



THE NEISS SAMPLE (DESIGN AND IMPLEMENTATION) FROM 1979 TO 1996

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BACKGROUND

The National Electronic Injury Surveillance System (NEISS), a probability sample of hospital emergency departments in the United States and its territories, is used by the U. S. Consumer Product Safety Commission to measure the magnitude of the injury problem associated with consumer products and to provide a source for follow-up investigations of selected cases. The NEISS data are keyed directly into personal computers. Its roots and evolution are traced in the sections which follow.

First NEISS (1971)

In the last two months of 1970, the first NEISS was designed. It was based on a 1968 inventory of U.S. hospitals and 1960 population census data. It comprised a statistically valid sample of 119 hospitals, representative of all general hospitals with emergency departments in the 48 contiguous States. The recruiting of hospitals together with training, equipping and operating the system began in May 1971 in the Bureau of Product Safety, Food, and Drug Administration. In July 1973, when the U.S. Consumer Product Safety Commission was activated, NEISS became the core of CPSC's Bureau of Epidemiology.

Redesigned NEISS (1978)

In order to update and improve the initial system, on October 1, 1978 a redesigned NEISS was implemented. The sampling frame for the redesigned NEISS consisted of hospitals listed on the National Center for Health Statistics' 1975 Master Facilities Inventory hospital computer tape. The redesigned NEISS sample was a probability sample of all hospitals with emergency departments throughout the U.S. and its territories. The hospitals on the sampling frame were stratified by size (number of emergency room visits) into four groups with an additional group covering hospitals with burn care centers. The hospitals were organized geographically within strata, substrata of equal numbers of hospitals were formed, and a simple random sample of primary and alternate hospitals was selected from each stratum.

The sample of 130 hospitals actually consisted of two half samples. Due to budgetary limitations, the full sample was never implemented. While plans had

called for implementing the two half samples in two phases over a two-year period, the probability sample actually implemented consisted of 74 hospitals. Further budget cutbacks in 1984 reduced the sample to 64 hospitals. Because of hospitals going out of business, by early 1989 the sample size had fallen to 62. (Waksberg and Valliant, 1977)

Updated Sample (1990)

In 1989, CPSC updated the sample to reflect a more current universe of hospitals with emergency departments in the U.S. and its territories. First, a sampling frame was constructed from the most current information (1985) on hospitals with emergency departments. Then the sampling frame was divided into four size strata based on the annual number of emergency visits reported by each hospital and ordered geographically. As a result of the changes between the 1975 and the 1985 sampling frames, 10 hospitals were added, 7 were dropped, and a number of others moved from one stratum to another. As of January 1990, the sample consisted of 65 hospitals. (Marker, Waksberg, Braden, 1988)

Updated Sample (1991)

In 1990, a plan was implemented to increase the size of the NEI SS sample, thereby restoring many of the properties associated with the full 130-hospital redesign sample. The implementation plan called for selecting and recruiting additional hospitals in each of the three larger strata, greatly increasing the number of reports to be collected and reducing the time for the completion of follow-back studies. Twenty-eight hospitals were selected, of which two were no longer in business. With the addition of 26 hospitals, the size of the NEI SS sample increased to 91 in January 1991. This sample of 91 hospitals, a probability sample of hospitals with emergency departments in the U.S. and its territories, provided approximately 290,000 product-related injury reports each year. This sample design was maintained until December 1996.

NEISS SAMPLE CHARACTERISTICS

October 1, 1979 through September 30, 1984

Because of budgetary restrictions, the Commission decided against implementing the full sample of 130 hospitals (See Table 1). Phase I consisted of a sample of 70 hospitals from the 130 hospital sample. When the decision was made not to implement phase II of the sample redesign, a second decision was made to augment the phase I sample in order to assure a sufficient pool of cases for follow-back investigative studies. The augmented sample was to include the remainder of the 12 hospitals from stratum 4 and the remainder of the eight hospitals from the burn stratum of the originally planned NEISS redesign sample.

This augmented phase I sample, then, consisted of the 70 hospitals from phase I and additional hospitals from phase II. The in-scope sample was comprised of 74 hospitals, as presented in Table 2. Tables 3 and 4 present changes in the number of in-scope hospitals which have occurred over the period of time that this augmented phase I sample was in place.

October 1, 1984 through June 30, 1985

Additional cutbacks to the NEISS sample were necessary beginning with Fiscal Year 1985. A decision was made to return to the Phase I sample of 70 hospitals, eliminating the nine additional hospitals from stratum 4 and the burn stratum which had augmented the Phase I sample but which were actually selected as part of the planned Phase II sample. Table 5 presents the characteristics of this Phase I sample, which was in effect from October 1, 1984 through June 30, 1985.

July 1, 1985 through November 30, 1985

Hospital attrition and hospital mergers are reflected in the present NEISS sample. Any hospital going out of business is not replaced; it is presumed to represent other hospitals in the sampling frame, which have gone out of business. Hospital mergers are reflected in the history of the NEISS and are presented in Table 17. However, hospitals which have come into existence or emergency departments that have come into existence since the redesign sampling frame was constructed are not reflected in the ongoing NEISS. This situation requires

periodic updates of the sampling frame with subsequent selection of hospitals to be added to the NEI SS sample. The Westat redesign of the NEI SS included the provision for updating the sample when a sufficient number of new hospital emergency departments had come into existence.

The sample was updated July 1, 1985, with the selection of two hospitals and the addition of one in-scope hospital from an update stratum. Thus, the NEI SS sample after this update consisted of 72 hospitals, of which 65 were in scope. Table 6 presents the characteristics of the sample from July 1, 1985 through November 30, 1985.

December 1, 1985 through July 31, 1986

With one hospital going out of business as of December 1985, the number of in-scope hospitals in the NEI SS sample changed again. The NEI SS sample characteristics from December 1, 1985 through July 31, 1986 are presented below in Table 7.

August 1, 1986 through December 31, 1986

With one hospital going out of business as of December 1986, the number of in-scope hospitals in the NEI SS sample changed again. The NEI SS sample characteristics from August 1, 1986, through December 31, 1986 are shown below in Table 8.

January 1, 1987 through September 30, 1987

Another hospital from stratum 1 ceased doing business as of January 1, 1987. The composition of the NEI SS sample by stratum for the given time period is presented below in Table 9.

October 1, 1987 through December 31, 1989

During this period two of the sample hospitals merged with other hospitals, affecting their sample weights. The NEI SS sample by stratum for this period is presented below in Table 10.

January 1, 1990 through December 31, 1990

During 1988, under contract with Westat, Inc., the NEI SS sample design was updated to reflect changes in the universe of hospitals since the 1978 redesign of the NEI SS. As part of the update, a new sampling frame was constructed based on the most currently available (1985) listing of hospitals and emergency room visits. Funds became available in 1989 for implementing the update of the system. By December 31, 1989, the update was fully implemented.

The hospital size strata were reconfigured as shown below in Table 11. Both the burn and the update strata were eliminated. The hospitals in the former design were reallocated to the new strata according to the more current ERVs. In order to retain the original chances of selection while using more up-to-date information, seven hospitals were dropped, 10 were added, and several others moved between strata.

January 1, 1991 through December 31, 1994

In January, 1991, the NEI SS sample size was increased to 91 hospitals by doubling the sample size in strata 2, 3 and 4, the three largest strata as shown in Table 12. It was estimated that this would increase the number of cases by about 60 percent, greatly reducing the amount of time required to complete special telephone and on-site follow-back investigations of selected injuries.

January 1, 1995 through September 30, 1995

In late 1994, CPSC decided to supplement the NEI SS probability sample with a special stratum of children's hospitals. These hospitals would provide a large number of additional cases available for case-finding purposes and would be available for follow-back investigations to determine the causes of the accident. At this time, however, the cases from these have a statistical weight of zero.

