MAC Pricing Analysis
Prepared for the Senior Care Pharmacy Coalition

November 2015
avalere.com

Analysis Overview

- Data Source:

  ○ Avalere created a data warehouse to store and aggregate transaction data from 18 independent LTC pharmacies* (6 parent companies)

  ○ The warehouse includes over 21.4 million individual drug transactions from January 2012 to March 2015**

- Analyses:

  1. Trends in Key Financial Indicators for Generic and Brand-Name Drugs (2013—2015)

  2. MAC Pricing Variability for Top Generic Drugs and Payers (April 2014)

  3. Percent of Drugs Dispensed that Are Generic vs. Brand-Name (2013—2015)

  4. Percent of Generic Drug NDCs with Negative Margin (2013—2015)

LTC: Long-Term Care; MAC: Maximum Allowable Cost; NDC: National Drug Code
* Independent LTC pharmacies refers to non-publicly traded LTC pharmacies.
** A significant percentage of transactions from 2012 and Q1-Q2 2013 are missing data on Cost of Goods Sold, so we have excluded these data from the analyses.

Executive Summary / Findings

- **Analysis #1 –** *Trends in Key Financial Indicators for Generic and Brand-Name Drugs*

    o Generic drugs reimbursed using MAC pricing have negative margins because revenue has remained flat even as total cost has increased

- **Analysis #2 –** *MAC Pricing Variability for Top Generic Drugs and Payers*

    o MAC prices paid for the same generic drug on the same day by different payers can vary considerably

- **Analysis #3 –** *Percent of Drugs Dispensed that Are Generic vs. Brand-Name*

    o The percent of prescriptions and total days supplied by generic drugs has increased

- **Analysis #4 –** *Percent of Generic Drug NDCs with Negative Margin*

    o The percent of generic drugs that, on average, have a negative margin has increased

MAC: Maximum Allowable Cost
COGS: Cost of Goods Sold
NDC: National Drug Code

#1 – Trends in Key Financial Indicators for Generic and Brand-Name Drugs

Overview #1 – Trends in Key Financial Indicators for Generic and Brand-Name Drugs

- <u>Objective:</u> assess the trends of key financial indicators (revenue, cost, and margin) for generic and brand-name drugs

- <u>Methodology:</u>

  1. Determined average total revenue* and average COGS per 30-day supply for all generic and brand-name drugs, all Medicare Part D payers (Q3 2013 to Q1 2015)

  2. Calculated total cost by adding COGS to a fixed cost to dispense**

  3. Calculated the margin by subtracting total cost from total revenue

  4. Segmented the results for:

     a. Generic drugs reimbursed using MAC pricing

     b. Generic drugs reimbursed using a method other than MAC pricing

     c. Brand-name drugs reimbursed using all methods

     d. Generic and brand-name drugs reimbursed using all methods

- <u>Finding:</u>

  o Generic drugs reimbursed using MAC pricing have negative margins because revenue has remained flat even as total cost has increased
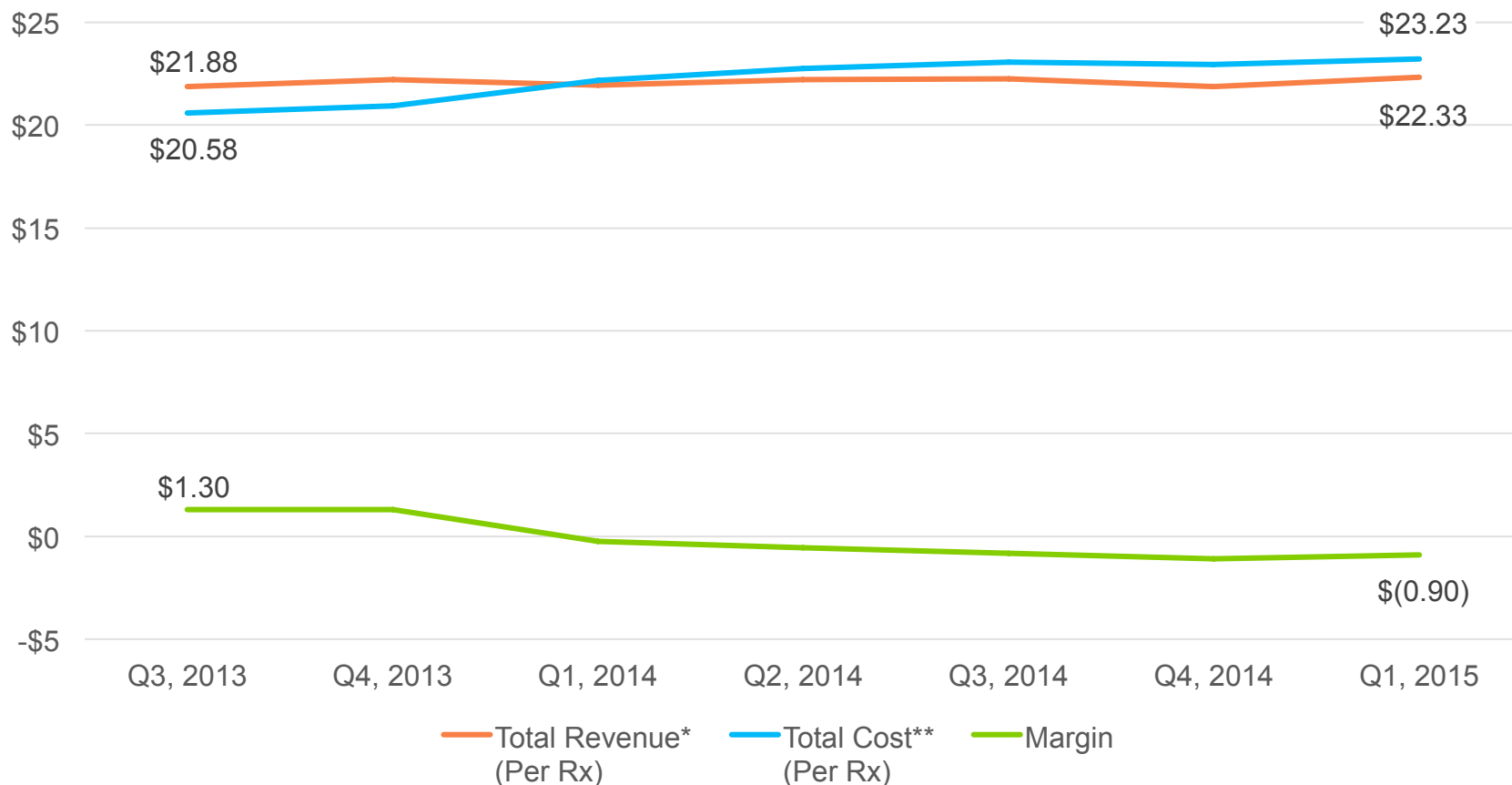
MAC: Maximum Allowable Cost; COGS: Cost of Goods Sold
* Total revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any).
** This analysis uses a fixed $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

