

Center for Medicaid and CHIP Services

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Draft Methodology for Estimating National
Average Retail Prices (NARP) for Medicaid
Covered Outpatient Drugs

July 26, 2012

Topics

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- Expected Level of Reporting
- Data Sources and Collection
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National Average Retail Price

National Average Retail Price (NARP) - is the national average price per unit paid to retail community pharmacy entities from cash customers, third party insurers/customers, and Fee-for-Service Medicaid programs. It includes the combined prices paid for drug ingredient costs, customer pay amounts, and dispensing fees from actual market transactions.

NARP Sample File

Centers for Medicare and Medicaid Services
June 2012 National Average Retail Prices (NARP) Based on April 2012 Claims Data

Drug Name	NDC	Pkg Size	Pricing Unit	Packaging	Rebating Labeler	Active Ingredient(s)	Medicaid Average Retail Price Per Unit (a)	Third Party Average Retail Price Per Unit (b)	Cash Average Retail Price Per Unit (c)	NARP Per Unit (d)	Quantity Most Frequently Dispensed (e)	NARP Per Rx f = (d x e)
ABILIFY 1 MG/ML SOLUTION	59148001315	150.000	ML	BOTTLE		ARIPIPIRAZOLE	\$4.17485	\$4.16851	*	\$4.17098	150.000	\$625.65
ABILIFY 10 MG TABLET	59148000813	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$18.84242	\$18.80697	*	\$18.81519	30.000	\$564.46
ABILIFY 15 MG TABLET	59148000913	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$18.83604	\$18.84634	*	\$18.84392	30.000	\$565.32
ABILIFY 2 MG TABLET	59148000613	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$18.82202	\$18.76884	*	\$18.77756	30.000	\$563.33
ABILIFY 20 MG TABLET	59148001013	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$26.50396	\$26.64624	*	\$26.61301	30.000	\$798.39
ABILIFY 30 MG TABLET	59148001113	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$26.41326	\$26.68869	*	\$26.62810	30.000	\$798.84
ABILIFY 5 MG TABLET	59148000713	30.000	EA	BOTTLE		ARIPIPIRAZOLE	\$18.87540	\$18.76844	*	\$18.79086	30.000	\$563.73
ACETAMINOPHEN-COD #3 TABLET	00093015001	100.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.37326	\$0.25577	\$0.45047	\$0.26939	30.000	\$8.08
ACETAMINOPHEN-COD #3 TABLET	00093015010	1000.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.35125	\$0.26496	\$0.54204	\$0.28139	30.000	\$8.44
ACETAMINOPHEN-COD #3 TABLET	00406048401	100.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.39530	\$0.25607	\$0.42553	\$0.27076	30.000	\$8.12
ACETAMINOPHEN-COD #3 TABLET	00406048410	1000.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.36590	\$0.24413	\$0.39850	\$0.25869	30.000	\$7.76
ACETAMINOPHEN-COD #3 TABLET	00603233821	100.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.37799	\$0.24798	\$0.56257	\$0.27429	30.000	\$8.23
ACETAMINOPHEN-COD #3 TABLET	00603233832	1000.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.37459	\$0.24676	\$0.52559	\$0.28429	30.000	\$8.53
ACETAMINOPHEN-COD #4 TABLET	00093035001	100.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.34278	\$0.30021	\$0.37727	\$0.30312	120.000	\$36.37
ACETAMINOPHEN-COD #4 TABLET	00603233921	100.000	EA	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.33807	\$0.27977	\$0.41796	\$0.29490	60.000	\$17.69
ACETAMINOPHEN-CODEINE ELIXIR	00121050416	473.000	ML	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.06891	\$0.04110	\$0.09624	\$0.04959	120.000	\$5.95
ACETAMINOPHEN-CODEINE ELIXIR	00603102058	473.000	ML	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.06457	\$0.04117	\$0.09253	\$0.04841	120.000	\$5.81
ACETAMINOPHEN-CODEINE ELIXIR	50383007916	473.000	ML	BOTTLE		ACETAMINOPHEN WITH CODEINE	\$0.06447	\$0.03905	\$0.07856	\$0.04646	120.000	\$5.58

Note: NARP Per RX is equal to the National Average Retail Price Per Unit multiplied by the Quantity Most Frequently Dispensed.

*The number of Cash Observations did not meet the minimum threshold for establishing a Cash Average Retail Price Per Unit. As a result, the National Average Retail Price (NARP) Per Unit was calculated using only Medicaid and Third Party observations.

NARP Sample File (cont.)

