
Lower quartile - per prescription (0.0001% - 2.4174%)	2,231,999	\$11.76	\$10.73
Middle quartile - per prescription (2.41741% - 5.4712%)	7,452,899	\$11.10	\$10.34
Middle quartile - per prescription (5.47121% - 10.8561%)	16,224,447	\$10.62	\$9.99
Upper quartile - per prescription (10.85611% - 87.38%)	39,127,906	\$10.27	\$9.68

¹. Data are weighted by Medicaid prescription volume.

Table 13: Medicaid COD ¹ by Medicaid Prescription Volume as a % of Prescription Volume — Quartile Groups Per Pharmacy			
	Frequency - Pharmacies	Mean	Median
Lower quartile - per prescription (0.0001% - 2.4174%)	5,530	\$12.15	\$10.03
Middle quartile - per prescription (2.41741% - 5.4712%)	5,532	\$11.62	\$9.64
Middle quartile - per prescription (5.47121% - 10.8561%)	5,531	\$10.97	\$9.19
Upper quartile - per prescription (10.85611% - 87.38%)	5,530	\$10.36	\$8.76

¹. Unweighted data; each pharmacy’s Medicaid COD appears as one value, regardless of Medicaid prescription volume.

Time Required to Dispense Prescription by Type of Payer

Survey respondents were asked to estimate the average work time for all activities required to dispense a prescription for each type of payer – Medicaid, Medicare Part D plans, other third-party plans, and customers with no third-party payer. As shown in Table 14, the survey respondents reported that, on average, prescriptions paid by Medicare Part D are the most time-consuming (12.5 minutes), followed by Medicaid (11.7 minutes), other third-party payers (10.6 minutes) and prescriptions paid directly by customers (8.7 minutes).

It should be noted that the numbers in Table 14 are estimates provided by survey respondents and that Grant Thornton did not perform time studies or other procedures to validate them. Some pharmacies and retail chains may have performed time studies to develop these estimates, whereas others consulted with their more experienced pharmacists to make these estimates.

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Table 14: Time to Dispense — Minutes ¹					
	Frequency - Pharmacies	Mean	Median	25th Percentile	75th Percentile
Medicaid prescriptions	22,123	11.7	11.1	9.5	12.5
Medicare Part D	22,123	12.5	12.0	9.5	13.4
Other third-party prescriptions	22,123	10.6	10.0	9.4	12.4
Prescriptions paid for by customers	22,123	8.7	8.9	7.0	11.4

¹ Includes only those pharmacies that reported filling Medicaid prescriptions and for which a Medicaid COD could be computed.

Data in Appendix D provide additional insights into the differences in dispensing time between Medicaid, Medicare Part D, and other third-party prescriptions. This appendix shows the average rating for Questions 12 and 13 of the survey, in which respondents were asked to identify steps in the dispensing process that required more time, about the same time, or less time for one type of prescription compared to another. (Statistics presented on the dispensing process as well as dispensing-time and time-to-receive payment questions are based on those pharmacies for which a Medicaid COD could be computed.) For Medicaid prescriptions, the greatest difference was in obtaining prior authorization – 91.1% of respondents indicated that this step took longer for Medicaid than other third parties; 50.8% of the respondents noted that obtaining the plan number and qualifying the patient was more time-consuming when Medicaid was the payer.

For Medicare Part D plans, 93% of the respondents indicated that obtaining the plan number and qualifying the patient took more time than for other third parties. Obtaining prior authorization was more time-consuming for 72.7%. See Appendix E for additional statistics on time required for other activities required to dispense prescriptions.

Time to Receive Payment for Prescriptions by Type of Payer

Similarly, the survey asked respondents to report the average time to receive payment for Medicaid, other third-party (including Medicare Part D), and customer-paid prescriptions. Table 15 shows that the responses for Medicaid vary significantly from one state to another, but on average, the pharmacies reported receiving payment from Medicaid 19.9 days after billing, compared with 23.7 days for other third parties. On a state-by-state basis, the survey shows that Medicaid programs’ days to pay range from a high of 50.6 days average (30 days median) in Illinois to a low of 9.9 days average (10 days median) in Texas. (Complete state-by-state data are presented in the following section.) The COD model used in this study added approximately \$0.01 per day to the COD for each day payment was outstanding, based on the average prescription selling price and interest rates applicable during the study period.

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Table 15: Time to Receive Payment after Prescription Was Dispensed — Days ¹					
	Frequency - Pharmacies	Mean	Median	25th Percentile	75th Percentile
Medicaid prescriptions	22,092 ²	19.9	16.0	10.7	26.0
Other third-party, including Medicare Part D	22,123	23.7	24.1	22.5	28.0

¹ Includes only those pharmacies that reported filling Medicaid prescriptions and for which a Medicaid COD could be computed.

² Two organizations provided computed values for Medicaid COD but did not provide a time-to-receive-payment values for 31 pharmacies.

Effect of New Prescriptions on Cost of Dispensing

The following table shows the effect of filling new prescriptions on the overall COD when calculated by pharmacy. As the percentage of new prescriptions increased, so did the mean COD. Although time studies were not performed, additional time to obtain plan and patient information for new prescriptions, as well as patient counseling, could contribute to a higher COD.

Table 16 : COD per pharmacy for New Prescriptions as a percent of the Total Prescriptions Volume — Quartile Groups			
	Frequency - Prescriptions	Mean	Median
44% or less	6,026	\$11.41	\$10.40
44.1% - 49%	5,553	\$11.67	\$10.56
49.1% - 54%	5,735	\$11.90	\$11.02
54.1% - 100%	5,823	\$13.43	\$11.79

Long-term Care Prescriptions

There are differences in dispensing prescriptions for long-term care (LTC) facilities compared with other prescriptions, including unique packaging requirements, delivery services, specialized procedures and compliance with specific regulations. Because of these differences, a number of cost elements for dispensing LTC prescriptions would be expected to vary from the overall COD.

The survey used for this study included two questions related specifically to prescriptions filled for LTC facilities: number of LTC prescriptions filled, and the percentage of the prescription department's work time spent filling LTC prescriptions. 2,235,876 LTC prescriptions were reported on the surveys, representing 0.3% of all prescriptions, and only 22 pharmacies reported that LTC prescriptions constituted more than 50% of their prescription volume. Because of the small sample size, and because data were collected for only the payroll cost element specific to LTC prescriptions, this report does not include COD's for LTC prescriptions.

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B. Findings – State Data

In this section of the report, state-level data are presented for certain statistics. Information for Alaska, the District of Columbia, Hawaii, Maine, North Dakota, and Puerto Rico is omitted, either because the number of pharmacies for which complete data were submitted was very small or due to confidentiality concerns if the data were presented fully. For similar reasons, quartile data are not shown for South Dakota and Wyoming.

The predominant observation that can be made about the data from the states is that there is significant variation from state to state, ranging from a mean COD per prescription of \$8.50 in Rhode Island to \$13.08 in California. Testing for relationships based on states' population densities did not provide conclusive results. The average volume of prescriptions filled per pharmacy did not correlate with population density for a particular state.

On a regional basis, Table 17 indicates that the Mountain and Pacific states have the highest COD's.

Table 17: Mean COD per Prescription by Region		
U. S. Census Region	Frequency - Prescriptions	Mean
New England	60,692,417	\$9.27
Middle Atlantic	120,952,543	\$10.65
East North Central	149,259,577	\$10.36
West North Central	37,042,390	\$9.94
South Atlantic	202,368,264	\$10.13
East South Central	59,155,881	\$9.99
West South Central	79,928,828	\$10.25
Mountain	47,910,975	\$11.80
Pacific	69,581,280	\$12.82

A comparison of overall COD's with Medicaid COD's on a state-by-state basis does not show a clear pattern. This is most likely due to varying Medicaid program requirements and processes that affect the time required to dispense Medicaid prescriptions as well as differences in the average number of days to pay pharmacies' Medicaid billings.

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Table 18: Overall COD per prescription					
	Frequency - Prescriptions	Mean	Median	25th Percentile	75th Percentile
Alabama	12,882,464	\$9.68	\$9.19	\$7.35	\$11.11
Alaska					
Arizona	16,359,248	\$11.11	\$9.89	\$8.96	\$12.35
Arkansas	4,599,127	\$9.81	\$9.30	\$8.09	\$10.91
California	46,822,988	\$13.08	\$12.41	\$11.19	\$14.03
Colorado	9,911,392	\$12.96	\$12.61	\$10.59	\$14.47
Connecticut	14,983,443	\$9.72	\$9.09	\$7.70	\$10.48
Delaware	1,622,432	\$12.35	\$11.42	\$10.49	\$13.16
District of Columbia					
Florida	70,104,054	\$10.44	\$9.90	\$8.97	\$11.18
Georgia	31,240,470	\$10.55	\$10.05	\$8.12	\$12.38
Hawaii					
Idaho	3,475,001	\$11.74	\$11.56	\$9.94	\$13.24
Illinois	41,190,590	\$10.66	\$10.17	\$8.96	\$12.00
Indiana	23,580,550	\$9.80	\$9.06	\$7.86	\$10.60
Iowa	4,509,887	\$9.67	\$8.99	\$8.45	\$10.16
Kansas	6,016,936	\$10.69	\$9.99	\$9.12	\$11.52
Kentucky	14,611,693	\$10.03	\$9.52	\$8.44	\$11.00
Louisiana	11,946,693	\$9.19	\$8.76	\$7.89	\$9.64
Maine					
Maryland	16,137,196	\$10.34	\$9.44	\$7.92	\$11.69
Massachusetts	29,196,802	\$8.88	\$8.29	\$7.39	\$9.51
Michigan	28,999,299	\$10.93	\$10.24	\$8.84	\$12.13
Minnesota	9,518,752	\$10.30	\$9.91	\$9.30	\$10.82
Mississippi	6,228,535	\$9.55	\$9.36	\$7.66	\$11.09
Missouri	12,714,932	\$9.36	\$8.81	\$7.97	\$9.61
Montana	1,532,432	\$11.46	\$10.80	\$9.55	\$12.54
Nebraska	3,600,742	\$9.85	\$8.92	\$8.36	\$10.49
Nevada	5,893,278	\$12.55	\$11.30	\$10.15	\$14.14
New Hampshire	4,807,858	\$9.89	\$9.18	\$8.35	\$10.35

