

**Accessing and Analyzing  
the  
National Immunization Survey Data**

**NCHS Data Users Conference  
July 17, 2002**

## THE NIS PUBLIC USE FILES (PUFs)

A. The NCHS Web Site contains the NIS PUBLIC Use Files (PUFs) for the following years:

1. 2000
2. 1999
3. 1998
4. 1997
5. 1996
6. 1995

B. The following NIS documents and files are available for each year:

1. Readme File (Text)
2. Data User's Guide (PDF)
3. Data Documentation, Codebook and Frequencies (PDF)
4. Dataset (ASCII)
5. SAS Input Statements (SAS)

C. Additional NIS Documents

1. Notice to Data Users
2. Guide to Quality Control Procedures
3. Alphabetical Listing of Variables that are not Available in All Public-Use Data Files
4. Link to NIS Papers and Publications

D. Steps for Downloading the Files:

Using the **1999 NIS** as an example:

D.1. Create a folder on your C: Drive

**c:\nispuf99**

D.2. Logon to the NCHS Website

[www.cdc.gov/nis](http://www.cdc.gov/nis)

## NCHS Website (Top Page)

The screenshot shows the top page of the NCHS website. The browser window title is "NCHS - National Immunization Survey - Microsoft Internet Explorer". The address bar shows "http://www.cdc.gov/nis/". The page features the CDC logo and the NCHS logo. A navigation menu on the left includes links for "About NCHS", "Site Index", "Coming Events", "Surveys and Data Collection Systems", "Initiatives", and "Research and Development". The main content area is titled "The National Immunization Survey" and includes a list of links: "Home", "English Overview", "Spanish Overview", "Participants", "Provider FAQ", "Household FAQ", "Confidentiality", "CDC/NCHS Privacy Policy Notice", "SLAITS", "SLAITS Children with Special Health Care Needs", "SLAITS National Survey of Early Childhood Health", "MMWR", "Abt Associates Inc.", "Accessibility", "Contact for NIS", "Search NCHS", and "Contact us". Below the links, there is a paragraph of text describing the survey and its target population.

**The National Immunization Survey**

The National Immunization Survey (NIS) is sponsored by the National Immunization Program (NIP) and conducted by the National Center for Health Statistics (NCHS), Centers for Disease Control and Prevention. The NIS is a list-assisted random-digit-dialing telephone survey that began data collection in April 1994 to monitor childhood immunization. In conjunction with the NIS, NCHS also conducts several other health surveys.

The target population for the NIS is children between the ages of 19 and 35 months living in the United States at the time of the interview. Data from the NIS are used to produce timely estimates of vaccination coverage rates for

## NCHS Website (Bottom Page)

The screenshot shows the bottom page of the NCHS website. The browser window title is "NCHS - National Immunization Survey - Microsoft Internet Explorer". The address bar shows "http://www.cdc.gov/nis/". The page features a navigation menu on the left with links for "Development", "FASTATS A to Z", "News Releases", "Publications and Information Products", "Listservs", "Other Sites", and "Download: Adobe Acrobat Reader 5.0", "Adobe Acrobat Reader 5.0 for the visually disabled", "Microsoft PowerPoint Viewer 97". The main content area is titled "Development" and includes a paragraph of text describing the survey and its target population. Below the text, there are several links: "If you or your family has been asked to participate in the NIS or one of the related surveys please click here", "If you provide immunizations please check here", "Frequently Asked Questions (FAQs)", and "NIS Public-Use Data Files, Reports and Publications". At the bottom, there is a list of links: "Home", "English Overview", "Spanish Overview", "Participants", "Provider FAQ", "Household FAQ", "Confidentiality", "CDC/NCHS Privacy Policy Notice", and "SLAITS".

NIS are used to produce timely estimates of vaccination coverage rates for each of six recommended vaccines for the nation and for each of 78 Immunization Action Plan (IAP) areas, consisting of the 50 states, the District of Columbia, and 27 large urban areas. The **official estimates of vaccination coverage rates from the NIS** are rates of being up-to-date with respect to the recommended numbers of doses of all recommended vaccines. These vaccines and their recommended numbers of doses are: diphtheria and tetanus toxoids and pertussis vaccine (DTP), 4 doses; poliovirus vaccine (polio), 3 doses; measles-containing vaccine (MCV), 1 dose; *Haemophilus influenzae* type b vaccine (Hib), 3 doses; hepatitis B vaccine (Hep B), 3 doses; and varicella zoster vaccine, 1 dose. In addition to these vaccines, interest focuses on coverage rates for vaccine series, including the 4:3:1:3 series (4 DTP, 3 polio, 1 MCV, and 3 Hib).

[If you or your family has been asked to participate in the NIS or one of the related surveys please click here](#)

