Appendix B. SAS syntax to create MSM variables from the sexual behavior component of the National Health and Nutrition Examination Survey, 1999-2014

```
*Download XPT files, save into a temporary folder denoted as [temp folder
path];
*In the libname statement, set the libref to a permanent folder to
store the (XPT files converted to) SAS files denoted as [permanent folder
path];
libname msm '[permanent folder path]';
*Convert XPT to SAS file for the eight NHANES cycles;
*NHANES cycle 1999-2000;
libname temp xport '[temp folder path]\SXQ.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2001-2002;
libname temp xport '[temp folder path]\SXQ_B.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2003-2004;
libname temp xport '[temp folder path]\SXQ_C.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2005-2006;
libname temp xport '[temp folder path]\SXQ_D.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2007-2008;
libname temp xport '[temp folder path]\SXQ_E.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2009-2010;
libname temp xport '[temp folder path]\SXQ_F.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2011-2012;
libname temp xport '[temp folder path]\SXQ_G.xpt';
proc copy inlib=temp outlib=msm;
run;
*NHANES cycle 2013-2014;
libname temp xport '[temp folder path]\SXQ_H.xpt';
proc copy inlib=temp outlib=msm;
run;

*NHANES cycle 1999-2000;
data yr0;
      set msm.SXQ;
      yr = 0;
      SQ1 = SXQ020; *ever had sex;
      SQ2 = .;      *ever had sex with a man;
      SQ3 = SXQ200; *lifetime male partners;
      SQ4 = SXQ220; *past 12 months male partners;
run;
*NHANES cycle 2001-2002;
data yr1;
      set msm.SXQ_B;
      yr = 1;
```

```
      SQ1 = SXQ020; *ever had sex;
      SQ2 = .;      *ever had sex with a man;
      SQ3 = SXQ200; *lifetime male partners;
      SQ4 = SXQ220; *past 12 months male partners;
run;
*NHANES cycle 2003-2004;
data yr3;
      set msm.SXQ_C;
      yr = 3;
      SQ1 = SXQ020; *ever had sex;
      SQ2 = .;      *ever had sex with a man;
      SQ3 = SXQ200; *lifetime male partners;
      SQ4 = SXQ220; *past 12 months male partners;
run;
*NHANES cycle 2005-2006;
data yr5;
      set msm.SXQ_D;
      yr = 5;
      SQ1 = SXQ021; *ever had sex;
      SQ2 = .;      *ever had sex with a man;
      SQ3 = SXQ410; *lifetime male partners;
      SQ4 = SXQ550; *past 12 months male partners;
run;
*NHANES cycle 2007-2008;
data yr7;
      set msm.SXQ_E;
      yr = 7;
      SQ1 = SXQ021; *ever had sex;
      SQ2 = .;      *ever had sex with a man;
      SQ3 = SXQ410; *lifetime male partners;
      SQ4 = SXQ550; *past 12 months male partners;
run;
*NHANES cycle 2009-2010;
data yr9;
      set msm.SXQ_F;
      yr = 9;
      SQ1 = SXD021; *ever had sex;
      SQ2 = SXQ809; *ever had sex with a man;
      SQ3 = SXQ410; *lifetime male partners;
      SQ4 = SXQ550; *past 12 months male partners;
run;
*NHANES cycle 2011-2012;
data yr11;
      set msm.SXQ_G;
      yr = 11;
      SQ1 = SXD021; *ever had sex;
      SQ2 = SXQ809; *ever had sex with a man;
      SQ3 = SXQ410; *lifetime male partners;
      SQ4 = SXQ550; *past 12 months male partners;
run;
*NHANES cycle 2013-2014;
data yr13;
      set msm.SXQ_H;
      yr = 13;
      SQ1 = SXD021; *ever had sex;
      SQ2 = SXQ809; *ever had sex with a man;
      SQ3 = SXQ410; *lifetime male partners;
```

```
      SQ4 = SXQ550; *past 12 months male partners;
run;
data SXQdata;
      set yr0 yr1 yr3 yr5 yr7 yr9 yr11 yr13;
      *MSM-Ever;
      if yr in (0, 1, 3, 5, 7) then do;
            if SQ3 > 0 and SQ3 < 77777 then msmever = 1;
            else if SQ3 = 0 then msmever = 0;
            else if SQ3 = . or SQ3 in (77777, 99999) then msmever = .;
      end;
      else if yr in (9, 11, 13) then do;
            if SQ1 = 1 and SQ2 = 2 then msmever = 0;
            else if SQ1 = 1 and SQ2 = 1 then msmever = 1;
            else if SQ3 = 0 then msmever = 0;
            else if SQ3 = . or SQ3 in (77777, 99999) then msmever = .;
      end;
      *MSM-Current;
      if msmever = 0 then msmcurrent = 0;
      else if msmever = 1 and (SQ4 > 0 and SQ4 < 77777) then msmcurrent = 1;
      else if SQ4 = . or SQ4 in (77777, 99999) then msmcurrent = .;
      *MSM-Past;
      if msmever = 0 then msmpast = 0;
      else if msmever = 1 and SQ4 = 0 then msmpast = 1;
      else if SQ4 = . or SQ4 in (77777, 99999) then msmpast = .;
run;
```