Of the total NEI SS sample size of 100, 91 hospitals are part of the probability sample, used to produce national estimates (with sampling errors) of product-related injuries in the U.S. and its territories. (Note that the probability sample of 91 hospitals contains two children's hospitals.) Nine additional children's hospitals were randomly selected from the 42 children's hospitals with emergency

departments listed on the same sampling frame that was used for the probability sample. Recruitment of these additional children's hospitals began in late 1994 and was completed in the summer of 1995. (See Table 13.)

October 1, 1995 through September 30, 1996

In October 1995, one NEI SS hospital ceased doing business while a new hospital was built. During this period the hospital was (temporarily) out of scope, reducing the in scope probability sample from 91 to 90. (See Table 14.)

October 1, 1996 through December 31, 1996

The temporarily out of scope hospital was rebuilt and reopened. As of October 1, 1996, it is considered part of the NEI SS statistical sample. The in scope probability sample size returned to 91 hospitals. (See Table 15.)

HOSPITAL SELECTION PROCEDURE AND HOSPITAL PARTICIPATION

Westat, the contractor for the NEI SS sample redesigns, provided CPSC with the sampling frame, a set of primary hospital sample selections and procedures for selecting alternate hospitals to be used as substitutes for hospitals unwilling to participate. In each recruitment process, CPSC recruiters make repeated and intensive efforts to obtain the participation of every primary sample hospital selected. Only when all approaches to obtain cooperation from a primary hospital fail do the recruiters turn to a replacement hospital.

If the hospital being replaced is the primary selection, CPSC selects the alternate (replacement) hospital according to the procedures established by Westat. If the first alternate hospital refuses to participate, the second alternate is selected, etc., until cooperation is obtained with a replacement hospital. If the hospital to be replaced is not a primary selection, we use the opportunity to try again to recruit that hospital which is the primary sample selection. This has enabled us to obtain the cooperation of some primary hospitals, which initially had refused to participate. Over time, whenever hospitals remain in business but elect to drop out of the system, CPSC attempts returns to the original recruitment order: primary

hospital, first alternate hospital, etc. Since the replacement hospitals have the same probabilities of selection as the primary hospitals with which they are associated, they also have the same statistical weights. All hospitals on the system at the time of one of the updates of the NEI SS are considered primary hospital selections as of that time.

HOSPITAL WEIGHTS, 1979 to 1996

Basic Hospital Weights

The "basic" hospital weights used by NEI SS are equal to the inverse of the probability of selection for the hospitals in each stratum. The inverse of the probability of selection is simply the total number of hospitals on the sampling frame divided by the total number of hospitals in the NEI SS sample calculated at the stratum level. Adjustments to these basic weights are made for non-response and hospital mergers. Annual estimates of injuries are derived by summing the monthly estimates for all months of the year.

Adjustments for Non-Response

When a hospital in a given stratum does not report cases for a particular month, the basic hospital weight is adjusted for this lack of participation. If all hospitals in the stratum participate during the given month, the non-response adjustment factor is one. Non-response adjustment factors can be computed for each month and stratum since October 1979 by using Table 16. For a given month and stratum, the non-response adjustment factor is obtained by dividing the number in the column labeled "SAMPLE" by the number in the column labeled "PARTICIPANTS."

For example, the non-response adjustment factor for small stratum for October 1979 was $38/25$ or 1.52. When the monthly non-response adjustment factor is multiplied by the basic hospital weight, the result is the adjusted basic NEI SS weight for the small stratum for October 1979. The basic weight for the small stratum in October 1979 was $4290/42$ or 102.14. Therefore, the adjusted basic NEI SS weight for October 1979 is 1.52×102.14 , or 155.2571. (See Table 17.)

Adjustments for Hospital Mergers

When two hospitals merge and are in different size classes, the probability of selection of the merged hospitals is found by the formula for the union of two events:

$$P = P_1 + P_2 - P_1P_2$$

where P_i = probability of selection of hospital i ; $i = 1, 2$

Taking into account any non-response adjustment, the basic merged weight of hospital i is computed as:

$$Wgt_{hi} = \frac{1}{\left(\frac{n_{h1}}{N_{h1}} \frac{r_{h1}}{n'_{h1}}\right) + \left(\frac{n_{h2}}{N_{h2}} \frac{r_{h2}}{n'_{h2}}\right) - \left(\frac{n_{h1}}{N_{h1}} \frac{r_{h1}}{n'_{h1}}\right) \left(\frac{n_{h2}}{N_{h2}} \frac{r_{h2}}{n'_{h2}}\right)}$$

where:

- $N_{h1(2)}$ = Number of hospitals in the NEI SS sampling frame for stratum $h1(2)$
- $n_{h1(2)}$ = Number of hospitals selected for the NEI SS sample for stratum $h1(2)$
- $r_{h1(2)}$ = Number of hospitals participating in the NEI SS sample for stratum $h1(2)$ for the time period
- $n'_{h1(2)}$ = Number of in-scope hospitals in the NEI SS sample for stratum $h1(2)$

When two hospitals merge and are in the same size class, the situation is more complex because the sampling in a size class is done without replacement. The sample size in a particular size class was a fixed number n , and the total number of hospitals in the size class was N for the original sample and frame. If S denotes the sample, H_1 and H_2 the hospitals, the three possibilities that lead to the retention of the merged hospital in the sample are:

- A. $H_1 \in S, H_2 \notin S$ Hospital 1 is in the original sample, hospital 2 is not
- B. $H_1 \notin S, H_2 \in S$ Hospital 2 is in the original sample, hospital 1 is not
- C. $H_1 \in S, H_2 \in S$ Both hospitals are in the original sample

The probability of event A is:

$P(A) = P(H_1 \text{ is selected on the first draw and } H_2 \text{ is not selected on any draw})$

$$= n \frac{1}{N} \frac{N-2}{N-1} \frac{N-3}{N-2} \dots \frac{N-n+1}{N-n+2} \frac{N-n}{N-n+1} = \frac{n}{N} \frac{N-n}{N-1}$$

The leading multiplier n accounts for the possibility that H_1 may be selected on any of the n draws. The probability of event B, $P(B)$, is the same as $P(A)$ from symmetry.

The probability of event C is:

$$\begin{aligned} P(C) &= 2 \binom{n}{2} P(H_1 \text{ is selected on the first draw and } H_2 \text{ is selected on the 2nd}) \\ &= 2 \binom{n}{2} \frac{1}{N} \frac{1}{N-1} \end{aligned}$$

The probability of inclusion of the merged hospital is then:

$$P(A) + P(B) + P(C) = \frac{n(2N-n-1)}{N(N-1)} = \frac{2n}{N} - \frac{n(n-1)}{N(N-1)}$$

Taking into account any non-response adjustment, the basic merged weight of hospital i is computed as:

$$Wgt_{hi} = \frac{1}{\frac{2n_h}{N_h} - \frac{n_h(n_h-1)}{N_h(N_h-1)}} \left(\frac{n'_h}{r_h} \right)$$

where:

- $N_h =$ Number of hospitals in the NEI SS sampling frame for stratum h
- $n_h =$ Number of hospitals selected from the NEI SS sample for stratum h
- $r_h =$ Number of hospitals participating in the NEI SS sample for stratum h for the time period
- $n'_h =$ Number of in-scope hospitals in the NEI SS sample for stratum h

Final NEISS Weights

The final NEISS weight calculated each month and used for national estimates can consist of the following parts: basic weights, adjustments for non-response, and adjustments for merged hospitals. The final weight (for all non-merged hospitals) can be written as:

$$NEISS_{wt} = \frac{(N_h * n'_h)}{(n_h * r_h)}$$

where:

N_h = Number of hospitals in the sampling frame for stratum h

n_h = Number of hospitals selected for the NEISS sample for stratum h

n'_h = Number of in-scope hospitals in the NEISS sample for stratum h

r_h = Number of NEISS hospitals participating in stratum h for the given month

Table 17 shows the final NEISS weights from October 1979 to December 1996.

