# Drug and Alcohol Services Information System

# The *DASIS* Report

## Analyzing Geographic Areas Within TEDS

### In Brief

- TEDS data can be analyzed using five types of geographic identifiers

- The 1992-2000 TEDS files, as well as a concatenated file for 1995-2000, are available from the archive

- The SAMHDA Web site address is: http://www.icpsr.umich.edu/SAMHDA/. Bookmark it!

- Contact the SAMHDA staff for assistance: (888) 741-7242 (toll-free helpline) or samhda@icpsr.umich.edu (email)

The 1992-2000 Treatment Episode Data Set (TEDS) public use files are available from the Substance Abuse and Mental Health Data Archive (SAMHDA).[1] The Web site includes an online data analysis system (DAS) which allows users to analyze the data without using specialized software or downloading large files.[2,3]

Using the DAS and TEDS, you can conduct analyses of geographic areas to examine characteristics of substance abuse treatment admissions and to describe and compare differences. TEDS includes not only metropolitan area (MA) and State codes, but also Census Region and Division codes, and a State indicator variable, which allows comparisons of one State to all other States (e.g., California versus all other States). MA codes are based on the data provided by the States.[4] Currently, MAs are identified on TEDS for all States reporting data for the years 1995-2000.[5] It is important to keep in mind that:

- Reporting practices vary across States and across years within the same State

- Geographic coding in TEDS is based on the location of the *treatment facility,* and this is not necessarily the same as the client's residence

Access TEDS online:

**1**–Go to the SAMHDA homepage: http://www.icpsr.umich.edu/SAMHDA

**2**–Select "Online Analysis"

**3**–Select "Treatment Episode Data Set"

**4**–From the list of available years of TEDS, select the most recent file: "Treatment Episode Data Set, 2000"

This takes you to the initial menu for the 2000 TEDS on the DAS. It is helpful at this point to open two windows, one for the codebook and one for the analysis screen. Do this by clicking on the "Extra Codebook Window" button at the top of the screen.

Go to the codebook window to examine study information and the variables available in TEDS. Documentation about the study is included in the first set of links along the left side of the screen. The documentation includes important information and should be read prior to conducting analyses. The

variables are listed under "Indexes." Select "Group Headings" to view the variables arranged categorically. You may also opt to view the variables alphabetically or in a standard list, which provides the entire list of variables in each category.

In our examples, we will be using two variables:

- Intravenous drug use (variable name "IDU"), under the category "Substances of Abuse" and then "Created Variables"[6]

- Metropolitan Area (variable name "PMSA"), in the "Geographic" variable grouping

For comparisons of geographic areas, you may need to refer to Census data (e.g., to determine the largest metropolitan areas in the country). For convenience, a copy of the 2000 Census population estimates can be found on the same page where you selected the TEDS 2000 data, under "Reports and Related Sites," as an Excel spreadsheet (http://www.icpsr.umich.edu/

SAMHDA/SERIES/tedspmsa-2000pop.xls). Use these codes to compare MAs, decide how to group MAs, or to examine one MA or a set of MAs more closely.

## Example 1: Comparing Large Metropolitan Areas Within the Country

Examining large MAs will suggest how treatment admissions differ in various areas. The first example is a cross-tabulation of IDU treatment admissions by PMSA for the two largest MAs. First, determine the largest MAs using the spreadsheet on the SAMHDA web site. Figure 1 shows an excerpt of the spreadsheet with the MA code, name, State(s), type, and population. TEDS uses the same codes for MAs as Census.

From the initial DAS menu, select "Run frequency or crosstabulation" and click on the "Start" button. On the next screen, "SDA Tables Program," enter the variable names. Use the numeric codes in the left

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**Figure 1. Census Information for Two Largest Metropolitan Areas**

| MSA/PMSA/NECMA CODE | METROPOLITAN AREA NAME | STATE(S) | TYPE | POPULATION April 1, 2000 |
|---|---|---|---|---|
| 4480 | LOS ANGELES-LONG BEACH | CA | PMSA | 9,519,338 |
| 5600 | NEW YORK | NY | PMSA | 9,314,235 |