Financial Indicators for Generic Drugs Reimbursed Using MAC Pricing

Average Total Revenue, Total Cost, and Margin for All Generic Drugs Reimbursed Using MAC Pricing, All Medicare Part D Payers, 30-Day Supply, 2013—2015
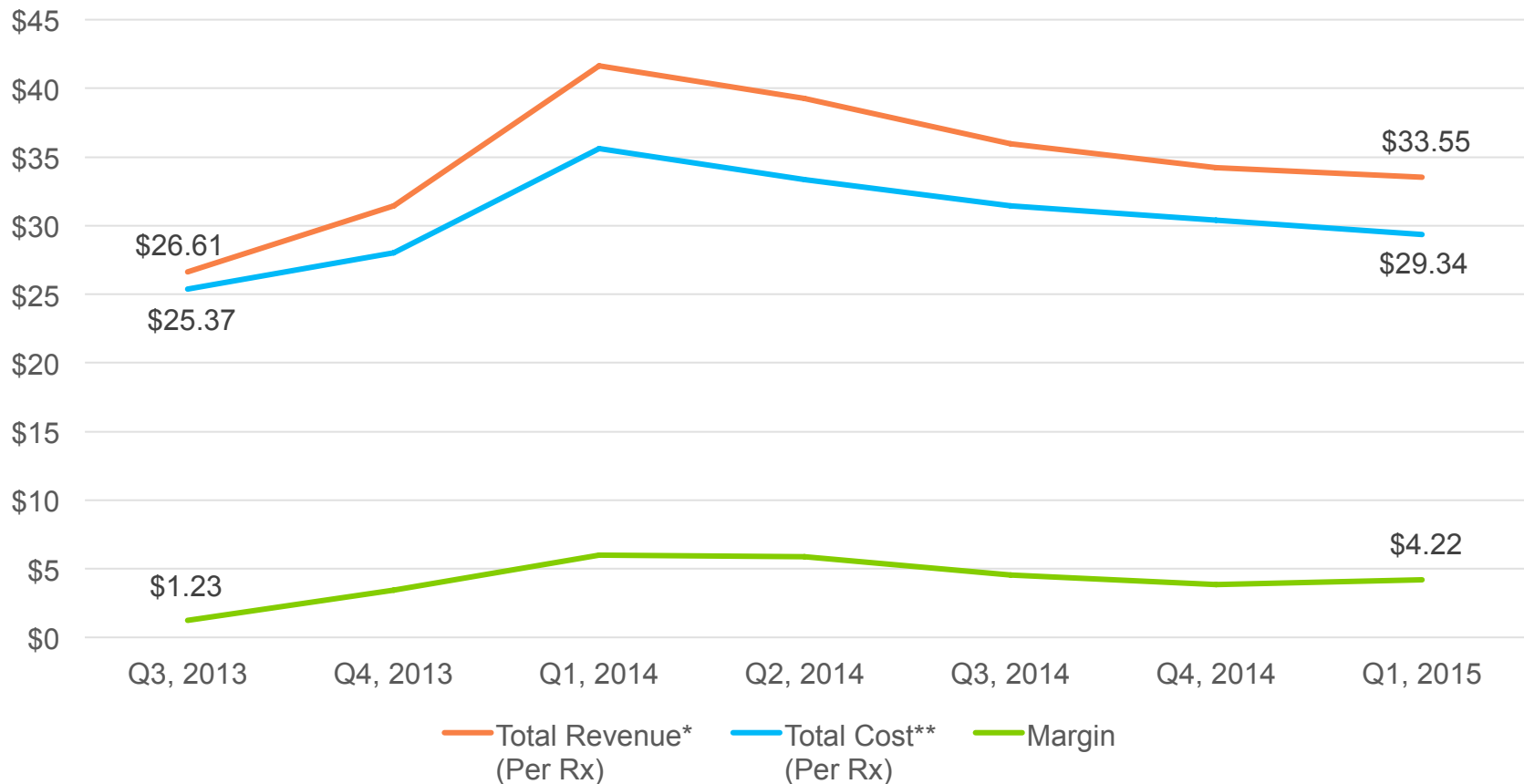

MAC: Maximum Allowable Cost

* Total revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any).

** Total cost is cost of goods sold plus cost to dispense. This analysis uses a fixed $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

Financial Indicators for Generic Drugs Reimbursed Using a Method Other Than MAC Pricing

Average Total Revenue, Total Cost, and Margin for All Generic Drugs Reimbursed Without MAC Pricing, All Medicare Part D Payers, 30-Day Supply, 2013—2015


Legend:
- Total Revenue* (Per Rx)
- Total Cost** (Per Rx)
- Margin

Data labels:
- $26.61
- $25.37
- $1.23
- $33.55
- $29.34
- $4.22

X-axis: Q3, 2013 | Q4, 2013 | Q1, 2014 | Q2, 2014 | Q3, 2014 | Q4, 2014 | Q1, 2015

MAC: Maximum Allowable Cost

* Total revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any).