NATIONAL ESTIMATES OF PRODUCT-RELATED INJURIES FROM NEISS

National estimates for a given month of NEISS are calculated using the following formula :

$$Estimate = \sum_i wgt_i x_i$$

where:

wgt_i = Weight of hospital i for the month

x_i = Number of cases for a specified product or type of injury reported by hospital i for the given month

Except for the unique weights of merged hospitals, the weights of the hospitals are the same within a stratum and equation 3 can be written as:

$$Estimate = \sum_{h=1}^m \sum_{i=1}^{r_h} \left(\frac{N_h n'_h}{n_h r_h} \right) x_{hi}$$

where:

- m = Number of strata in the NEI SS sample during the given time period
- N_h = Number of hospitals in the NEI SS sampling frame for stratum h
- n_h = Number of hospitals selected for the NEI SS sample for stratum h
- n'_h = Number of in-scope hospitals in the NEI SS sample for stratum h
- r_h = Number of NEI SS hospitals participating for stratum h for the given month
- x_{hi} = Number of cases for a specified product or type of injury reported by hospital i in stratum h for the given month

Note that N_h/n_h , is the basic weight associated with each hospital in stratum h and the factor n'_h/r_h is the adjustment for non-response.

SAMPLING ERRORS ASSOCIATED WITH NEISS ESTIMATE

Because NEI SS estimates are based on a sample of hospital emergency rooms rather than on a census of all hospital emergency rooms, they may differ somewhat from the figures that would have been obtained if product-related injuries had been obtained from all hospital emergency rooms in the U.S. Standard (or sampling) errors are measures of the sampling variability, that is, of the variations in the estimates that occur by chance because a sample rather than the entire set of emergency rooms is surveyed. Measures of sampling variation are frequently expressed as coefficients of variation (c.v.'s). The coefficients of variation are the standard errors divided by the estimates. The c.v. is a measure of the proportionate error due to sampling and the standard error is a measure of the absolute error.

The square of the standard error is referred to as the sampling variance. The variance of an estimate based on a sample can be calculated from the sample data, and this has been done for NEI SS.

The estimates of variances for NEI SS take into account the probabilities of selection, stratification, and weighting. The variance estimating formula currently used is:

$$\sigma_x^2 = \sum_{h=1}^m \frac{r_h}{r_h - 1} \sum_{i=1}^{r_h} \left(\frac{N_h}{n_h} \frac{n'_h}{r_h} \right)^2 (x_{hi} - \bar{x}_h)^2 = \sum_{h=1}^m \frac{r_h}{r_h - 1} \sum_{i=1}^{r_h} (wgt_{hi} x_{hi} - wgt \bar{x}_{hi})^2$$

where:

- M = Number of strata in the sample for the time period
- r_h = the number of hospitals participating in stratum h for the time period
- N_h = Number of hospitals in the NEI SS sampling frame for stratum h
- n_h = Number of hospitals selected for the (current) sample for stratum h
- n'_h = Number of in-scope hospitals in the (current) sample or stratum h
- X_{hi} = the number of injuries reported for the time period in the i-th hospital in stratum h
- Wgt_{hi} = the weight of hospital i in stratum h for the time period

$$\bar{x}_h = \sum_{i=1}^{r_h} \frac{x_{hi}}{r_h} \quad \text{and} \quad wgt\bar{x}_h = \sum_{i=1}^{r_h} \frac{wgt_{hi} x_{hi}}{r_h}$$

The variance equation above applies to estimates of injuries during any time period -- monthly, quarterly, annually, etc. -- with x_{hi} interpreted as the number of injuries during that period. For periods greater than one month, the formula assumes that the sample size is constant over the period. When there have been variations in sample size, r_h is defined as the number of hospitals reporting during all, or the majority of the months in the period.

This formula actually slightly overstates the true sampling variance, because it does not take into account the effect of the secondary stratification factor, geography. Test calculations indicate that there are only slight differences between calculations using the formula above, and ones that consider the geographic substratification.

Appendix 1 contains sample SAS code for calculating variances associated with a particular NEI SS estimate.

Generalized Sampling Errors

"Generalized sampling errors" are also produced for NEI SS estimates. These smoothed values are derived from fitting a curve to all calculated sampling errors for a defined set. Generalized sampling errors are commonly used by U.S. Government statistical agencies such as the Bureau of the Census, the Bureau of

Labor Statistics, and the National Center for Health Statistics to convey to the public information about the precision of their estimates. One reason for their use is to reduce the cost of computing and presenting the large number of variances which would be required if each required a separate computation. Another reason is to produce more stable estimates of variances. Sampling errors, when estimated from sample data, have variances of their own; fitting a curve frequently reduces these errors.

To fit curves for generalized sampling errors, the relationship between the size of the estimate x_k for the k-th product group and the variance of that estimate, $\sigma_{x_k}^2$ is expressed by the formula:

$$\frac{\sigma_{x_k}}{x_k} = C.V._{x_k} = \frac{1}{a + (b * LN(x_k))}$$

where C.V. is the coefficient of variation, "a" and "b" are estimated by an iterative procedure. The iterative procedure produces estimates of "a" and "b" which minimize the expression:

$$\sum_k x_k \left(C.V._{x_k} - \frac{1}{a + (b * LN(x_k))} \right)^2$$

The standard errors derived from NEI SS can be used in the following way: The sample estimate and its standard error enable one to construct confidence intervals, ranges that would include the average results of all possible samples with a known probability. For example, if all possible samples were selected and surveyed, and an estimate and its standard error calculated from each, then:

- Approximately 95 percent of the time the interval from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples.
- About 90 percent of similar confidence intervals using 1.6 standard errors would include the average results of all samples.
- About 68 percent of confidence intervals using one standard error would include the average results of all possible samples.

Table 18 present generalized sampling errors for NEI SS estimates for the years 1990 through 1997 for various size estimates.

Table 1
 NEISS Sample Characteristics
 October 1, 1978 through September 30, 1979 (Proposed)
 (Full complement of 130 hospitals planned, but never implemented)

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight	Out of Scope /1	In Scope Sample
1	1 - 14,770	4,290	78	55.00	8	70
2	14,771 - 24,315	729	16	45.56		16
3	24,316 - 39,717	549	16	34.31		16
4	39,718+	268	12	22.33		12
Burn		181	8	22.63	1	7
Total		6,017	130		9	121

1/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence at time of recruitment:

One hospital selected for stratum 1

b) Hospitals without emergency department at the time of the recruitment:

Seven hospitals selected for stratum 1

One hospital selected for the burn stratum

Table 2
NEISS Sample Characteristics
October 1, 1979 through August 31, 1981

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight	Out of Scope /1	In Scope Sample
1	1 - 14,770	4,290	42	102.14	4	38
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	12	22.33		12
Burn		181	8	22.63	1	7
Total		6,017	79		5	74

1/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the burn stratum

Table 3
NEISS Sample Characteristics
September 1, 1981 through February 29, 1984

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight	Out of Scope /1	In Scope Sample
1	1 - 14,770	4,290	42	102.14	5	37
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	12	22.33		12
Burn		181	8	22.63	1	7
Total		6,017	79		6	73

1/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the burn stratum

Table 4
NEISS Sample Characteristics
March 1, 1984 through September 30, 1984

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight	Out of Scope /1	In Scope Sample
1	1 - 14,770	4,290	42	102.14	6	36
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	12	22.33		12
Burn		181	8	22.63	1	7
Total		6,017	79		7	72

1/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the burn stratum

c) Hospital emergency department no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

Table 5
NEISS Sample Characteristics
October 1, 1984 through June 30, 1985

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	6	36
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29		7
Burn		181	4	45.25		4
Total		6,017	70		6	64

1/ During this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

c) Hospital emergency department no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

Table 6
NEISS Sample Characteristics
July 1, 1985 through November 30, 1985

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	6	36
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29		7
Burn		181	4	45.25		4
Update		375	2	187.50	1	1
Total		6,392	72		7	65

1/ Prior to this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the update stratum did not have an emergency department at the time of recruitment

c) Hospital emergency departments no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

Table 7
NEISS Sample Characteristics
December 1, 1985 through July 31, 1986

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	7	35
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29		7
Burn		181	4	45.25		4
Update		375	2	187.50	1	1
Total		6,392	72		8	64

