



## DERIVED VARIABLES

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## **1. NUMBERS OF PARTNERS**

By Lance Pollack (Rev 10/09/97)

### **NPRT1YR1 (Number of Sexual Partners in Last 12 Months)**

equals Q30 for heterosexuals (using sexual orientation over the last 12 months -- ORNT1YR1), Q66 for gays, Q107 for lesbians, the sum of Q30 and Q66 for male bisexuals, and the sum of Q30 and Q107 for female bisexuals. In 3 cases bisexuals had disclosed the number of opposite gender partners (Q30) but then "partialled out" before answering questions about same gender partners. Since in all 3 cases the respondents had multiple opposite gender partners (SAMPLEID=97007 HNPRT1=37; SAMPLEID=182808 HNPRT1=2; SAMPLEID=193911 HNPRT1=5), it was decided to use the number of opposite gender partners as the total number of partners. In this way, one can interpret the variable as the "minimum" number of sex partners in the past year. Skip codes are created for no sex in last 12 months, DK and D/A whether had sex in last 12 months, DK and D/A gender of partner(s), no sex past 5 years, and partial interview.

### **LTNPRT1 (Number of Sexual Partners Lifetime)**

is calculated by summing number of partners before age 18 (Q149A) and number of partners since age 18 (Q149B) and then adjusting that sum for overlap (partners the respondent had sex with both before and after age 18) using the information in Q149B1 through Q149B5. In cases where the sum cannot be calculated the larger of Q149A and Q149B is used instead and represents the minimum number of lifetime partners. The only skip code is for partial interview and all missing data have a single code.

## **2. TYPES OF SEXUAL PARTNERS**

By Lance Pollack (Rev 10/20/97)

### **H1PTYPE1-H0PTYPE1, G1PTYPE1-G0PTYPE1, and L1PTYPE1-L8PTYPE1 (Type-of-Partner Identifiers for Each Partner)**

differentiate whether a given sexual partner is a primary partner, an imputed primary partner, a noncasual secondary partner (the default), or a casual secondary partner (i.e., a one-night stand). This was accomplished by assuming at the outset that any partner mentioned by the respondent is a noncasual secondary partner. Only partners specifically identified as a primary partner (Q142B, PPWHO1), an imputed primary partner (IMPWHO1, see "Imputing Identity of Primary Partner"), or a casual secondary partner were moved to these other categories. A casual partner was operationally defined as one where the responses to how long the respondent had known the partner prior to having sex for the first time (Q35/Q71/Q112) and how many dates they had before having sex for the first time (Q36/Q72/Q113) were both "someone you just met" and the length of the sexual relationship (Q38/Q74/Q115) was one day. In the absence of any other information, a partner would stay in the noncasual secondary partner category. Skip code and missing data information are identical to the initial partner-specific question in the partner-by-partner section (Q33/Q69/Q110). Please note that the maximum number of same-gender female partners mentioned by any respondent was 8.

### **PRIPRT1 (Respondent Has an Identifiable Primary Partner)**

is a yes/no dichotomy defined by whether any of the type-of-partner identifiers (see above) denote a primary or imputed primary partner. There is no missing data other than a skip code for partial interview because the intent of the variable is to indicate whether or not any one of the partners mentioned in the partner-by-partner sections of the interview has been specifically identified, either by direct response or through imputation, to be the primary partner. A "no" code includes respondents who do not have a primary partner ("no" to either Q141 or Q142A), respondents who have a primary partner but the identity of that partner is unknown, and respondents who failed to answer or did not receive the primary partner questions and for whom no one could be imputed to be their primary partner.

### **SNCPRT1 (Number of Noncasual Secondary Partners)**

is a count across the type-of-partner identifiers (see above) of all noncasual secondary partners. This is the default partner type, i.e., all identified partners are assumed to be noncasual secondary unless other information leads to a recategorization. This is a raw count so there is no missing data other than a skip code for partial interview, which is implemented if the respondent "partialled out" prior to initiating the partner-by-partner section or during the partner-by-partner section but after answering questions about the primary partner only.

**CASPRT1 (Number of Casual Secondary Partners)**

is a count across the type-of-partner identifiers (see above) of all casual secondary partners. This is a raw count so there is no missing data other than a skip code for partial interview, which is implemented if the respondent "partialled out" prior to initiating the partner-by-partner section or during the partner-by-partner section but after answering questions about the primary partner only.

**SECPRT1 (Number of Secondary Partners)**

is a count across the type-of-partner identifiers (see above) of all secondary partners (both noncasual and casual) . This is a raw count so there is no missing data other than a skip code for partial interview, which is implemented if the respondent "partialled out" prior to initiating the partner-by-partner section or during the partner-by-partner section but after answering questions about the primary partner only.

**PTYPE1 (Partner Typology)**

combines PRIPRT1, SNCPRT1, and CASPRT1 to create an index of partner types which indicates whether a respondent has a primary partner and/or noncasual secondary partners and/or casual secondary partners. As with its constituent variables, the only missing data are skip codes for partial interview including extra codes to differentiate respondents who identified a primary/noncasual/casual partner before they "partialled out".

### **3. ORIENTATION**

By Lance Pollack (Rev 07/16/98)

#### **ORNT5YR1 (Behavior-Based Sexual Orientation Over Past 5 Years)**

combines respondent's gender (S6), number of partners in past 5 years (Q26), and gender of partner(s) in past 5 years (1 partner Q27A, 2+ partners Q28A). Skip codes are created for DK and D/A gender of partner(s) and partial interview. There is no missing data on gender of respondent and missing data on number of partners in past 5 years "sent" respondent to the multiple partner version of the gender of partners question. No sex in the past 5 years is coded as "inactive" for sexual orientation. No imputation is done because of the derivation of a "global orientation" variable.

