

Documentation for the African-American Women BrCa Absolute Risk Assessment SAS Macro
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"Projecting Individualized Absolute Invasive Breast Cancer Risk in African
American Women" Gail, Costantino, Pee et al. JNCI 2007 vol 99:1782-92

This module pertains to Windows 2000, Windows XP, Windows Vista and Windows 7
operating systems for desktop/laptop PCs with available SAS system software.

Contents of the Zip file "AABrCa_RAM.zip":

- (a) AABrCa_RAM sas macro which performs abs risk and 95% CI calculations
for African-American women based on CARE data RR model.
the first 310 lines of this sas macro contains extensive
documentaion/clarification on the use and operation of
this macro.
- (b) AABrCa_example.sas a simple demonstration sas program which reads in raw data,
involkes the sas macro "AAABrCa_RAM" and obtains abs risk
and 95% CI.
the first 30 lines of this sas program contains a brief
description of what this program accomplishes. additional
clarification is scattered throughout the program.
- (c) AfAM_RR.fil raw data file for input to AABrCa_example.sas
- (d) AABrCa_example.out sample output from AABrCa_example.sas
- (e) ReadMe.fil this file you are reading (use Notepad to read)
ReadMe.pdf pdf version of ReadMe.fil

After unzipping "AABrCa_RAM.zip", check to see that all files listed above are
included. At this point, a cursory examination of "AABrCa_RAM", "AfAm_RR.fil"
and "AABrCa_example.sas" will prove useful. These files can be veiwed using
your favorite text editor or Notepad included with Windows.

Installation and operation of the sas macro "AABrCa_RAM":

- (a) unzip the entire contentes of the zip file "AABrCa_RAM.zip" into a folder on
your hard drive.
- (b) execute the provided demonstration sas program "AABrCa_example.sas".

- (c) compare the output "AABrCa_example.lst" with the provided file "AABrCa_example.out". the two files should be identical.

Characteristics of the input sas file for the African-American Risk Assessment SAS Macro:

- (a) the input sas file name and output sas file name are provided by the user upon the invocation of the sas macro "AABrCa_RAM".
- (b) the input sas file must contain the following 8 quantities. any additional variables on the input sas file are ignored.
- (1) # of breast biopsies (non-negative integer counts)
 - (2) age at menarche in years (non-negative integer years)
 - (3) # of first degree relatives with breast cancer (non-negative integer counts)
 - (4) biopsy displays atypical hyperplasia?
 0 = no
 1 = yes
 99 = unk or not applicable response
 IF # breast biopsies = 0, hyperplasia MUST BE 99 (not applicable)
 IF # breast biopsies > 0, hyperplasia can be 0,1 or 99 (unknown)
 - (5) race of women
 1=White 2=African-American 3=Hispanics 4=Other
 abs risk defaults to the sas missing value "." for records where race is not 2 (African-American).
 - (6) current age in years in the set [20,90) e.g. 35.8
 - (7) projctn age in years in the set (current age,90] e.g. 58.9
 constraint of: 0 <= current age < projctn age <= 90
 - (8) unique ID for each women

in the above [) represents an interval closed on the left and open on the right
 () represents an interval open on the left and closed on the right

this program will categorize the raw values of # breast biopsies, age menarche and # 1st degree relatives with brca into risk categories according to the rules outlined in the JNCI 2007 manuscript listed in the beginning of this document. age first live birth is not considered a risk factor for African-American women in the CARE BrCA RR model.

note that the program, being an analytical tool, will make the most rudimentary checks for logical consistency between the input variables. It is the user's responsibility to make sure that all input covariate values are logically consistent and correct within each person. As a final step, the program will generate a missing projected Absolute Risk for records which it deems to be in error. The user should examine the output file for any records with a missing Absolute Risk and rectify the error(s) for these records.

e.g. if NBiops equals zero than atypical hyperplasia must be 99 (not applicable)
or Projection Age in years must be greater than Current Age

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Terms & Conditions

Source Code for CARE model: African-American Women Breast Cancer Risk Calculation Module

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Provider: National Institutes of Health (NIH), National Cancer Institute (hereinafter "NCI")

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