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Table 18: Overall COD per prescription					
	Frequency - Prescriptions	Mean	Median	25 th Percentile	75 th Percentile
New Jersey	27,795,349	\$11.13	\$10.53	\$8.87	\$12.21
New Mexico	4,105,683	\$9.95	\$9.21	\$8.34	\$10.54
New York	51,016,493	\$10.96	\$10.23	\$8.79	\$12.16
North Carolina	31,811,277	\$9.53	\$9.09	\$7.48	\$10.58
North Dakota					
Ohio	38,440,512	\$10.23	\$9.77	\$8.48	\$11.18
Oklahoma	5,643,319	\$9.87	\$9.42	\$8.49	\$10.13
Oregon	7,916,589	\$11.61	\$11.32	\$9.87	\$13.11
Pennsylvania	42,140,701	\$9.95	\$9.24	\$7.91	\$11.08
Puerto Rico					
Rhode Island	6,319,580	\$8.50	\$7.71	\$6.81	\$9.12
South Carolina	17,261,980	\$9.40	\$8.83	\$7.35	\$10.39
South Dakota	644,545	\$11.29	\$9.97		
Tennessee	25,433,189	\$10.23	\$9.37	\$8.34	\$11.18
Texas	57,739,689	\$10.54	\$10.02	\$8.84	\$11.41
Utah	5,947,340	\$12.39	\$12.26	\$11.09	\$13.61
Vermont	2,283,533	\$9.97	\$9.52	\$8.84	\$10.83
Virginia	25,186,421	\$9.75	\$9.29	\$7.86	\$11.06
Washington	13,714,935	\$12.34	\$11.55	\$10.30	\$13.31
West Virginia	7,404,242	\$9.96	\$9.61	\$8.10	\$11.40
Wisconsin	17,048,626	\$9.75	\$8.80	\$8.18	\$9.84
Wyoming	686,601	\$12.29	\$11.63		

¹ Weighted data by volume of prescriptions; each prescription COD as one value. Seven pharmacies could not be identified by state.

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Table 19: Overall COD per pharmacy						
	Frequency - Pharmacies	Mean	Median	25th Percentile	75th Percentile	Total prescriptions
Alabama	391	\$11.06	\$10.34	\$8.03	\$12.93	12,882,464
Alaska						
Arizona	429	\$13.23	\$11.70	\$9.56	\$15.59	16,359,248
Arkansas	140	\$10.56	\$9.49	\$8.03	\$11.71	4,599,127
California	1,471	\$14.79	\$13.27	\$11.80	\$15.69	46,822,988
Colorado	307	\$14.49	\$13.67	\$11.61	\$16.49	9,911,392
Connecticut	382	\$11.59	\$9.82	\$8.28	\$12.22	14,983,443
Delaware	62	\$14.56	\$12.18	\$11.01	\$15.05	1,622,432
District of Columbia						
Florida	1,902	\$11.83	\$10.54	\$9.24	\$12.58	70,104,054
Georgia	1,005	\$11.99	\$11.26	\$8.93	\$13.85	31,240,470
Hawaii						
Idaho	104	\$13.03	\$12.29	\$10.64	\$14.12	3,475,001
Illinois	973	\$11.85	\$10.97	\$9.45	\$13.21	41,190,590
Indiana	577	\$11.38	\$9.79	\$8.30	\$12.68	23,580,550
Iowa	114	\$11.76	\$9.98	\$8.63	\$13.11	4,509,887
Kansas	157	\$12.10	\$10.64	\$9.37	\$12.76	6,016,936
Kentucky	369	\$11.24	\$10.28	\$8.78	\$12.41	14,611,693
Louisiana	274	\$10.50	\$9.23	\$7.99	\$11.60	11,946,693
Maine						
Maryland	499	\$11.71	\$10.71	\$8.52	\$13.15	16,137,196
Massachusetts	697	\$10.35	\$9.06	\$7.79	\$10.76	29,196,802
Michigan	929	\$12.43	\$11.25	\$9.52	\$13.84	28,999,299
Minnesota	219	\$11.40	\$10.22	\$9.46	\$11.61	9,518,752
Mississippi	205	\$10.39	\$9.81	\$7.77	\$12.06	6,228,535
Missouri	252	\$10.82	\$9.38	\$8.41	\$11.53	12,714,932
Montana	50	\$12.36	\$11.50	\$9.99	\$14.02	1,532,432
Nebraska	82	\$12.47	\$10.53	\$8.51	\$14.12	3,600,742
Nevada	195	\$15.48	\$14.14	\$11.18	\$17.34	5,893,278
New Hampshire	128	\$12.37	\$9.84	\$8.73	\$12.33	4,807,858

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Table 19: Overall COD per pharmacy						
	Frequency - Pharmacies	Mean	Median	25 th Percentile	75 th Percentile	Total prescriptions
New Jersey	847	\$12.90	\$11.44	\$9.64	\$13.94	27,795,349
New Mexico	92	\$11.88	\$10.30	\$8.92	\$13.73	4,105,683
New York	1,577	\$12.66	\$11.27	\$9.43	\$14.04	51,016,493
North Carolina	828	\$10.69	\$9.82	\$8.19	\$12.03	31,811,277
North Dakota						
Ohio	1,115	\$11.80	\$10.53	\$9.03	\$12.70	38,440,512
Oklahoma	144	\$11.36	\$9.75	\$8.63	\$11.83	5,643,319
Oregon	231	\$13.07	\$12.42	\$10.30	\$13.92	7,916,589
Pennsylvania	1,296	\$11.44	\$10.18	\$8.44	\$12.52	42,140,701
Puerto Rico						
Rhode Island	135	\$11.03	\$8.90	\$7.63	\$12.01	6,319,580
South Carolina	486	\$11.13	\$9.83	\$8.02	\$12.49	17,261,980
South Dakota	23	\$14.73	\$11.98			644,545
Tennessee	678	\$11.72	\$10.36	\$8.66	\$13.40	25,433,189
Texas	1,507	\$12.34	\$10.71	\$9.24	\$13.70	57,739,689
Utah	183	\$13.33	\$12.76	\$11.49	\$14.41	5,947,340
Vermont	64	\$10.66	\$10.24	\$8.91	\$11.48	2,283,533
Virginia	714	\$11.05	\$10.06	\$8.58	\$12.62	25,186,421
Washington	426	\$14.01	\$12.68	\$10.84	\$15.73	13,714,935
West Virginia	225	\$10.88	\$10.31	\$8.66	\$12.65	7,404,242
Wisconsin	373	\$12.08	\$9.82	\$8.51	\$13.68	17,048,626
Wyoming	25	\$12.81	\$11.89			686,601

¹ Unweighted data; each pharmacy's COD as one value, regardless of the pharmacy's prescription volume. Seven pharmacies could not be identified by state.

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Consistent with Tables 18 and 19, data for Alaska, District of Columbia, Hawaii, Maine, North Dakota, and Puerto Rico are not shown in Tables 20 and 21. Data for two additional states – Arizona and Tennessee – are also omitted from these tables. The Medicaid COD used in this study includes the imputing of a carrying cost for accounts receivable based on the number of days that Medicaid claims are outstanding before they are paid. A significant number of pharmacies in Arizona and Tennessee did not report the number of days for payment of Medicaid bills and, therefore, a Medicaid COD was not computed for those states.

Table 20: Medicaid COD per Prescription ¹					
	Frequency - Prescriptions	Mean	Median	25th Percentile	75th Percentile
Alabama	1,051,398	\$9.35	\$8.76	\$7.20	\$10.61
Alaska					
Arizona					
Arkansas	498,445	\$9.47	\$9.20	\$7.47	\$10.48
California	3,109,720	\$13.18	\$12.25	\$10.92	\$14.12
Colorado	520,793	\$12.53	\$11.58	\$9.93	\$14.30
Connecticut	637,550	\$11.02	\$9.99	\$8.86	\$11.39
Delaware	240,581	\$12.07	\$11.01	\$10.54	\$12.91
District of Columbia					
Florida	3,397,071	\$10.34	\$9.60	\$8.78	\$10.81
Georgia	3,114,253	\$10.05	\$9.41	\$7.85	\$11.44
Hawaii					
Idaho	292,527	\$12.06	\$11.61	\$10.05	\$13.46
Illinois	4,693,672	\$10.40	\$9.88	\$8.63	\$11.39
Indiana	1,668,952	\$10.61	\$9.58	\$8.62	\$11.10
Iowa	459,592	\$9.39	\$8.90	\$8.35	\$9.82
Kansas	345,924	\$10.59	\$10.16	\$8.94	\$11.72
Kentucky	1,327,351	\$10.28	\$9.56	\$8.44	\$11.30
Louisiana	1,453,680	\$9.29	\$8.81	\$7.99	\$9.66
Maine					
Maryland	678,168	\$10.36	\$9.33	\$8.15	\$11.19
Massachusetts	2,704,450	\$9.49	\$9.06	\$8.04	\$10.27
Michigan	1,468,549	\$10.79	\$10.37	\$9.28	\$11.89
Minnesota	672,330	\$10.58	\$10.09	\$9.49	\$10.95
Mississippi	585,205	\$9.21	\$9.31	\$6.83	\$10.99