** Total cost is cost of goods sold plus cost to dispense. This analysis uses a fixed $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

Financial Indicators for Brand-Name Drugs

Average Total Revenue, Total Cost, and Margin for All Brand-Name Drugs, All Reimbursement Methods, All Medicare Part D Payers, 30-Day Supply, 2013—2015
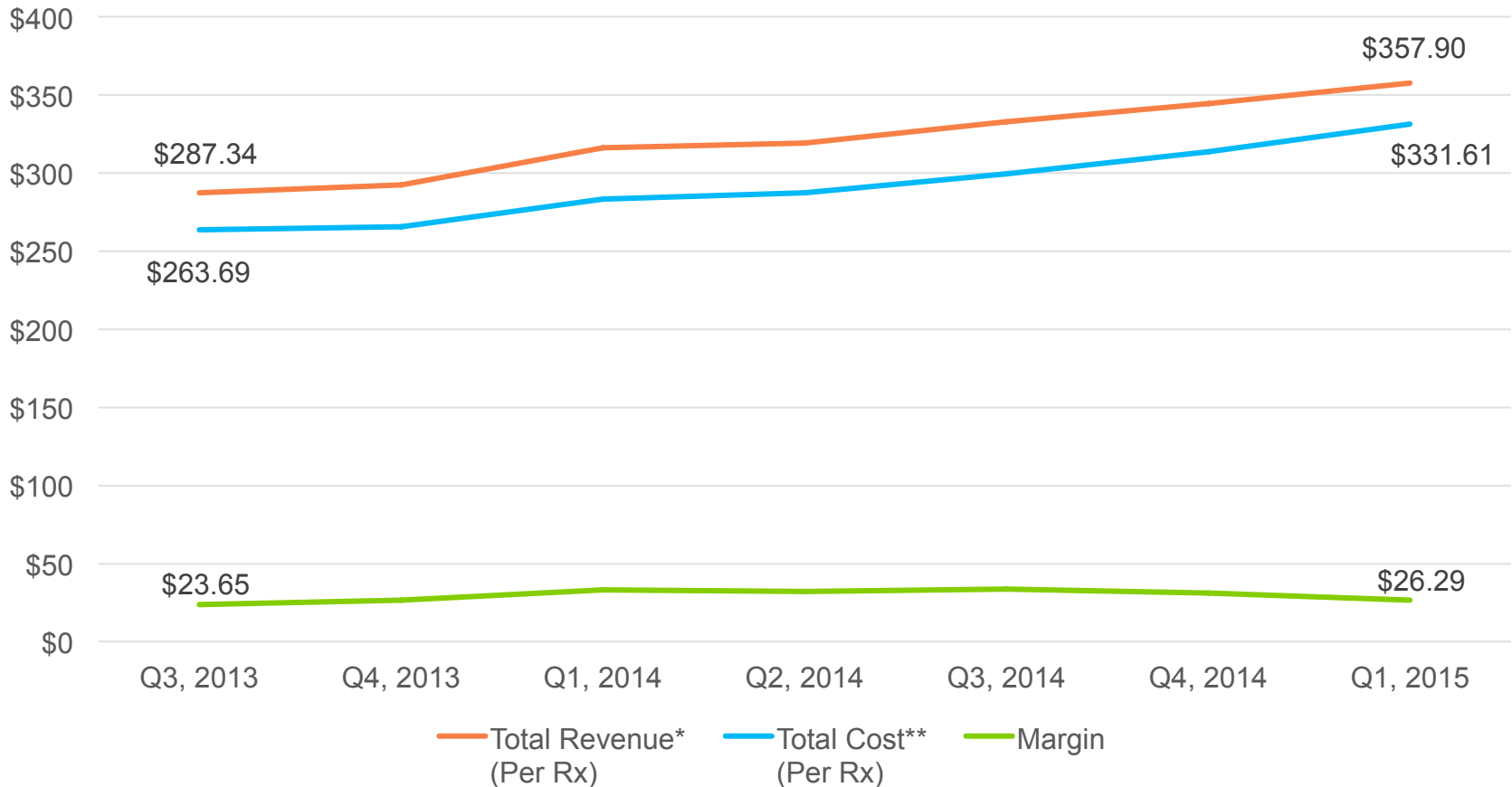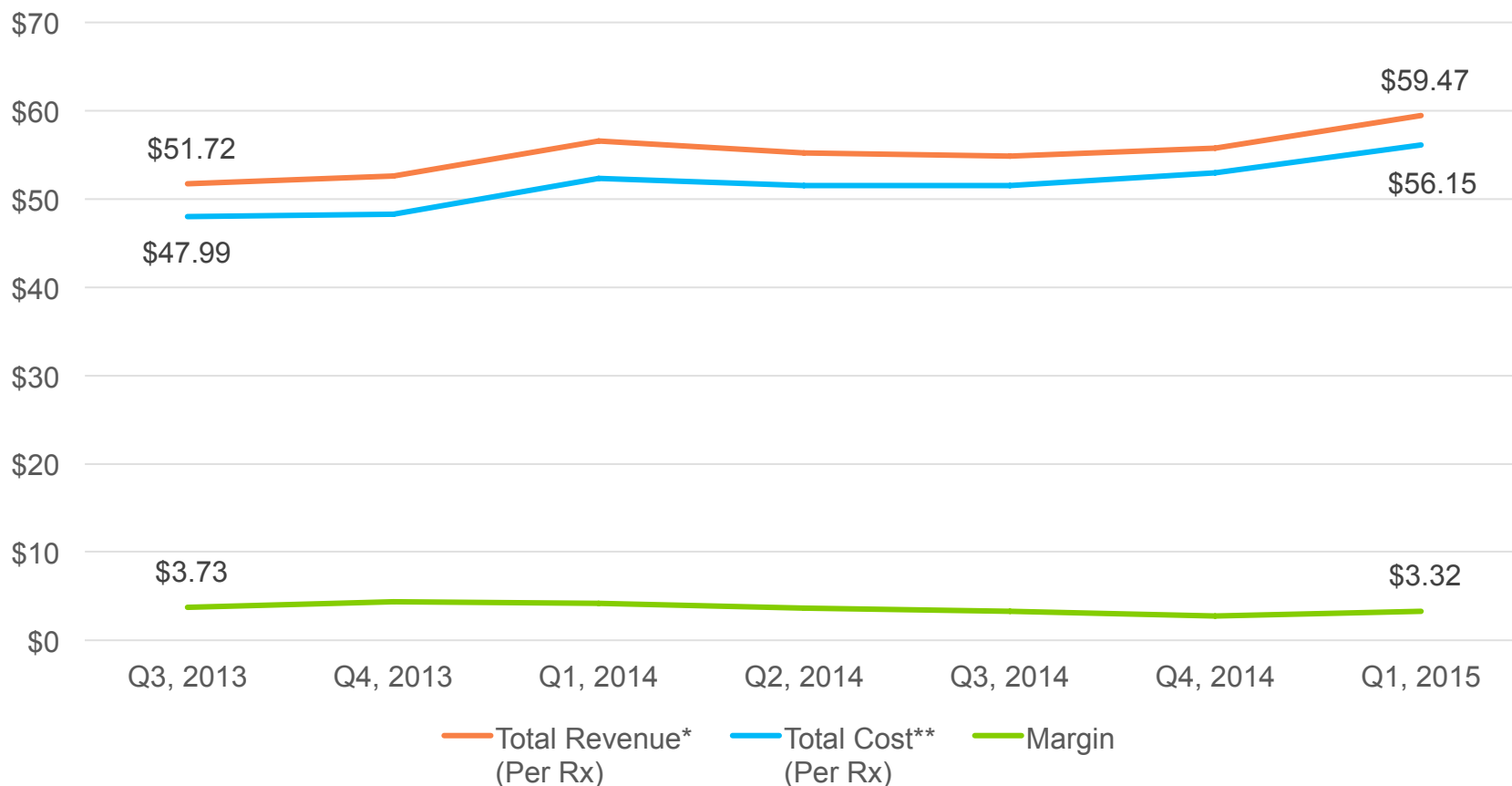