NOTE: Subsequent to the initial derivation a consistency check detected 34 cases in which respondents coded as "heterosexual" or "inactive" reported same-gender sex (SGS) within the last 5 years, i.e., the difference between respondent's age and age at last SGS episode (Q152D) is less than 6 years. None of the reported SGS behavior was coerced (see Q160). A separate consistency check revealed another 9 cases in which respondents under age 23 originally coded "inactive" reported heterosexual activity since age 18 (see S18ORNT1 below). Since number of partners in past 5 years (Q26) is the first sexually oriented question to be asked, and sexual activity since age 18 is asked after a series of questions about attitudes towards condom use (Q148D-T) and number of sexual partners before age 18 (Q149A), it was **concluded that the latter material is probably a truthful disclosure**. Accordingly, ORNT5YR1 was adjusted for the 43 cases described herein and a variable indicating what change was made (O5YRCHG1) was also constructed.

#### **ORNT1YR1 (Behavior-Based Sexual Orientation Over Last 12 Months)**

combines respondent's gender (S6), number of partners in past 5 years (Q26), gender of partner(s) in past 5 years (1 partner Q27A, 2+ partners Q28A), gender of partner in last 12 months (2+ partners only Q28B; if partners in last 5 years all one gender then Q28B is skipped), and whether or not respondent had sex in last 12 months (1 partner Q27B, 2+ partners Q28C). Skip codes are created for DK and D/A whether had sex in last 12 months, DK and D/A gender of partner(s), and partial interview. There is no missing data on gender of respondent and missing data on number of partners in past 5 years "sent" respondent to the multiple partner version of the gender of partners question. No sex in the past 5 years or in the last 12 months is coded as "inactive" for sexual orientation. No imputation is done because of the derivation of a "global orientation" variable.

**S18ORNT1 (Behavior-Based Sexual Orientation Since Age 18)**

combines respondent's gender (S6), number of partners since age 18 (Q149B), and gender of partner(s) since age 18 (2+ partners Q149C, 1 partner Q149D). Skip codes are created for DK and D/A gender of partner(s) and partial interview. There is no missing data on gender of respondent and missing data on number of partners since age 18 "sent" respondent to the multiple partner version of the gender of partners question. No sex since age 18 is coded as "inactive" for sexual orientation. No imputation is done because of the derivation of a "global orientation" variable.

NOTE: Subsequent to the initial derivation a consistency check detected 58 cases in which respondents coded as "heterosexual" reported SGS since age 18, i.e., age at last SGS episode (Q152D) was 18 or later. None of the reported SGS behavior was coerced (see Q160). Accordingly, S18ORNT1 was adjusted for these 58 cases and a variable indicating what change was made (S18OCHG1) was also constructed.

**B18ORNT1 (Behavior-Based Sexual Orientation Ages 13-17)**

combines respondent's gender (S6), number of partners before age 18 (Q149A), and whether respondent had opposite gender sex and/or same-gender sex between the ages of 13 and 17. (Note: It was decided to set the lower age limit at 13 because it was assumed that sexual experience prior to this age was likely to have been coerced and therefore not necessarily an expression of the respondent's sexual orientation.) Respondents were defined as having had sex between the ages of 13 and 17 if the age of any of their initial sexual experiences (Q153A through Q153H) fell in that age range. Since this variable is being "pieced" together from several different sources and is intended as the "data of last resort" in the derivation of "global orientation" (see below), the emphasis is on actual knowledge rather than inference. Thus, the absence of any initial experience asked about falling in the target age range does not mean the respondent was sexually inactive at that time. Only respondents who said they had no partners before age 18 were coded as "inactive" for sexual orientation. Among respondents who were sexually active and had complete overlap among partners before and since age 18 (Q149B1 through Q149B5), if all those partners were male only or female only then those respondents were coded as having opposite-gender sex or same-gender sex depending on the gender of the respondent. Since these data could not identify the exact ages at which these partners were encountered, bisexual behavior could not be identified in this way. However, respondents who reported age of first (Q150/Q151) or last (Q152D) same-gender sex experience in the 13-17 age range, or said "yes" to a teen same-gender sex experience (Q152B), or who reported a first experience with receptive anal intercourse (Q153F) in the 13-17 age range were also defined as having had same-gender sex. Similarly, respondents who reported a first same-gender sex experience after age 17, or a last experience before age 13, or specifically said "no" to a teen same-gender sex experience were defined as not having had same-gender sex. Respondents who reported age first had vaginal intercourse (Q153A) or age first had an orgasm (Q153G) during vaginal intercourse (Q153H) in the 13-17 age range were defined as having opposite-gender sex.

The only skip code is for partial interview and all missing data are grouped into a single code.