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Table 20: Medicaid COD per Prescription ¹					
	Frequency - Prescriptions	Mean	Median	25 th Percentile	75 th Percentile
Missouri	787,144	\$9.45	\$8.94	\$7.88	\$9.62
Montana	103,483	\$12.32	\$11.43	\$10.08	\$12.62
Nebraska	418,749	\$9.41	\$8.92	\$8.35	\$9.24
Nevada	202,537	\$12.71	\$11.50	\$10.16	\$14.22
New Hampshire	361,201	\$10.30	\$9.38	\$8.68	\$10.71
New Jersey	1,713,894	\$11.58	\$10.82	\$9.35	\$12.43
New Mexico	73,050	\$10.16	\$9.81	\$8.80	\$11.51
New York	6,495,821	\$11.51	\$10.71	\$9.45	\$12.59
North Carolina	3,063,340	\$9.39	\$8.97	\$7.16	\$10.55
North Dakota					
Ohio	4,333,598	\$10.02	\$9.53	\$8.36	\$10.99
Oklahoma	505,591	\$10.08	\$9.63	\$8.79	\$10.34
Oregon	295,559	\$12.05	\$11.98	\$10.08	\$13.36
Pennsylvania	2,363,943	\$9.12	\$8.61	\$7.38	\$9.97
Puerto Rico					
Rhode Island	466,115	\$8.31	\$7.42	\$6.56	\$9.90
South Carolina	1,659,632	\$9.40	\$8.67	\$7.54	\$10.13
South Dakota	42,910	\$12.07	\$9.93		
Tennessee					
Texas	5,280,201	\$10.21	\$9.84	\$8.64	\$11.07
Utah	442,049	\$12.61	\$12.27	\$11.29	\$13.77
Vermont	481,966	\$10.26	\$9.67	\$9.14	\$10.89
Virginia	871,793	\$8.71	\$8.32	\$6.58	\$9.80
Washington	1,149,790	\$12.45	\$11.54	\$10.32	\$13.52
West Virginia	1,154,900	\$10.07	\$9.61	\$8.24	\$11.44
Wisconsin	1,286,351	\$10.17	\$8.96	\$8.32	\$10.86
Wyoming	58,081	\$12.55	\$11.64		

¹. Weighted data by volume of Medicaid prescriptions; each Medicaid prescription COD as one value. Seven pharmacies could not be identified by state; 1,029 pharmacies reported no Medicaid prescription volume and/or did not provide sufficient information to compute a Medicaid COD.

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Table 21: Medicaid COD per Pharmacy ¹						
	Frequency - Pharmacies	Mean	Median	25 th Percentile	75 th Percentile	Medicaid prescriptions
Alabama	389	\$11.35	\$10.36	\$8.22	\$13.34	1,051,398
Alaska						
Arizona						
Arkansas	140	\$10.49	\$9.43	\$7.40	\$11.87	498,445
California	1,369	\$15.37	\$13.53	\$11.96	\$16.24	3,109,720
Colorado	300	\$15.34	\$14.13	\$11.86	\$17.16	520,793
Connecticut	376	\$12.34	\$10.42	\$9.18	\$12.43	637,550
Delaware	60	\$15.85	\$12.76	\$11.27	\$16.10	240,581
District of Columbia						
Florida	1,884	\$12.99	\$10.74	\$9.32	\$13.13	3,397,071
Georgia	997	\$12.69	\$11.61	\$9.20	\$14.44	3,114,253
Hawaii						
Idaho	100	\$13.39	\$12.69	\$11.02	\$14.49	292,527
Illinois	960	\$12.57	\$11.41	\$9.67	\$13.95	4,693,672
Indiana	573	\$12.65	\$10.56	\$9.11	\$13.70	1,668,952
Iowa	113	\$12.90	\$10.00	\$8.74	\$14.71	459,592
Kansas	153	\$12.81	\$10.96	\$9.43	\$13.16	345,924
Kentucky	367	\$11.99	\$10.57	\$8.99	\$12.77	1,327,351
Louisiana	273	\$10.75	\$9.39	\$8.08	\$11.98	1,453,680
Maine						
Maryland	492	\$12.09	\$10.88	\$8.85	\$13.31	678,168
Massachusetts	690	\$11.15	\$9.78	\$8.40	\$11.67	2,704,450
Michigan	914	\$13.43	\$11.88	\$10.29	\$14.64	1,468,549
Minnesota	215	\$12.41	\$10.54	\$9.60	\$12.43	672,330
Mississippi	204	\$10.36	\$9.75	\$7.66	\$12.11	585,205
Missouri	247	\$11.51	\$9.34	\$8.48	\$12.31	787,144
Montana	47	\$13.38	\$11.58	\$10.20	\$15.08	103,483
Nebraska	82	\$12.93	\$10.72	\$8.58	\$14.75	418,749
Nevada	188	\$15.91	\$14.42	\$11.28	\$17.64	202,537
New Hampshire	127	\$13.09	\$9.99	\$8.83	\$12.30	361,201

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Table 21: Medicaid COD per Pharmacy ¹						
	Frequency - Pharmacies	Mean	Median	25 th Percentile	75 th Percentile	Medicaid prescriptions
New Jersey	847	\$13.74	\$11.96	\$10.35	\$14.58	1,713,894
New Mexico	90	\$13.17	\$10.26	\$8.87	\$14.77	73,050
New York	1,563	\$13.37	\$11.62	\$9.82	\$14.31	6,495,821
North Carolina	823	\$10.95	\$10.10	\$8.04	\$12.42	3,063,340
North Dakota						
Ohio	1,110	\$12.54	\$10.75	\$9.31	\$12.96	4,333,598
Oklahoma	144	\$12.01	\$10.04	\$9.23	\$12.17	505,591
Oregon	220	\$13.58	\$12.78	\$10.62	\$14.25	295,559
Pennsylvania	1,285	\$12.32	\$10.54	\$8.82	\$12.92	2,363,943
Puerto Rico						
Rhode Island	135	\$11.20	\$8.87	\$7.18	\$12.52	466,115
South Carolina	484	\$11.98	\$10.33	\$8.50	\$13.43	1,659,632
South Dakota	23	\$15.23	\$13.21			42,910
Tennessee						
Texas	1,492	\$12.76	\$11.08	\$9.41	\$14.24	5,280,201
Utah	175	\$13.98	\$12.98	\$11.74	\$14.86	442,049
Vermont	63	\$10.89	\$10.22	\$9.19	\$11.81	481,966
Virginia	705	\$11.24	\$9.89	\$8.40	\$12.72	871,793
Washington	401	\$14.41	\$12.95	\$11.15	\$16.09	1,149,790
West Virginia	222	\$11.31	\$10.64	\$8.94	\$12.78	1,154,900
Wisconsin	373	\$12.30	\$9.91	\$8.63	\$13.88	1,286,351
Wyoming	25	\$13.95	\$12.77			58,081

¹ Unweighted data; each pharmacy's Medicaid COD as one value, regardless of the pharmacy's Medicaid prescription volume. Seven pharmacies could not be identified by state; 1,029 pharmacies reported no Medicaid prescription volume and/or did not provide sufficient information to compute a Medicaid COD.

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Survey respondents reported the average number of days from billing Medicaid prescriptions until payment was received from the state’s Medicaid program. Table 22 summarizes the results for each state (only those pharmacies that reported Medicaid prescriptions and for which a Medicaid COD could be computed are included). Data are not shown for three states (Alaska, Hawaii and North Dakota) due to the small number of respondents. The data for District of Columbia, Maine and Puerto Rico are omitted for confidentiality reasons, as noted earlier. Arizona and Tennessee are also omitted because of the small number of pharmacies reporting this data and the unique payment systems used by the Medicaid programs in those two states.

Table 22: Time to Receive Payment after Medicaid Prescription Was Dispensed - Days			
	Frequency - Pharmacies	Mean	Median
Alabama	389	15.1	14.0
Alaska			
Arizona			
Arkansas	140	12.3	11.0
California	1,369	21.3	21.0
Colorado	300	11.4	10.0
Connecticut	376	18.7	17.0
Delaware	60	17.2	21.1
District of Columbia			
Florida	1,884	14.0	10.8
Georgia	997	12.2	10.3
Hawaii			
Idaho	100	12.8	14.0
Illinois	960	50.6	30.0
Indiana	573	20.9	15.0
Iowa	113	19.8	9.0
Kansas	153	13.6	14.0
Kentucky	367	20.9	26.0
Louisiana	273	10.5	11.0
Maine			
Maryland	492	22.5	24.6
Massachusetts	690	18.3	18.4
Michigan	914	20.4	12.0
Minnesota	215	15.6	16.0
Mississippi	204	11.2	10.0
Missouri	247	24.8	29.0

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Table 22: Time to Receive Payment after Medicaid Prescription Was Dispensed - Days			
	Frequency - Pharmacies	Mean	Median
Montana	47	16.8	21.0
Nebraska	82	14.4	19.0
Nevada	188	14.6	15.0
New Hampshire	127	19.9	23.0
New Jersey	847	14.5	13.0
New Mexico	90	15.7	15.0
New York	1,563	30.6	32.2
North Carolina	823	16.0	11.0
North Dakota			
Ohio	1,110	21.8	24.5
Oklahoma	144	13.0	9.0
Oregon	220	11.7	13.9
Pennsylvania	1285	35.7	36.0
Puerto Rico			
Rhode Island	135	23.8	14.0
South Carolina	484	20.4	17.3
South Dakota	23	11.1	13.0
Tennessee			
Texas	1,492	9.9	10.0
Utah	175	10.5	10.0
Vermont	63	20.8	15.0
Virginia	705	16.0	17.0
Washington	401	10.7	11.0
West Virginia	222	21.3	21.0
Wisconsin	373	12.3	15.0
Wyoming	25	10.8	11.0

¹ Pharmacies for which a Medicaid COD could be computed.

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C. Definitions

Frequency (N): Frequency is the number or count of responses for a variable as asked for on the COD Study or a computed variable.

Mean: The average value of responses (sum of total responses divided by the number of responses).

Median: The midpoint value of responses — the value above which and below which half the responses fall; equivalent to the 50th percentile. The median is frequently the most reliable statistic upon which to base comparisons.

Percentage: The percentage of responses for a specific answer category based on all responses for that particular question. (*Note: This is not necessarily based on the total number of respondents for the survey*). For cross-tabulated data, the percentage is based on those that responded to *both* the question being analyzed and the cross-tabulation question.