* Total revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any).
** Total cost is cost of goods sold plus cost to dispense. This analysis uses a fixed $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

Avalere | 8

Financial Indicators for All Drugs

Average Total Revenue, Total Cost, and Margin for All Drugs, All Reimbursement Methods, All Medicare Part D Payers, 30-Day Supply, 2013—2015

* Total revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any).
** Total cost is cost of goods sold plus cost to dispense. This analysis uses a fixed $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

#2 – MAC Pricing Variability for Top Generic Drugs and Payers

Overview #2 - MAC Pricing Variability for Top Generic Drugs and Payers

- Objective: evaluate the change in MAC pricing over the course of a month for a single drug and individual payers

- Methodology:

  1. Determined the top-5 Medicare Part D payers by total volume*

  2. Determined the top-3 generic drugs by total volume,* all Medicare Part D payers

  3. Calculated the daily average MAC reimbursement per unit** of each drug by each payer in April 2014

  4. Calculated the daily average COGS per unit of each drug for the top-5 payers in April 2014

- Finding:

  o MAC prices paid for the same generic drug on the same day by different payers can vary considerably
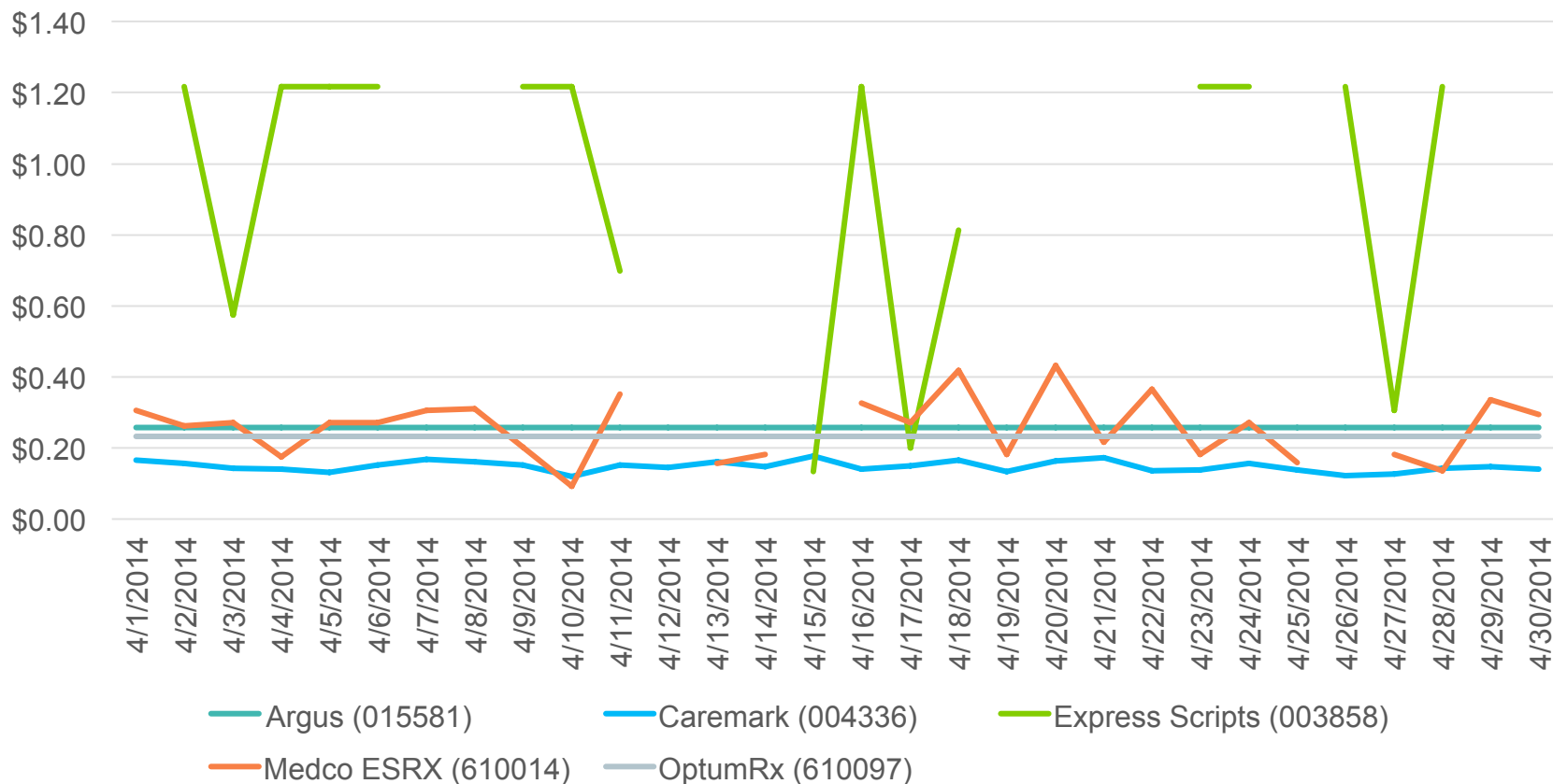
* Volume defined as total days supply dispensed
** For example, the MAC reimbursement for a single pill of the particular drug.
MAC: Maximum Allowable Cost; COGS: Cost of Goods Sold

