



ARCOS

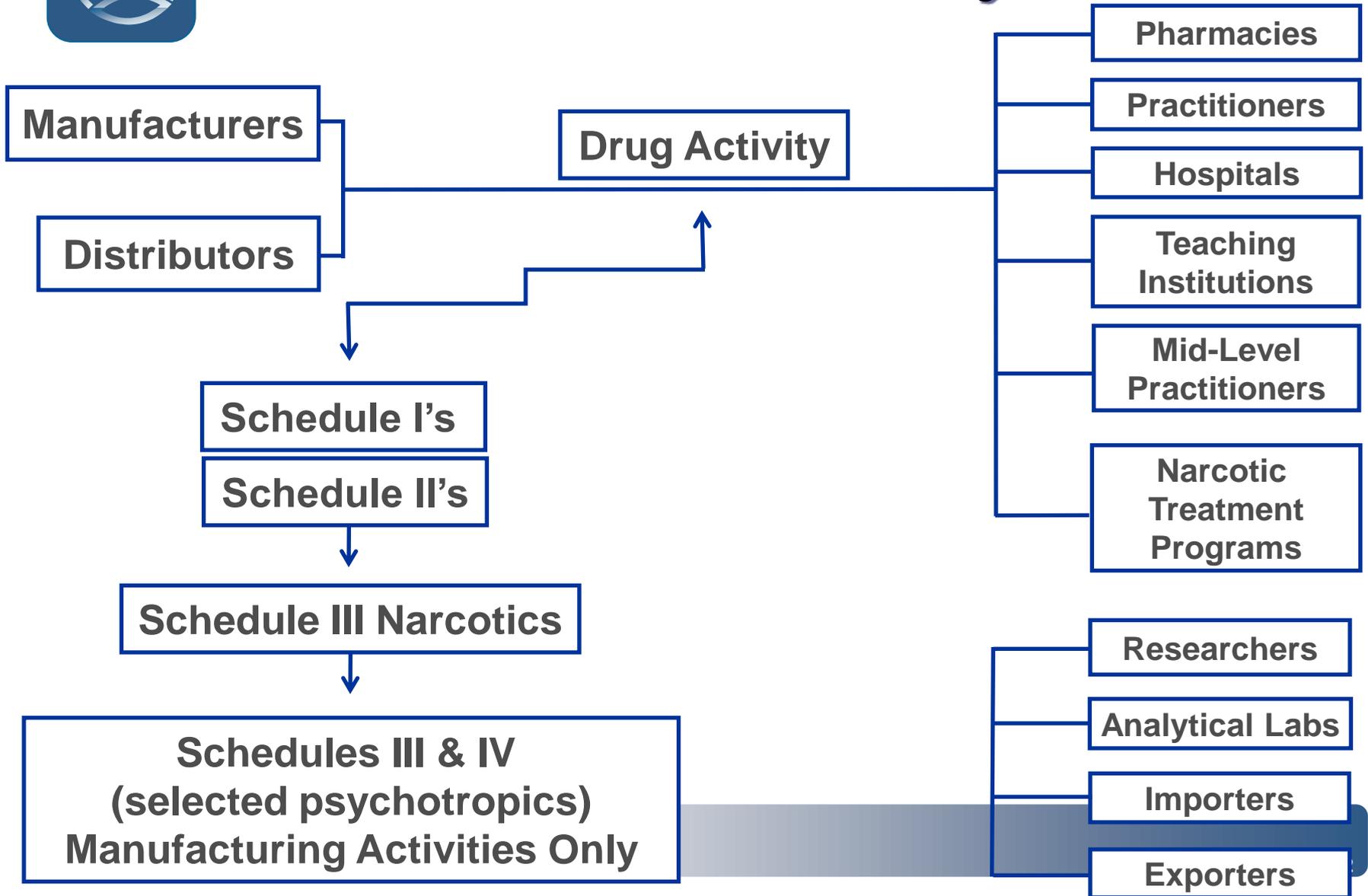
Automation of Reports and Consolidated Orders System

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ARCOS-2 Database System





ARCOS-2 Statistical Reports

Public has access to yearly statistical reports located at
www.deadiversion.usdoj.gov/arcos/index.html

Each of the following reports is available in grams, milligrams and dosage units:

Report 1: Drug Distribution to Retail Registrants by Zip Code

This report provides quarterly and annual total drug amounts distributed to retail registrants by three digit zip code.

Report 2: Drug Distribution to Retail Registrants by State

This report reflects the total drug quantity distributed to retail registrants quarterly, by state.