Percentiles: The 25th percentile is the value below which 25% of responses fall. The 75th percentile is the value below which 75% of responses fall.

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IV. Service Providers and Sponsors for Cost of Dispensing Study

Grant Thornton LLP

Grant Thornton LLP is the U.S. member firm of Grant Thornton International, one of six global accounting, tax and business advisory organizations. Grant Thornton is the leading accounting firm serving mid-cap, small-cap and privately held companies and other organizations, and is a preferred provider of specialist financial, tax and advisory services.

Today, Grant Thornton is represented by over 519 offices in major cities in 112 countries, and by more than 20,000 personnel throughout the world. Grant Thornton has 50 offices throughout the United States; clients are served by over 400 partners and nearly 5,000 U.S. personnel.

The MPI Group

The MPI Group, Inc. is a Cleveland, Ohio based research firm which is rapidly becoming one of the world's fastest-growing, most respected management intelligence firms, completing surveys, studies and white papers for organizations around the globe. MPI is currently at work on projects in industries ranging from manufacturing to information technology to distribution to healthcare, on topics ranging from performance benchmarks to financial process metrics to customer value analysis and ROI.

CCPA

The Coalition for Community Pharmacy Action (CCPA) is an alliance between the National Association of Chain Drug Stores (NACDS) and the National Community Pharmacists Association (NCPA), which together represent more than 55,000 community pharmacies. CCPA's mission is to ensure that patients have continued access to affordable medicines and prescription care from their trusted and accessible health professional - the community pharmacist.

CCPA's sponsorship of this project was made possible by a significant financial contribution from the Community Pharmacy Foundation. The Community Pharmacy Foundation's primary purpose is to assist community pharmacy practitioners by providing resources for research and development to encourage new capabilities and continuous improvements in the delivery of patient care. CCPA acknowledges the generosity of the Foundation and its directors for this support.

NCPA

The National Community Pharmacists Association (NCPA), founded in 1898, represents the nation's community pharmacists, including owners of more than 24,000 pharmacies, more than 68,000 pharmacists and more than 280,000 full-time employees. The nation's independent pharmacies, independent pharmacy franchises, and independent chains dispense nearly half of the nation's retail prescription medicines.

NACDS

The National Association of Chain Drug Stores (NACDS) represents the nation's leading retail chain pharmacies and suppliers, helping them better meet the changing needs of their patients and customers. Chain pharmacies operate more than 37,000 pharmacies, employ 114,000 pharmacists, and fill more than 2.3 billion prescriptions yearly. Other members include more than 1,000 suppliers of products and services to the chain drug industry.

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V. Appendices

A. Survey – Hard-copy Version



COALITION *for* COMMUNITY
PHARMACY ACTION

2006 Cost of Dispensing Study

Sponsored by the Coalition for Community Pharmacy Action, with funding provided by the Community Pharmacy Foundation. The Coalition is an alliance between the National Association of Chain Drug Stores (NACDS) and the National Community Pharmacists Association (NCPA).

Please provide a response to each question based on a **prescription department** (the area where prescriptions are filled) and the store/facility in which it is located. Please refer to the accompanying instruction sheet when answering the questionnaire. Mail your completed questionnaire by **Nov. 15, 2006** to Cost of Dispensing Study, 355 E. Campus View Blvd., Suite 180, Columbus, OH 43235, or fax to 614-802-2309. *Do not* send your answers to the Coalition, NACDS, or NCPA.

You may also complete the questionnaire online at www.2006CostofDispensing.com. If you are answering for multiple pharmacies, a spreadsheet questionnaire is available by sending an email to CODsupport@mpi-group.net and requesting the spreadsheet. If you have any questions about completing the survey, email for support to CODsupport@mpi-group.net.

Please also include contact information requested at the end of the survey in the event we need to follow up with you. Your responses are *confidential*, but if you wish to remain anonymous, you may leave contact information blank.

-
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PROFILE INFORMATION

1. Which of the following best describes this pharmacy location? (check one)
- | | |
|--|---|
| <input type="checkbox"/> Traditional pharmacy | <input type="checkbox"/> Grocery store or mass merchandiser |
| <input type="checkbox"/> Closed-door long-term care pharmacy | <input type="checkbox"/> Other |
2. How many pharmacies (including this one) were in your organization as of August 31, 2006?
- | | | | |
|-------------------------------------|---|---|---|
| <input type="checkbox"/> 1 pharmacy | <input type="checkbox"/> 2 to 25 pharmacies | <input type="checkbox"/> 26 to 100 pharmacies | <input type="checkbox"/> More than 100 pharmacies |
|-------------------------------------|---|---|---|
3. Is one or more of the pharmacists who fill prescriptions at this location also an owner of the store or chain? Yes No
4. In which ZIP code is the pharmacy located? (five-digit code)..... _____ 4
5. Has this pharmacy been open for more than one year? Yes No
6. What is the square footage for the following areas of the store/location?
(report square footage within the physical location: i.e., do not include parking lots)
- | | |
|---|-----------|
| a. Prescription-department space
(include storage, waiting/counseling area, prescription counter, etc.) | sq. ft. 6 |
| b. All other space
(include non-prescription-department storage) | sq. ft. 7 |
| c. Store/location total space
(should equal the sum of the two categories above) | sq. ft. 8 |

PRESCRIPTIONS

7. What was the number of prescriptions filled by this pharmacy for the following categories for the six-month period of March 2006 through August 2006? (for dual-coverage prescriptions, base your count on the primary payer)
- | | |
|--|----|
| a. Medicaid-covered prescriptions
(prescriptions covered by state Medicaid programs) | 9 |
| b. Other third-party prescriptions
(prescriptions covered by other third parties, including Medicare part D) | 10 |
| c. Prescriptions paid for by customer with cash, check, credit card, or store account | 11 |
| d. Other prescriptions | 12 |
| e. Total prescriptions (should be sum of all the above) | 13 |
8. Of the total prescriptions reported in 7e, how many were?
- | | |
|--------------------------------|----|
| a. New prescriptions | 14 |
| b. Refill prescriptions | 15 |
9. Of the Medicaid prescriptions reported in 7a, how many were?
- | | |
|--------------------------------|----|
| a. New prescriptions | 16 |
| b. Refill prescriptions | 17 |
10. How many prescriptions during the period of March 2006 through August 2006 were compounded? _____ 18

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11. How many prescriptions during the period of March 2006 through August 2006 were dispensed for long-term care (LTC) facilities? 19

12. How has each activity below affected the time it takes to dispense a **Medicaid** prescription compared to other third-party prescriptions excluding Medicaid and Medicare Part D? (check one in each row)

	Takes more time	No difference	Takes less time
a. Obtaining plan number/qualifying the patient	20-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b. Obtaining prior authorization	21-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c. Adjudication	22-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Patient counseling	23-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
e. Other dispensing activities	24-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

13. How has each activity below affected the time it takes to dispense a **Medicare Part D** prescription compared to other third-party prescriptions excluding Medicaid and Medicare Part D? (check one in each row)

	Takes more time	No difference	Takes less time
a. Obtaining plan number/qualifying the patient	25-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
b. Obtaining prior authorization	26-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
c. Adjudication	27-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
d. Patient counseling	28-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>
e. Other dispensing activities	29-1 <input type="checkbox"/>	2 <input type="checkbox"/>	3 <input type="checkbox"/>

14. How much work time did it typically take to dispense each of the following types of prescriptions (per prescription)? Count the time contributed by all employees: pharmacists, technicians, clerks, etc.

a. Medicaid prescriptions	minutes	30
b. Medicare Part D	minutes	31
c. Other third-party prescriptions	minutes	32
d. Prescriptions paid for by customers	minutes	33

15. How long did it typically take to receive payment after the prescription was dispensed for the following types of prescriptions? (refer to instruction sheet)

a. Medicaid-covered prescriptions	days	34
b. Other third-party prescriptions (including Medicare Part D)	days	35
c. Prescriptions paid for by customers using store accounts	days	36

SALES AND COSTS

16. What were sales for this location for the following categories for the period of March 2006 through August 2006? (excluding sales tax)

a. Prescription sales (not including over-the-counter sales)	\$	37
b. Retail sales	\$	38
c. Other sales (e.g., services)	\$	39
d. Total sales (sum of the above)	\$	40

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17. What were sales of Medicaid prescriptions (included in #16a) for this location for the period of March 2006 through August 2006? \$ _____ 41

18. What were the following costs and expenses for this location for the period of March 2006 through August 2006? (refer to instruction sheet)

		U.S. dollars
a.	Prescription department payroll (including compensation, benefits, and payroll taxes) If necessary, use the worksheet on the instruction sheet to calculate an accurate prescription department figure	\$ _____ 42
b.	Prescription department costs (not including compensation, benefits, and payroll taxes) (should equal the sum of b1 through b9)	\$ _____ 43
	1. Prescription containers, labels, and other pharmacy supplies	\$ _____ 44
	2. Professional liability insurance for pharmacists	\$ _____ 45
	3. Prescription department licenses, permits, and fees	\$ _____ 46
	4. Dues, subscriptions, and continuing education for the prescription department	\$ _____ 47
	5. Delivery expenses (only prescription-related)	\$ _____ 48
	6. Bad debts for prescriptions (including uncollected co-pays)	\$ _____ 49
	7. Computer systems (related only to the prescription department)	\$ _____ 50
	8. Transaction fees	\$ _____ 51
	9. Other prescription-department-specific costs	\$ _____ 52
c.	Total facility costs (should equal the sum of c1 through c8)	\$ _____ 53
	1. Rent	\$ _____ 54
	2. Utilities (gas, electric, water, and sewer)	\$ _____ 55
	3. Real estate taxes	\$ _____ 56
	4. Facility insurance	\$ _____ 57
	5. Maintenance and cleaning	\$ _____ 58
	6. Depreciation	\$ _____ 59
	7. Mortgage interest	\$ _____ 60
	8. Other facility costs	\$ _____ 61
d.	Other store/location costs • Report only specific costs of the store/location; do not include any corporate costs allocated to the store • Do not report any costs reported above (should equal the sum of d1 through d11)	\$ _____ 62
	1. Marketing and advertising	\$ _____ 63
	2. Professional services (e.g., accounting, legal, consulting)	\$ _____ 64
	3. Telephone and data communications	\$ _____ 65
	4. Computer systems and support	\$ _____ 66
	5. Other depreciation and amortization	\$ _____ 67
	6. Office supplies	\$ _____ 68
	7. Other insurance	\$ _____ 69
	8. Taxes other than real estate, payroll, or sales taxes	\$ _____ 70
	9. Franchise fees, if applicable	\$ _____ 71
	10. Other interest	\$ _____ 72
	11. Other costs not included elsewhere	\$ _____ 73
e.	Corporate costs allocated back to the prescription department at this store/location (refer to instruction sheet)	\$ _____ 74

19. For all employees working within the prescription department (pharmacists, technicians, clerks, delivery drivers, etc.), approximately what percentage of their prescription department time is spent dispensing long-term care prescriptions? % 75

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ACCESS TO COMPARISONS & CONTACT INFORMATION

20. Please list a unique 8-character passcode and email address that will allow you to confidentially compare your pharmacy data online to aggregate groupings of pharmacies based on survey characteristics (e.g., prescription volumes).