1/ Prior to this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

One hospital in stratum 1 participated in the sample through November 30, 1985, when it ceased doing business as a hospital

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the update stratum did not have an emergency department at the time of recruitment

c) Hospital emergency departments no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

Table 8
NEISS Sample Characteristics
August 1, 1986 through December 31, 1986

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	7	35
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29	1	6
Burn		181	4	45.25		4
Update		375	2	187.50	1	1
Total		6,392	72		9	63

1/ Prior to this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

One hospital in stratum 1 participated in the sample through November 30, 1985, when it ceased doing business as a hospital

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the update stratum did not have an emergency department at the time of recruitment

c) Hospital emergency departments no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

One hospital in stratum 4 participated in the sample through July 31, 1986, when the hospital's emergency department ceased doing business

Table 9
NEISS Sample Characteristics
January 1, 1987 through September 30, 1987

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	8	34
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29	1	6
Burn		181	4	45.25		4
Update		375	2	187.50	1	1
Total		6,392	72		10	62

1/ Prior to this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business

One hospital in stratum 1 participated in the sample through November 30, 1985, when it ceased doing business as a hospital

One hospital in stratum 1 participated in the sample through December 31, 1986, when it ceased doing business as a hospital

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the update stratum did not have an emergency department at the time of recruitment

c) Hospital emergency departments no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

One hospital in stratum 4 participated in the sample through July 31, 1986, when the hospital's emergency department ceased doing business

Table 10
NEISS Sample Characteristics
October 1, 1987 through December 31, 1989

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 14,770	4,290	42	102.14	8	34
2	14,771 - 24,315	729	9	81.00		9
3	24,316 - 39,717	549	8	68.63		8
4	39,718+	268	7	38.29	1	6
Burn		181	4	45.25		4
Update		375	2	187.50	1	1
Total		6,392	72		10	62

1/ Prior to this period, two hospital mergers resulted in unique weights for two hospitals.

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1984, with a weight of 51.3047

One hospital selected for NEISS in the Burn stratum merged another hospital not selected for NEISS from stratum 3. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1985, with a weight of 27.5108

One hospital selected for NEISS in stratum 2 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning October 1, 1987, with a weight of 45.4236

One hospital selected for NEISS in stratum 1 merged with another hospital not selected for NEISS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 51.3047

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital in stratum 1 participated in the sample through August 31, 1981 when the hospital ceased doing business.

One hospital in stratum 1 participated in the sample through November 30, 1985, when it ceased doing business as a hospital

One hospital in stratum 1 participated in the sample through December 31, 1986, when it ceased doing business as a hospital

b) Hospitals without emergency department at the time of the recruitment:

Four hospitals selected for stratum 1

One hospital selected for the update stratum did not have an emergency department at the time of recruitment

c) Hospital emergency departments no longer in business at the time of the recruitment:

One hospital in stratum 1 participated in the sample through February 29, 1984 when the hospital emergency department ceased doing business

One hospital in stratum 4 participated in the sample through July 31, 1986, when the hospital's emergency department ceased doing business

Table 11
NEISS Sample Characteristics
January 1, 1990 through December 31, 1990

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 15,730	4,262	38	112.16	1	37
2	15,731 - 25895	943	11	85.73		11
3	25,896 - 42,298	685	10	68.50		10
4	42,229+	237	7	33.86		7
Total		6,127	66		1	65

1/ One hospital has a unique weight because the hospital merged with another hospital after the update sampling frame

One hospital selected for NEI SS in stratum 1 merged with another hospital not selected for NEI SS in stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 56.3235

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital selected in stratum 1 as part of the update sample was no longer in business as a hospital when the recruitment began

Table 12
NEISS Sample Characteristics
January 1, 1991 through December 31, 1994

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
1	1 - 15,730	4,262	38	112.16	1	37
2	15,731 - 25895	943	22	42.86	2	20
3	25,896 - 42,298	685	20	34.25		20
4	42,229+	237	14	16.93		14
Total		6,127	94		3	91

1/ Four hospitals have unique weights because the hospital merged with another hospital after the update sampling

One hospital selected for NEI SS in stratum 1 merged with another hospital not selected for NEI SS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 56.3235

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 1. The merged hospital is considered in the statistical sample as one hospital beginning January 1, 1991, with a weight of 31.2131

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1991, with a weight of 19.2880

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The two hospitals are considered as one hospital in the statistical sample beginning June 1, 1994, with a weight of 19.2880

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital selected in stratum 1 as part of the update sample was no longer in business as a hospital when the recruitment began

Two hospitals selected in stratum 2 as part of the January 1, 1991, modification were no longer in business as hospitals with emergency departments when the recruitment began

Table 13
NEISS Sample Characteristics
January 1, 1995 through September 30, 1995
Supplemented with a Group of Children's Hospitals
Total Combined (Probability and Non-probability) Sample

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
All	Various	6,127	104	Various	4	100
Probability Sample						
1	1 - 15,730	4,262	38	112.16	1	37
2	15,731 - 25895	943	22	42.86	2	20
3	25,896 - 42,298	685	20	34.25		20
4	42,229+	237	14	16.93		14
Total		6,127	94		3	91
Non-probability Sample						
Children's	Various	42	10	0.00	1	9

1/ Five hospitals have unique weights because the hospital merged with another hospital after the update sampling

One hospital selected for NEI SS in stratum 1 merged with another hospital not selected for NEI SS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 56.3235

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 1. The merged hospital is considered in the statistical sample as one hospital beginning January 1, 1991, with a weight of 31.2131

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1991, with a weight of 19.2880

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The two hospitals are considered as one hospital in the statistical sample beginning June 1, 1994, with a weight of 19.2880

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1995, with a statistical weight of 21.6734

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital selected in stratum 1 as part of the update sample was no longer in business as a hospital when the recruitment began

Two hospitals selected in stratum 2 as part of the January 1, 1991, modification were no longer in business as hospitals with emergency departments when the recruitment began

One hospital selected from the children's stratum was no longer eligible for participation in NEISS

Table 14
NEISS Sample Characteristics
October 1, 1995 through September 30, 1996
Supplemented with a Group of Children's Hospitals
Total Combined (Probability and Non-probability) Sample

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
All	Various	6,127	104	Various	4	100
Probability Sample						
1	1 - 15,730	4,262	38	112.16	1	37
2	15,731 - 25895	943	22	42.86	3	19
3	25,896 - 42,298	685	20	34.25		20
4	42,229+	237	14	16.93		14
Total		6,127	94		4	90
Non-probability Sample						
Children's	Various	42	10	0.00	1	9

1/ Five hospitals have unique weights because the hospital merged with another hospital after the update sampling

One hospital selected for NEI SS in stratum 1 merged with another hospital not selected for NEI SS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 56.3235

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 1. The merged hospital is considered in the statistical sample as one hospital beginning January 1, 1991, with a weight of 31.2131

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1991, with a weight of 19.2880

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The two hospitals are considered as one hospital in the statistical sample beginning June 1, 1994, with a weight of 19.2880

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1995, with a statistical weight of 21.6734

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital selected in stratum 1 as part of the update sample was no longer in business as a hospital when the recruitment began

Two hospitals selected in stratum 2 as part of the January 1, 1991, modification were no longer in business as hospitals with emergency departments when the recruitment began

One hospital in stratum 2 was not in business from October 1, 1995 through September 30, 1995, while a new building was being constructed.