Report 4: Yearly Drug Distribution by State Per 100k Population

This report reflects yearly drug totals distributed to each state per 100k population. For each drug, the states are listed in ranking order.



ARCOS-2 Statistical Reports

Reports (*continued*):

Report 5: Statistical Summary for Retail Drug Purchases, by State

This report lists the number of registrants, total amounts sold, and average purchases of each drug, for each business activity, in each state. Those registrants purchasing two standard deviations above the average are identified.

Report 7: Statistical Summary for Retail Drug Purchases, for Entire United States

This report lists the number of registrants, total amounts sold, and average purchases of each drug, for each business activity, within the entire United States. Those registrants purchasing two standard deviations above the average are identified.



ARCOS-2 - Report 1

DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION, OFFICE OF DIVERSION CONTROL
ARCOS 2 - REPORT 1
RETAIL DRUG DISTRIBUTION BY ZIP CODE WITHIN STATE BY DOSAGE UNITS
REPORTING PERIOD: 01/01/2008 TO 12/31/2008

STATE: OREGON

ZIP CODE	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	TOTAL TO DATE
DRUG CODE: 9143 DRUG NAME: OXYCODONE					
970	3,874,660	4,103,680	4,275,240	4,489,880	16,743,460
971	1,547,680	1,574,400	1,503,520	1,598,920	6,224,520
972	6,396,657	6,413,720	6,558,780	6,881,400	26,250,557
973	3,112,300	3,252,300	3,128,840	3,269,920	12,763,360
974	2,939,780	3,077,620	3,214,420	3,443,920	12,675,740
975	1,668,764	1,722,060	1,807,700	1,888,660	7,087,184
976	312,560	299,060	335,940	320,600	1,268,160
977	815,880	808,880	811,800	828,620	3,265,180
978	515,400	598,080	518,540	531,440	2,163,460
979	65,960	66,600	73,040	76,820	282,420
STATE TOTAL	21,249,641	21,916,400	22,227,820	23,330,180	88,724,041
DRUG CODE: 9193 DRUG NAME: HYDROCODONE					
970	4,008,016	4,069,264	3,919,616	4,421,573	16,418,469
971	2,044,340	2,027,780	1,814,270	2,075,516	7,961,906
972	5,338,681	5,438,153	5,165,450	6,249,338	22,191,622
973	3,831,560	3,606,240	3,590,912	4,237,300	15,266,012
974	4,513,610	4,603,660	4,718,450	5,065,769	18,901,489
975	2,915,508	2,985,650	2,965,050	3,225,852	12,092,060
976	753,365	750,095	766,590	840,805	3,110,855
977	1,420,640	1,399,000	1,365,510	1,443,490	5,628,640
978	1,084,870	1,017,520	1,055,810	1,197,360	4,355,560
979	341,040	337,550	341,560	397,940	1,418,090
STATE TOTAL	26,251,630	26,234,912	25,703,218	29,154,943	107,344,703



ARCOS-2 - Report 2

DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION, OFFICE OF DIVERSION CONTROL
ARCOS 2 - REPORT 2
RETAIL DRUG DISTRIBUTION BY STATE WITHIN DRUG CODE BY DOSAGE UNITS
REPORTING PERIOD: 01/01/2008 TO 12/31/2008

DRUG CODE: 9143 DRUG NAME: OXYCODONE

STATE	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	TOTAL TO DATE
OREGON	21,249,641	21,916,400	22,227,820	23,330,180	88,724,041
DRUG TOTAL	21,249,641	21,916,400	22,227,820	23,330,180	88,724,041

DRUG CODE: 9193 DRUG NAME: HYDROCODONE

STATE	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	TOTAL TO DATE
OREGON	26,251,630	26,234,912	25,703,218	29,154,943	107,344,703
DRUG TOTAL	26,251,630	26,234,912	25,703,218	29,154,943	107,344,703

DRUG CODE: 9250B DRUG NAME: METHADONE

STATE	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER	TOTAL TO DATE
OREGON	6,962,700	7,097,300	6,912,400	7,158,300	28,130,700
DRUG TOTAL	6,962,700	7,097,300	6,912,400	7,158,300	28,130,700



ARCOS-2 - Report 4

DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION, OFFICE OF DIVERSION CONTROL
ARCOS 2 - REPORT 4
CUMULATIVE DISTRIBUTION BY STATE IN DOSAGES PER 100,000 POPULATION
REPORTING PERIOD: 01/01/2008 TO 12/31/2008