MAC Variability for Omeprazole

MAC Reimbursement per Unit of Omeprazole* by Top-5
Medicare Part D Payers, April 2014

Legend:
- Argus (015581)
- Caremark (004336)
- Express Scripts (003858)
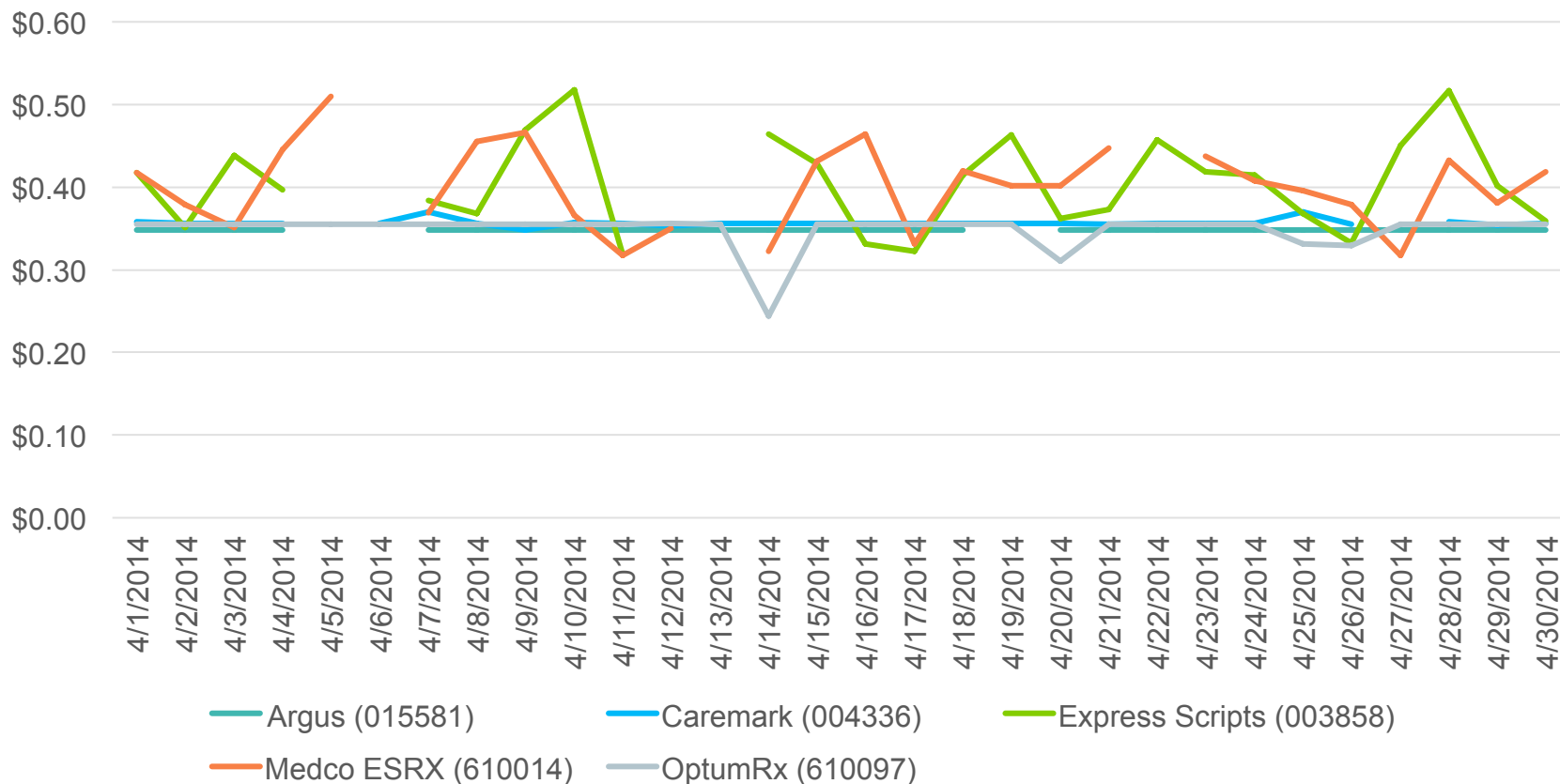- Medco ESRX (610014)
- OptumRx (610097)

* NDC = 60505006501
MAC: Maximum Allowable Cost; COGS: Cost of Goods Sold; NDC: National Drug Code
Notes: top-5 payers identified based on total days supply dispensed, listed alphabetically. Weighted average MAC reimbursement provided for each payer daily. COGS is the weighted average for all payers, daily. Gaps in the trend line indicate that no data is available for that payer for this drug on that day.

MAC Variability for Potassium Chloride

MAC Reimbursement per Unit of Potassium Chloride* by
Top-5 Medicare Part D Payers, April 2014