Passcode: _ _ _ _ _ 76

Email address: _____ 77

When the online comparison site is activated, you will be notified at the email address above. Both a passcode and an email are necessary in the event that two respondents list identical passcodes.

21. Contact information: *(optional)*

Name: _____ Title: _____

Company: _____ Phone #: _____

Address, City, State , ZIP: _____

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B. Survey – Spreadsheet Example

This Appendix demonstrates how the hard-copy survey instrument shown in Appendix A was translated into a spreadsheet for respondents providing data for multiple pharmacies. The first 13 variables are shown in this example.

1. Which of the following best describes this pharmacy location? (select one)	2. How many pharmacies (including this one) were in your company/chain as of August 31, 2006? (select one answer and apply to all of your pharmacies)	3. Is one or more of the pharmacists who fill prescriptions at this location also an owner of the store or chain? (select one)	4. In which ZIP code is the pharmacy located? (five-digit code)
1 = Traditional pharmacy 2 = Grocery store or mass merchandiser 3 = Closed-door long-term facility 4 = Other	1 = 1 pharmacy 2 = 2 to 25 pharmacies 3 = 26 to 100 pharmacies 4 = More than 100 pharmacies	1 = Yes 2 = No	five-digit zip code
var00001	var00002	var00003	var00004

5. Has this pharmacy been open for more than one year? 1 = Yes 2 = No	6. What is the square footage for the following areas of the store/location? (report square footage that is within the physical location: i.e., do not include parking lots)		
	6a. Prescription-department space (include storage, waiting/counseling area, prescription counter, etc.) square feet	6b. All other space (include non-prescription-department storage) square feet	6c. Store/location total space (should equal sum of the two categories to the left) square feet
var00005	var00006	var00007	var00008

7. What is the number of prescriptions filled by this pharmacy for the following categories for the period of March 2006 through August 2006? (for dual-coverage prescriptions, base your count on the primary payer)					
7a. Medicaid-covered prescriptions (prescriptions covered by state Medicaid programs)	7b. Other third-party prescriptions (prescriptions covered by other third parties, including Medicare part D)	7c. Prescriptions paid for by customer with cash, check, credit card, or store account	7d. Other prescriptions	7e. Total prescriptions (should be sum of all prescription categories to the left)	
var00009	var00010	var00011	var00012	var00013	

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C. Survey Instructions



2006 Cost of Dispensing Study Instructions

The table below offers specific instructions for each question in the *2006 Cost of Dispensing Study*, which must be completed by **Nov. 15, 2006**.

Time period: Many of the questions in the survey ask for data for the six months of March 2006 through August 2006. If your accounting periods do not correspond exactly to calendar months (e.g., your records are based on quarters with two four-week months and one five-week month), use your accounting periods that most closely align with this time period to answer the survey.

Support: If you have any questions about completing the survey, email for support to:
CODsupport@mpi-group.net.

Question	Instructions
1	Select one answer. This data will not appear in the study report and will be removed from the database after the frequency and percentage for each answer have been tabulated.
2	Select one answer. This data will not appear in the study report and will be removed from the database after the frequency and percentage for each answer have been tabulated.
3	Select one answer. This data will not appear in the study report and will be removed from the database after the frequency and percentage for each answer have been tabulated.
4	Enter a ZIP code — use five-digit codes. The ZIP code field will be removed from the study database once pharmacy data has been regrouped by state.

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Question	Instructions
5	Select one answer.
6	Enter actual square footages for prescription department, non-prescription department, and total store, if possible. Do not include space outside of the physical building (e.g., parking lot). If the space at this location is used only for prescriptions, enter a zero (0) in 6b (All other space).
7	Enter the number of prescriptions for each category for the six-month period. There should be no overlap among the categories, and the sum of all categories should equal the answer for “total prescriptions”. For dual-coverage prescriptions, base your count on the primary payer. If all of your prescriptions are included in 7a, 7b, and 7c, enter a zero (0) in 7d.
8	Enter the number of prescriptions for each category. The sum of these two categories should be equal to the total for 7e.
9	Enter the number of <i>Medicaid</i> prescriptions for each category. The sum of these two categories should be equal to the number entered for 7a.
10	Enter the number of compounded prescriptions.
11	Enter the number of prescriptions that were filled for patients at long-term care (LTC) facilities. <i>Do not</i> enter a figure for the number of LTC facilities or number of LTC customers.
12	Select one answer in each row by comparing Medicaid prescriptions to prescriptions paid by third parties other than Medicaid and Medicare Part D. Base your answer on time studies, if available; otherwise, make your best estimate for an average Medicaid prescription compared with an average prescription paid by another third party. <i>Multiple-pharmacy respondents:</i> If unable to provide an answer unique to each location, develop answers by state: Ask key pharmacists in each state of operation to answer the question, and then apply those answers to all your pharmacies in that particular state.
13	Select one answer in each row by comparing Medicare Part D prescriptions to prescriptions paid by third parties other than Medicaid and Medicare Part D. Base your answer on time studies, if available; otherwise, make your best estimate for an average Medicare Part D prescription compared with an average prescription paid by another third party. <i>Multiple-pharmacy respondents:</i> If unable to provide unique times for each location, develop answers by state: Ask key pharmacists in each state of operation to answer the question, and then apply those answers to all your pharmacies in that particular state.

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Question	Instructions
14	<p>Base your answer on time studies, if available; otherwise, make your best estimate of the average work time required to dispense each type of prescription. To determine average work time, consider <i>all</i> the activities required to process a prescription. These activities include, but are not limited to, obtaining plan, physician and patient information; obtaining prior authorizations; evaluating DURs; printing labels; verifying correct medication; adjudication and readjudication; patient counseling; patient payments; and prescription paperwork and filing.</p> <p><i>Multiple-pharmacy respondents:</i> If unable to provide unique times for each location, develop answers by state: Ask key pharmacists in each state of operation to define the times, and then apply those times to all your pharmacies in that particular state.</p>
15	<p>Provide the average time period from date of service until payment is received for each prescription category. <i>Do not</i> provide ranges; if ranges exist, take the midpoint.</p> <p>If rebilling occurs for a prescription category, adjust the time period to reflect the average impact of rebills. For example, if you know the percentage of rebills for a particular category, use that percentage to calculate additional total payment days that should then be distributed to a typical payment period: Multiply the percentage of rebilled prescriptions by the typical additional days to collect due to rebilling, and then add that new figure to the payment period for the prescription category.</p> <p>For example, assume that in your state Medicaid pays claims in 30 days when there is no rebilling. However, 20% of your claims require rebilling, which typically adds another 60 days to the payment time. To reflect these rebills, add 12 days (20% X 60 additional days) to the typical 30 days, and enter the result in 15a: 42 days (30 days + 12 days). Follow a similar thought process when answering 15b and 15c.</p> <p>Alternative method: If you track accounts receivable separately for the three types of payers listed in 15, you can compute the average days to receive payment as follows:</p> <ol style="list-style-type: none"> 1. Determine the total sales for the six-month period for the payer type. 2. Divide by the number of days in the period (184 calendar days) to compute average sales per day. 3. Compute the average outstanding receivables balance for the payer type during the six months. 4. Divide the average outstanding receivable by the average sales per day to get the average days to receive payment. 5. Make sure that the result looks reasonable to you based on your experience. <p><i>Multiple-pharmacy respondents:</i> If unable to provide unique payment periods for each location, develop answers by state: Ask key pharmacists in each state of operation or corporate accounts receivable supervisors to define the times, and then apply those times to all your pharmacies in that particular state.</p>
16	<p>Enter the dollar figure for each sales category that applies to this store for the six-month period.</p> <p>Round dollar figures to the nearest dollar (i.e., do not include cents).</p> <p>Exclude sales tax.</p> <p>Total store sales will be removed from the study database once intermediate calculations have been developed.</p>

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Question	Instructions
17	Enter the dollar figure for Medicaid prescriptions for the six-month period. Round dollar figures to the nearest dollar (i.e., do not include cents). Exclude sales tax.
18	Review the list of costs in 18 carefully prior to starting in order to avoid any double-counting of store/location costs. Answer all major categories (18a, 18b, 18c and 18d — and 18e, if applicable). Do not double count any costs. Round dollar figures to the nearest dollar (i.e., do not include cents).
18a	The worksheet that follows these instructions may be useful when completing 18a. Include the full costs of payroll for people working in the prescription department. For people who spend part of their time in the prescription department and the rest of their time working elsewhere in the store, allocate their payroll costs to the prescription department based on the approximate percentage of their time spent working there.
18b and 18c	Answer subcategories (the shaded lines such as 18b3) as thoroughly as possible. The total of the subcategories in each group must equal the major category. For example, the prescription department costs listed in subcategories 18b1 through 18b9 must equal the major category 18b.
18d	Answer subcategories (the shaded lines such as 18d3) as thoroughly as possible. The total of the subcategories in each group must equal the major category. <i>Do not</i> include corporate costs for multipharmacy organizations in 18d; these costs will be entered in 18e.