NOTE: Since gender of sexual partners before age 18 was not asked directly of all respondents, B18ORNT1 is essentially an accumulation of "best knowledge" based on responses to an assortment of questions. It was designed solely as "last resort" data for deriving a "global" orientation variable (see MAXORNT1 below). The noncomprehensive nature of the constituent data underlying B18ORNT1 precludes its use as a derived variable unto itself. Consequently, **B18ORNT1 was not retained in the FABS data set.**

**MAXORNT1 ("Global" Behavior-Based Sexual Orientation)**

for respondents age 23+ "global" orientation is the same as orientation since age 18 (S18ORNT1). However, if S18ORNT1 is missing data, then orientation over the past 5 years (ORNT5YR1) is used instead. If ORNT5YR1 is also missing, then orientation before age 18 (B18ORNT1) is substituted. For respondents ages 18 through 23 "global" orientation is the same as orientation over the past 5 years (ORNT5YR1). However, if ORNT5YR1 is missing data, then orientation since age 18 (S18ORNT1) is used instead. If S18ORNT1 is also missing, then orientation before age 18 (B18ORNT1) is substituted. ORNT5YR1 is used first for 18-23 year olds because for these respondents it covers a longer period of time than S18ORNT1. Regardless of age, B18ORNT1 is used as a "last resort" because of the sketchiness of the data available. The only skip code is for partial interview and all missing data are grouped into a single code.

NOTE: Depending on age of respondent, changes made to S18ORNT1 and ORNT5YR1 (see above) also necessitated changes to MAXORNT1. Changes were made to 73 cases and a variable indicating what change was made (MAXOCHG1) was also constructed.

#### **4. MALE-FEMALE CONDOM USE**

By Lance Pollack (Rev 10/23/97)

##### **H1VAGCU1-H0VAGCU1 (Vaginal Condom Use With Each Partner)**

are created by dividing frequency of vaginal intercourse with condoms (Q43B) by frequency of vaginal intercourse (Q43A) and then recoding the result into four categories: never (0%), some (1%-49%), most (50%-99%), always (100%). The original numerical calculations are not retained in the dataset. Experience shows that respondent recall tends to yield gross estimates of condom use. Therefore, the initial calculations suggest a greater level of accuracy than the data actually warrant. These broad categories have been found to be analytically useful. If "ballpark estimates" (Q43A1-Q43A3, Q43B1-Q43B3) were used for both the numerator and the denominator, then values representing the estimate were substituted into the calculation as follows.

<u>Estimate</u>	<u>Value</u>
<25	13
25- 50	37
50-100	75
>100	100

If a "ballpark estimate" was used for the numerator but not the denominator, or vice versa, then a judgement as to which of the four categories condom use for that partner should fall into was made on a case-by-case basis. Often in such cases it could not be determined whether the outcome should be "some" or "most", so a special code was designated with the label "some/most (1%-99%)". Skip codes match those of the numerator. Outcomes that could not be calculated fall into a "missing data" code.

##### **H1ANLCU1-H0ANLCU1 (Anal Condom Use With Each Partner)**

are created by dividing frequency of anal intercourse with condoms (Q45B) by frequency of anal intercourse (Q45A) and then recoding the result into four categories: never (0%), some (1%-49%), most (50%-99%), always (100%). Skip codes match those of the numerator. Outcomes that could not be calculated fall into a "missing data" code.

##### **H1INTCU1-H0INTCU1 (Vaginal/Anal Condom Use With Each Partner)**

are created by summing frequency of vaginal intercourse with condoms (Q43B) and frequency

of anal intercourse with condoms (Q45B) and dividing the result by the sum of the frequency of vaginal intercourse (Q43A) and frequency of anal intercourse (Q45A). The result is recoded into four categories: never (0%), some (1%-49%), most (50%-99%), always (100%). All four variables in the calculation must be nonmissing in order for a result to be obtained. This is because condoms are used for pregnancy prevention as well as for disease prevention. Consequently, condom use during vaginal intercourse may be quite different from condom use during anal intercourse, so both must enter into the calculation for the result to be valid. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both, a judgement as to which of the four categories condom use for that partner should fall into was made on a case-by-case basis. Skip codes match those of Q45B. Outcomes that could not be calculated fall into a "missing data" code.

**MFVAGP1 (Vaginal Condom Use With Primary Partner)**

is the vaginal condom use score for the opposite-gender partner identified to be the primary partner (see "Types of Sexual Partners"). Respondents without an identified primary partner and bisexuals with same-gender primary partners are assigned to special skip codes.

**MFVAGN1 (Vaginal Condom Use With Noncasual Secondary Partners)**

is calculated by summing Q43B across all opposite-gender partners identified as noncasual secondary partners and dividing the result by Q43A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without noncasual secondary partners and bisexuals without opposite-gender noncasual secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with noncasual secondary partners should fall into was made on a case-by-case basis.

**MFVAGC1 (Vaginal Condom Use With Casual Secondary Partners)**

is calculated by summing Q43B across all opposite-gender partners identified as casual secondary partners and dividing the result by Q43A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without casual secondary partners and bisexuals without opposite-gender casual secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with casual secondary partners should fall into was made on a case-by-case basis.

**MFVAGS1 (Vaginal Condom Use With Secondary Partners)**

is calculated by summing Q43B across all opposite-gender partners not identified as the primary partner and dividing the result by Q43A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without secondary partners and bisexuals without opposite-gender secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with secondary partners should fall into was made on a case-by-case basis.

**MFVAGA1 (Vaginal Condom Use With All Partners)**

is calculated by summing Q43B across all opposite-gender partners and dividing the result by Q43A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. In general, only one partner entering into the calculation is required for a valid result. However, if a respondent has identified both primary and non-primary opposite-gender partners, then both the primary partner and at least one non-primary partner must enter into the calculation in order to obtain a valid result. This is because condom use may be quite different inside and outside a primary relationship, so condom use across all partners would not be valid unless both types of partners are represented in the calculation. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with all partners should fall into was made on a case-by-case basis.