Legend:
— Argus (015581) — Caremark (004336) — Express Scripts (003858)
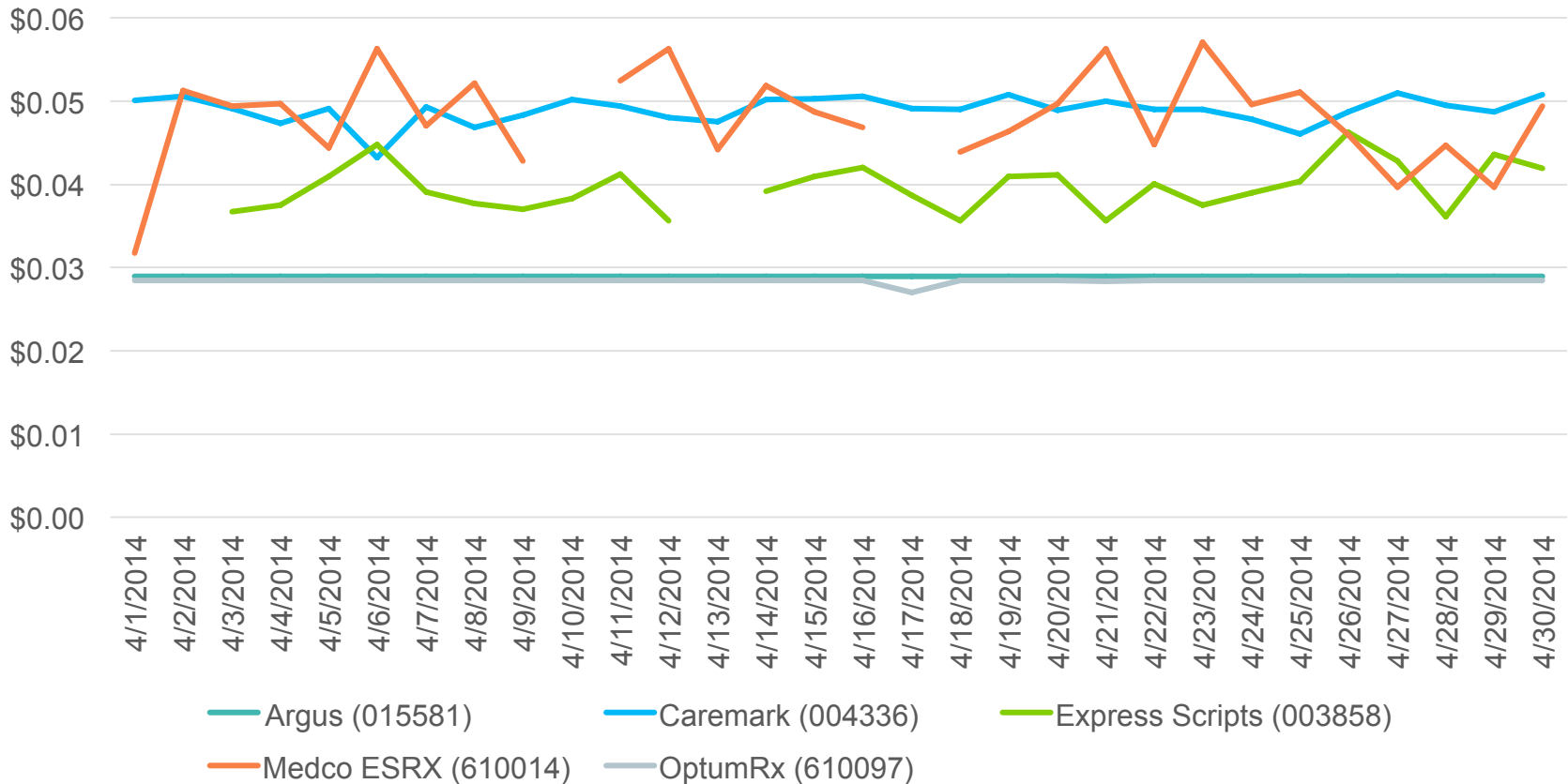— Medco ESRX (610014) — OptumRx (610097)

* NDC = 62037099910
MAC: Maximum Allowable Cost; COGS: Cost of Goods Sold; NDC: National Drug Code
Notes: top-5 payers identified based on total days supply dispensed, listed alphabetically. Weighted average MAC
reimbursement provided for each payer daily. COGS is the weighted average for all payers, daily. Gaps in the trend line
indicate that no data is available for that payer for this drug on that day.

MAC Variability for Polyethylene Glycol

MAC Reimbursement per Unit of Polyethylene Glycol* by Top-5 Medicare Part D Payers, April 2014

Legend:
- Argus (015581)
- Caremark (004336)
- Express Scripts (003858)
- Medco ESRX (610014)
- OptumRx (610097)

* NDC = 51991045757
MAC: Maximum Allowable Cost; COGS: Cost of Goods Sold; NDC: National Drug Code
Notes: top-5 payers identified based on total days supply dispensed, listed alphabetically. Weighted average MAC reimbursement provided for each payer daily. COGS is the weighted average for all payers, daily. Gaps in the trend line indicate that no data is available for that payer for this drug on that day.
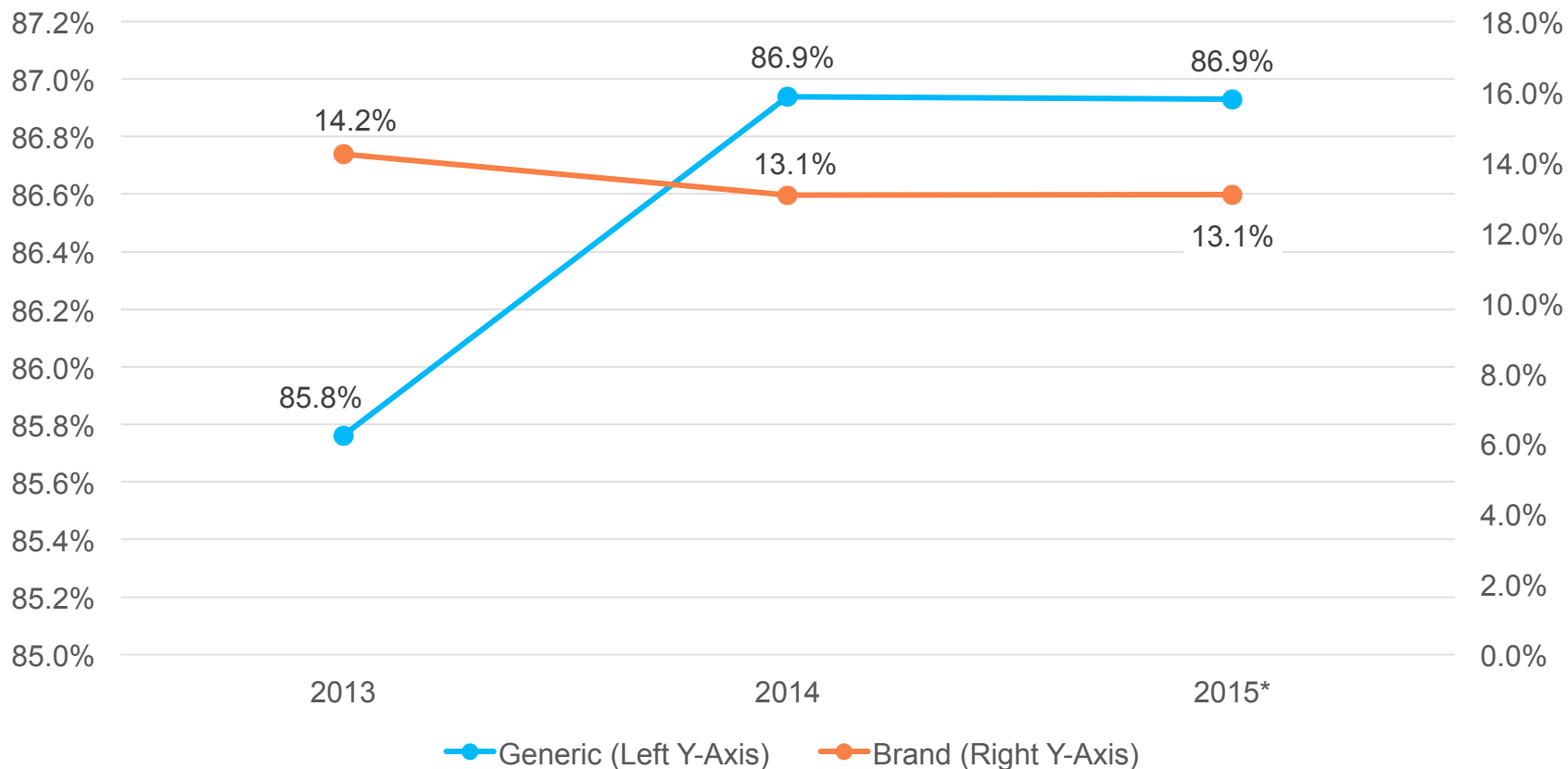
#3 – Percent of Drugs Dispensed that Are Generic vs. Brand-Name