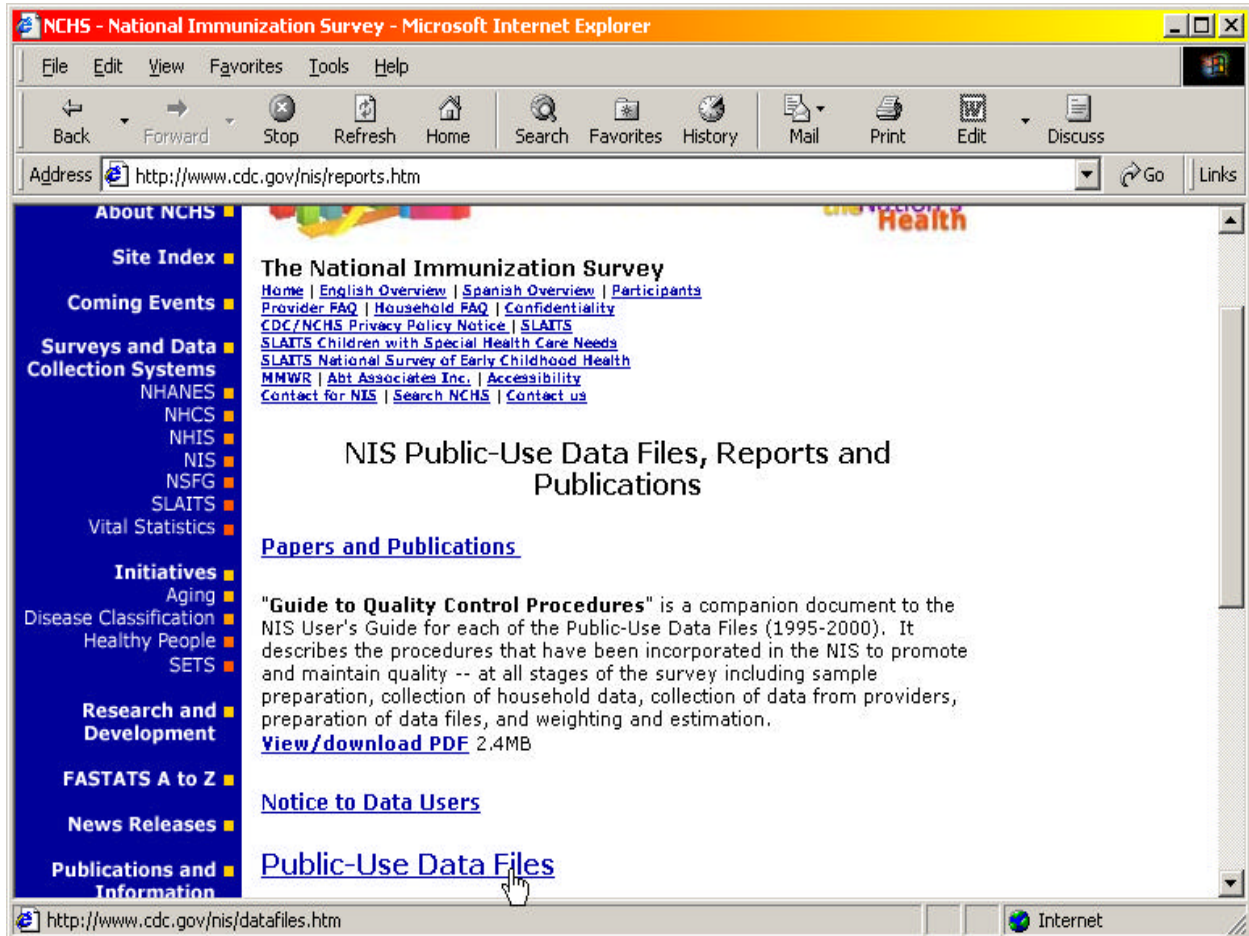
[If you provide immunizations please check here](#)

[Frequently Asked Questions \(FAQs\)](#)

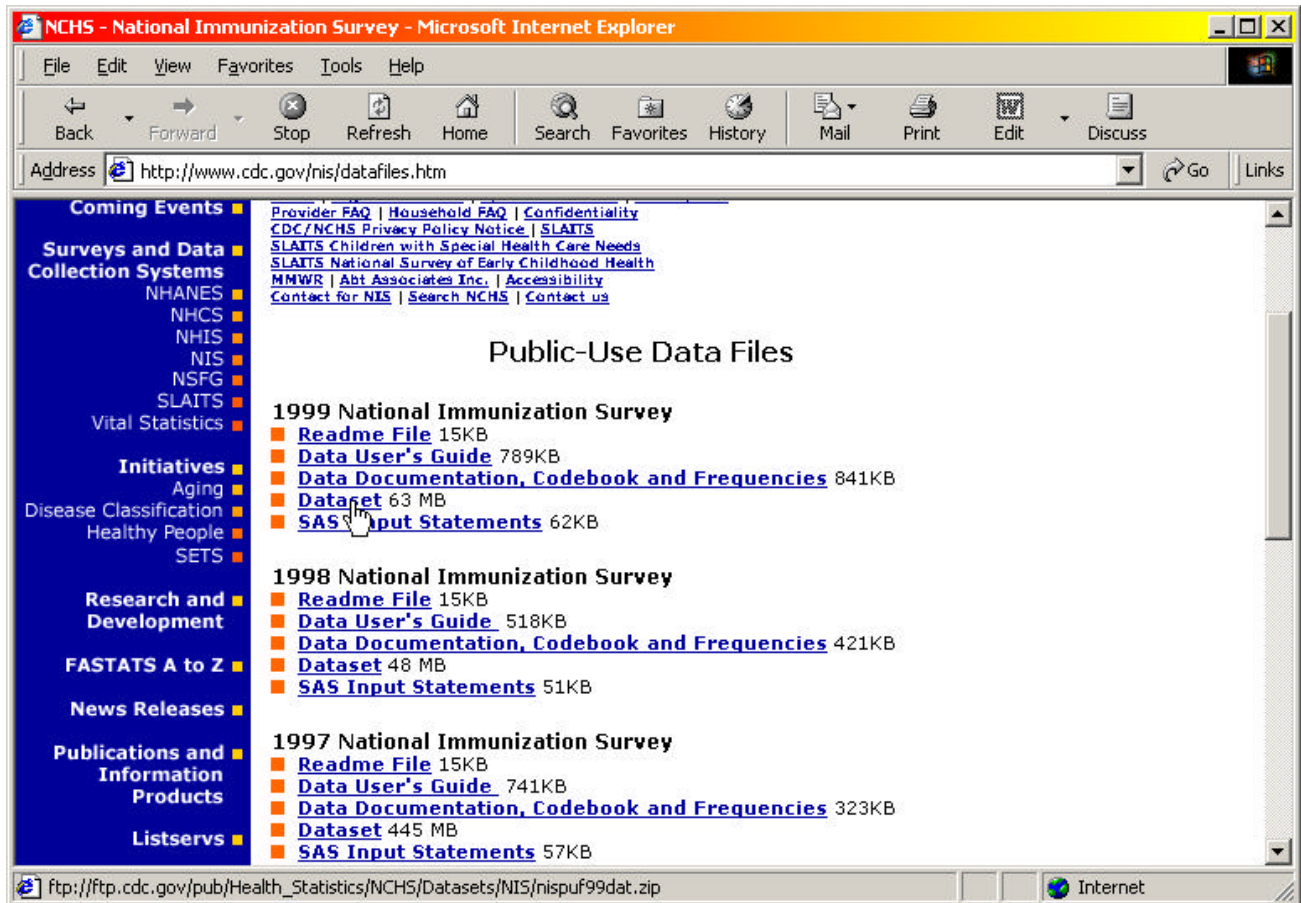
[NIS Public-Use Data Files, Reports and Publications](#)