**MFANLP1 (Anal Condom Use With Primary Partner)**

is the anal condom use score for the opposite-gender partner identified to be the primary partner. Respondents without an identified primary partner and bisexuals with same-gender primary partners are assigned to special skip codes.

**MFANLN1 (Anal Condom Use With Noncasual Secondary Partners)**

is calculated by summing Q45B across all opposite-gender partners identified as noncasual secondary partners and dividing the result by Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without noncasual secondary partners and bisexuals without opposite-gender noncasual secondary partners are assigned to special skip codes.

**MFANLC1 (Anal Condom Use With Casual Secondary Partners)**

is calculated by summing Q45B across all opposite-gender partners identified as casual secondary partners and dividing the result by Q45A summed across the same partners. The result

is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without casual secondary partners and bisexuals without opposite-gender casual secondary partners are assigned to special skip codes.

**MFANLS1 (Anal Condom Use With Secondary Partners)**

is calculated by summing Q45B across all opposite-gender partners not identified as the primary partner and dividing the result by Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without secondary partners and bisexuals without opposite-gender secondary partners are assigned to special skip codes.

**MFANLA1 (Anal Condom Use With All Partners)**

is calculated by summing Q45B across all opposite-gender partners and dividing the result by Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on both variables are included in the calculation. In general, only one partner entering into the calculation is required for a valid result. However, if a respondent has identified both primary and non-primary opposite-gender partners, then both the primary partner and at least one non-primary partner must enter into the calculation in order to obtain a valid result.

**MFINTP1 (Vaginal/Anal Condom Use With Primary Partner)**

is the vaginal/anal condom use score for the opposite-gender partner identified to be the primary partner. Respondents without an identified primary partner and bisexuals with same-gender primary partners are assigned to special skip codes.

**MFINTN1 (Vaginal/Anal Condom Use With Noncasual Secondary Partners)**

is calculated by summing Q43B and Q45B across all opposite-gender partners identified as noncasual secondary partners and dividing the result by Q43A and Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without noncasual secondary partners and bisexuals without opposite-gender noncasual secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with noncasual secondary partners should fall into was made on a case-by-case basis.

**MFINTC1 (Vaginal/Anal Condom Use With Casual Secondary Partners)**

is calculated by summing Q43B and Q45B across all opposite-gender partners identified as casual secondary partners and dividing the result by Q43A and Q45A summed across the same

partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without casual secondary partners and bisexuals without opposite-gender casual secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with casual secondary partners should fall into was made on a case-by-case basis.

**MFINTS1 (Vaginal/Anal Condom Use With Secondary Partners)**

is calculated by summing Q43B and Q45B across all opposite-gender partners not identified as the primary partner and dividing the result by Q43A and Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without secondary partners and bisexuals without opposite-gender secondary partners are assigned to special skip codes. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with secondary partners should fall into was made on a case-by-case basis.

**MFINTA1 (Vaginal/Anal Condom Use With All Partners)**

is calculated by summing Q43B and Q45B across all opposite-gender partners and dividing the result by Q43A and Q45A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. In general, only one partner entering into the calculation is required for a valid result. However, if a respondent has identified both primary and non-primary opposite-gender partners, then both the primary partner and at least one non-primary partner must enter into the calculation in order to obtain a valid result. In cases where a "ballpark estimate" was used for either Q43A or Q43B but not both for any given partner, a judgement as to which of the four categories condom use with all partners should fall into was made on a case-by-case basis.

## **5. MALE-MALE CONDOM USE**

By Lance Pollack (Rev 10/23/97)

### **G1ANLCU1-G0ANLCU1 (Anal Condom Use With Each Partner)**

are created by summing frequency of insertive anal intercourse with condoms (Q79B) and frequency of receptive anal intercourse with condoms (Q80B) and dividing the result by the sum of the frequency of insertive anal intercourse (Q79A) and frequency of receptive anal intercourse (Q80A). The result is recoded into four categories: never (0%), some (1%-49%), most (50%-99%), always (100%). All four variables in the calculation must be nonmissing in order for a result to be obtained. This is because condom use in the insertive and receptive modes may be quite different, so both must enter into the calculation for the result to be valid. Skip codes match those of Q80B. Outcomes that could not be calculated fall into a "missing data" code.

### **MMANLP1 (Anal Condom Use With Primary Partner)**

is the anal condom use score for the same-gender partner identified to be the primary partner. Respondents without an identified primary partner and male bisexuals with opposite-gender primary partners are assigned to special skip codes.

### **MMANLN1 (Anal Condom Use With Noncasual Secondary Partners)**

is calculated by summing Q79B and Q80B across all same-gender partners identified as noncasual secondary partners and dividing the result by Q79A and Q80A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without noncasual secondary partners and male bisexuals without same-gender noncasual secondary partners are assigned to special skip codes.

### **MMANLC1 (Anal Condom Use With Casual Secondary Partners)**

is calculated by summing Q79B and Q80B across all same-gender partners identified as casual secondary partners and dividing the result by Q79A and Q80A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without casual secondary partners and male bisexuals without same-gender casual secondary partners are assigned to special skip codes.

### **MMANLS1 (Anal Condom Use With Secondary Partners)**

is calculated by summing Q79B and Q80B across all same-gender partners not identified as the primary partner and dividing the result by Q79A and Q80A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on

all four variables are included in the calculation. Only one partner entering into the calculation is required for a valid result. Respondents without secondary partners and male bisexuals without same-gender secondary partners are assigned to special skip codes.