One hospital selected from the children's stratum was no longer eligible for participation in NEISS

Table 15
NEISS Sample Characteristics
October 1, 1996 through December 31, 1996
Supplemented with a Group of Children's Hospitals
Total Combined (Probability and Non-probability) Sample

Stratum	Range of Total ERVs	Number of Hospitals in Universe	Total Sample	Weight /1	Out of Scope /2	In Scope Sample
All	Various	6,127	104	Various	4	100
Probability Sample						
1	1 - 15,730	4,262	38	112.16	1	37
2	15,731 - 25895	943	22	42.86	2	20
3	25,896 - 42,298	685	20	34.25		20
4	42,229+	237	14	16.93		14
Total		6,127	94		3	91
Non-probability Sample						
Children's	Various	42	10	0.00	1	9

1/ Five hospitals have unique weights because the hospital merged with another hospital after the update sampling

One hospital selected for NEI SS in stratum 1 merged with another hospital not selected for NEI SS from stratum 1. The two hospitals are considered in the statistical sample as one hospital beginning May 1, 1988, with a weight of 56.3235

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 1. The merged hospital is considered in the statistical sample as one hospital beginning January 1, 1991, with a weight of 31.2131

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1991, with a weight of 19.2880

One hospital selected for NEI SS in stratum 3 merged with another hospital not selected for NEI SS from stratum 2. The two hospitals are considered as one hospital in the statistical sample beginning June 1, 1994, with a weight of 19.2880

One hospital selected for NEI SS in stratum 2 merged with another hospital not selected for NEI SS from stratum 2. The merged hospital is considered in the statistical sample as one hospital beginning August 1, 1995, with a statistical weight of 21.6734

2/ Out of scope hospitals included hospitals no longer in existence, hospitals without emergency departments, or hospital emergency departments no longer in business.

a) Hospitals no longer in existence:

One hospital selected in stratum 1 as part of the update sample was no longer in business as a hospital when the recruitment began

Two hospitals selected in stratum 2 as part of the January 1, 1991, modification were no longer in business as hospitals with emergency departments when the recruitment began

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
79	10	38	25	9	5	8	7	12	7	7	3	0	0	74	47
79	11	38	29	9	6	8	7	12	7	7	3	0	0	74	52
79	12	38	29	9	7	8	7	12	7	7	3	0	0	74	53
80	1	38	29	9	7	8	7	12	6	7	3	0	0	74	52
80	2	38	30	9	7	8	7	12	6	7	4	0	0	74	54
80	3	38	32	9	7	8	7	12	7	7	5	0	0	74	58
80	4	38	32	9	7	8	7	12	7	7	5	0	0	74	58
80	5	38	32	9	7	8	7	12	7	7	5	0	0	74	58
80	6	38	33	9	8	8	7	12	7	7	5	0	0	74	60
80	7	38	33	9	8	8	7	12	7	7	5	0	0	74	60
80	8	38	33	9	8	8	7	12	7	7	5	0	0	74	60
80	9	38	34	9	9	8	7	12	6	7	5	0	0	74	61
80	10	38	34	9	8	8	7	12	5	7	5	0	0	74	59
80	11	38	34	9	8	8	7	12	5	7	6	0	0	74	60
80	12	38	35	9	8	8	7	12	6	7	7	0	0	74	63
81	1	38	34	9	8	8	7	12	6	7	7	0	0	74	62
81	2	38	35	9	9	8	7	12	7	7	7	0	0	74	65
81	3	38	35	9	9	8	7	12	7	7	7	0	0	74	65
81	4	38	37	9	9	8	7	12	9	7	7	0	0	74	69
81	5	38	36	9	9	8	8	12	9	7	7	0	0	74	69
81	6	38	37	9	9	8	8	12	11	7	7	0	0	74	72
81	7	38	37	9	9	8	8	12	11	7	7	0	0	74	72
81	8	38	36	9	9	8	8	12	11	7	7	0	0	74	71
81	9	37	35	9	9	8	8	12	11	7	7	0	0	73	70
81	10	37	32	9	8	8	8	12	10	7	7	0	0	73	65
81	11	37	31	9	8	8	8	12	9	7	7	0	0	73	63
81	12	37	32	9	8	8	8	12	10	7	7	0	0	73	65
82	1	37	32	9	8	8	7	12	10	7	7	0	0	73	64
82	2	37	34	9	8	8	7	12	10	7	7	0	0	73	66
82	3	37	35	9	8	8	7	12	10	7	7	0	0	73	67
82	4	37	36	9	8	8	7	12	12	7	7	0	0	73	70
82	5	37	37	9	8	8	8	12	12	7	7	0	0	73	72
82	6	37	37	9	9	8	8	12	12	7	7	0	0	73	73
82	7	37	37	9	9	8	8	12	11	7	7	0	0	73	72

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
82	8	37	36	9	9	8	8	12	12	7	7	0	0	73	72
82	9	37	36	9	9	8	8	12	12	7	7	0	0	73	72
82	10	37	36	9	9	8	8	12	12	7	7	0	0	73	72
82	11	37	36	9	9	8	8	12	12	7	7	0	0	73	72
82	12	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	1	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	2	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	3	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	4	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	5	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	6	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	7	37	36	9	9	8	8	12	12	7	7	0	0	73	72
83	8	37	37	9	9	8	8	12	12	7	7	0	0	73	73
83	9	37	37	9	9	8	8	12	12	7	7	0	0	73	73
83	10	37	37	9	9	8	8	12	12	7	6	0	0	73	72
83	11	37	36	9	9	8	8	12	11	7	6	0	0	73	70
83	12	37	36	9	9	8	8	12	11	7	6	0	0	73	70
84	1	37	36	9	9	8	8	12	11	7	6	0	0	73	70
84	2	37	36	9	9	8	8	12	12	7	6	0	0	73	71
84	3	36	36	9	9	8	8	12	12	7	7	0	0	72	72
84	4	36	36	9	9	8	8	12	12	7	7	0	0	72	72
84	5	36	36	9	9	8	8	12	12	7	7	0	0	72	72
84	6	36	36	9	9	8	8	12	12	7	7	0	0	72	72
84	7	36	36	9	9	8	8	12	11	7	7	0	0	72	71
84	8	36	36	9	9	8	8	12	11	7	7	0	0	72	71
84	9	36	36	9	9	8	8	12	11	7	7	0	0	72	71
84	10	36	36	9	9	8	8	7	7	4	4	0	0	64	64
84	11	36	36	9	9	8	8	7	7	4	4	0	0	64	64
84	12	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	1	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	2	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	3	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	4	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	5	36	36	9	9	8	8	7	7	4	4	0	0	64	64

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
85	6	36	36	9	9	8	8	7	7	4	4	0	0	64	64
85	7	36	36	9	9	8	8	7	7	4	4	1	1	65	65
85	8	36	36	9	9	8	8	7	7	4	4	1	1	65	65
85	9	36	36	9	9	8	8	7	7	4	4	1	1	65	65
85	10	36	36	9	9	8	8	7	7	4	4	1	1	65	65
85	11	36	35	9	9	8	8	7	7	4	4	1	1	65	64
85	12	35	34	9	9	8	8	7	7	4	4	1	1	64	63
86	1	35	34	9	9	8	8	7	7	4	4	1	1	64	63
86	2	35	34	9	9	8	8	7	7	4	4	1	1	64	63
86	3	35	34	9	9	8	8	7	7	4	4	1	1	64	63
86	4	35	35	9	9	8	8	7	7	4	4	1	1	64	64
86	5	35	35	9	9	8	8	7	7	4	4	1	1	64	64
86	6	35	35	9	9	8	8	7	7	4	4	1	1	64	64
86	7	35	35	9	9	8	8	7	7	4	4	1	1	64	64
86	8	35	35	9	9	8	8	6	6	4	4	1	1	63	63
86	9	35	35	9	9	8	8	6	6	4	4	1	1	63	63
86	10	35	35	9	9	8	8	6	6	4	4	1	1	63	63
86	11	35	35	9	9	8	8	6	6	4	4	1	1	63	63
86	12	35	35	9	9	8	8	6	6	4	4	1	1	63	63
87	1	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	2	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	3	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	4	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	5	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	6	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	7	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	8	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	9	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	10	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	11	34	34	9	9	8	8	6	6	4	4	1	1	62	62
87	12	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	1	34	33	9	9	8	8	6	6	4	4	1	1	62	61
88	2	34	33	9	9	8	8	6	6	4	4	1	1	62	61
88	3	34	33	9	9	8	8	6	6	4	4	1	1	62	61