[Home](#) | [English Overview](#) | [Spanish Overview](#) | [Participants](#) | [Provider FAQ](#) | [Household FAQ](#) | [Confidentiality](#) | [CDC/NCHS Privacy Policy Notice](#) | [SLAITS](#)

D.3. Double-Click on NIS Public-Use Data Files, Reports and Publications

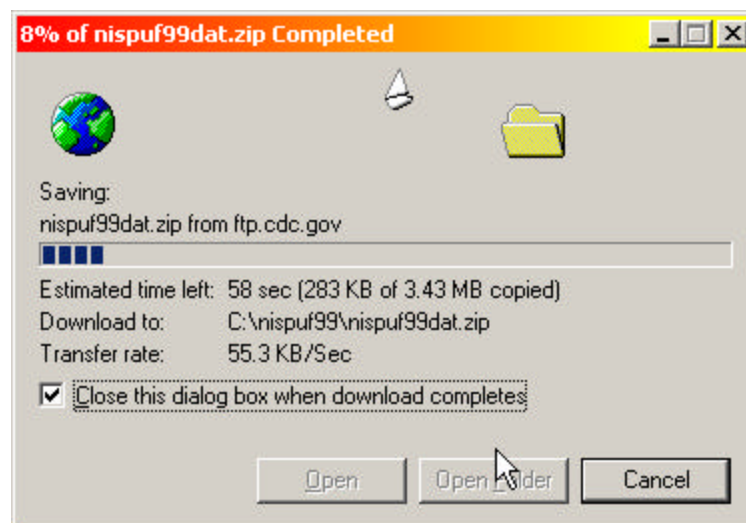
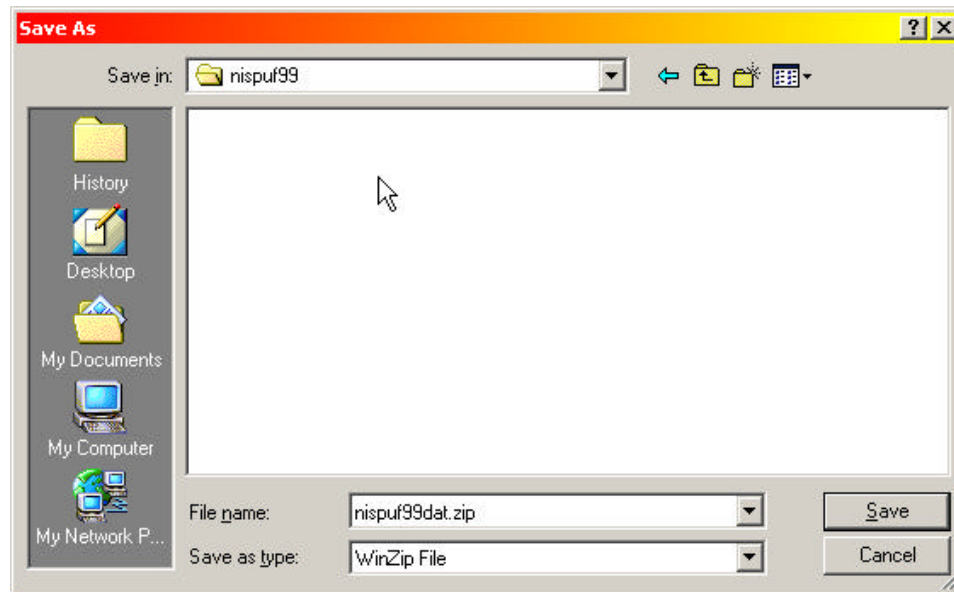