**MMANLA1 (Anal Condom Use With All Partners)**

is calculated by summing Q79B and Q80B across all same-gender partners and dividing the result by Q79A and Q80A summed across the same partners. The result is recoded into the usual four categories. Only partners with nonmissing responses on all four variables are included in the calculation. In general, only one partner entering into the calculation is required for a valid result. However, if a respondent has identified both primary and non-primary same-gender partners, then both the primary partner and at least one non-primary partner must enter into the calculation in order to obtain a valid result. This is because condom use may be quite different inside and outside a primary relationship, so condom use across all partners would not be valid unless both types of partners are represented in the calculation.

## **6. SEXUAL RISK FOR HIV**

By Lance Pollack (Rev 07/16/98)

### **MP5YR1 (Multiple Partner Risk Status Past 5 Years)**

is Q26 (NPRT5YR1) recoded into a categorical variable differentiating none/one/2+ sexual partners in the past 5 years. By definition female-female sexual practices are not risky for HIV transmission. Therefore, lesbians and female bisexuals (ORNT5YR1, see "Derivations of Orientation") are excluded from this risk assessment. Female bisexuals are excluded because in most cases we do not have the means to know whether or not these respondents had multiple male partners in the past 5 years. However, if these respondents had multiple male partners in the last 12 months (see below), then they were recategorized as having 2+ partners in the past 5 years.

NOTE: A consistency check detected 34 cases in which respondents coded as "heterosexual" or "inactive" over the past 5 years later reported same-gender sex (SGS) within the last 5 years, i.e., the difference between respondent's age and age at last SGS episode (Q152D) is less than 6 years. Of those 34 cases, 6 had reported only one partner in the past year and so were coded as not having multiple partner risk. However, 5 of the 6 cases were female, and since same-gender female sex is by our definition not risky for HIV, they remained not at risk. The one case involving a male respondent was changed from "one" to "2+" sexual partners. A separate consistency check revealed 79 cases in which a respondent under age 23 reported more sexual partners since age 18 (Q149B) than they reported for the past 5 years (Q26). Since number of partners in past 5 years (Q26) is the first sexually oriented question to be asked, and number of partners since age 18 is asked after a series of questions about attitudes towards condom use (Q148D-T) and number of sexual partners before age 18 (Q149A), it was **concluded that the latter response is probably a truthful disclosure**. Of those 79 cases, only 21 require changing data on MP5YR1: 6 cases change from "none" to "one", 2 cases change from "none" to 2+, and 13 cases change from "one" to "2+" partners. All told, only 16 cases moved into multiple partner risk status, i.e., 2+ partners in the past 5 years. A variable indicating what changes were made (MP5CHG1) was also constructed.

### **Note on Usage of NPRT5YR1 and MP5YR1**

It was deemed too invasive to adjust NPRT5YR1 for the 115 cases identified above. Since recollected numbers of partners for multi-year time periods are estimates by the respondent, it seemed that minute corrections of so many cases lent an air of specificity to the data that does not really exist. Therefore, we opted to make the "gross" changes mentioned above that affect far fewer cases. The user must be aware, however, that the best assessment of multiple sexual partners is MP5YR1 because it is based on the complete set of data provided by the respondent.

**MP1YR1 (Multiple Partner Risk Status Last 12 Months)**

is a direct RECODE of NPRT1YR1 (see "Derivations of Number of Partners") into a categorical variable differentiating none/one/2+ sexual partners in the last 12 months. By definition female-female sexual practices are not risky for HIV transmission. Therefore, lesbians (ORNT1YR1, see "Derivations of Orientation") are excluded from this risk assessment while female bisexuals' risk is based upon the number of male partners only (Q30, HNPRT1). If the number of male partners were unknown for a female bisexual respondent, then that respondent would have been excluded from the risk assessment as was done for the 5 year assessment (see above). However, no such cases arose.

**H1RTYPE1-H0RTYPE1 and G1RTYPE1-G0RTYPE1 (Partner Risk Typologies)**

assess each partner for HIV risk by indicating whether that partner has multiple sexual partners (Q55/Q96) and/or has been an intravenous drug user (Q54/Q95) and/or is HIV+ (Q53C/Q94). Either a "yes" or a "don't know" response is taken to indicate risk. (Note: An untested partner or not knowing if a partner has been tested for HIV does not constitute risk. Knowing the partner has been tested but not knowing the result of that test does constitute risk.) If a respondent "partialled out" before answering any of the three questions for a given partner, or if they declined to answer all three questions, then they are coded as "partial interview" and "declined to answer", respectively, on the risk typology. If a respondent answered some but not all of the questions for a given partner and no risk factor is present, then special "partial: no risk" and "declined to answer: no risk" codes are employed. If they answered some but not all of the questions and a risk factor is present, then they are coded for that risk factor without any further qualification. Other skip codes are identical to those used for individual items in the given partner-by-partner section. Risk typologies were not derived for same-gender-female partners because female-female sexual practices by definition are not risky for HIV transmission.

**PRITYPE1 (Primary Partner Risk Typology)**

is the risk typology of the partner (see above) identified to be the primary partner (see Type-of-Partner Identifiers in "Types of Sexual Partners"). Since there is no risk typology derived for female partners of female respondents, female respondents with female primary partners are a skip code on this variable.