DRUG CODE: 9801 DRUG NAME: FENTANYL BASE

RANK	STATE	2000 POPULATION	DOSAGES TO DATE	DOSAGE/100K POP TO DATE
1	NEW JERSEY	8,158,375	4,147,052	50,831
2	PENNSYLVANIA	12,196,657	6,165,136	50,547
3	DELAWARE	762,928	371,987	48,757
4	NEVADA	1,837,560	878,368	47,800
5	OKLAHOMA	3,365,270	1,572,856	46,737
6	TENNESSEE	5,598,896	2,614,921	46,704
7	OHIO	11,308,118	5,228,664	46,238
8	NORTH CAROLINA	7,723,277	3,570,109	46,225
9	CONNECTICUT	3,284,638	1,504,536	45,805
10	FLORIDA	15,123,712	6,673,626	44,126
11	UTAH	2,172,245	926,195	42,637
12	INDIANA	6,023,368	2,560,158	42,503
13	COLORADO	4,126,972	1,719,569	41,666
14	OREGON	3,369,788	1,374,881	40,800
15	ARIZONA	4,732,567	1,903,103	40,212
16	MONTANA	942,485	371,925	39,462
17	WEST VIRGINIA	1,834,977	718,879	39,176
18	KANSAS	2,659,522	1,031,477	38,784
19	MICHIGAN	9,670,334	3,722,580	38,494
20	SOUTH DAKOTA	772,409	293,289	37,970
21	MARYLAND	5,256,181	1,983,600	37,738
22	NORTH DAKOTA	659,786	247,847	37,564
23	ALASKA	637,786	233,338	36,585
24	NEW HAMPSHIRE	1,215,820	430,640	35,419
25	ALABAMA	4,434,285	1,557,065	35,114
26	MISSOURI	5,519,767	1,933,946	35,036
U.S. DOSAGES / PER 100K POPULATION		277,755,074	100,807,494	36,293



ARCOS-2 - Report 5

DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION, OFFICE OF DIVERSION CONTROL
ARCOS 2 - REPORT 5
STATISTICAL SUMMARY FOR RETAIL DRUG PURCHASES BY DOSAGE UNITS
REPORTING PERIOD: 01/01/2008 TO 12/31/2008

STATE: CALIFORNIA

BUSINESS ACTIVITY: PHARMACIES

DRUG NAME	DRUG CODE	NUMBER OF REGISTRANTS SOLD TO	TOTAL DOSES SOLD TO REGISTRANTS	AVERAGE DOSAGE PER REGISTRANT	DOSAGE STANDARD DEVIATIONS	NO OF REGS PURCHASING +1 OR MORE DEVIATIONS	NO OF REGS PURCHASING +2 OR MORE DEVIATIONS
OXYCODONE	9143	5,706	188,176,151	32,979	62,387	381	163
HYDROCODONE	9193	6,377	873,759,294	137,017	105,062	837	364
METHADONE	9250B	4,862	76,306,400	15,694	33,413	342	148
FENTANYL BASE	9801	5,481	9,924,940	1,811	4,586	285	125

STATE: CALIFORNIA

BUSINESS ACTIVITY: HOSPITALS

DRUG NAME	DRUG CODE	NUMBER OF REGISTRANTS SOLD TO	TOTAL DOSES SOLD TO REGISTRANTS	AVERAGE DOSAGE PER REGISTRANT	DOSAGE STANDARD DEVIATIONS	NO OF REGS PURCHASING +1 OR MORE DEVIATIONS	NO OF REGS PURCHASING +2 OR MORE DEVIATIONS
OXYCODONE	9143	648	28,537,510	44,039	178,081	28	16
HYDROCODONE	9193	805	45,317,276	56,295	147,039	49	32
METHADONE	9250B	521	8,677,200	16,655	53,332	27	18
FENTANYL BASE	9801	555	765,723	1,380	2,917	38	22



ARCOS-2 - Report 7

DEPARTMENT OF JUSTICE
DRUG ENFORCEMENT ADMINISTRATION, OFFICE OF DIVERSION CONTROL
ARCOS 2 - REPORT 7
UNITED STATES SUMMARY FOR RETAIL DRUG PURCHASES BY DOSAGE UNITS
REPORTING PERIOD: 01/01/2008 TO 12/31/2008

ENTIRE UNITED STATES

BUSINESS ACTIVITY: PHARMACIES

DRUG NAME	DRUG CODE	NUMBER OF REGISTRANTS SOLD TO	TOTAL DOSES SOLD TO REGISTRANTS	AVERAGE DOSAGE PER REGISTRANT	DOSAGE STANDARD DEVIATIONS	NO OF REGS PURCHASING +1 OR MORE DEVIATIONS	NO OF REGS PURCHASING +2 OR MORE DEVIATIONS
OXYCODONE	9143	60,798	3,416,021,456	56,186	12,110	15,261	12,381
HYDROCODONE	9193	63,439	7,073,907,093	111,507	8,832	19,451	17,747
METHADONE	9250B	51,228	681,648,600	13,306	9,268	7,903	4,847
FENTANYL BASE	9801	58,651	93,686,082	1,597	7,986	995	389