#### D.4. Double-Click on Public-Use Data Files



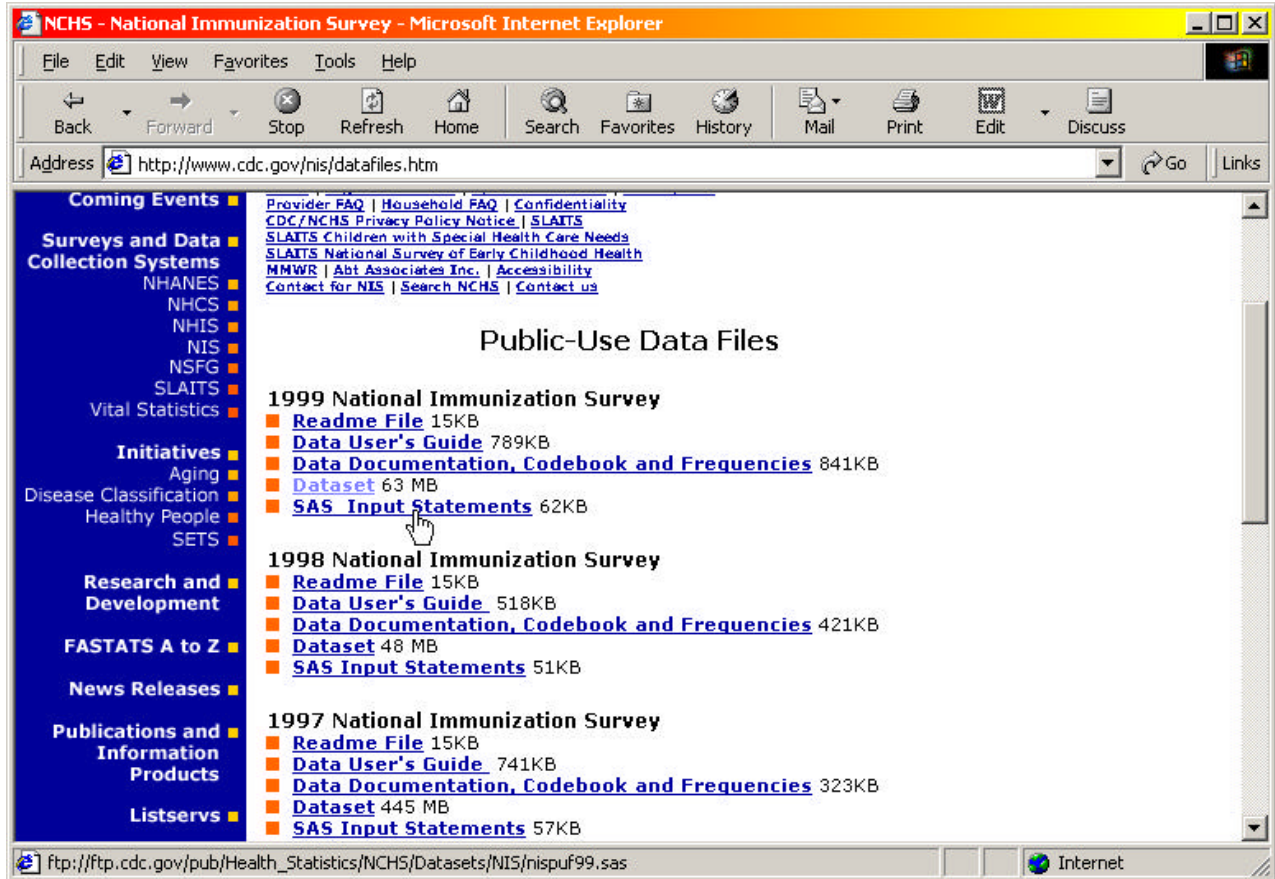
D.5. Double-Click on 1999 Dataset to download the dataset.

## D.6. Download the 1999 Dataset to c:\nispuf99

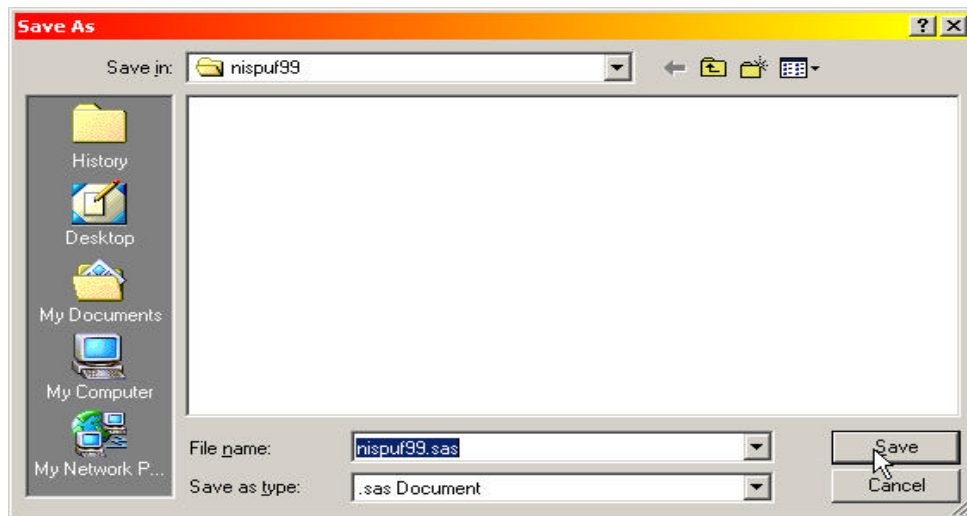
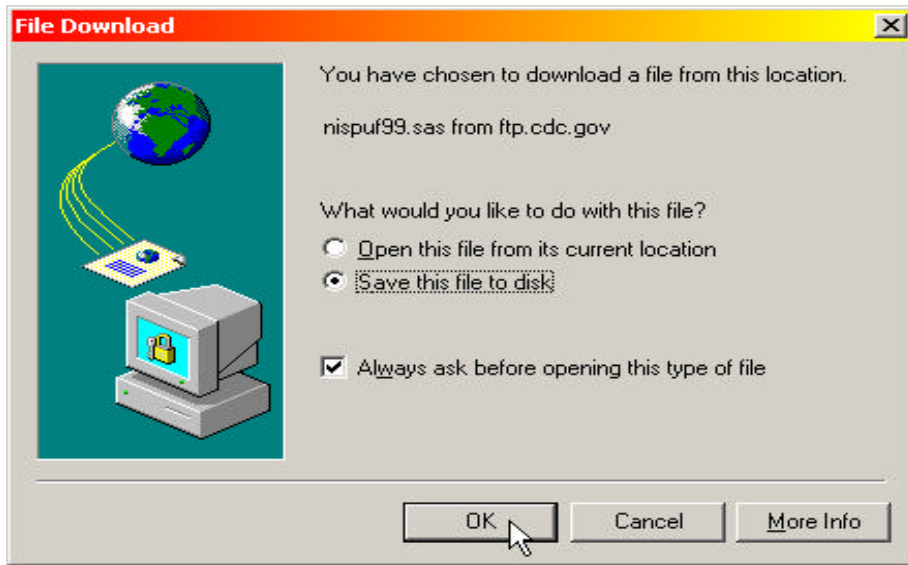




D.7. Double-Click on 1999 SAS Input Statements to download.