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Question	Instructions
<p>18e</p>	<p>If this store is a part of a group of stores or larger business enterprise, some activities may be performed at district, regional, or central corporate locations. The appropriate portion of these costs applicable to each store/location should be calculated as follows, with the total entered in 18e:</p> <p>Step 1. Identify central or corporate costs 100% in support of the prescription department.</p> <p>If possible, identify corporate costs that are 100% in support of the prescription department (such as a corporate pharmaceutical procurement, third-party payment processing, or compliance with state regulations).</p> <p>Also identify corporate costs that support only non-prescription products — <i>do not</i> include them in the allocation of central costs.</p> <p>Step 2. Central or corporate costs related to both the prescription department and other store/location operations.</p> <p>For corporate costs that support both the prescription department and other store operations (such as general administration, accounting, human resources, information systems, general marketing, etc.), multiply the total of these costs times the chain's prescription sales as a percentage of the group's total sales.</p> <p>Step 3: Central costs applicable to all stores' prescription departments.</p> <p>Add together the amounts computed in Step 1 and Step 2.</p> <p>Step 4: Central costs applicable to a single store's prescription department.</p> <p>Multiply the total from Step 3 times this store/location's prescription sales as a percentage of the group's total prescription sales. Enter the result in 18e.</p> <p>See the following sample calculation:</p>

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Question	Instructions
18e sample calculation	<p>The Anytown Drug Store is part of a group of 25 stores, MultiStore Inc. For the six months of March through August, Anytown’s financial statements showed \$3 million in total sales, of which \$2 million (or 67%) were sales of prescriptions.</p> <p>During the same period, total sales for MultiStore Inc. were \$50 million, of which \$32 million — or 64% — were sales of prescriptions. Anytown Drug Store’s prescription sales were 6.25% of the group’s prescription sales (\$2 million ÷ \$32 million).</p> <p>MultiStore Inc. performs a number of functions at its headquarters, including purchasing, finance, legal and regulatory, human resources, information systems, marketing, and general administration. For the six months, these central costs totaled \$1 million.</p> <p>MultiStore’s accounting system allows it to classify its central costs into three categories:</p> <ol style="list-style-type: none"> 1. Departments that are 100% dedicated to supporting prescriptions (\$150,000). 2. Departments that are 100% dedicated to non-prescription products (\$100,000) — because these costs are unrelated to prescriptions, none of them are allocated. 3. Departments that support both prescription and non-prescription operations (\$750,000). <p>MultiStore Inc. will compute the corporate costs allocated to Anytown’s prescription department as follows, using the steps defined in this instruction sheet for 18e:</p> <p>Step 1: 100% of \$150,000 = \$150,000</p> <p>Step 2: 64% of \$750,000 = \$480,000</p> <p>Step 3: Total corporate allocation to all Multistore prescription departments = \$630,000 (Step 1 + Step 2)</p> <p>Step 4: Anytown Drug Store’s portion of this allocation is based on its share of MultiStore’s total prescription sales, which is 6.25%. Anytown’s portion of the prescription department allocation is \$39,375 (6.25% X \$630,000). This number should be entered for 18e for Anytown Drug Store.</p> <p>Note: If MultiStore Inc. has no functions dedicated 100% to prescription or to non-prescription support, then it would allocate its central costs in a two-step process, as follows:</p> <ol style="list-style-type: none"> 1. Allocate total central costs to all stores’ prescription departments: \$1 million X 64% = \$640,000. 2. Allocate the total computed in Step 1 to Anytown Drug Store’s prescription department (\$640,000 X 6.25% = \$40,000). This number would be entered for 18e for Anytown Drug Store.
19	<p>Enter the percentage of the prescription department’s total time spent filling prescriptions for LTC facilities.</p> <p>If the pharmacy is fully dedicated to LTC work, the percentage will be 100%; if no LTC work is performed, the percentage will be 0%.</p>

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Question	Instructions
Passcode and email address	<p>The passcode and email address are necessary if you wish to compare your pharmacy or one of your pharmacies (<i>multiple-pharmacy respondent</i>) to aggregate groupings of pharmacies by characteristics such as prescription volumes. This incentive is offered via an online comparison site.</p> <p>Additionally, if you are entering your answers at the online survey site, a passcode and email address will be requested upon entering the survey site. Applying a passcode and email at the site will enable you to leave your survey unfinished and return to it at another time to complete. You may leave the login blank and enter data anonymously, but you will then need to complete your online survey in one session.</p> <p>We ask for both a passcode and email address in the event that identical passcodes are selected by different respondents (e.g., 12345678).</p> <p><i>Online comparison site:</i> The comparison site presents findings in a manner that keeps respondent data confidential — i.e., it will not be possible to identify a specific pharmacy or a chain of pharmacies or their results.</p>
Contact information	Provide contact information. (<i>optional</i>)

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Prescription Department Payroll Worksheet

To separate out prescription department payroll costs for the period of March 2006 through August 2006, please use the worksheet below (LTC refers to prescriptions filled for long-term care facilities):

Employee group	Total compensation for employee group (excluding benefits)	+	Total benefits for employee group	X	% of employee group work time dedicated to: a. Non-LTC prescriptions b. LTC prescriptions c. Non-prescription department work	=	Prescription department costs per employee group type
Pharmacist-Owner	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Pharmacists	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Technicians	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Clerks	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Delivery drivers	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Other	\$	+	\$	X	a.	% =	\$
				X	b.	% =	\$
					c.	%	
						100%	
Total (sum of all <i>prescription department</i> costs per employee group type) =							\$
Also enter this total on Line 18a of the survey.							

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D. Example of Cost of Dispensing Computation

The following definitions show the calculation of the overall COD and the Medicaid COD as performed for this study, along with a numerical example. This example shows three sets of values:

- Variables entered by survey respondents on the survey instruments that are used to compute COD (only variables actually used in the COD computation are shown in this example).
- Four constants that were used in the COD
- Computations using the variables and constants for calculating the COD

Example values are shown for the variables, constants and computations to assist the reader in understanding the model. The example values are strictly for illustrative purposes and are not based on the actual results of the survey presented in this report.

Variables entered on the survey used in computing the cost of dispensing (an example of the survey instrument is included in Appendix A):

Description	Survey Question	Example of Variable Entered from Survey
Prescription department space in square feet	6a.	900
Store/location total space in square feet	6c.	3,600
Number of Medicaid prescriptions filled during period covered by survey	7a.	5,000
Number of 3rd party (including Medicare Part D prescriptions) filled during period	7b.	20,000
Number of customer-paid prescriptions filled during period	7c.	4,000
Total prescriptions filled during period	7e.	29,000
Number of long-term care prescriptions filled during period	11.	2,000
Estimated minutes required to fill a typical Medicaid prescription	14a.	9
Estimated minutes required to fill a typical Medicare Part D prescription	14b.	11
Estimated minutes required to fill a typical other third-party prescription	14c.	8
Estimated minutes required to fill a typical customer-paid prescription	14d.	6
Average payment days for Medicaid prescriptions	15a.	20
Average payment days for other third party prescriptions, including Medicare Part D	15b.	30
Average payment days for prescriptions paid with store accounts	15c.	25
Total prescription sales during period covered by survey	16a.	\$1,740,000
Total sales for the store	16d.	\$2,000,000
Prescription department payroll	18a.	\$200,000
Other prescription department costs (including supplies, insurance, etc.)	18b.	\$35,000
Total facility costs (including rent, taxes, utilities, etc.)	18c.	\$50,000
Other store/location costs (including advertising, accounting services, etc.)	18d.	\$30,000
Corporate costs allocated to the prescription department	18e.	\$20,000
Percent time spent in the prescription department to fill long-term care prescriptions	19.	8%

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Constants used in the calculation of the cost of dispensing for all pharmacies:

Constant	Additional Description	Example
Number of calendar days in period covered by the survey	Calendar days from March 1 through August 31, 2006	184
Number of days in the calendar year		365
Average short-term interest rate paid by retail businesses during period	Average LIBOR + 200 basis points used as a typical short-term rate for retailers.	7.17%
Estimated Medicare Part D prescriptions as a percentage of third-party prescriptions, not including Medicaid prescriptions	Published estimate at inception of Medicare Part D program.	36.4%

Computations made to arrive at the cost of dispensing, using the survey variables and constants shown above:

Example: Computation of Overall Cost of Dispensing		
Computed Numbers	Additional Description	Example
Prescription department square footage as a percentage of total store square footage		25%
Facility cost allocated to prescription department based on relative square footage	Square footage percentage multiplied by total facility cost.	\$12,500
Prescription department sales as a percentage of total store sales		87%
Other store/location costs allocated to prescription department based on relative sales	Prescription sales percentage multiplied by total other store/location costs.	\$26,100
Total cost of prescription department	Sum of prescription department payroll, other prescription department costs, facility cost allocation, other store/location cost allocation and corporate allocation	\$293,600
Overall cost of dispensing	Total cost of prescription department divided by total number of prescriptions filled	\$10.12

Example: Computation of Medicaid Cost of Dispensing		
To compute payroll costs for Medicaid prescriptions:		
Total Medicaid prescription minutes in period	Number of Medicaid prescriptions multiplied by estimated minutes to fill per prescription	45,000
Total Medicare Part D prescription minutes in period	Estimated Medicare Part D prescriptions multiplied by estimated minutes to fill per prescription (see Note 1 on following page)	80,080
Total third-party prescription minutes in period	Estimated third-party prescriptions multiplied by estimated minutes to fill per prescription (see Note 1 on following page)	101,760
Total customer-paid prescription minutes in period	Number of customer-paid prescriptions multiplied by estimated minutes to fill per prescription	24,000
Total prescription minutes – all prescriptions	Sum of minutes for all prescription types	250,840
Percentage of minutes for Medicaid prescriptions	Medicaid prescription minutes as percentage of total prescription minutes	17.94%
Prescription department payroll applicable to Medicaid prescriptions	Prescription department payroll multiplied by percentage of minutes for Medicaid prescriptions	\$35,880
Medicaid payroll cost per prescription	Payroll applicable to Medicaid prescriptions divided by number of Medicaid prescriptions	\$7.18