**PRIRISK1 (Respondent have a risky primary partner?)**

is a yes/no dichotomization of PRITYPE1 (see above). The "yes" response means at least one risk factor is present. The "no" response includes the absence of a risk factor, lack of an opposite-gender or same-gender-male primary partner, and sexual inactivity in the past year. "Partial interview" maintains it's own code. A "missing data" code includes the "declined to answer" response plus skip codes based on missing data (e.g., don't know or declined to answer on whether had sex or gender of partners) which would skip the respondent past the partner-by-partner section.

**SNCRISK1 (Respondent have a risky noncasual secondary partner?)**

is a yes/no dichotomy in which a "yes" response means at least one partner designated to be a noncasual secondary partner has at least one risk factor present. The "no" response includes the absence of a risk factor, lack of an opposite-gender or same-gender-male noncasual secondary partner, and sexual inactivity in the past year. "Partial interview" maintains it's own code. A "missing data" code includes the "declined to answer" response plus skip codes based on missing data (e.g., don't know or declined to answer on whether had sex, gender of partners, whether had opposite gender sex among bisexuals) which would skip the respondent past the partner-by-partner section.

**CASRISK1 (Respondent have a risky casual secondary partner?)**

is a yes/no dichotomy in which a "yes" response means at least one opposite-gender or same-gender-male partner is designated to be a casual secondary partner. By definition, all casual partners are risky partners. The "no" response includes the absence of a risk factor, lack of an opposite-gender or same-gender-male casual secondary partner, and sexual inactivity in the past year. "Partial interview" maintains it's own code. A "missing data" code includes the "declined to answer" response plus skip codes based on missing data (e.g., don't know or declined to answer on whether had sex, gender of partners, whether had opposite gender sex among bisexuals) which would skip the respondent past the partner-by-partner section.

**RISK5YR1 (Sexual Risk Typology: 5-Year Window for Multiple Partners)**

combines MP5YR1, PRIRISK1, SNCRISK1, and CASRISK1 to create an HIV risk typology which indicates whether the respondent has had multiple sexual partners in the past 5 years (MP) and/or a risky primary partner (R-P) and/or a risky noncasual secondary partner (R-N) and/or a risky casual partner (R-C). All considerations of risk are based on opposite-gender and same-gender-male sexual practices only. If the respondent declined to answer number of partners and has missing data on the three partner risk variables, then they receive the missing data code. If they would be missing but for "partialling out", then they receive the partial interview code. In addition, special codes were created for the following circumstances:

- 1) Has multiple partners but is missing on primary partner risk,
- 2) Has multiple partners but "partialled out" before answering questions about secondary partners,
- 3) Has multiple partners but "partialled out" before answering questions about any partners,
- 4) Has multiple partners but is missing on all three partner risk variables,
- 5) Has a risky primary partner but declined to answer number of partners,
- 6) Has a risky noncasual secondary partner but declined to answer number of partners,

- 7) Has a risky casual secondary partner but declined to answer number of partners,
- 8) Does not have a risk factor but declined to answer number of partners,
- 9) Does not have a risk factor but is missing on primary partner risk,
- 10) Does not have a risk factor but "partialled out" before answering questions about secondary partners,
- 11) Does not have a risk factor but "partialled out" before answering questions about any partners,
- 12) Does not have a risk factor but is missing on all three partner risk variables.

NOTE: Consistency checks resulted in moving 16 cases into the "2+ partners" category on MP5YR1 (see above). Consequently, those same 16 cases had their 5-year risk typology changed to reflect the inclusion of multiple partner risk.

**RISK1YR1 (Sexual Risk Typology: 1-Year Window for Multiple Partners)**

combines MP1YR1, PRIRISK1, SNCRISK1, and CASRISK1 to create an HIV risk typology which indicates whether the respondent has had multiple sexual partners in the past 12 months (MP) and/or a risky primary partner (R-P) and/or a risky noncasual secondary partner (R-N) and/or a risky casual partner (R-C). All considerations of risk are based on opposite-gender and same-gender-male sexual practices only. If the respondent declined to answer number of partners and has missing data on the three partner risk variables, then they receive the missing data code. If they would be missing but for "partialling out", then they receive the partial interview code. In addition, special codes were created for the following circumstances:

- 1) Has multiple partners but is missing on primary partner risk,
- 2) Has multiple partners but "partialled out" before answering questions about secondary partners,
- 3) Has multiple partners but "partialled out" before answering questions about any partners,
- 4) Has multiple partners but is missing on all three partner risk variables,
- 5) Has a risky primary partner but is missing on number of partners,
- 6) Has a risky noncasual secondary partner but is missing on number of partners,
- 7) Has a risky casual secondary partner but is missing on number of partners,
- 8) Does not have a risk factor but is missing on number of partners,
- 9) Does not have a risk factor but is missing on primary partner risk,

- 10) Does not have a risk factor but "partialled out" before answering questions about secondary partners,
- 11) Does not have a risk factor but "partialled out" before answering questions about any partners,
- 12) Does not have a risk factor but is missing on all three partner risk variables.

**Note on Usage of RISK5YR1 and RISK1YR1**

In almost all cases these two variables are used as assessments of risk for HIV. In that context, respondents who are already HIV+ should be removed from the analysis because those respondents are not at risk for HIV, they have HIV. HIV+ respondents were not removed to a skip code on these variables because some investigators might be interested in their risk factors and because they are not usually excluded from analyses of prevalence of risk factors.