D.8. Download the 1999 SAS Input Statements to c:\nispuf99



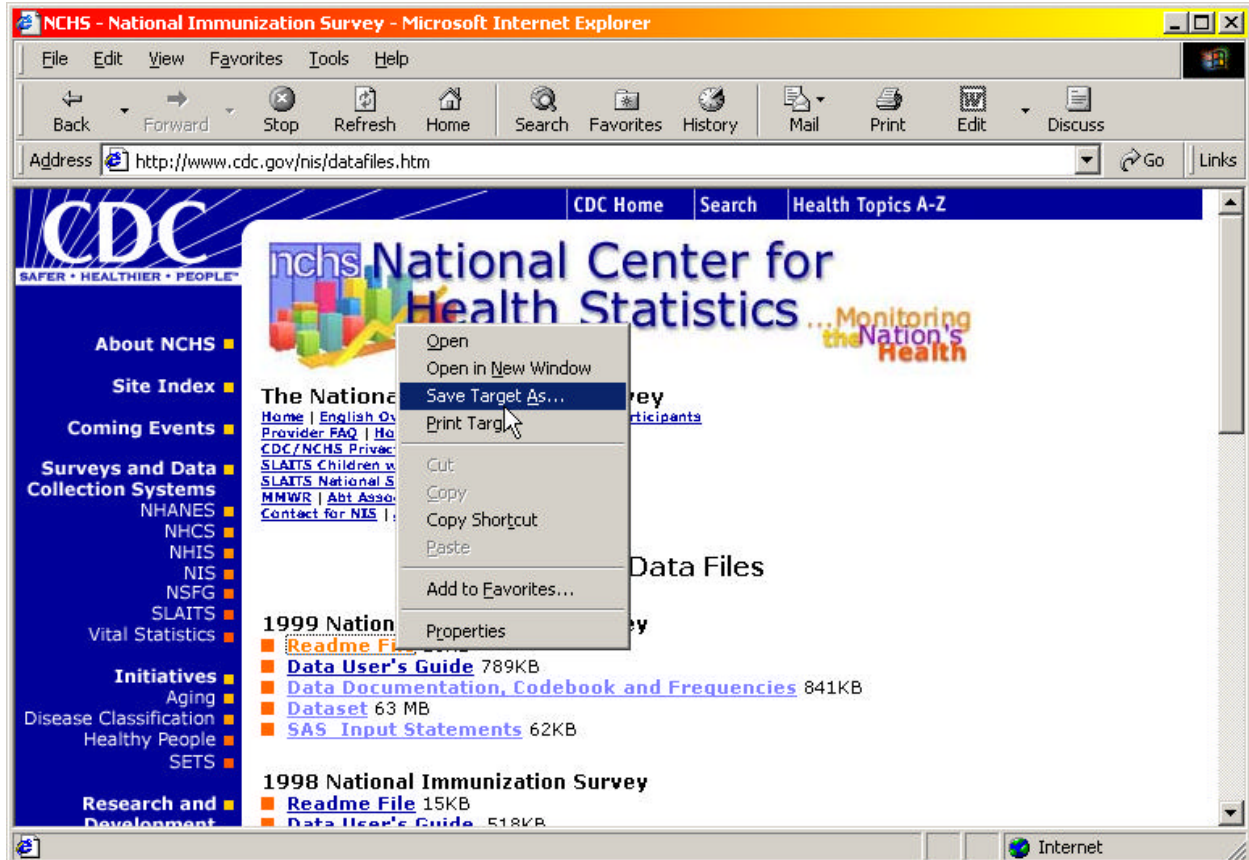


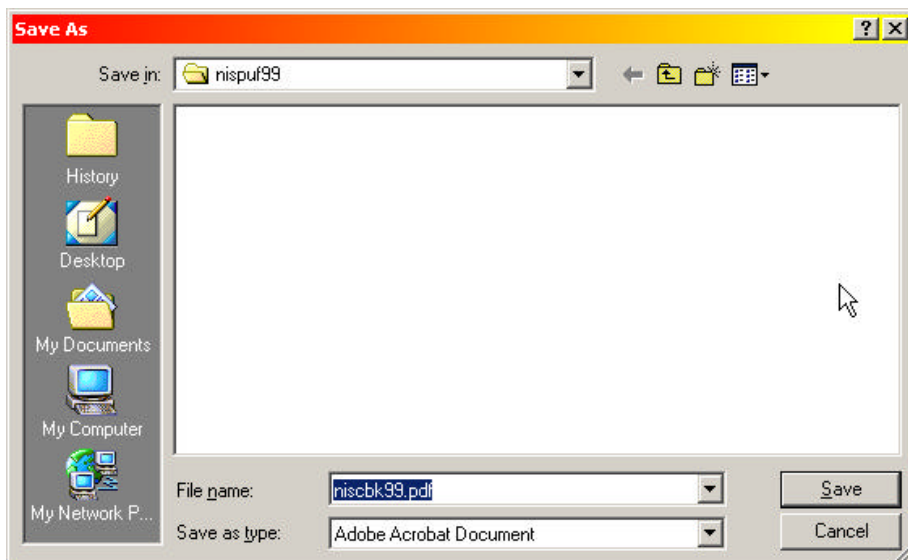
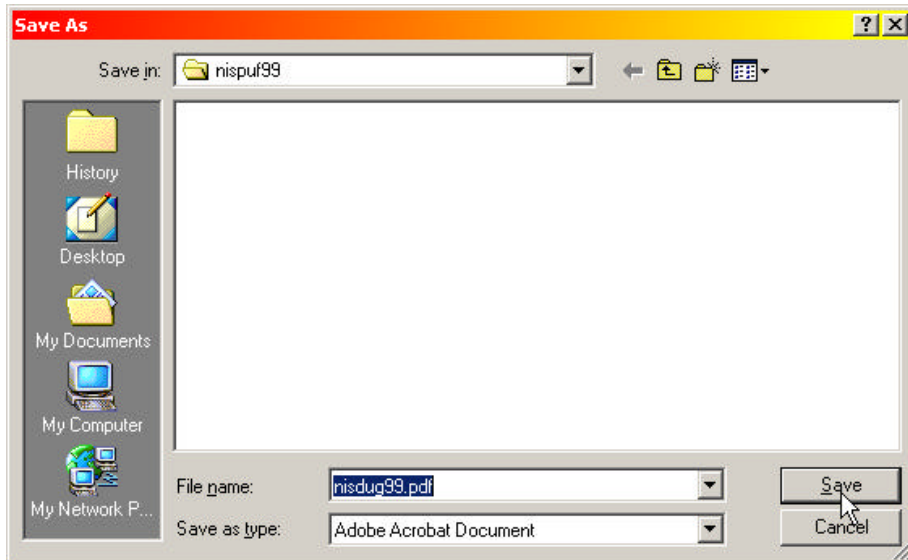
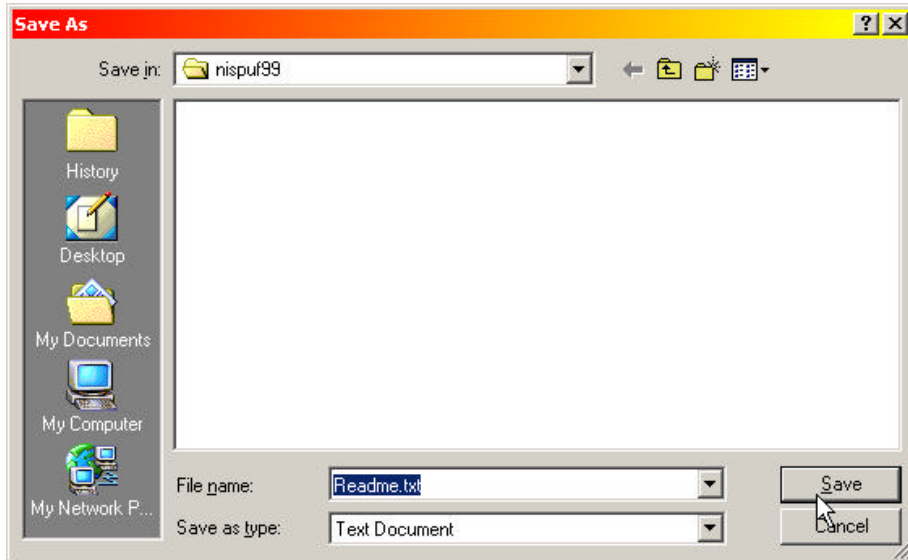
- D.9. Follow the following steps to download the :