Avalere

Overview #3 – Percent of Drugs Dispensed that Are Generic vs. Brand-Name

- Objective: assess whether generic drugs represent an increasing share of total drugs dispensed

- Methodology:

  1. Determined the percent of Medicare Part D drugs dispensed that are generic versus brand-name from 2013—2015. Segmented the results by:

     a. Number of prescriptions

     b. Number of days supplied

- Finding:

  o The percent of prescriptions and total days supplied by generic drugs has increased
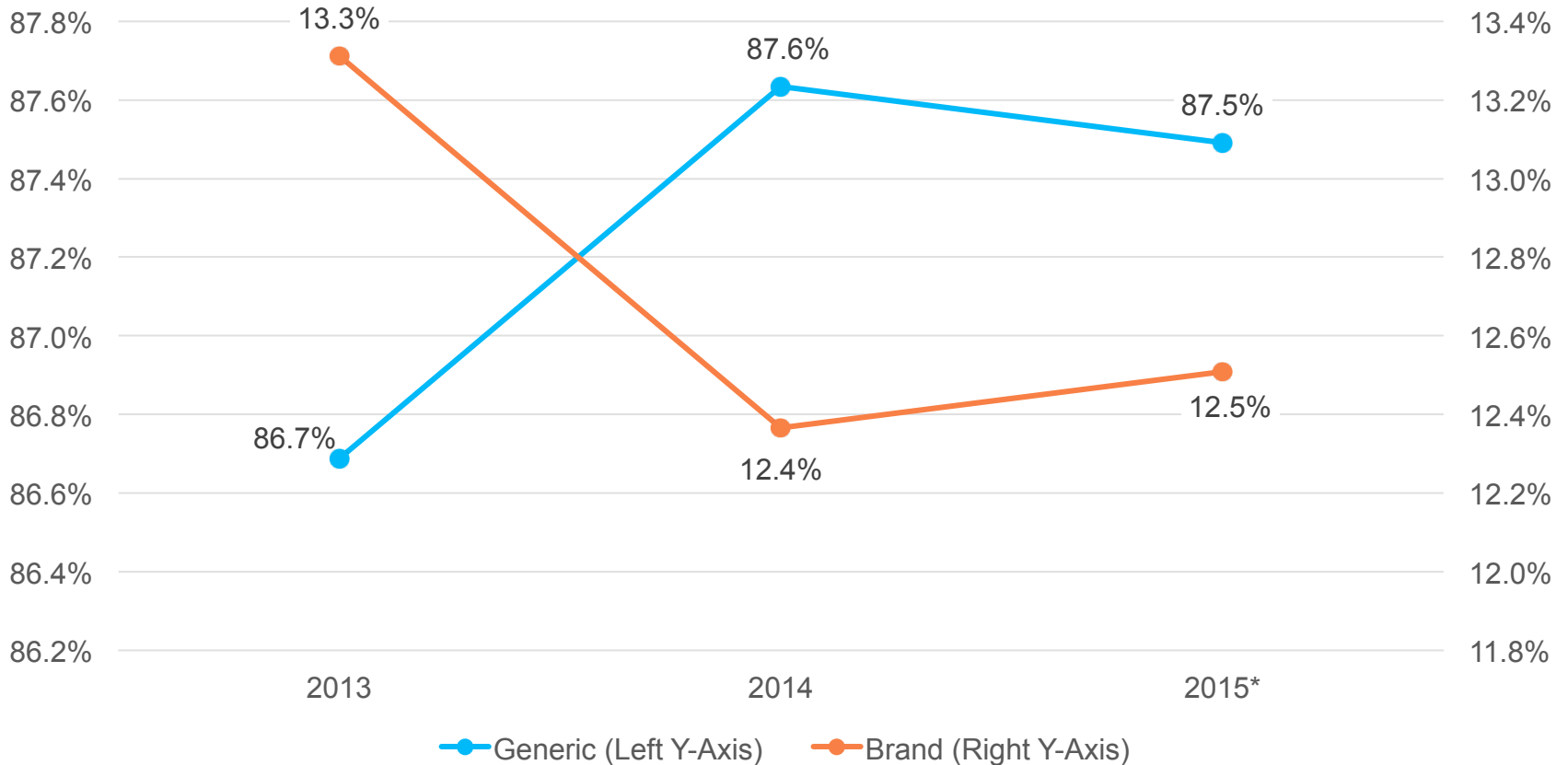
Prescriptions for Generics vs. Brands

Percent of Medicare Part D Prescriptions by Drug Type, 2013 —2015

Line chart showing Generic (Left Y-Axis) and Brand (Right Y-Axis) percentages for 2013, 2014, and 2015*.

