

**D1F02 - NOTES AND COMPUTED VARIABLES**

**(Blood Pressure)**

D02AVGSY and D02AVGDI are the appropriate blood pressure variables to use in analyses. These were calculated by the data entry system and represent the average of the second and third blood pressure readings. Comparable variables in the Exam 1 data set are A02SBP and A02DBP. Comparable variables in the Exam 2 data set are B02AVGSY and B02AVGDI. Comparable variables in the Exam 3 data set are C02AVGSY and C02AVGDI.

REAL-TIME EDITS PERFORMED ON VARIABLES IN FILE D1F02

```
IF D02DTSMK-D02EXDAT >=24
IF 1>MO>12
IF 1>DAY>31
IF 92>YR>93
IF D02SMOKE>3
IF 1>MO1>12
IF 1>DAY1>31
IF 92>YR1>93
IF HH1>2
IF MM1>59
IF HH2>23
IF MM2>59
IF 10<D02ARMCI>60
IF (D02TEMP>0 AND D02TEMP<15) OR D02TEMP>30
IF (D02PULSE>0 AND D02PULSE<20) OR D02PULSE>60
IF D02CUFF=0 OR D02CUFF>4
IF (D02POP>0 AND D02POP<50) OR D02POP>240
IF (D02PIL>0 AND D02PIL <80) OR D02PIL>270
IF (D02R1S>0 AND D02R1S<80) OR D02R1S>260
IF D02R1D>160
IF D02RZ1S>40
IF D02RZ1D>40
IF (D02SBP1>0 AND D02SBP1<40) OR D02SBP1>260
IF D02DBP1>160
IF (D02R2S>0 AND D02R2S<80) OR D02R2S>260
IF D02R2D>160
IF D02RZ2S>40
IF D02RZ2D>40
IF (D02SBP2>0 AND D02SBP2<40) OR D02SBP2>260
IF D02DBP2>160
IF (D02R3S>0 AND D02R3S<80) OR D02R3S>260
IF D02R3D>160
IF D02RZ3S>40
IF D02RZ3D>40
IF (D02SBP3>0 AND D02SBP3<40) OR D02SBP3>260
IF D02DBP3>160
IF (D02SUMSY>0 AND D02SUMSY<80) OR D02SUMSY>520
IF D02SUMDI>320
IF (D02AVGSY>0 AND D02AVGSY<40) OR D02AVGSY>260
IF D02AVGDI>160
```

```
*****
*      THIS CODE CREATES THE SAS DATA SET D1F02      *
*      VERSION 4.1 OF THE CARDIA SAS FILES          *
*      AUGUST 1993                                  *
*****;
OPTIONS PS=60 NODATE NONUMBER;
libname c 'c:\yr7data';
```

```
DATA TEMP;
  INFILE 'E:\FORM02.SEQ' LRECL=146;
```

```
LENGTH
  D02SMOKE 3          D02EXDAT  D02DTSMK  D02TSMK  D02TIME  8          D02ARMCI
  D02TEMP  D02PULSE  D02CUFF   D02POP   D02PIL   D02MAXZE  D02PILRZ  D02R1S
  D02R1D   D02RZ1S  D02RZ1D   D02SBP1  D02DBP1  D02R2S   D02R2D   D02RZ2S
  D02RZ2D  D02SBP2  D02DBP2   D02R3S  D02R3D   D02RZ3S  D02RZ3D  D02SBP3
  D02DBP3  D02SUMSY D02SUMDI   D02AVGSY D02AVGDI  D02RANZR D02IVID  4;
```

```
MISSING M;
```

```
INPUT CENTER 1 ID 1-12
@13 YR 2. MO 2. DAY 2.
@44 D02SMOKE 1. YR1 2. MO1 2. DAY1 2. HH1 51-52 MM1 53-54 AMPM1 55
      HH2 56-57 MM2 58-59 AMPM2 60
      D02ARMCI 3.1
@64 (D02TEMP D02PULSE) (2.0)
@68 D02CUFF 1. @69 (D02POP D02PIL D02MAXZE ) (3.0)
@78 (D02PILRZ D02R1S D02R1D) (3.0)
@87 (D02RZ1S D02RZ1D) (2.0)
@91 (D02SBP1 D02DBP1 D02R2S D02R2D) (3.0)
@103 (D02RZ2S D02RZ2D) (2.0)
@107 (D02SBP2 D02DBP2 D02R3S D02R3D) (3.0)
@119 (D02RZ3S D02RZ3D) (2.0)
@123 (D02SBP3 D02DBP3 D02SUMSY D02SUMDI D02AVGSY D02AVGDI
      D02RANZR D02IVID) (3.0);
```

```
D02EXDAT=MDY (MO, DAY, YR);
D02DTSMK=MDY (MO1, DAY1, YR1);
```

```
* CHANGING HOUR VARIABLES TO 24-HOUR TIME;
IF AMPM1 = 2 AND 0 < HH1 < 12 THEN HH1 = HH1+12;
IF AMPM2 = 2 AND 0 < HH2 < 12 THEN HH2 = HH2+12;
```

```
IF AMPM1 = 1 AND HH1 = 12 THEN HH1=0;
IF AMPM2 = 1 AND HH2 = 12 THEN HH2=0;
```

```
D02TSMK=HMS(HH1, MM1, 0);
D02TIME =HMS(HH2, MM2, 0);
```

```
DROP AMPM1 AMPM2 DAY DAY1 HH1 HH2 MM1 MM2 MO MO1 YR YR1;
```

```
FORMAT D02EXDAT D02DTSMK DATE7.
      D02TIME D02TSMK TIME5.;
```

```
LABEL
D02SMOKE ='SMOKES, DOESN'T REMEMBER, DOESN'T SMOKE'
```