- a. Readme File
  - b. Data User's Guide
  - c. Data Documentation, Codebook and Frequencies

D.9.1. Right Click on the file.

D.9.2. Save Target As...

D.9.3. Save File to c:\nispuf99



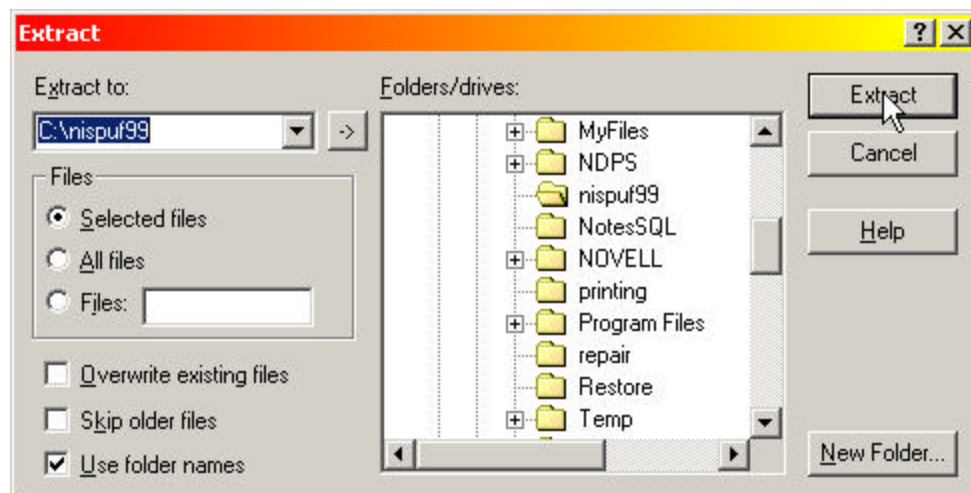
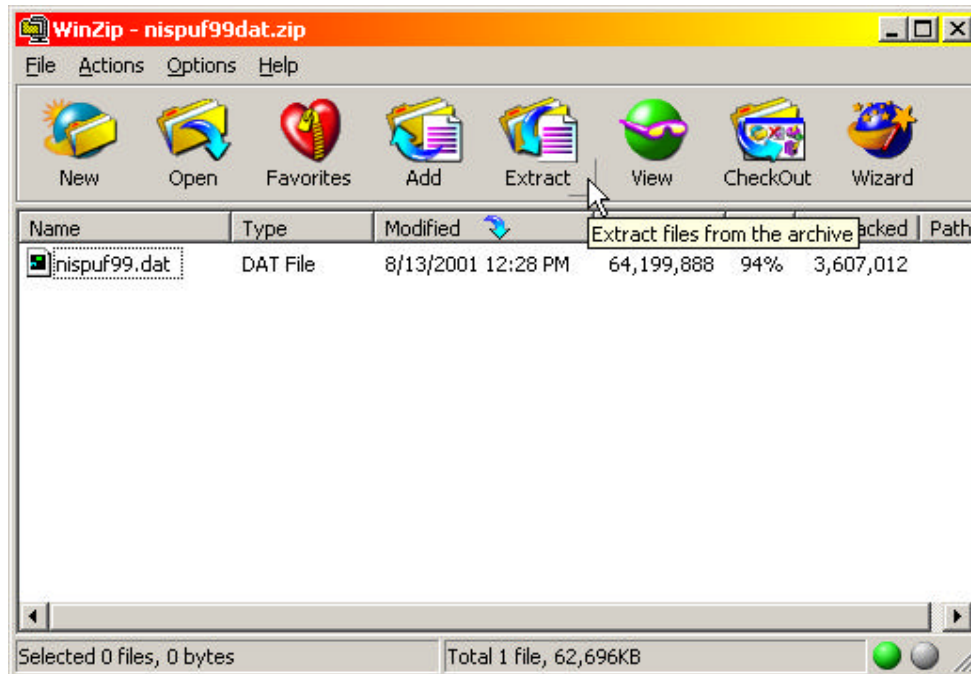