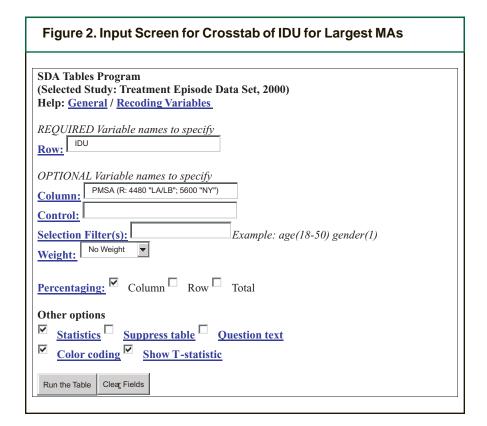Source: U.S. Bureau of the Census (as compiled by SAMHDA/ICPSR).

column of the table to specify each PMSA. The MA numeric labels can be recoded to city names. The syntax for the recode is:

PMSA (R: 4480 "LA/LB"; 5600 "NY")

Under "Other options," select "Show T-statistic." The default settings select column percentages and color-coding. Figure 2 shows the completed SDA Tables Program screen.

Check your syntax to ensure that it is correct. When the input screen is complete, hit "Run the Table" on the lower left side of the screen.

Figure 3 shows the resulting table. Column percentages indicate that more IDU treatment admissions occurred in the Los Angeles/Long Beach (LA/LB) MA than in the New York MA: 42.6 versus 13.0 percent, respectively. The T-statistic provided in each cell and the color-coding based on the T-statistic show that the differences between cells are statistically significant.

## Figure 2. Input Screen for Crosstab of IDU for Largest MAs

**SDA Tables Program**
**(Selected Study: Treatment Episode Data Set, 2000)**
**Help: General / Recoding Variables**

*REQUIRED Variable names to specify*

**Row:**   IDU

*OPTIONAL Variable names to specify*

**Column:**   PMSA (R: 4480 "LA/LB"; 5600 "NY")

**Control:**

**Selection Filter(s):**   *Example: age(18-50) gender(1)*

**Weight:**   No Weight

**Percentaging:** ☑ Column ☐ Row ☐ Total

**Other options**
☑ **Statistics** ☐ **Suppress table** ☐ **Question text**
☑ **Color coding** ☑ **Show T-statistic**

Run the Table    Clear Fields

## Figure 3. Results of Crosstab of IDU for Largest MAs

| **Frequency Distribution** | | | | |
|---|---|---|---|---|
| Cells contain: | | | **PMSA** | |
| -Column percent | | 1 | 2 | *ROW* |
| -T-statistic | | 1 | 2 | *ROW* |
| -N of cases | | LA/LB | NY | *TOTAL* |
| | 0: NO IDU REPORTED | **57.4** -83.6 26,758 | **87.0** 90.9 74,316 | *76.6* --- *101,074* |
| **IDU** | 1: IDU REPORTED | **42.6** 83.6 19,829 | **13.0** -90.9 11,068 | *23.4* --- *30,897* |
| | **COL TOTAL** | *100.0* --- *46,587* | *100.0* --- *85,384* | *100.0* --- *131,971* |
| **Means** | | .43 | .13 | .23 |
| **Std Devs** | | .49 | .34 | .42 |

| **Color coding:** | <-2.0 | <-1.0 | <0.0 | >0.0 | >1.0 | >2.0 | T |
|---|---|---|---|---|---|---|---|
| **N in each cell:** | Smaller than expected | | | Larger than expected | | | |

## Example 2: Examining MAs Within a State

The MA codes also support exploration of geographic differences within one State. Using the spreadsheet of Census population size, MAs in California can be grouped as follows:

*Very Large*–Los Angeles-Long Beach, Riverside, San Bernadino, San Diego, Orange County, and Oakland

*Large*–San Francisco, San Jose, and Sacramento

*Medium*–Fresno, Ventura, Bakersfield, Stockton-Lodi, and Vallejo-Fairfield-Napa

*Small*–Santa Rosa, Modesto, Santa Barbara-Santa Maria-Lompoc, Salinas, and Visalia-Turlare-Porterville

*Very Small*–Santa Cruz-Watsonville, San Luis Obispo-Atascadero-Paso Robles, Merced, Chico-Paradise, Redding, Yolo, and Yuba City

Use the codes for each MA to create the recode based on the size:

PMSA (R:4480, 6780, 7320, 5945, 5775 "Very Lg"; 7360, 7400, 6920 "Large"; 2840, 8735, 680, 8120, 8270 "Med"; 7500, 5170, 7480, 7120, 8780 "Small"; 7485, 7460, 4940, 1620, 6690, 9270, 9340 "Very Sm")

Insert the variable names and recode syntax into the input screen, as in Example 1 above.