## **7. TRANSFUSION STATUS AND INTRAVENOUS DRUG USE STATUS**

By Lance Pollack (Rev 10/20/97)

### **TRSTAT1 (Transfusion Status Since 1985)**

combines the information from Q15A (TR1), Q15B (TROUTUS1), and Q15D (TRUSMIL1) into a modified Guttman-type scale. (Note: A Guttman-type scale is one in which succeeding "steps" presume the existence of preceding steps, e.g., a respondent at the third level of the scale also possesses the characteristics that would qualify them for all lower levels of the scale.) This scale has 4 levels: 0=no transfusion since 1985, 1=had a transfusion since 1985 and most recent one received inside the U.S., 2=most recent transfusion was outside the U.S. but in a U.S. military hospital, 3=most recent transfusion was outside the U.S. and not in a U.S. military hospital. The only missing data comes from 23 "don't know", 1 "declined to answer", and 1 out-of-range responses to Q15A. Transfusion status is not considered a risk factor for HIV because the period asked about is since 1985, after blood banks began testing donations for HIV with the advent of the antibody test. In addition, only 4 respondents had transfusions outside the U.S. and not in a U.S. military hospital. Their potential exposure to HIV via transfusion cannot really be evaluated.

### **IDUSTAT1 (Intravenous Drug Use Status in the Last 12 Months)**

combines the information from Q16A (IVDU1), Q16B (IVNDLE1), Q16C (IVBLCH1), and Q16D (IVSHARE1) into a modified Guttman-Type scale(see above). This scale has 4 levels: 0=no IVDU in last 12 months, 1=IVDU in last 12 months but did not share needles/cotton/cooker/rinse water, 2=shared needles (but not cotton/cooker/rinse water) and always cleaned the needles first with bleach, 3=shared needles without always cleaning them first with bleach or shared cotton/cooker/rinse water. The only missing data come from one "don't know" response and one "declined to answer" response to Q16A. Since the period asked about was only the last 12 months, the number of respondents disclosing intravenous drug use was very low (n=31). Only 3 respondents were potentially at risk for HIV because they shared needles/cotton/cooker/ rinse water. Consequently, it was decided not to consider intravenous drug use status a risk factor for HIV and to restrict risk assessments to sexual risks for HIV (i.e., multiple sexual partners and risky sexual partners).

## **8. SMALL CITY DEFINITION AND DERIVATION**

By William Yarber (Rev 10/20/97)

Dr. William Yarber at Indiana University is using NSHS data to study AIDS-related risk and prophylaxis among people in “rural” areas. Dr. Yarber operationally defined respondents as living in “rural” areas if their response to question 14 (CURLIVE1) was code 4 (“in a small city or town under 50,000”), code 5 (“on a farm”), or code 6 (“in a rural area, but not on a farm”). However, some code 4 responses are not really small cities or towns under rural influence, but in fact, are suburbs near a large city (code 2 on question 14). Consequently, Dr. Yarber reviewed the self-reported zip codes (Q176) of all respondents with code 4 on question 14 and, using the method described below, “moved” respondents with zip codes designated as “urban-influenced” from code 4 to code 2. These changes are reflected in the derived variable Q14YRBR1.

	<u>CURLIVE1</u>	<u>Q14YRBR1</u>
In a large city (over 250,000)	1791	1791
<b>In a suburb near a large city</b>	<b>1556</b>	<b>2179</b>
In a medium-size city (50,000-250,000)	1470	1470
<b>In a small city or town (under 50,000)</b>	<b>2244</b>	<b>1369</b>
On a farm	289	289
In a rural area, but not on a farm	1053	1053
<b>4800 Small city: partial</b>	<b>-----</b>	<b>198</b>
<b>4888 Small city: DK</b>	<b>-----</b>	<b>13</b>
<b>4999 Small city: D/A</b>	<b>-----</b>	<b>41</b>
8888 Don't know	61	61
9555 Did not get the question	1	1
9999 Declined to answer	1	1
	<hr/>	<hr/>
Total:	8466	8466

The criterion used by Dr. Yarber was as follows:

1. In the Rand McNally United States Atlas, the urban areas are colored in orange. Using the scale for miles on these maps, Dr. Yarber marked a 20-mile border around the orange area. Towns in this border area were excluded from the rural sample because of an urban influence. Dr. Yarber is very familiar with Indianapolis and tested this method with the towns near that city, and it seemed to be fairly accurate. This approach is a very conservative and seems to be a practical solution for excluding small towns near urban areas in a way that will be acceptable upon peer review. There would be a few errors, such as including a “bedroom” community near Boston, which may not be rural, and excluding a few small cities near Indianapolis that are actually rural influenced. Overall, the error would be in favor of excluding questionable small cities, thus making the strategy conservative.

2. Since Dr. Yarber could not assert that those respondents who “partialled out” before Q176 (code 8000), didn’t know their zip code (code 8888), or declined to answer the zip code question (code 9999) lived in rural areas, these respondents were given new missing data codes (code 4800, “small city: partial”; code 4888, “small city: DK”; code 4999, “small city: D/A”) on Q14YRBR1.
3. The final sample size for the respondents from “small cities” was 1369. Those respondents lived in cities of less than 50,000 people, which were located at least 20 miles from an urban area. The new variable reflects those changes in options 2 and 4.