E. To Create a SAS Dataset for the 1999 PUF:

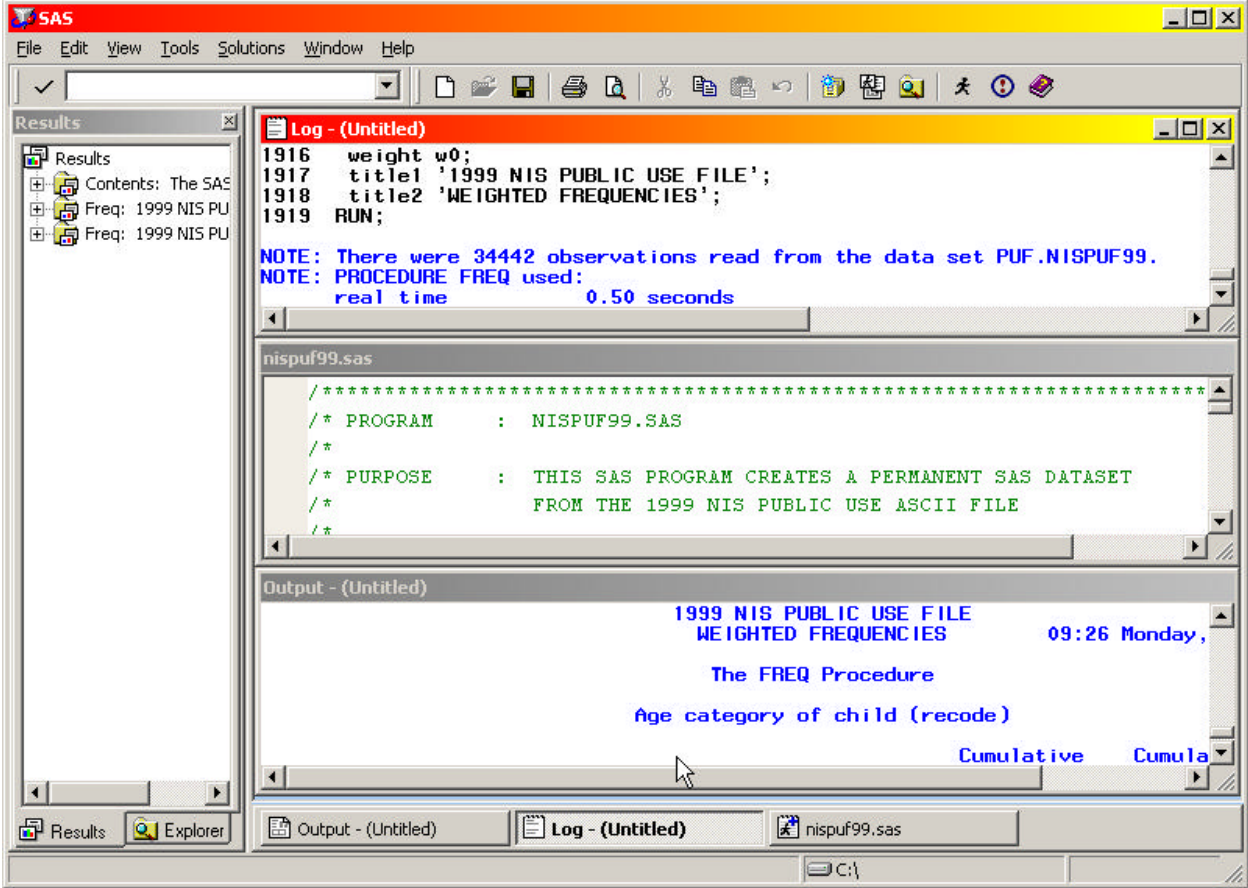
E.1. Unzip the file “c:\nispuf99\nispuf99dat.zip” using WinZip by either of the following methods:

- a. Double-click on the file from the Windows Explorer , or
- b. Open the file from a WinZip window.

Then extract the file to c:\nispuf99.



E.2. Run the program “c:\nispuf99\nispuf99.sas”. This program will create a SAS Dataset called *nispuf99.sas7bdat* in c:\nispuf99. The program contains extensive comments.



## LIST OF SAMPLE PROGRAMS

**1. PROG\_1.SAS**

Table of 4:3:1:3 Up-to-date by IAP Area (with 95% Confidence Interval)

**2. PROG\_2.SAS**

Table of 4:3:1:3 Up-to-date by State (with 95% Confidence Interval)

**3. PROG\_3.SAS**

Table of Child Had Chicken Pox by IAP Area (with 95% Confidence Interval)

**4. PROG\_4.SAS**

Table of 4:3:1:3 Up-to-date for First-Born by Race/Ethnicity: Children Aged 24-29 Months

**5. PROG\_5.SAS**

Table of 4:3:1:3 Up-to-date by Clinical Specialty of Person who Ordered Child's Vaccination: California

**6. PROG\_6.SAS**

Table of 4:3:1:3 Up-to-date by Child's Provider Facility Type: Illinois

**7. PROG\_7.SAS**

Table of 4:3:1:3 Up-to-date for Race/Ethnicity by Poverty Status

**8. GRAPH\_7.SAS**

Graph of 4:3:1:3 Up-to-date for Race/Ethnicity by Poverty Status. (Graph of Output from PROG\_7.SAS)