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
88	4	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	5	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	6	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	7	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	8	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	9	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	10	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	11	34	34	9	9	8	8	6	6	4	4	1	1	62	62
88	12	34	34	9	9	8	8	6	6	4	4	1	1	62	62
89	1	34	34	9	9	8	8	6	6	4	4	1	1	62	62
89	2	34	34	9	9	8	8	6	6	4	4	1	1	62	62
89	3	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	4	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	5	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	6	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	7	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	8	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	9	34	34	9	9	8	7	6	6	4	4	1	1	62	61
89	10	34	34	9	9	8	7	6	6	4	3	1	1	62	60
89	11	34	34	9	9	8	7	6	6	4	3	1	1	62	60
89	12	34	34	9	9	8	7	6	6	4	3	1	1	62	60
90	1	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	2	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	3	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	4	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	5	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	6	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	7	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	8	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	9	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	10	37	37	11	11	10	10	7	7	0	0	0	0	65	65
90	11	37	36	11	11	10	10	7	7	0	0	0	0	65	64
90	12	37	36	11	11	10	10	7	7	0	0	0	0	65	64
91	1	37	36	20	19	20	17	14	14	0	0	0	0	91	86

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
91	2	37	36	20	20	20	17	14	14	0	0	0	0	91	87
91	3	37	37	20	20	20	17	14	14	0	0	0	0	91	88
91	4	37	37	20	20	20	17	14	14	0	0	0	0	91	88
91	5	37	37	20	20	20	17	14	14	0	0	0	0	91	88
91	6	37	37	20	20	20	19	14	14	0	0	0	0	91	90
91	7	37	37	20	20	20	19	14	14	0	0	0	0	91	90
91	8	37	37	20	20	20	20	14	14	0	0	0	0	91	91
91	9	37	37	20	20	20	20	14	14	0	0	0	0	91	91
91	10	37	37	20	20	20	19	14	14	0	0	0	0	91	90
91	11	37	37	20	20	20	19	14	14	0	0	0	0	91	90
91	12	37	36	20	20	20	19	14	14	0	0	0	0	91	89
92	1	37	36	20	20	20	19	14	14	0	0	0	0	91	89
92	2	37	36	20	20	20	19	14	14	0	0	0	0	91	89
92	3	37	36	20	20	20	19	14	14	0	0	0	0	91	89
92	4	37	37	20	20	20	19	14	14	0	0	0	0	91	90
92	5	37	37	20	20	20	19	14	14	0	0	0	0	91	90
92	6	37	36	20	20	20	20	14	14	0	0	0	0	91	90
92	7	37	36	20	20	20	20	14	14	0	0	0	0	91	90
92	8	37	36	20	20	20	20	14	14	0	0	0	0	91	90
92	9	37	36	20	20	20	20	14	14	0	0	0	0	91	90
92	10	37	37	20	20	20	20	14	14	0	0	0	0	91	91
92	11	37	37	20	20	20	20	14	14	0	0	0	0	91	91
92	12	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	1	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	2	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	3	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	4	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	5	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	6	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	7	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	8	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	9	37	37	20	20	20	20	14	14	0	0	0	0	91	91
93	10	37	36	20	20	20	20	14	14	0	0	0	0	91	90
93	11	37	36	20	20	20	20	14	14	0	0	0	0	91	90

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
93	12	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	1	37	37	20	20	20	20	14	14	0	0	0	0	91	91
94	2	37	37	20	19	20	20	14	13	0	0	0	0	91	89
94	3	37	37	20	19	20	20	14	13	0	0	0	0	91	89
94	4	37	37	20	19	20	20	14	13	0	0	0	0	91	89
94	5	37	37	20	19	20	20	14	13	0	0	0	0	91	89
94	6	37	36	20	20	20	20	14	13	0	0	0	0	91	89
94	7	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	8	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	9	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	10	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	11	37	36	20	20	20	20	14	14	0	0	0	0	91	90
94	12	37	36	20	20	20	20	14	14	0	0	0	0	91	90
95	1	37	37	20	20	20	20	14	14	0	0	0	0	91	91
95	2	37	36	20	20	20	20	14	14	0	0	0	0	91	90
95	3	37	36	20	20	20	20	14	14	0	0	0	0	91	90
95	4	37	37	20	20	20	20	14	14	0	0	0	0	91	91
95	5	37	37	20	20	20	20	14	14	0	0	0	0	91	91
95	6	37	37	20	20	20	20	14	14	0	0	0	0	91	91
95	7	37	37	20	20	20	20	14	14	0	0	0	0	91	91
95	8	37	37	20	19	20	20	14	14	0	0	0	0	91	90
95	9	37	37	20	19	20	20	14	14	0	0	0	0	91	90
95	10	37	37	19	18	20	20	14	14	0	0	0	0	90	89
95	11	37	37	19	18	20	20	14	14	0	0	0	0	90	89
95	12	37	37	19	18	20	20	14	14	0	0	0	0	90	89
96	1	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	2	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	3	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	4	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	5	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	6	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	7	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	8	37	37	19	19	20	20	14	14	0	0	0	0	90	90
96	9	37	37	19	19	20	20	14	14	0	0	0	0	90	90

TABLE 16

Number of Hospitals in the NEISS Sample and Number of Participating Hospitals By Stratum For Each Month, 1979 - 1996

Year	Month	Stratum 1		Stratum 2		Stratum 3		Stratum 4		Burn/Children		Update Stratum		Total	
		Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Sample	Participants	Total Sample	Total Participants
96	10	37	37	20	20	20	20	14	14	0	0	0	0	91	91
96	11	37	37	20	20	20	20	14	14	0	0	0	0	91	91
96	12	37	37	20	20	20	20	14	14	0	0	0	0	91	91

Table 17

NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1979	OCTOBER	155.2571	145.8000	78.4286	38.2857	52.7917	
1979	NOVEMBER	133.8424	121.5000	78.4286	38.2857	52.7917	
1979	DECEMBER	133.8424	104.1429	78.4286	38.2857	52.7917	
1980	JANUARY	133.8424	104.1429	78.4286	44.6667	52.7917	
1980	FEBRUARY	129.3810	104.1429	78.4286	44.6667	39.5938	
1980	MARCH	121.2946	104.1429	78.4286	38.2857	31.6750	
1980	APRIL	121.2946	104.1429	78.4286	38.2857	31.6750	
1980	MAY	121.2946	104.1429	78.4286	38.2857	31.6750	
1980	JUNE	117.6190	91.1250	78.4286	38.2857	31.6750	
1980	JULY	117.6190	91.1250	78.4286	38.2857	31.6750	
1980	AUGUST	117.6190	91.1250	78.4286	38.2857	31.6750	
1980	SEPTEMBER	114.1597	81.0000	78.4286	44.6667	31.6750	
1980	OCTOBER	114.1597	91.1250	78.4286	53.6000	31.6750	
1980	NOVEMBER	114.1597	91.1250	78.4286	53.6000	26.3958	
1980	DECEMBER	110.8980	91.1250	78.4286	44.6667	22.6250	
1981	JANUARY	114.1597	91.1250	78.4286	44.6667	22.6250	
1981	FEBRUARY	110.8980	81.0000	78.4286	38.2857	22.6250	
1981	MARCH	110.8980	81.0000	78.4286	38.2857	22.6250	
1981	APRIL	104.9035	81.0000	78.4286	29.7778	22.6250	
1981	MAY	107.8175	81.0000	68.6250	29.7778	22.6250	
1981	JUNE	104.9035	81.0000	68.6250	24.3636	22.6250	
1981	JULY	104.9035	81.0000	68.6250	24.3636	22.6250	
1981	AUGUST	107.8175	81.0000	68.6250	24.3636	22.6250	
1981	SEPTEMBER	107.9796	81.0000	68.6250	24.3636	22.6250	
1981	OCTOBER	118.1027	91.1250	68.6250	26.8000	22.6250	
1981	NOVEMBER	121.9124	91.1250	68.6250	29.7778	22.6250	
1981	DECEMBER	118.1027	91.1250	68.6250	26.8000	22.6250	
1982	JANUARY	118.1027	91.1250	78.4286	26.8000	22.6250	
1982	FEBRUARY	111.1555	91.1250	78.4286	26.8000	22.6250	
1982	MARCH	107.9796	91.1250	78.4286	26.8000	22.6250	
1982	APRIL	104.9802	91.1250	78.4286	22.3333	22.6250	
1982	MAY	102.1429	91.1250	68.6250	22.3333	22.6250	
1982	JUNE	102.1429	81.0000	68.6250	22.3333	22.6250	
1982	JULY	102.1429	81.0000	68.6250	24.3636	22.6250	
1982	AUGUST	104.9802	81.0000	68.6250	22.3333	22.6250	
1982	SEPTEMBER	104.9802	81.0000	68.6250	22.3333	22.6250	
1982	OCTOBER	104.9802	81.0000	68.6250	22.3333	22.6250	
1982	NOVEMBER	104.9802	81.0000	68.6250	22.3333	22.6250	