Figure 4 shows that IDU admissions are higher in the very large and medium MAs (37.7 and 40.8 percent, respectively) than the other areas (21.6 to 25.7 percent) and that this difference is statistically significant.

## Summary

Additional analyses could group MAs differently (e.g., by geographic proximity) and examine other TEDS variables, such as client demographics and treatment service characteristics to further explore differences.

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**Figure 4. Results of Crosstab of IDU for MAs in California Grouped by Size**

| Frequency Distribution | | | | | | |
|---|---|---|---|---|---|---|
| Cells contain:<br>-Column percent<br>-T-statistic<br>-N of cases | PMSA | | | | | |
| | 1<br>Very<br>Lg | 2<br>Large | 3<br>Med | 4<br>Small | 5<br>Very<br>Sm | *ROW TOTAL* |
| **IDU** 0: NO IDU REPORTED | **62.3**<br>-24.2<br>61,810 | **74.3**<br>32.9<br>22,638 | **59.2**<br>-17.4<br>9,336 | **74.4**<br>23.9<br>11,651 | **78.4**<br>26.1<br>5,990 | *66.0*<br>---<br>*111,425* |
| 1: IDU REPORTED | **37.7**<br>24.2<br>37,366 | **25.7**<br>-32.9<br>7,835 | **40.8**<br>17.4<br>6,429 | **25.6**<br>-23.9<br>4,013 | **21.6**<br>-26.1<br>1,655 | *34.0*<br>---<br>*57,298* |
| *COL TOTAL* | *100.0*<br>---<br>*99,176* | *100.0*<br>---<br>*30,473* | *100.0*<br>---<br>*15,765* | *100.0*<br>---<br>*15,664* | *100.0*<br>---<br>*7,645* | *100.0*<br>---<br>*168,723* |

| Color coding: | <-2.0 | <-1.0 | <0.0 | >0.0 | >1.0 | >2.0 | T |
|---|---|---|---|---|---|---|---|
| N in each cell: | Smaller than expected | | | Larger than expected | | | |

## Other Files Available on DAS

- Drug Abuse Treatment Outcome Study (DATOS)

- Drug Abuse Warning Network (DAWN)

- Gambling Impact and Behavior Study - Adult Survey

- Health Behavior in School-Aged Children (HBSC)

- Monitoring the Future (MTF)

- National Comorbidity Survey (NCS)

- National Household Survey on Drug Abuse (NHSDA)

- National Pregnancy and Health Survey (NPHS)

- National Survey of Substance Abuse Treatment Services (N-SSATS, formerly UFDS)

- National Treatment Improvement Evalua-tion Study (NTIES)

- Substance Abuse Treat-ment Cost Allocation and Analysis Template (SATCAAT) Study

- Washington D.C. Met-ropolitan Area Drug Study (DC*MADS)

### End Notes

[1] The archive is supported by the Office of Applied Studies at SAMHSA and based at the Inter-university Consortium for Political and Social Research (ICPSR) through a subcontract with the National Opinion Research Center (NORC) at the University of Chicago.

[2] The DAS is based on the Survey Documentation and Analysis (SDA) software developed at the Computer-assisted Survey Methods Program (CSM) at the University of California at Berkeley.

[3] For additional help, refer to earlier Short Reports on using the online system: http://www.samhsa.gov/oas/tutorial.cfm#Examples.

[4] TEDS includes codes for Metropolitan Statistical Areas (MSAs), Primary Metropolitan Statistical Areas (PMSAs), and New England County Metropolitan Areas (NECMAs), all under the "PMSA" variable. The Census Bureau provides detailed definitions of these terms on its Web site: http://www.census.gov

[5] The 1992-1994 TEDS now include MA codes for the largest 25 MAs only. However, there are plans to update these files to include more PMSA codes.

[6] The created (or "flag") variables are based on the original variables collected in TEDS (e.g., IDU is based on IDU being reported at admission, whether as a primary, secondary, or tertiary route of drug administration). Each variable includes an explanation of what the variable contains, and variable names remain consistent from year to year.

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