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Definitions: DK = Don’t know

D/A = Declined to answer

## **9. HELP-SEEKING VARIABLES FOR SEXUAL PROBLEMS & SEXUAL ABUSE**

by Kim Anderson (rev 09/09/97)

### **Help-Seeking Variables for Sexual Problems (Q154d)**

Question 154d was coded into a series of 14 dichotomous variables. One variable for each possible response. They are labeled:

SPREAD1	"Q154D: Get help from reading/listening?"
SPFRND1	"Q154D: Get help from a friend of yours?"
SPMAIN1	"Q154D: Get help from spouse/main prt?"
SPOPRT1	"Q154D: Get help from x-marital/othr prt?"
SPREL1	"Q154D: Get help from relative?"
SPMED1	"Q154D: Get help from medical doctor?"
SPPSYCH1	"Q154D: Get help from counselor/therpist?"
SPSXTHR1	"Q154D: Get help from sex therapist?"
SPCLRGY1	"Q154D: Get help from clergy/spir leader?"
SPCALL1	"Q154D: Get help from calling radio prog?"
SPBAR1	"Q154D: Get help from bartender?"
SPNEWS1	"Q154D: Get help from news advice column?"
SP9001	"Q154D: Get help from 900 advice number?"
SPOTHER1	"Q154D: Get help from other?".

There is also a composite variable (SPHELP1) which has 3 types of help. These are:

- I) Self-help: Help from a book , magazines, newspaper, TV, radio(listening to), advice column (a response of 1, 12 or 13 on Q154d)or a positive response on question 154e (Have you tried to solve the problem on your own without any help ...).
- II) Formal: Help from a Medical Doctors; counselors, marital therapist, psychologist, psychiatrist sex therapist, clergy or spiritual leader(a response of 6,7,8 or 9 on Q154d)
- III) Informal: Help from a friend, spouse, main partner, other partner, relative, call-in radio program (where you called in ) or bartender (a response of 2, 3, 4, 5, 10 or 11 on Q154d)

SPHELP1 is coded 1 for self-help, 2 for formal help, 3 for informal help, 12 for self-help and formal help, etc.

Skip codes for these variables are:

6666 "Didn't look for help"  
 6999 "D/A looked for help"  
 7777 "No sexual problem"  
 7888 "DK sexual problem"  
 7999 "D/A sexual problem"  
 8000 "Partial interview"  
 8888 "Don't know"  
 9999 "Declined to answer".

Any of these skip codes can be use in analysis

### Help-Seeking Variables for Sexual Abuse (Q161b)

Question 161d was coded into a series of 12 dichotomous variables. One variable for each possible response. They are labeled:

FPOLICE1	"Q161B: Seek help from police?"
FTEACHR1	"Q161B: Seek help from teacher?"
FCLERGY1	"Q161B: Seek help from clergy / sp. leader?"
FPSYCH1	"Q161B: Seek help from cslr / therpist / etc?"
FMED1	"Q161B: Seek help from med. doctor / nurse?"
FREAD1	"Q161B: Seek help from mag / news / TV / radio?"
FCALL1	"Q161B: Seek help from calling radio prg?"
FPARENT1	"Q161B: Seek help from parent?"
FSPOUSE1	"Q161B: Seek help from spouse?"
FREL1	"Q161B: Seek help from other relative?"
FFRND1	"Q161B: Seek help from friend?"
FOTHER1	"Q161B: Seek help from other?"

There is also a composite variable (FHELP1) which has 3 types of help. There are:

- I) Self-help: Help from magazines, newspaper, TV, radio(listening to) (a response of 6 on Q161b)
- II) Formal: Help from the police; clergy, spiritual leader, counselor, psychotherapist, marital therapist, psychiatrist (a response of 1, 3, 4 or 5 on Q161b)

III) Informal: Help from a teacher ,call-in radio program(where you called in) parent, friend, spouse, other relative, friend

FHELP1 is coded: 1 for self-help, 2 for formal help, 3 for informal help, 12 for self-help and formal help,...

Skip codes for these variables are:

6666 "Did not seek help"  
6888 "DK seek help"  
6999 "D/A seek help"  
7777 "No forced sex"  
7888 "DK forced sex"  
7999 "D/A forced sex"  
8000 "Partial interview"  
9999 "Declined to answer"

Any of these skip codes can be use in analysis

## **10. PRIMARY PARTNER (IMPUTATION)**

by Kim Anderson (rev 10/05/97)

There were 163 cases that had a primary partner Imputed. These cases had missing data for one of four reasons:

- 1) Primary partner not identifiable. In these cases the response on Q141b did not match any of the initials of any of their partners. For example, in one case the response to Q142b was “V” and the initials for their partners were “ A”, “B”, “C”, “D” and “E”. (PPWHO1=3000)
- 2) Answered Q141 or Q142A “Don’t know (if they had a primary partner)”. (PPWHO1=3888)
- 3) Declined to answer Q141 or Q142A. (PPWHO1=3999)
- 4) Partial interview. (PPWHO1=8000)
- 5) Declined to identify their primary partner. (PPWHO1=9999)

The method of imputation was in two steps:

Step 1) If the respondent identified a partner as someone they were cohabiting with (HCOHWHO1, GCOHWHO1, or LCOHWHO1), that partner was assigned as the primary partner. In the 2 cases that were cohabiting with 2 partners, they had identified one as a primary partner, so imputation was not necessary in these cases.

Step 2) If they were still missing after step 1, and there was a partner that had sex for 6 months or more (Q38, Q74 or Q115 $\geq$  6 months), then the partner with the longest sexual relationship was assigned as the primary partner. If there was a tie for the longest sexual relationship, then the first of the 2 longest partners (i.e., the more recent of the 2 partners) was assigned as the primary partner. The second step was not used to impute cases that answer “Don’t know (if they had a primary partner)” on Q141 or 142a.

The variable with the imputed values is IMPWHO1.