D02DTSMK = 'DATE SUBJECT LAST SMOKED'  
 D02TMSMK = 'TIME SUBJECT LAST SMOKED'  
 D02TIME = 'TIME OF DAY'  
 D02EXDAT = 'DATE OF EXAM'  
 D02ARMC I = 'ARM CIRCUMFERENCE IN CM'  
 D02TEMP = 'ROOM TEMPERATURE IN DEGREES CENTIGRADE'  
 D02PULSE = 'PULSE BEATS IN 30 SECONDS'  
 D02CUFF = 'PEDIATRIC, REGULAR, LARGE, AND OTHER'  
 D02POP = 'PULSE OBLITERATION PRESSURE'  
 D02PIL = 'PEAK INFLATION LEVEL, (STD) (POP + 30)'  
 D02MAXZE = 'MAXIMUM ZERO'  
 D02PILRZ = 'PEAK INFLATION LEVEL, (RZ)'  
 D02R1S = 'FIRST READING SBP'  
 D02R1D = 'FIRST READING DBP 5TH PHASE'  
 D02RZ1S = 'RZ1 SBP'  
 D02RZ1D = 'RZ1 DBP'  
 D02SBP1 = 'FIRST CORRECTED SBP (R1\_S - RZ1\_S)'  
 D02DBP1 = 'FIRST CORRECTED DBP (R1\_D - RZ1\_D)'  
 D02R2S = 'SECOND READING SBP'  
 D02R2D = 'SECOND READING DBP'  
 D02RZ2S = 'RZ2 SBP'  
 D02RZ2D = 'RZ2 DBP'  
 D02SBP2 = 'SECOND CORRECTED SBP (R2\_S - RZ2\_S)'  
 D02DBP2 = 'SECOND CORRECTED DBP (R2\_D - RZ2\_D)'  
 D02R3S = 'THIRD READING SBP'  
 D02R3D = 'THIRD READING DBP'  
 D02RZ3S = 'RZ3 SBP'  
 D02RZ3D = 'RZ3 DBP'  
 D02SBP3 = 'THIRD CORRECTED SBP (R3\_S - RZ3\_S)'  
 D02DBP3 = 'THIRD CORRECTED DBP (R3\_D - RZ3\_D)'  
 D02SUMSY = '2ND AND 3RD SYS (R2\_RZ2\_S + R3\_RZ3\_D)'  
 D02SUMDI = '2ND AND 3RD DIAS (R2\_RZ2\_D + R3\_RZ3\_D)'  
 D02AVGSY = 'AVERAGE SBP (SUM\_S/2)'  
 D02AVGDI = 'AVERAGE DBP (SUM\_D/2)'  
 D02RANZR = 'RANDOM ZERO MACHINE NUMBER'  
 D02IVID = 'INTERVIEWER' 'S ID NUMBER';

RUN;

PROC SORT;  
 BY ID;

RUN;

DATA C.D1F02;  
 MERGE TEMP C.EX4ID (IN=IN\_ID KEEP=ID);  
 BY ID;  
 IF IN\_ID;

RUN;

PROC CONTENTS;  
 TITLE1 'CONTENTS OF EXAM 4 V.1';  
 TITLE2 'FORM 2 - BLOOD PRESSURE';

RUN;

CONTENTS OF EXAM 4 VERSION 1  
FORM 2 - BLOOD PRESSURE

CONTENTS PROCEDURE

Data Set Name: C.D1F02	Type:
Observations: 4086	Record Len: 183
Variables: 39	
Label:	