Centers for Medicare and Medicaid Services

June 2012 National Average Retail Prices (NARP) Based on April 2012 Claims Data

Drug Name	NDC	Pkg Size	Pricing Unit	Packaging	Rebating Labeler	Active Ingredient(s)	Medicaid Average Retail Price Per Unit (a)	Third Party Average Retail Price Per Unit (b)	Cash Average Retail Price Per Unit (c)	NARP Per Unit (d)	Quantity Most Frequently Dispensed (e)	NARP Per Rx f = (d x e)
ZOLPIDEM TARTRATE 5 MG TABLET	00603646821	100.000	EA	BOTTLE		ZOLPIDEM TARTRATE	\$0.26980	\$0.25240	\$0.56253	\$0.26925	30.000	\$8.08
ZOLPIDEM TARTRATE 5 MG TABLET	13668000701	100.000	EA	BOTTLE		ZOLPIDEM TARTRATE	\$0.18528	\$0.26174	\$0.76545	\$0.26482	30.000	\$7.94
ZOLPIDEM TARTRATE 5 MG TABLET	16714062101	100.000	EA	BOTTLE		ZOLPIDEM TARTRATE	\$0.31476	\$0.25698	\$0.48486	\$0.27032	30.000	\$8.11
ZOLPIDEM TARTRATE 5 MG TABLET	64679071401	100.000	EA	BOTTLE		ZOLPIDEM TARTRATE	\$0.18159	\$0.27116	\$0.43167	\$0.27172	30.000	\$8.15
ZONISAMIDE 100 MG CAPSULE	64679099001	100.000	EA	BOTTLE		ZONISAMIDE	\$0.26856	\$0.30231	\$0.27278	\$0.29594	90.000	\$26.63
ZONISAMIDE 100 MG CAPSULE	68462013001	100.000	EA	BOTTLE		ZONISAMIDE	\$0.32034	\$0.35107	\$0.53968	\$0.35314	90.000	\$31.78
ZONISAMIDE 25 MG CAPSULE	68462012801	100.000	EA	BOTTLE		ZONISAMIDE	\$0.22243	\$0.23727	\$0.50738	\$0.24757	60.000	\$14.85
ZONISAMIDE 50 MG CAPSULE	64679094601	100.000	EA	BOTTLE		ZONISAMIDE	\$0.23881	\$0.25089	\$0.35021	\$0.26499	60.000	\$15.90
ZOVIA 1-35E TABLET	52544038328	28.000	EA	BLIST PACK		ETHYNODIOL D-ETHINYL ESTRADIOL	\$0.89335	\$0.77154	\$1.03707	\$0.78803	28.000	\$22.06
ZOVIRAX 5% CREAM	64455099445	5.000	GM	TUBE		ACYCLOVIR	\$40.03531	\$39.01568	*	\$39.03294	5.000	\$195.16
ZOVIRAX 5% OINTMENT	64455099395	30.000	GM	TUBE		ACYCLOVIR	\$14.50328	\$14.40675	*	\$14.41336	30.000	\$432.40
ZYPREXA 10 MG TABLET	00002411730	30.000	EA	BOTTLE		OLANZAPINE	\$18.66258	\$19.14039	*	\$18.95981	30.000	\$568.79
ZYPREXA 5 MG TABLET	00002411530	30.000	EA	BOTTLE		OLANZAPINE	\$12.51166	\$12.63307	*	\$12.58903	30.000	\$377.67

Note: NARP Per RX is equal to the National Average Retail Price Per Unit multiplied by the Quantity Most Frequently Dispensed.

*The number of Cash Observations did not meet the minimum threshold for establishing a Cash Average Retail Price Per Unit. As a result, the National Average Retail Price (NARP) Per Unit was calculated using only Medicaid and Third Party observations.

Expected Level of Reporting

- The NARP file will be posted to the Medicaid website (<http://www.medicaid.gov>) on a monthly basis
- The NARP file will be created with Microsoft® Excel and will also be available in an Adobe® PDF format
- Each new file will be a full replacement of the previous file
- Prices are representative of monthly transactions based upon dates of service (dispense date) from two months prior to the published NARP (e.g., April transactions used to calculate NARPs published in June)

Expected Level of Reporting (cont.)

- NARP is expected to be limited to CMS Medicaid covered outpatient drugs (prescription and over-the-counter drugs)
- NARP will be calculated and reported at the 11-digit National Drug Code (NDC) level
- Separate national average prices per unit published for:
 - Fee-for-Service Medicaid programs
 - Third party insurers/customers
 - Cash customers
 - All three payer types as a weighted average - NARP (weighted based on product utilization)

Expected Level of Reporting (cont.)