Table 17
NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1982	DECEMBER	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	JANUARY	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	FEBRUARY	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	MARCH	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	APRIL	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	MAY	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	JUNE	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	JULY	104.9802	81.0000	68.6250	22.3333	22.6250	.
1983	AUGUST	102.1429	81.0000	68.6250	22.3333	22.6250	.
1983	SEPTEMBER	102.1429	81.0000	68.6250	22.3333	22.6250	.
1983	OCTOBER	102.1429	81.0000	68.6250	22.3333	26.3958	.
1983	NOVEMBER	104.9802	81.0000	68.6250	24.3636	26.3958	.
1983	DECEMBER	104.9802	81.0000	68.6250	24.3636	26.3958	.
1984	JANUARY	104.9802	81.0000	68.6250	24.3636	26.3958	.
1984	FEBRUARY	104.9802	81.0000	68.6250	22.3333	26.3958	.
1984	MARCH	102.1429	81.0000	68.6250	22.3333	22.6250	.
1984	APRIL	102.1429	81.0000	68.6250	22.3333	22.6250	.
1984	MAY	102.1429	81.0000	68.6250	22.3333	22.6250	.
1984	JUNE	102.1429	81.0000	68.6250	22.3333	22.6250	.
1984	JULY	102.1429	81.0000	68.6250	24.3636	22.6250	.
1984	AUGUST	102.1429	81.0000	68.6250	24.3636	22.6250	.
1984	SEPTEMBER	102.1429	81.0000	68.6250	24.3636	22.6250	.
1984	OCTOBER	102.1429	81.0000	68.6250	38.2857	45.2500	.
1984	NOVEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	.
1984	DECEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	JANUARY	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	FEBRUARY	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	MARCH	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	APRIL	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	MAY	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	JUNE	102.1429	81.0000	68.6250	38.2857	45.2500	.
1985	JULY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1985	AUGUST	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1985	SEPTEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1985	OCTOBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1985	NOVEMBER	105.0612	81.0000	68.6250	38.2857	45.2500	187.5000
1985	DECEMBER	105.1471	81.0000	68.6250	38.2857	45.2500	187.5000
1986	JANUARY	105.1471	81.0000	68.6250	38.2857	45.2500	187.5000

Table 17

NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1986	FEBRUARY	105.1471	81.0000	68.6250	38.2857	45.2500	187.5000
1986	MARCH	105.1471	81.0000	68.6250	38.2857	45.2500	187.5000
1986	APRIL	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	MAY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	JUNE	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	JULY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	AUGUST	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	SEPTEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	OCTOBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	NOVEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1986	DECEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	JANUARY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	FEBRUARY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	MARCH	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	APRIL	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	MAY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	JUNE	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	JULY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	AUGUST	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	SEPTEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	OCTOBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	NOVEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1987	DECEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	JANUARY	105.2381	81.0000	68.6250	38.2857	45.2500	187.5000
1988	FEBRUARY	105.2381	81.0000	68.6250	38.2857	45.2500	187.5000
1988	MARCH	105.2381	81.0000	68.6250	38.2857	45.2500	187.5000
1988	APRIL	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	MAY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	JUNE	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	JULY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	AUGUST	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	SEPTEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	OCTOBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	NOVEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1988	DECEMBER	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1989	JANUARY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1989	FEBRUARY	102.1429	81.0000	68.6250	38.2857	45.2500	187.5000
1989	MARCH	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000

Table 17

NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1989	APRIL	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	MAY	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	JUNE	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	JULY	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	AUGUST	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	SEPTEMBER	102.1429	81.0000	78.4286	38.2857	45.2500	187.5000
1989	OCTOBER	102.1429	81.0000	78.4286	38.2857	60.3333	187.5000
1989	NOVEMBER	102.1429	81.0000	78.4286	38.2857	60.3333	187.5000
1989	DECEMBER	102.1429	81.0000	78.4286	38.2857	60.3333	187.5000
1990	JANUARY	112.1579	85.7273	68.5000	33.8571	.	.
1990	FEBRUARY	112.1579	85.7273	68.5000	33.8571	.	.
1990	MARCH	112.1579	85.7273	68.5000	33.8571	.	.
1990	APRIL	112.1579	85.7273	68.5000	33.8571	.	.
1990	MAY	112.1579	85.7273	68.5000	33.8571	.	.
1990	JUNE	112.1579	85.7273	68.5000	33.8571	.	.
1990	JULY	112.1579	85.7273	68.5000	33.8571	.	.
1990	AUGUST	112.1579	85.7273	68.5000	33.8571	.	.
1990	SEPTEMBER	112.1579	85.7273	68.5000	33.8571	.	.
1990	OCTOBER	112.1579	85.7273	68.5000	33.8571	.	.
1990	NOVEMBER	115.2734	85.7273	68.5000	33.8571	.	.
1990	DECEMBER	115.2734	85.7273	68.5000	33.8571	.	.
1991	JANUARY	115.2734	45.1196	40.2941	16.9286	.	.
1991	FEBRUARY	115.2734	42.8636	40.2941	16.9286	.	.
1991	MARCH	112.1579	42.8636	40.2941	16.9286	.	.
1991	APRIL	112.1579	42.8636	40.2941	16.9286	.	.
1991	MAY	112.1579	42.8636	40.2941	16.9286	.	.
1991	JUNE	112.1579	42.8636	36.0526	16.9286	.	.
1991	JULY	112.1579	42.8636	36.0526	16.9286	.	.
1991	AUGUST	112.1579	42.8636	34.2500	16.9286	.	.
1991	SEPTEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1991	OCTOBER	112.1579	42.8636	36.0526	16.9286	.	.
1991	NOVEMBER	112.1579	42.8636	36.0526	16.9286	.	.
1991	DECEMBER	115.2734	42.8636	36.0526	16.9286	.	.
1992	JANUARY	115.2734	42.8636	36.0526	16.9286	.	.
1992	FEBRUARY	115.2734	42.8636	36.0526	16.9286	.	.
1992	MARCH	115.2734	42.8636	36.0526	16.9286	.	.
1992	APRIL	112.1579	42.8636	36.0526	16.9286	.	.
1992	MAY	112.1579	42.8636	36.0526	16.9286	.	.