-----Alphabetic List of Variables and Attributes-----

#	Variable	Type	Len	Pos	Format	Label
38	CENTER	Num	8	167		
6	D02ARMC	Num	4	39		ARM CIRCUMFERENCE IN CM
35	D02AVGDI	Num	4	155		AVERAGE DBP (SUM_D/2)
34	D02AVGSY	Num	4	151		AVERAGE SBP (SUM_S/2)
9	D02CUFF	Num	4	51		PEDIATRIC, REGULAR, LARGE, AND OTHER
19	D02DBP1	Num	4	91		FIRST CORRECTED DBP (R1_D - RZ1_D)
25	D02DBP2	Num	4	115		SECOND CORRECTED DBP (R2_D - RZ2_D)
31	D02DBP3	Num	4	139		THIRD CORRECTED DBP (R3_D - RZ3_D)
3	D02DTSMK	Num	8	15	DATE7.	DATE SUBJECT LAST SMOKED
2	D02EXDAT	Num	8	7	DATE7.	DATE OF EXAM
37	D02IVID	Num	4	163		INTERVIEWER'S ID NUMBER
12	D02MAXZE	Num	4	63		MAXIMUM ZERO
11	D02PIL	Num	4	59		PEAK INFLATION LEVEL, (STD) (POP + 30)
13	D02PILRZ	Num	4	67		PEAK INFLATION LEVEL, (RZ)
10	D02POP	Num	4	55		PULSE OBLITERATION PRESSURE
8	D02PULSE	Num	4	47		PULSE BEATS IN 30 SECONDS
15	D02R1D	Num	4	75		FIRST READING DBP 5TH PHASE
14	D02R1S	Num	4	71		FIRST READING SBP
21	D02R2D	Num	4	99		SECOND READING DBP
20	D02R2S	Num	4	95		SECOND READING SBP
27	D02R3D	Num	4	123		THIRD READING DBP
26	D02R3S	Num	4	119		THIRD READING SBP
36	D02RANZR	Num	4	159		RANDOM ZERO MACHINE NUMBER
17	D02RZ1D	Num	4	83		RZ1 DBP
16	D02RZ1S	Num	4	79		RZ1 SBP
23	D02RZ2D	Num	4	107		RZ2 DBP
22	D02RZ2S	Num	4	103		RZ2 SBP
29	D02RZ3D	Num	4	131		RZ3 DBP
28	D02RZ3S	Num	4	127		RZ3 SBP
18	D02SBP1	Num	4	87		FIRST CORRECTED SBP (R1_S - RZ1_S)
24	D02SBP2	Num	4	111		SECOND CORRECTED SBP (R2_S - RZ2_S)
30	D02SBP3	Num	4	135		THIRD CORRECTED SBP (R3_S - RZ3_S)
1	D02SMOKE	Num	3	4		SMOKES, DOESN'T REMEMBER, DOESN'T SMOKE
33	D02SUMDI	Num	4	147		2ND AND 3RD DIAS (R2_RZ2_D + R3_RZ3_D)
32	D02SUMSY	Num	4	143		2ND AND 3RD SYS (R2_RZ2_S + R3_RZ3_D)
7	D02TEMP	Num	4	43		ROOM TEMPERATURE IN DEGREES CENTIGRADE
5	D02TIME	Num	8	31	TIME5.	TIME OF DAY
4	D02TMSMK	Num	8	23	TIME5.	TIME SUBJECT LAST SMOKED
39	ID	Num	8	175		

```

/* FORM02.DD      "C" struct tag is f02                               */
/* Data dictionary for BLOOD PRESSURE FORM for CARDIA EXAM FOUR      */
/*                                                         */
/* FLD NAME TYPE BYTES  FIELDS  DESCRIPTION                               */
/*
id          c  12  /*    1 subject id number                               */
d02exmdt   c   6  /*   13 Exam date, Viking subroutine DATECK is used        */
           /*   to check for valid range                               */
d02num     c   2  /*   19 form number                                       */
d02ver     c   1  /*   21 form version, "4" for Exam 4                       */
d02dtent   c   5  /*   22 last date of entry for this record, updated each  */
           /*   time the record is updated. stored in YYMMDD format */
d02deid    c   3  /*   27 data entry person's id number; updated each time  */
           /*   the record is updated                                 */
d02mod     c   1  /*   30 indicates record has been modified                 */
d02tment   c   4  /*   31 amount of time taken for data entry for this record */
           /*   computed by system on the initial entry of the       */
           /*   record. stored in MMSS format                         */
d02totky   c   3  /*   35 total number of keystrokes for initial entry of   */
           /*   the record                                            */
d02valky   c   3  /*   38 number of valid keystrokes for initial entry of   */
           /*   the record                                            */
filler     c   3  /*   41 left for future requirements                       */
           /*   bytes total in header                               */
/*----- END HEADER -----*/

d02smoke   c   1  /*   44 Q.1.1 Have you smoked in the past 24 hours?      */
           /*   allowable code: 1 = No, 2 = Yes                       */
d02dtsmk   c   6  /*   45 Q.1.2 date subject last smoked in MMDDYY format  */
           /*   numeric only, Viking subroutine DATECK used         */
d02tmsmk   c   5  /*   51 Q.1.3 time subject last smoked in HHMMx format   */
           /*   numeric values only, hour range 0-23,                */
           /*   minute range 0-59, Viking subroutine IRANGE         */
           /*   checks for valid codes last byte : 1=AM 2=PM       */

/******
/* Viking subroutine IRANGE is used to check the coding of the following
/* fields
/******

d02time    c   5  /*   56 Q.2 time of day in HHMMx format hour range 0-23, */
           /*   minute range 0-59, last byte allowable code        */
           /*   1= AM, 2= PM                                       */
d02armci   c   3  /*   61 Q.3 arm circumference in cm, range 10 - 60       */
           /*   with one implied decimal place.                    */
d02temp    c   2  /*   64 Q.4 room temperature in degrees centigrade,      */
           /*   range : 15 - 30                                     */
d02pulse   c   2  /*   66 Q.5 pulse beats in 30 seconds, range 20 - 60    */
d02cuff    c   1  /*   68 Q.6 Cuff Size? allowable code: 1= pediatric,    */
           /*   2= regular arm, 3= large arm, 4= Thigh Cuff        */
d02pop     c   3  /*   69 Q.7 pulse obliteration pressure, range: 50 - 240 */
d02pil     c   3  /*   72 Q.8 peak inflation level, (std) (pop + 30),      */
           /*   range : 80 - 270                                    */
d02maxze   c   3  /*   75 Q.9 maximum zero, range : 11 - 40                */
d02pilrz   c   3  /*   78 Q.10 peak inflation level, (RZ), range :120 - 310 */
d02rls    c   3  /*   81 Q.11.1 first reading systolic, range 80 - 260   */
d02rld     c   3  /*   84 Q.11.2 First reading diastolic 5th phase,        */
           /*   range:0-160                                         */