- Quantity most frequently dispensed
- Estimated NARP per prescription
 - NARP per unit multiplied by quantity most frequently dispensed
- Plan to meet with compendia to discuss sample file layout and update processes

Data Sources and Collection

- Most recent CMS Medicaid covered outpatient drug product file
- Pharmaceutical data suppliers are expected to provide aggregated claims transaction data and utilization data from retail community pharmacy entities
 - Approximately 50 million pharmacy transactions per month
 - Represents actual prices paid to retail community pharmacy entities for drug purchases during the previous month
 - Includes all 50 states and the District of Columbia
 - NDC, dispense date, state, pharmacy entity type, payer type, quantity most frequently dispensed and mean price per unit

Data Sources and Collection (cont.)

- Multiple national drug data files for:
 - NDC validation
 - Labeler, drug name, strength, dosage form, package size, billing unit
 - Medicaid drug rebate DESI code
 - Published pricing data
- NARP file comprised of ~3500 NDC's which are estimated to account for 70% - 75% of a State's Medicaid pharmacy expenditures

Data Management

- Includes only Chain and Independent pharmacy entities
- Medicaid managed care and Medicare Part D included in Third Party payer type
- Data filtering/scrub process
 - Source data in National Council of Prescription Drug Programs (NCPDP) post-adjudication format
 - Data filtering and scrub process reduces the size of the data set by about 3%

Data Management (cont.)

Exclusions

- All pharmacy classifications other than chain or independent retail community pharmacy
- Incomplete, erroneous or aberrant transactions
- Multiple or unknown payer types
- Unit price missing
- Dispensing fee greater than \$50
- Discount cards, co-pay cards, manufacturer assistance programs

Data Management (cont.)

Exclusions (cont.)

- NDCs without corresponding utilization data
- NDCs with a CMS DESI value equal to 5 or 6
- NDCs with fewer than 30 claims within Medicaid or Third Party payer types
- Pricing observations which exceed three standard deviations from the average retail price within the same NDC, state and payer type

Expected Data Methodology

- Calculate mean total price per unit (PPU) for each category and each state

State Ohio	NDC ...xx1	Independent Medicaid Customers \$1.00 PPU	Independent Third Party Insurers \$.95 PPU	Independent Cash Customers \$1.10 PPU
State Ohio	NDC ...xx1	Chain Medicaid Customers \$1.00 PPU	Chain Third Party Insurers \$.90 PPU	Chain Cash Customers \$1.05 PPU

Data Methodology (cont.)

- Compile estimated utilization for each category and state

State Ohio	NDC ...xx1	Independent Medicaid Customers 100 units	Independent Third Party Insurers 500 units	Independent Cash Customers 25 units
State Ohio	NDC ...xx1	Chain Medicaid Customers 200 units	Chain Third Party Insurers 1,000 units	Chain Cash Customers 50 units

Data Methodology (cont.)

- Calculated mean total price per unit (PPU) is then weighted by the estimated utilization for each category in each state

State Ohio	NDC ...xx1	Independent Medicaid Customers \$1.00 PPU x 100 units	Independent Third Party Insurers \$.95 PPU x 500 units	Independent Cash Customers \$1.10 PPU x 25 units
State Ohio	NDC ...xx1	Chain Medicaid Customers \$1.00 PPU x 200 units	Chain Third Party Insurers \$.90 PPU x 1,000 units	Chain Cash Customers \$1.05 PPU x 50 units

Data Methodology (cont.)

State of Ohio, NDC ...xx1

- Sum of the product from all categories (PPU multiplied by units) = \$1,755
- Divide the above sum by the total number of units for all categories = 1,875 units
- The average retail price for this NDC in Ohio is $\$1,755 \div 1,875 = \$.93600$ per unit

Data Methodology (cont.)

Basic NARP Calculation Overview

- To calculate a NARP for each NDC, the following steps are taken:
 - A per unit price is calculated for each State/NDC/Pharmacy Entity (chain/independent)/Payer combination
 - The calculated per unit price is weighted based on the estimated utilization for each State/NDC/Pharmacy Entity (chain/independent)/Payer combination
 - The sum of the weighted average per unit prices is divided by the total estimated National utilization to arrive at the National Average Retail Price (NARP)

Quality Assurance

- Monthly reviews
- Sampling of de-identified claims for subset of NDCs to validate aggregated calculations

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ZOVIA 1-35E TABLET	52544038328	28.000	EA	BLIST PACK		ETHYNODIOL D-ETHINYL ESTRADIOL	\$0.89335	\$0.77154	\$1.03707	\$0.78803	28.000	\$22.06
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Questions / Comments

- For additional information or to submit questions or comments
 - Email: RPS@cms.hhs.gov
 - Website: <http://medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Benefits/Prescription-Drugs/Survey-of-Retail-Prices.html>
- For those unable to attend this webinar, a taping of the presentation and related slides will be available on the website above for one week following the webinar