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Example: Computation of Medicaid Cost of Dispensing		
To compute interest expense to impute to Medicaid prescriptions:		
Average selling price per prescription	Total prescription sales divided by total number of prescriptions	\$60.00
Average Daily Receivable - Medicaid	Average prescription selling price multiplied by number of Medicaid prescriptions multiplied by average payment days for Medicaid divided by days in period.	\$32,609
Average Daily Receivable - Other 3rd Party	Average prescription selling price multiplied by number of third-party prescriptions multiplied by average payment days for other third-party prescriptions divided by days in period.	\$195,652
Average Daily Receivable - Customer Paid	Average prescription selling price multiplied by number of customer-paid prescriptions multiplied by average payment days for customer-paid prescriptions divided by days in period.	\$32,609
Average Daily Receivable - All Prescriptions	Sum of average daily receivable for Medicaid, third-party and customer prescriptions	\$260,870
Imputed Interest Expense – Total for Period	Average daily receivable (all prescriptions) multiplied by average short-term interest rate multiplied by days in period divided by days in year.	\$9,429
Imputed interest cost per prescription	Imputed interest expense total for period divided by total number of prescriptions	\$0.33
Imputed Interest Expense – Medicaid – Total for Period	Average daily receivable (Medicaid) multiplied by average short-term interest rate multiplied by days in period divided by days in year.	\$1,179
Imputed interest cost per Medicaid prescription	Imputed interest expense (Medicaid) for period divided by s of Medicaid prescriptions	\$0.24
Increase (decrease) in interest cost per prescription – overall vs. Medicaid	Imputed interest cost per Medicaid prescription less imputed interest cost per prescription	(\$0.09)
Medicaid cost of dispensing (see Note 2 below)	Sum of: <ul style="list-style-type: none"> • Medicaid payroll cost per Medicaid prescription (see above) • Overall prescription department cost per prescription • Allocated facility cost per prescription • Allocated store/location cost per prescription • Corporate cost per prescription • Increase (decrease) in interest cost per prescription – overall vs. Medicaid (see above) 	\$10.32

Note 1: The survey instrument did not ask respondents to report separately the number of prescriptions filled for Medicare Part D plans and other third-party plans. The model uses the constant “Estimated Medicare Part D prescriptions as a percentage of third-party prescriptions, not including Medicaid prescriptions” to allocate total third-party prescriptions between Medicare Part D and other third-party plans.

Note 2: The only differences between the overall COD and the Medicaid COD are for prescription department payroll costs and imputed interest expense. All other costs per prescription (other prescription department costs, facility costs, other store/location costs and corporate costs) are computed to be the same for all prescriptions, including Medicaid.

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E. COD Study Results by Question Number

Data are unweighted (i.e., every pharmacy counted equally, regardless of prescription volume) and tabulated based on full database unless otherwise indicated.

5. Has this pharmacy been open for more than one year?		
	Pharmacies	Percent of Pharmacies
Yes	22,299	96.3%
No	850	3.7%
Total	23,149	100.0%

6. What is the square footage for the following areas of the store/location? (report square footage within the physical location: i.e., do not include parking lots)					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Prescription-department space (include storage, waiting/counseling area, prescription counter, etc.)	23,152	733	723	513	925
b. All other space (include non-prescription-department storage)	23,128	30,897	12,931	9,877	43,896
c. Store/location total space (should equal the sum of the two categories)	23,152	31,617	13,905	10,525	44,500

7. What was the number of prescriptions filled by this pharmacy for the following categories for the six-month period of March 2006 through August 2006? (for dual-coverage prescriptions, base your count on the primary payer)					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Medicaid-covered prescriptions (prescriptions covered by state Medicaid programs) ¹	22,123	2,940	1,655	599	3,912
b. Other third-party prescriptions (prescriptions covered by other third parties, including Medicare part D)	23,150	29,917	26,213	17,152	38,299
c. Prescriptions paid for by customer with cash, check, credit card, or store account	23,150	3,043	2,344	1,450	3,749
d. Other prescriptions	23,115	152	0	0	0
e. Total prescriptions	23,152	35,953	31,619	21,075	45,727

¹ Pharmacies for which a Medicaid COD could be computed.

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8. Of the total prescriptions reported in 7e, how many were?					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. New prescriptions	23,138	17,287	15,303	10,284	22,010
b. Refill prescriptions	23,138	18,652	15,728	10,236	23,822

9. Of the Medicaid prescriptions reported in 7a, how many were? ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. New prescriptions	16,541	1,561	800	293	1,984
b. Refill prescriptions	16,541	1,277	678	233	1,624

¹ Pharmacies for which a Medicaid COD could be computed and for which their sum of new Medicaid prescriptions and refill Medicaid prescriptions did not exceed the total Medicaid prescriptions.

10. How many prescriptions during the period of March 2006 through August 2006 were compounded? ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
	22,193	76	27	11	58

¹ 2,259 pharmacies answered 0, and 19,934 reported a figure greater than 0.

11. How many prescriptions during the period of March 2006 through August 2006 were dispensed for long-term care (LTC) facilities? ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
	23,139	97	0	0	0

¹ 22,442 pharmacies answered 0, and 710 reported a figure greater than 0.

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12. How has each activity below affected the time it takes to dispense a Medicaid prescription compared to other third-party prescriptions excluding Medicaid and Medicare Part D? ¹		
a. Obtaining plan number/qualifying the patient		
	Pharmacies	Percent of Pharmacies
Takes more time	8,843	50.8%
No difference	8,387	48.2%
Takes less time	186	1.1%
Total	17,416	100.0%
b. Obtaining prior authorization		
	Pharmacies	Percent of Pharmacies
Takes more time	15,863	91.1%
No difference	1,329	7.6%
Takes less time	223	1.3%
Total	17,415	100.0%
c. Adjudication		
	Pharmacies	Percent of Pharmacies
Takes more time	2,269	13.0%
No difference	15,088	86.6%
Takes less time	57	0.3%
Total	17,414	100.0%
d. Patient counseling		
	Pharmacies	Percent of Pharmacies
Takes more time	3,558	20.4%
No difference	13,848	79.5%
Takes less time	9	0.1%
Total	17,415	100.0%
e. Other dispensing activities		
	Pharmacies	Percent of Pharmacies
Takes more time	3,608	20.7%
No difference	13,778	79.1%
Takes less time	26	0.1%
Total	17,412	100.0%

¹ Pharmacies for which a Medicaid COD could be computed.

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13. How has each activity below affected the time it takes to dispense a Medicare Part D prescription compared to other third-party prescriptions excluding Medicaid and Medicare Part D? ¹		
a. Obtaining plan number/qualifying the patient		
	Pharmacies	Percent of Pharmacies
Takes more time	16,200	93.0%
No difference	1,040	6.0%
Takes less time	175	1.0%
Total	17,415	100.0%
b. Obtaining prior authorization		
	Pharmacies	Percent of Pharmacies
Takes more time	12,652	72.7%
No difference	4,756	27.3%
Takes less time	7	0.0%
Total	17,415	100.0%
c. Adjudication		
	Pharmacies	Percent of Pharmacies
Takes more time	2,735	15.7%
No difference	14,666	84.2%
Takes less time	13	0.1%
Total	17,414	100.0%
d. Patient counseling		
	Pharmacies	Percent of Pharmacies
Takes more time	3,741	21.5%
No difference	13,665	78.5%
Takes less time	8	0.0%
Total	17,414	100.0%
e. Other dispensing activities		
	Pharmacies	Percent of Pharmacies
Takes more time	6,979	40.1%
No difference	10,423	59.9%
Takes less time	6	0.0%
Total	17,408	100.0%

¹ Pharmacies for which a Medicaid COD could be computed.

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14. How much work time did it typically take to dispense each of the following types of prescriptions (per prescription)? Count the time contributed by all employees: pharmacists, technicians, clerks, etc. (minutes) ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Medicaid prescriptions	22,123	11.7	11.1	9.5	12.5
b. Medicare Part D	22,123	12.5	12.0	9.5	13.4
c. Other third-party prescriptions	22,123	10.6	10.0	9.4	12.4
d. Prescriptions paid for by customers	22,123	8.7	8.9	7.0	11.4

¹ Pharmacies for which a Medicaid COD could be computed.

15. How long did it typically take to receive payment after the prescription was dispensed for the following types of prescriptions? (days) ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Medicaid-covered prescriptions	22,092	19.9	16.0	10.7	26.0
b. Other third-party prescriptions (including Medicare Part D)	22,123	23.7	24.1	22.5	28.0
c. Prescriptions paid for by customers using store accounts	21,465	19.2	0.0	0.0	37.0

¹ Pharmacies for which a Medicaid COD could be computed.

