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To: HCHS/SOL Steering Committee, Publications Committee, and Statistical Committee

From: Psychosocial/Sociocultural Committee (Linda Gallo & Frank Penedo, Chairs);
Measurement/Psychometrics Working Group (William Arguelles, John Elder, Patricia Gonzalez, Carmen Isasi, Maria Llabre, Vanessa Malcarne, Krista Perreira, Scott Roesch, Daniela Sotres-Alvarez)

Re: Use of 7 Items from the Social Network Inventory Administered in the HCHS/SOL Baseline Exam

The HCHS/SOL administered a reduced version of the Social Network Inventory (SNI; Cohen, Doyle, Skoner, Rabin & Gwaltney, 1997) in an effort to measure structural social support. The complete SNI consists of 20 items where participants report the number of social roles, the nature of those roles, and the frequency of contact with different roles. This full measure provides a comprehensive picture of a participant's structural social resources and their integration within social networks.

The 20-item SNI can be used to derive three different indicators of social network integration, as follows:

- (a) Number of High-Contact Roles (Network Diversity). This is the number of social roles in which the respondent has regular contact (i.e., at least once every 2 weeks) with at least one person.
- (b) Number of People in Social Network. This is the total number of people with whom the respondent has regular contact (i.e., at least once every 2 weeks).
- (c) Number of Embedded Networks. This reflects the number of different network domains in which a respondent is active.

The complete 20-item SNI was administered to the subset of HCHS/SOL participants who completed the HCHS/SOL Sociocultural Ancillary Study.

The HCHS/SOL baseline exam included 7 items from the original 20-item instrument developed by Cohen et al. (1997). Because the scoring algorithms for each of the network integration indicators (Network Diversity, Number of People, Embedded Networks) aggregate information across all 20 items, we cannot calculate scores for any of these indicators using these 7 items. Further, the committee has not identified any prior research that has used or evaluated the utility of the 7 items administered in the baseline exam.

Below we provide recommendations for variables that can be extracted from the 7 items administered in the HCHS/SOL:

- (1) Total number of living children, parents, and in-laws. This does not account for individuals living in a household. It only provides a total number of living children, parents and in-laws for the participant.
- (2) Whether a participant has regular contact (i.e., at least once every 2 weeks) with living

children, parents, and/or in-laws. In this case, two variables can be derived: One variable that assesses the total number of children, parents, and in-laws the participant sees or talks to once every two weeks (extent of regular contact), and another variable that assesses regular contact with any children, parents or in-laws at least once every two weeks (any regular contact).

- (3) Number of extended family relatives (“other than spouse, parents and children”) that are perceived as close ties (e.g., aunt, uncle, grandparents) with a range of 0 to 7 or more relatives.

The committee cautions investigators that they should not interpret the 7-item parent study scale as consistent with the SNI and they should be clear about what was measured/analyzed in their manuscripts.

Below is the reference for the original 20-item SNI.

Cohen S, Doyle WJ, Skoner DP, Rabin BS, Gwaltney JM (1997). Social ties and susceptibility to the common cold. *JAMA*, 277, 1940-4.

For more information, see: <http://www.psy.cmu.edu/~scohen/>

Items administered, their response options, and specific possible scoring algorithms are appended below.

Items [and response options] for 7 SNI items administered in HCHS/SOL

1. How many children do you have? [0 (none) to 7 (7 or more)]
 2. (IF ANY) How many of your children do you see or talk to on the phone at least once every 2 weeks? [none (0) to 7 or more (7)]
3. Are either of your parents living? [0 (neither), 1 (mother only), 2 (father only), 3 (both father and mother)]
 4. (IF YES) Do you see or talk on the phone to either of your parents at least once every 2 weeks? 0 (neither), 1 (mother only), 2 (father only), 3 (both father and mother)]
5. Are either of your in-laws (or partner's parents) living? [0 (neither), 1 (mother-in-law only), 2 (father-in-law only) 3 (both father and mother in-law)]
 6. (IF YES) Do you see or talk on the phone to either of your in-laws (or partner's parents) at least once every 2 weeks? [0 (neither), 1 (mother-in-law only), 2 (father-in-law only) 3 (both father and mother in-law)]
7. How many other relatives (other than your spouse, parents & children) do you feel close to? [none (0) to 7 or more (7)]

Suggested scoring for 7 SNI items administered in HCHS/SOL

- 1) Recode items 4 and 6: 0 = 0, 1 or 2 = 1, 3 = 2
- 2) Total number of living children, parents, and in-laws: Sum items 1, 3, 5
- 3) Extent of regular contact with living children, parents, and in-laws.
Total regular contact with living children, parents, and in-laws: Sum items 2, 4, 6
Any regular contact with living children, parents, and/or in-laws: If total regular contact ≥ 1 , any regular contact = 1. If total frequent contact = 0, any regular contact = 0.
- 4) Number of extended family close ties: Item 7