Table 17

NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1992	JUNE	115.2734	42.8636	34.2500	16.9286	.	.
1992	JULY	115.2734	42.8636	34.2500	16.9286	.	.
1992	AUGUST	115.2734	42.8636	34.2500	16.9286	.	.
1992	SEPTEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1992	OCTOBER	112.1579	42.8636	34.2500	16.9286	.	.
1992	NOVEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1992	DECEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1993	JANUARY	112.1579	42.8636	34.2500	16.9286	.	.
1993	FEBRUARY	112.1579	42.8636	34.2500	16.9286	.	.
1993	MARCH	112.1579	42.8636	34.2500	16.9286	.	.
1993	APRIL	112.1579	42.8636	34.2500	16.9286	.	.
1993	MAY	112.1579	42.8636	34.2500	16.9286	.	.
1993	JUNE	112.1579	42.8636	34.2500	16.9286	.	.
1993	JULY	112.1579	42.8636	34.2500	16.9286	.	.
1993	AUGUST	112.1579	42.8636	34.2500	16.9286	.	.
1993	SEPTEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1993	OCTOBER	115.2734	42.8636	34.2500	16.9286	.	.
1993	NOVEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1993	DECEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1994	JANUARY	112.1579	42.8636	34.2500	16.9286	.	.
1994	FEBRUARY	112.1579	45.1196	34.2500	18.2308	.	.
1994	MARCH	112.1579	45.1196	34.2500	18.2308	.	.
1994	APRIL	112.1579	45.1196	34.2500	18.2308	.	.
1994	MAY	112.1579	45.1196	34.2500	18.2308	.	.
1994	JUNE	115.2734	42.8636	34.2500	18.2308	.	.
1994	JULY	115.2734	42.8636	34.2500	16.9286	.	.
1994	AUGUST	115.2734	42.8636	34.2500	16.9286	.	.
1994	SEPTEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1994	OCTOBER	115.2734	42.8636	34.2500	16.9286	.	.
1994	NOVEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1994	DECEMBER	115.2734	42.8636	34.2500	16.9286	.	.
1995	JANUARY	112.1579	42.8636	34.2500	16.9286	.	.
1995	FEBRUARY	115.2734	42.8636	34.2500	16.9286	.	.
1995	MARCH	115.2734	42.8636	34.2500	16.9286	.	.
1995	APRIL	112.1579	42.8636	34.2500	16.9286	.	.
1995	MAY	112.1579	42.8636	34.2500	16.9286	.	.
1995	JUNE	112.1579	42.8636	34.2500	16.9286	.	.
1995	JULY	112.1579	42.8636	34.2500	16.9286	.	.

Table 17

NEISS Weights by Year, Month, and Stratum, 1979 - 1996

Year	Month	Small Stratum	Medium Stratum	Large Stratum	Very Large Stratum	Burn Stratum	Update Stratum
1995	AUGUST	112.1579	45.1196	34.2500	16.9286	.	.
1995	SEPTEMBER	112.1579	45.1196	34.2500	16.9286	.	.
1995	OCTOBER	112.1579	45.2449	34.2500	16.9286	.	.
1995	NOVEMBER	112.1579	45.2449	34.2500	16.9286	.	.
1995	DECEMBER	112.1579	45.2449	34.2500	16.9286	.	.
1996	JANUARY	112.1579	42.8636	34.2500	16.9286	.	.
1996	FEBRUARY	112.1579	42.8636	34.2500	16.9286	.	.
1996	MARCH	112.1579	42.8636	34.2500	16.9286	.	.
1996	APRIL	112.1579	42.8636	34.2500	16.9286	.	.
1996	MAY	112.1579	42.8636	34.2500	16.9286	.	.
1996	JUNE	112.1579	42.8636	34.2500	16.9286	.	.
1996	JULY	112.1579	42.8636	34.2500	16.9286	.	.
1996	AUGUST	112.1579	42.8636	34.2500	16.9286	.	.
1996	SEPTEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1996	OCTOBER	112.1579	42.8636	34.2500	16.9286	.	.
1996	NOVEMBER	112.1579	42.8636	34.2500	16.9286	.	.
1996	DECEMBER	112.1579	42.8636	34.2500	16.9286	.	.

Table 18

Generalized Relative Sampling Errors For NEISS For Various Size

Estimated Number of Injuries	Year						
	1990	1991	1992	1993	1994	1995	1996
1,200	0.28	0.23	0.23	0.26	0.24	0.23	0.24
5,000	0.17	0.15	0.16	0.16	0.15	0.15	0.15
10,000	0.15	0.13	0.13	0.14	0.13	0.13	0.13
25,000	0.12	0.11	0.11	0.11	0.10	0.11	0.11
50,000	0.11	0.10	0.10	0.10	0.09	0.09	0.09
75,000	0.10	0.09	0.10	0.09	0.09	0.09	0.09
100,000	0.10	0.09	0.09	0.09	0.08	0.09	0.09
125,000	0.09	0.09	0.09	0.09	0.08	0.08	0.08
150,000	0.09	0.08	0.09	0.08	0.08	0.08	0.08
175,000	0.09	0.08	0.09	0.08	0.08	0.08	0.08
200,000	0.09	0.08	0.08	0.08	0.07	0.08	0.08
300,000	0.08	0.08	0.08	0.08	0.07	0.07	0.07
400,000	0.08	0.07	0.08	0.07	0.07	0.07	0.07
500,000	0.08	0.07	0.08	0.07	0.07	0.07	0.07
600,000	0.08	0.07	0.07	0.07	0.07	0.07	0.07
700,000	0.08	0.07	0.07	0.07	0.06	0.07	0.07
1,500,000	0.07	0.06	0.07	0.06	0.06	0.06	0.06

APPENDIX 1

SAS CODE FOR CALCULATING VARIANCES

```

%include 'g:\users\epds\rdwrite\formats\stratum.fmt';

/*****/
/* STRATUM FORMATS */
/* 1990 Estimates - $strt90h. */
/* 1991-1996 Estimates - $strt91h. */
/* 1997-present Estimates - $strt97h. */
/*****/;

DATA IN ERROR(KEEP = HID WT STRATUM DUMMY); SET g.neiss;
  hid = put(hid,$subhosp.);
  stratum = put(hid,$strt91h.);
  dummy = 1;
  WT = WT/10000; *if wt has a format of 7.4 delete this line;
  if wt<1 then delete;
  if stratum in ('S','M','L','V') then output in;
  else output error;

PROC PRINT DATA = ERROR;
  TITLE 'Possible Error! Hospital with no stratum';

PROC SORT DATA = IN; BY HID DUMMY;

/*****/
/* SUM THE TOTAL WEIGHT AND TOTAL NUMBER OF CASES BY HOSPITAL */
/*****/;

DATA TOTAL (KEEP = HID TOT_WT TOT_CNT DUMMY STRATUM);
  SET IN; BY HID DUMMY;
  TOT_WT + WT;
  TOT_CNT + 1;
  IF LAST.DUMMY THEN DO;
    OUTPUT;
    TOT_WT = 0;
    TOT_CNT = 0;
  END;
  RETAIN TOT_WT 0 TOT_CNT 0;

PROC SORT DATA = TOTAL; BY DUMMY STRATUM;

  DATA VARPROD (KEEP = ESTIMATE COUNT CV VAR); SET TOTAL;
  BY DUMMY STRATUM;
  COUNT + TOT_CNT;
  TWCNT + TOT_WT;
  SUMSQ = (TOT_WT)**2;
  TSUMSQ + SUMSQ;

  IF LAST.STRATUM THEN DO;
    IF STRATUM = 'S' THEN N = 37;
    ELSE IF STRATUM = 'M' THEN N = 20;
    ELSE IF STRATUM = 'L' THEN N = 20;
    ELSE IF STRATUM = 'V' THEN N = 14;

  /* N VALUES FOR STRATUM MUST REFLECT APPROPRIATE NEISS SAMPLE DESIGN */
  /* CONSULT TABLES 1 TO 15 FOR SAMPLE DESIGNS */

```

```

        STR_VAR = (TSUMSQ-(TWCNT**2)/N)*N/(N-1);
        VAR+STR_VAR;
        TSUMSQ = 0;
        ESTIMATE+TWCNT;
        TWCNT=0;
    END;

    IF LAST.DUMMY THEN DO;
        SD = SQRT(VAR);
        CV = SD/ESTIMATE;
        OUTPUT VARPROD;
        ESTIMATE = 0;
        VAR = 0;
        COUNT = 0;
    END;
RUN;

PROC PRINT DATA = VARPROD;
    TITLE 'VARIANCE ESTIMATES FOR NEISS ESTIMATES BETWEEN 1991 AND 1994';
    VAR ESTIMATE COUNT CV VAR;
    FORMAT ESTIMATE 7.0 CV 7.4 VAR 12.;
    SUM ESTIMATE COUNT VAR;
RUN;

```

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