16. What were sales for this location for the following categories for the period of March 2006 through August 2006? (excluding sales tax)					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Prescription sales (not including over-the-counter sales)	23,152	\$2,045,775	\$1,788,032	\$1,172,260	\$2,627,983
b. Retail sales	23,147	\$3,979,666	\$1,164,242	\$601,305	\$2,761,716
c. Other sales (e.g., services)	22,433	\$1,925	\$0	\$0	\$0
d. Total sales (sum of above)	23,152	\$6,065,530	\$3,511,224	\$2,247,180	\$6,288,529

17. What were sales of Medicaid prescriptions (included in #16a) for this location for the period of March 2006 through August 2006?					
	Pharmacies	Mean	Median	25th percentile	75th percentile
	23,122	\$181,127	\$104,701	\$36,341	\$235,601

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18. What were the following costs and expenses for this location for the period of March 2006 through August 2006?					
	Pharmacies	Mean	Median	25th percentile	75th percentile
a. Prescription department payroll (including compensation, benefits, and payroll taxes)	23,152	\$235,571	\$206,937	\$169,542	\$262,229
b. Prescription department costs (not including compensation, benefits, and payroll taxes)	23,152	\$23,871	\$16,267	\$8,738	\$31,346
c. Total facility costs	22,112	\$429,736	\$218,915	\$127,252	\$323,636
d. Other store/location costs	23,152	\$156,541	\$88,213	\$60,827	\$129,791
e. Corporate costs allocated back to the prescription department at this store/location	23,152	\$48,379	\$32,516	\$13,317	\$69,313

19. For all employees working within the prescription department (pharmacists, technicians, clerks, delivery drivers, etc.), approximately what percentage of their prescription department time is spent dispensing long-term care prescriptions? ¹					
	Pharmacies	Mean	Median	25th percentile	75th percentile
	162	32%	20%	10%	40%

¹ Pharmacies that dispense long-term care prescriptions and for which LTC prescriptions constitute 10% or more of total prescription volume..

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F. COD Study Metropolitan Statistical Areas (MSA's)

This table presents the Metropolitan Statistical Areas used for the urban/rural classification of the pharmacies that participated in the COD study. As noted in the report, 19,811 pharmacies in 337 MSA's were classified as urban, 3,185 pharmacies were not in an MSA and classified as rural, and 156 pharmacies had insufficient data to determine whether they were in an MSA and were not included in the urban/rural statistics.

Abilene, TX	Caguas, PR	Fayetteville, NC
Aguadilla, PR	Canton-Massillon, OH	Fitchburg-Leominster, MA
Akron, OH	Casper, WY	Flagstaff, AZ-UT
Albany-Schenectady-Troy, NY	Cedar Rapids, IA	Flint, MI
Albany, GA	Champaign-Urbana, IL	Florence, AL
Albuquerque, NM	Charleston-North Charleston, SC	Florence, SC
Alexandria, LA	Charleston, WV	Fort Collins-Loveland, CO
Allentown-Bethlehem-Easton, PA	Charlottesville, VA	Fort Lauderdale-Hollywood, FL
Altoona, PA	Chattanooga, TN-GA	Fort Myers-Cape Coral, FL
Amarillo, TX	Cheyenne, WY	Fort Pierce-Port St. Lucie, FL
Anchorage, AK	Chicago, IL	Fort Smith, AR-OK
Ann Arbor, MI	Chico-Paradise, CA	Fort Walton Beach, FL
Anniston, AL	Cincinnati, OH-KY-IN	Fort Wayne, IN
Appleton-Oshkosh-Neenah, WI	Clarksville-Hopkinsville, TN-KY	Fort Worth, TX
Arecibo, PR	Cleveland, OH	Fresno, CA
Asheville, NC	ColoradoSprings, CO	Gadsden, AL
Athens, GA	Columbia, MO	Gainesville, FL
Atlanta, GA	Columbia, SC	Galveston-Texas City, TX
Atlantic City, NJ	Columbus, GA-AL	Gary-Hammond-East Chicago, IN
Auburn-Opelika, AL	Columbus, OH	Glens Falls, NY
Augusta-Aiken, GA-SC	Corpus Christi, TX	Goldsboro, NC
Austin-San Marcos, TX	Corvallis, OR	Grand Forks, ND-MN
Bakersfield, CA	Cumberland, MD-WV	Grand Junction, CO
Baltimore, MD	Dallas-Fort Worth, TX	Great Falls, MT
Bangor, ME	Danbury, CT	Greeley, CO
Barnstable-Yarmouth, MA	Danville, VA	Green Bay, WI
Baton Rouge, LA	Dayton-Springfield, OH	Greenville, NC
Beaumont-Port Arthur, TX	Daytona Beach, FL	Hagerstown, MD
Bellingham, WA	Decatur, AL	Hamilton-Middletown, OH
Benton Harbor, MI	Decatur, IL	Harrisburg-Lebanon-Carlisle, PA
Bergen-Passaic	Denver-Boulder, CO	Hartford, CT
Billings, MT	Des Moines, IA	Hattiesburg, MS
Biloxi-Gulfport-Pascagoula, MS	Detroit, MI	Hickory-Morganton-Lenoir, NC
Binghamton, NY	Dothan, AL	Honolulu, HI
Birmingham, AL	Dover, DE	Houma, LA
Bismarck, ND	Dubuque, IA	Houston, TX
Bloomington-Normal, IL	Duluth-Superior, MN-WI	Huntington-Ashland, WV-KY-OH
Bloomington, IN	Dutchess County, NY	Huntsville, AL
Boise City, ID	Eau Claire, WI	Indianapolis, IN
Boston, MA	El Paso, TX	Iowa City, IA
Boulder-Longmont	Elkhart-Goshen, IN	Jackson, MI
Brazoria, TX	Elmira, NY	Jackson, MS
Bremerton, WA	Enid, OK	Jackson, TN
Bridgeport-Milford, CT	Erie, PA	Jacksonville, FL
Brockton, MA	Eugene-Springfield, OR	Jacksonville, NC
Bryan-College Station, TX	Evansville-Henderson, IN-KY	Jamestown, NY
Buffalo-Niagara Falls, NY	Fargo-Moorhead, ND-MN	Janesville-Beloit, WI
Burlington, VT	Fayetteville-Springdale-Rogers, AR	Jersey City, NJ

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Johnstown, PA	New Bedford, MA	Sarasota-Bradenton, FL
Jonesboro, AR	New Haven-Meriden, CT	Savannah, GA
Joplin, MO	New London-Norwich, CT-RI	Seattle-Everett, WA
Kalamazoo-Battle Creek, MI	New Orleans, LA	Sharon, PA
Kankakee, IL	New York, NY-NJ	Sheboygan, WI
Kansas City, MO-KS	Newark, NJ	Sherman-Denison, TX
Kenosha, WI	Newburgh-Middletown, NY	Shreveport-Bossier City, LA
Killeen-Temple, TX	Oakland, CA	Sioux City, IA-NE
Knoxville, TN	Ocala, FL	Sioux Falls, SD
Kokomo, IN	Odessa-Midland, TX	South Bend, IN
La Crosse, WI-MN	Oklahoma City, OK	Spokane, WA
Lafayette, IN	Olympia, WA	Springfield, IL
Lafayette, LA	Omaha, NE-IA	Springfield, MA
Lake Charles, LA	Orange County, CA	Springfield, MO
Lakeland-Winter Haven, FL	Orlando, FL	St. Cloud, MN
Lancaster, PA	Owensboro, KY	St. Joseph, MO
Lansing-East Lansing, MI	Panama City, FL	St. Louis, MO-IL
Laredo, TX	Parkersburg-Marietta, WV-OH	Stamford, CT
Las Cruces, NM	Pensacola, FL	State College, PA
Las Vegas, NV-AZ	Peoria-Pekin, IL	Steubenville-Weirton, OH-WV
Lawrence-Haverhill, MA-NH	Philadelphia, PA-NJ	Stockton-Lodi, CA
Lawrence, KS	Phoenix-Mesa, AZ	Sumter, SC
Lawton, OK	Pine Bluff, AR	Syracuse, NY
Lewiston-Auburn, ME	Pittsburgh, PA	Tacoma, WA
Lexington, KY	Pittsfield, MA	Tallahassee, FL
Lima, OH	Pocatello, ID	Terre Haute, IN
Lincoln, NE	Ponce, PR	Texarkana, TX-Texarkana, AR
Little Rock-North Little Rock, AR	Portland, ME	Toledo, OH
Longview-Marshall, TX	Portland, OR-WA	Topeka, KS
Los Angeles-Long Beach, CA	Provo-Orem, UT	Trenton, NJ
Louisville, KY-IN	Pueblo, CO	Tucson, AZ
Lowell, MA-NH	Punta Gorda, FL	Tulsa, OK
Lubbock, TX	Racine, WI	Tuscaloosa, AL
Lynchburg, VA	Raleigh-Durham-Chapel Hill, NC	Tyler, TX
Macon, GA	Rapid City, SD	Utica-Rome, NY
Madison, WI	Reading, PA	Vallejo-Fairfield-Napa, CA
Manchester, NH	Redding, CA	Ventura, CA
Mansfield, OH	Reno, NV	Victoria, TX
Mayaguez, PR	Richland-Kennewick-Pasco, WA	Vineland-Millville-Bridgeton, NJ
McAllen-Edinburg-Mission, TX	Richmond-Petersburg, VA	Visalia-Tulare-Porterville, CA
Medford-Ashland, OR	Roanoke, VA	Waco, TX
Melbourne-Titusville-Palm Bay, FL	Rochester, MN	Washington, DC-MD-VA
Memphis, TN-AR-MS	Rochester, NY	Waterbury, CT
Merced, CA	Rockford, IL	Waterloo-Cedar Falls, IA
Miami, FL	Rocky Mount, NC	Wausau, WI
Milwaukee, WI	Sacramento, CA	West Palm Beach-Boca Raton, FL
Minneapolis-St. Paul, MN-WI	Saginaw-Bay City-Midland, MI	Wheeling, WV-OH
Missoula, MT	Salem, OR	Wichita, KS
Mobile, AL	Salinas, CA	Wichita Falls, TX
Modesto, CA	Salt Lake City-Ogden, UT	Williamsport, PA
Monmouth-Ocean, NJ	San Angelo, TX	Wilmington, DE-NJ-MD
Monroe, LA	San Antonio, TX	Wilmington, NC
Montgomery, AL	San Diego, CA	Worcester, MA
Muncie, IN	San Francisco-Oakland, CA	Yakima, WA
Myrtle Beach, SC	San Jose, CA	Yolo, CA
Naples, FL	San Juan, PR	York, PA
Nashua, NH	Santa Cruz, CA	Youngstown-Warren, OH
Nashville, TN	Santa Fe, NM	Yuba City, CA
Nassau-Suffolk, NY	Santa Rosa, CA	Yuma, AZ

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