ENTIRE UNITED STATES

BUSINESS ACTIVITY: HOSPITALS

DRUG NAME	DRUG CODE	NUMBER OF REGISTRANTS SOLD TO	TOTAL DOSES SOLD TO REGISTRANTS	AVERAGE DOSAGE PER REGISTRANT	DOSAGE STANDARD DEVIATIONS	NO OF REGS PURCHASING +1 OR MORE DEVIATIONS	NO OF REGS PURCHASING +2 OR MORE DEVIATIONS
OXYCODONE	9143	8,133	393,516,180	48,385	27,472	971	743
HYDROCODONE	9193	8,672	368,112,111	42,448	85,441	544	314
METHADONE	9250B	5,670	69,056,018	12,179	54,662	214	127
FENTANYL BASE	9801	7,069	6,809,699	963	2,530	370	178



Incorrect ARCOS Input Affects ARCOS Output

- **The most common mistakes in ARCOS reporting**
 - Quantity errors (paper reporters only)
 - Improper use of the strength field
 - Reverse distributors' use of transaction code "S"
 - Submission of error corrections as new transactions
 - Invalid NDC numbers



The Strength Field

- **Strength field is properly used to report two different kinds of data**
 - The purity of a bulk raw material (e.g., powder)
 - Partial packages, or packages that exceed a standard size (percentage of package entered into strength field for solid doses only)



The Strength Field, cont.

- **Common mistakes with use of the strength field**
 - The strength field, if it is anything other than blank, is almost never used correctly to report sales of a finished NDC product to a retail registrant
 - Using the strength field to report the sale of a finished product
- **This causes ARCOS data to be under- or over-reported, significantly skewing the data**



Use of the Transaction Code “S” by Reverse Distributors

- **Reverse Distributors**
 - Purpose is to obtain and destroy drugs from retail level registrants
 - Use of the transaction code “S” for sale is incorrect; rather, correctly use transaction code “P” for purchase
- **Improper use of transaction codes makes it appear that the reverse distributor is selling drugs to rather than obtaining drugs from the retail level registrant, and skews the ARCOS data**
- **Over 54,000 transactions of sales of hydrocodone were reported by reverse distributors in 2008 with the transaction code “S”**



Submission of Corrected ARCOS Transactions

- **Reporting corrected transactions**
 - After submitting the ARCOS report, the reporting registrant receives an “Edit Error Listing”
 - Registrants commonly resubmit transactions in which there were errors as new transactions rather than following the correction process
 - Review the “Edit Error Listing” and resubmit transactions with the next ARCOS report under the correction process; utilize the assigned correction number



Submission of Corrected ARCOS Transactions, cont.

- **When transactions are resubmitted as new transactions with the next ARCOS report, rather than following the correction process, we cannot expunge the incorrect records and replace them with the new corrected records**
- **Most notably, any transactions with uncorrected errors are not counted in ARCOS data**



Invalid NDC Numbers

- **For the purposes of ARCOS reporting, NDC numbers must be 11 digits; e.g., xxxxx-xxxx-xx**
 - 5-digit labeler code
 - 4-digit product code
 - 2-digit package size code
- **FDA NDC numbers are usually less than 11 digits; you must add a leading “0” in the appropriate position**



Invalid NDC Numbers, cont.

- **Error listings of invalid NDC numbers constitutes the largest source of errors in the ARCOS database**
- **Error Code E76 – NDC number not in the drug dictionary**
 - 2008 – 127,660 transactions received with this error



NDC Numbers for Packages within Packages

- **Some products have multiple packages within a single package (e.g., 10 vials of injectable morphine inside a box, and 10 boxes of this drug within one large box), with the vials, interior packages, and exterior package each having their own NDC number**
 - Must ensure usage of the correct NDC number when reporting sales (e.g., selling the entire box of 10 boxes, selling one box of 10 vials, or selling single/multiple vials)
- **Using the wrong NDC number in a transaction such as this dramatically under- or over-reports the sale of the drug to the ARCOS system and skews the data**



ARCOS Registrant Handbook: Guidance for Reporting

- **Section 5.17, Strength, for guidance on usage of the strength field**
- **Section 7.5, Correcting Transaction Records**
- **Section 5.10, National Drug Code (NDC)**

QUESTIONS