```

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/*
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\*/

```
d02rz1s   c  2  /* 87 Q.12.1 RZ1 systolic, range : 0 - 40          */
d02rz1d   c  2  /* 89 Q.12.2 RZ1 diastolic, , range : 0 - 40        */
d02sbp1   c  3  /* 91 Q.13.1 first corrected systolic (R1_s - RZ1_s), */
           /* range : 40 - 260                                */
d02dbp1   c  3  /* 94 Q.13.2 first corrected diastolic (R1_d - RZ1_d), */
           /* range 0 - 160                                    */
d02r2s    c  3  /* 97 Q.14.1 second reading systolic, range : 80 - 260 */
d02r2d    c  3  /* 100 Q.14.2 second reading diastolic, range 0 - 160 */
d02rz2s   c  2  /* 103 Q.15.1 RZ2 systolic, range : 0 - 40           */
d02rz2d   c  2  /* 105 Q.15.2 RZ2 diastolic, range : 0 - 40          */
d02sbp2   c  3  /* 107 Q.16.1 second corrected systolic (R2_s - RZ2_s) */
           /* range 40 - 260                                */
d02dbp2   c  3  /* 110 Q.16.2 second corrected diastolic (R2_d - RZ2_d), */
           /* range : 0 - 160                                */
d02r3s    c  3  /* 113 Q.17.1 third reading systolic, range : 80 - 260 */
d02r3d    c  3  /* 116 Q.17.2 third reading diastolic, range : 0 - 160 */
d02rz3s   c  2  /* 119 Q.18.1 RZ3 systolic, range : 0 - 40           */
d02rz3d   c  2  /* 121 Q.18.2 RZ3 diastolic, range : 0 - 40          */
d02sbp3   c  3  /* 123 Q.19.1 third corrected systolic (R3_s - RZ3_s), */
           /* range : 40 - 260                                */
d02dbp3   c  3  /* 126 Q.19.2 third corrected diastolic (R3_d - RZ3_d), */
           /* range : 0 - 160                                */
d02sumsy  c  3  /* 129 Q.20.1 sum of second & third systolic (R2_RZ2_s + */
           /* R3_RZ3_s), range 80 - 520                    */
d02sumdi  c  3  /* 132 Q.20.2 sum of second & third diastolic (R2_RZ2_d + */
           /* R3_RZ3_d), range : 0 - 320                    */
d02avgsy  c  3  /* 135 Q.21.1 average systolic (sum_s/2), range : 40 - 260 */
d02avgdi  c  3  /* 138 Q.21.2 average diastolic (sum_d/2), range 0 - 160 */
d02ranzr  c  3  /* 141 random zero machine number,                    */
d02ivid   c  3  /* 144 Interviewer's ID number, Viking TABLES used */
```

keys

1: id

/\* Total number of bytes : 146, Total number of fields : 47 \*/