

## Summary of Important Details of Our Sampling and Recruitment Strategy

a. Sampling frame: Our objective was to locate and interview a representative sample of English- and Spanish-speaking adults (ages 18 or older) residing in households with telephones in the 38 Florida counties hit by one or more of the four 2004 hurricanes. Because of specific hypotheses about postdisaster resilience among older adults, the sampling plan included an oversampling of adults ages 60 and older.

b. Sampling strategy: We used the Waksberg (1) random-digit dialing method to select households with telephones to be screened for potential telephone survey participants. Briefly, this is a cluster sampling approach in which 1) a systematic process is used to identify residential telephone exchanges within the geographic area, 2) the number of telephone interviews to be conducted within each primary sampling unit is proportional to the size of the population living in the primary sampling unit area, 3) the telephone numbers to be called within primary sampling units are randomly generated by a computer, 4) interviewers call numbers until a residential household is reached, and 5) in cases with more than one eligible person in the household, one person is selected for interview using the most recent birthday method (i.e., which eligible person in the household had the most recent birthday). In the current study, telephone numbers were called five times at different times of the day and were replaced if there was no answer after five calls.

c. Inclusion criteria: To be included, participants must 1) speak English or Spanish, 2) have lived in Florida at the time of at least one of the 2004 hurricanes, 3) currently live in a household in one of the 38 counties hit by the 2004 hurricanes, and 4) have sufficient physical and mental ability to participate in a telephone interview.

d. Recruitment script for telephone survey: Once a designated respondent was identified, the interviewer read this script verbatim:

“We are evaluating the impact of the recent hurricanes on Florida households to find out how people are doing and how the storms affected them. We will be asking about your experiences before, during, and after the storms and also about how things are going for you now. This information will help us make recommendations about how to handle similar disasters in the future. You don’t have to participate if you don’t want to, but it would be a big help. The interview will take about 20 minutes. We are not going to tell anyone anything you tell me and have obtained a certificate of confidentiality from the U.S. Department of Health and Human Services. This means that the researchers cannot be forced to release your identity as a research participant or any of the information you provide. However, the researcher can voluntarily report information to protect you or others from serious harm. If this is a bad time to talk, I can call back at a better time, or if there are too many people around for you to talk, just let me know, and I can call back later. Please try to answer every question, but if there is any question you don’t want to answer, that’s okay. Also, if there is any question you don’t understand, please say so. Can we begin now?”

e. Cooperation rate and participation rate: The cooperation rate ([i.e., completed interviews + screenouts] divided by [completed interviews + screenouts + refusals before screening + qualified refusals]) was 70%. The participation rate among eligible individuals (i.e., completed interviews by eligible respondents divided by [completed interviews + qualified refusals]) was 81%. This means that 81% of those who met inclusion criteria and were eligible to participate in the survey agreed to participate and completed the interview.

f. Recruitment script for saliva samples: At the end of the telephone survey, the participants were read the following script:

“That completes our telephone interview, and I’d like to thank you for your participation. There is a second part of the study that involves collecting a saliva kit in the mail that includes mouthwash and a test tube. All you have to do is swish the mouthwash for a few seconds, spit it back in the tube, and mail it to the lab in a prepaid package. The lab will extract genetic information from the saliva to determine if some genes influence how people respond to the types of stressful experiences we have been talking about. You don’t have to participate if you don’t want to, but it would be a big help. To thank people for their participation in this part of the study, we will send everyone who returns the saliva sample a check for \$20.00. Is it okay if we send you a kit?”

g. Participation rate for return of kit: As noted in the article, 42% of respondents returned the kits. However, there were no significant differences among those who did versus did not return kits on major variables, including hurricane exposure, social support, posttraumatic stress disorder (PTSD), or depression. Refer to Galea et al. (2), who reported on this in detail.

### **Supplementary Analyses for PTSD and Major Depression**

PTSD and major depression were highly comorbid in this sample ( $\chi^2=101.5$ ,  $df=2$ , 587,  $p < 0.001$ ). The prevalences of specific outcomes were as follows: major depression only=3.7% (N=22), comorbid major depression/PTSD=1.9% (N=11), and PTSD only=1.9% (N=8). Thus, 33% of the major depression cases had comorbid PTSD; over 50% of the PTSD cases had comorbid major depression. Results of logistic regression analyses for these three phenotypes were similar in direction and effect size to those for major depression and PTSD, as reported in the

article. However, confidence intervals are very large for the major depression-only and PTSD-only phenotypes owing to the small number of cases. That is, the three-way-interaction term for the serotonin 5-HTTLPR genotype, social support, and hurricane exposure was significant in the adjusted logistic regression model for posthurricane major depression diagnosis only (odds ratio=4.9, 95% CI=1.3–18.3, p=0.01), comorbid major depression/PTSD (odds ratio=8.6, 95% CI=0.9–85.7, p=0.06), and PTSD only (odds ratio=4.6, 95% CI=0.9–30.3, p=0.10).

### **Simple Unadjusted Associations: Major Depression and PTSD in Relation to Exposure and Social Support**

In unadjusted analyses, participants with high hurricane exposure were significantly more likely to develop PTSD than those with low exposure (5.2% versus 1.6%; odds ratio=3.51, 95% CI=1.25–9.87, p 0.02). The association between high hurricane exposure and major depression was not significant (5.9% versus 5.2%; odds ratio=0.88, 95% CI=0.43–1.80, p=0.73). Participants with low social support were significantly more likely to develop both PTSD and major depression compared to those with high social support (PTSD: 5.9% versus 1.6%; odds ratio=3.72, 95% CI=1.39–9.94, p=0.005; major depression: 10.4% versus 2.7%; odds ratio=4.10, 95% CI=1.91–8.80, p 0.001).

### **References**

1. Waksberg J: Sampling methods for random digit dialing. *J Am Stat Assoc* 1978; 73:40–46
2. Galea S, Acierno R, Ruggiero KJ, Resnick H, Tracy M, Kilpatrick DG: Social context and the psychobiology of post-traumatic stress. *Ann N Y Acad Sci* 2006; 1071:231–241