## IAP AREA CODES (ITRUEIAP)

Proc format;  
value itrueiaf  
0='U.S Total'  
01='Connecticut'  
02='MA-Rest of State'  
03='MA-City of Boston'  
04='Maine'  
05='New Hampshire'  
06='Rhode Island'  
07='Vermont'  
08='NJ-Rest of State'  
09='NJ-City of Newark'  
10='NY-Rest of State '  
11='NY-5 Counties '  
12='Dist of Columbia '  
13='Delaware '  
14='MD-Rest of State '  
15='MD-Baltimore City'  
16='PA-Rest of State '  
17='PA-Philadelphia '  
18='Virginia '  
19='West Virginia '  
20='AL-Rest of State '  
21='AL-Jefferson Cnty'  
22='FL-Rest of State '  
23='FL-Duval County '  
24='FL-Dade County '  
25='GA-Rest of State'  
26='GA-Fulton/Dekalb '  
27='Kentucky '  
28='Mississippi '  
29='North Carolina '  
30='South Carolina '  
31='TN-Rest of State '  
32='TN-Shelby County '  
33='TN-Davidson Cnty '  
34='IL-Rest of State '  
35='IL-City Chicago '  
36='IN-Rest of State '  
37='IN-Marion County '  
38='MI-Rest of State '



39='MI-Detroit ' '  
40='Minnesota ' '  
41='OH-Rest of State ' '  
42='OH-Cuyahoga Cnty ' '  
43='OH-Franklin Cnty ' '  
44='WI-Rest of State ' '  
45='WI-Milwaukee Cnty' '  
46='Arkansas ' '  
47='LA-Rest of State ' '  
48='LA-Orleans Parish' '  
49='New Mexico ' '  
50='Oklahoma ' '  
51='TX-Rest of State ' '  
52='TX-Dallas County ' '  
53='TX-El Paso Cnty ' '  
54='TX-City Houston ' '  
55='TX-Bexar County ' '  
56='Iowa ' '  
57='Kansas ' '  
58='Missouri ' '  
59='Nebraska ' '  
60='Colorado ' '  
61='Montana ' '  
62='North Dakota ' '  
63='South Dakota ' '  
64='Utah ' '  
65='Wyoming ' '  
66='AZ-Rest of State ' '  
67='AZ-Maricopa Cnty ' '  
68='CA-Rest of State ' '  
69='CA-Los Angeles ' '  
70='CA-Santa Clara ' '  
71='CA-San Diego Cnty' '  
72='Hawaii ' '  
73='Nevada ' '  
74='Alaska ' '  
75='Idaho ' '  
76='Oregon ' '  
77='WA-Rest of State ' '  
78='WA-King County ' ;

## FIPS STATE CODES (STATE)

value statef

0 ='U.S. Total ' '  
1 ='Alabama ' '  
2 ='Alaska ' '  
4 ='Arizona ' '  
5 ='Arkansas ' '  
6 ='California ' '  
8 ='Colorado ' '  
9 ='Connecticut ' '  
10 ='Delaware ' '  
11 ='Dist. of Columbia' '  
12 ='Florida ' '  
13 ='Georgia ' '  
15 ='Hawaii ' '  
16 ='Idaho ' '  
17 ='Illinois ' '  
18 ='Indiana ' '  
19 ='Iowa ' '  
20 ='Kansas ' '  
21 ='Kentucky ' '  
22 ='Louisiana ' '  
23 ='Maine ' '  
24 ='Maryland ' '  
25 ='Massachusetts ' '  
26 ='Michigan ' '  
27 ='Minnesota ' '  
28 ='Mississippi ' '  
29 ='Missouri ' '  
30 ='Montana ' '  
31 ='Nebraska ' '  
32 ='Nevada ' '  
33 ='New Hampshire ' '  
34 ='New Jersey ' '  
35 ='New Mexico ' '  
36 ='New York ' '  
37 ='North Carolina ' '  
38 ='North Dakota ' '  
39 ='Ohio ' '  
40 ='Oklahoma ' '

41 ='Oregon ' '  
42 ='Pennsylvania ' '  
44 ='Rhode Island ' '  
45 ='South Carolina ' '  
46 ='South Dakota ' '  
47 ='Tennessee ' '  
48 ='Texas ' '  
49 ='Utah ' '  
50 ='Vermont ' '  
51 ='Virginia ' '  
53 ='Washington ' '  
54 ='West Virginia ' '  
55 ='Wisconsin ' '  
56 ='Wyoming ' '

;

**SEQUENTIAL STATE CODES  
(NSTATE VARIABLE USED IN PROG\_2.SAS)**

```
value nstatef
0='U.S. Total      '
1='Alabama         '
2='Alaska          '
3='Arizona         '
4='Arkansas        '
5='California      '
6='Colorado        '
7='Connecticut    '
8='Delaware        '
9='Dist. of Columbia'
10='Florida        '
11='Georgia        '
12='Hawaii         '
13='Idaho          '
14='Illinois       '
15='Indiana        '
16='Iowa           '
17='Kansas         '
18='Kentucky       '
19='Louisiana      '
20='Maine          '
21='Maryland       '
22='Massachusetts  '
23='Michigan       '
24='Minnesota     '
25='Mississippi    '
26='Missouri       '
27='Montana        '
28='Nebraska       '
29='Nevada         '
30='New Hampshire  '
31='New Jersey     '
32='New Mexico     '
33='New York       '
34='North Carolina '
35='North Dakota   '
36='Ohio           '
37='Oklahoma       '
38='Oregon         '

```

39='Pennsylvania ' '  
40='Rhode Island ' '  
41='South Carolina ' '  
42='South Dakota ' '  
43='Tennessee ' '  
44='Texas ' '  
45='Utah ' '  
46='Vermont ' '  
47='Virginia ' '  
48='Washington ' '  
49='West Virginia ' '  
50='Wisconsin ' '  
51='Wyoming ' ;