- Generic: 85.8% (2013), 86.9% (2014), 86.9% (2015*)
- Brand: 14.2% (2013), 13.1% (2014), 13.1% (2015*)

Legend: Generic (Left Y-Axis) — Brand (Right Y-Axis)

* Includes data from Q1.

Days Supplied by Generics vs. Brands

Percent of Total Medicare Part D Days Supplied by Drug Type, 2013—2015

Generic (Left Y-Axis) — 86.7% (2013), 87.6% (2014), 87.5% (2015*)

Brand (Right Y-Axis) — 13.3% (2013), 12.4% (2014), 12.5% (2015*)

* Includes data from Q1.

#4 – Percent of Generic Drug NDCs with Negative Margins

Overview #4 - Percent of Generic Drug NDCs with Negative Margins

- Objective: estimate the percentage of generic drugs that have a negative margin, and determine whether that percentage has increased

- Methodology:

  1. Calculated the percent of Medicare Part D generic drugs with a negative margin: Average Revenue – (Average COGS + Cost to Dispense) < 0

     a. Average revenue is equal to average ingredient cost plus average dispensing fee*

     b. Cost-to-dispense is fixed for a 30-day supply of a drug**

  2. Segmented the results for each quarter from Q3 2013 to Q1 2015

- Finding:

  o The percent of generic drugs that, on average, have a negative margin has increased
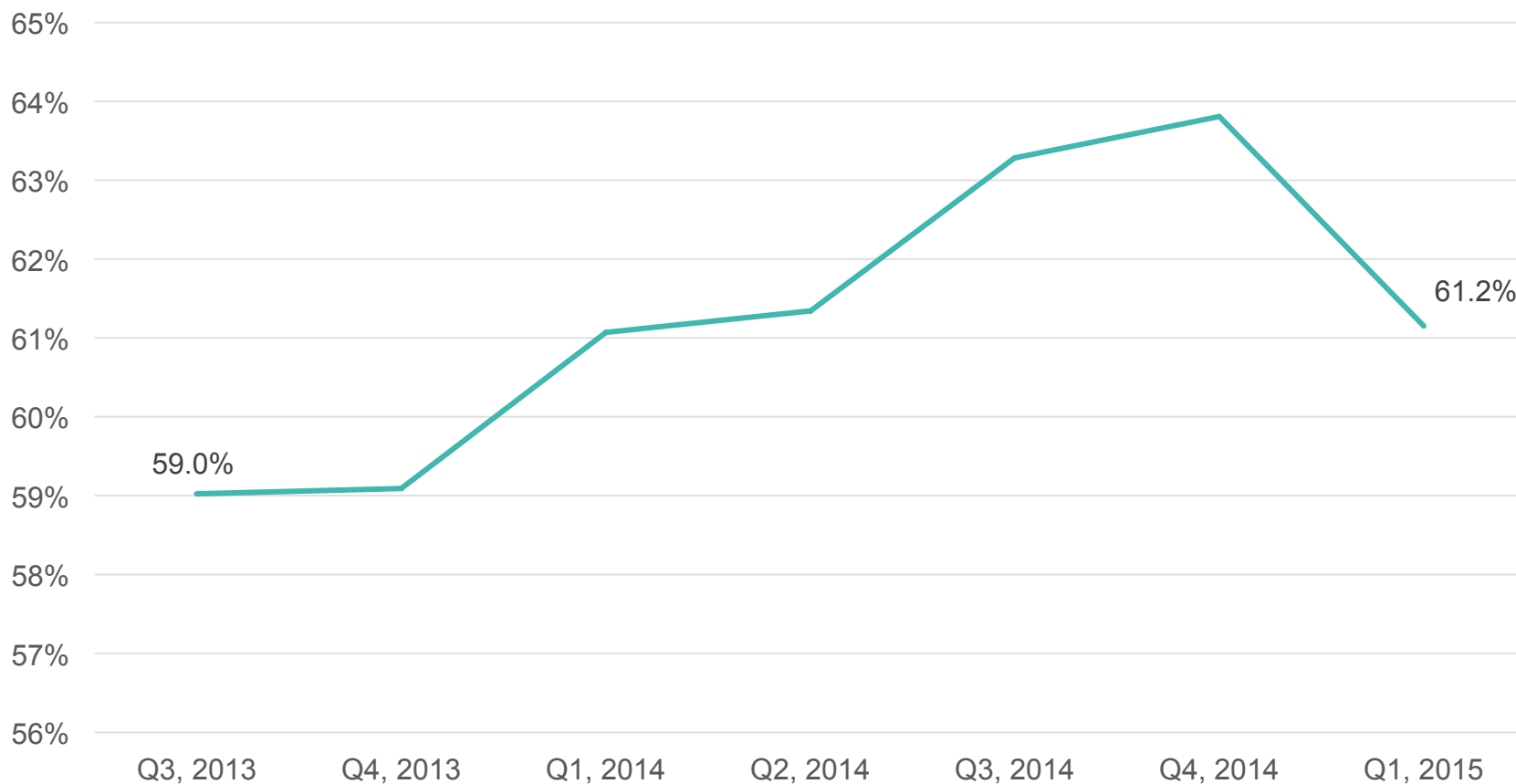
COGS: Cost of Goods Sold; NDC: National Drug Code
* Revenue does not include manufacturer rebates (if any).
** This analysis uses $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).

Percent of Generic Drug NDCs with Negative Margins

Percent of Generic Drugs (by NDC) with a Negative Margin,* on Average, Q3 2013—Q1 2015

59.0%

61.2%

NDC: National Drug Code
* Defined as: *Average Revenue – (Average COGS + Cost to Dispense) < 0.* Revenue includes reimbursement for ingredient costs plus dispensing fees, but does not include manufacturer rebates (if any). This analysis uses $13.54 for cost to dispense. The value is the median cost to dispense a 30-day supply of a prescription as determined by researchers with Virginia Commonwealth University and Midwestern University. Source: Carroll, N.V., Rupp, M.T. & Holdford, D.A. Analysis of costs to dispense prescriptions in independently owned, closed-door long-term care pharmacies. *J Manag Care Spec Pharm.* 20: 291-320, (2014).