# A Longitudinal Examination of Mental and Physical Health among Police Associated with COVID-19 Supporting Statement Section A

### New

Request for Office of Management and Budget (OMB) Review and Approval for a Federally Sponsored Data Collection

**Project Officer:** 

Erin McCanlies, PhD Research Epidemiologist

Email: <u>Eim4@cdc.gov</u> Work: 304-285-6132 Fax: 304-285-6112

12/15/2020

# Table of Contents

Section A	4
1. Circumstances Making the Collection of Information Necessary	4
2. Purpose and Use of Information Collection	6
3. Use of Improved Information Technology and Burden Reduction	7
4. Efforts to Identify Duplication and Use of Similar Information	7
5. Impact on Small Businesses or Other Small Entities	7
6. Consequences of Collecting the Information Less Frequently	7
7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5	7
8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency	7
9. Explanation of Any Payment or Gift to Respondents	8
10. Protection of the Privacy and Confidentiality of Information Provided by Respondents	8
11. Institutional Review Board (IRB) and Justification for Sensitive Questions	8
12. Estimates of Annualized Burden Hours and Costs	9
A. Annualized Burden to Respondents	9
Table A12.1. Estimated Annualized Burden Hours	10
B. The annualized cost to respondents for the burden hours for the collection of information	11
13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers	12
14. Annualized Cost to the Federal Government	12
15. Explanation for Program Changes or Adjustments	12
16. Plans for Tabulation and Publication and Project Time Schedule	12
17. Reasons(s) Display of OMB Expiration Date is Inappropriate	14
18. Exceptions to Certification for Paperwork Reduction Act Submissions	14
References	14
Appendices	16
Appendix A: Public Law 91-596	17
Appendix B: Table 1 Examination Components and Survey List	
Appendix C: Questionnaires	23
Appendix D: UB Consent Form	61
<b>Detailed Information:</b> The following is more detailed information about this study in addition to the information listed above	62
Appendix E: UB IRB Approval	68
Appendix F: Letter of Invitation	72
Appendix G: Letter of Introduction	73

1.

- Goals of the study: The overarching goal of this study is to evaluate the longitudinal
  consequences of the COVID-19 pandemic on the mental and physical health of police
  officers.
- **Intended use of the resulting data:** Given the high rates of mental and physical health issues in the policing population this study could lead to new knowledge about police specific occupational stressors during a pandemic and identify risk and protective factors that may be used to mitigate these stressors.
- **Methods to be used to collect:** Longitudinal study
- The subpopulation to be studied: Police officers
- How data will be analyzed: Descriptive analyses for demographic and lifestyle
  variables; regression models, analysis of covariance, longitudinal modeling will be used
  evaluate the relationship between biological and psychological markers of disease over
  time.

### **Circumstances Making the Collection of Information Necessary**

This is a new information collection request (ICR) from the National Institute for Occupational Safety and Health (NIOSH), Centers for Disease Control and Prevention (CDC). The request is for two years to complete data collection. This data collection is authorized by Section 20(a)(1) of the Occupational Safety and Health Act (29 U.S.C. 669) (Appendix A).

The mission of NIOSH is to promote safety and health at work for all people through research and prevention. The Occupational Safety and Health Act of 1970, Public Law 9-596 (Section 20) [a][1] authorizes NIOSH to conduct research to advance the health and safety of workers. Similarly, the Centers for Disease Control and Prevention's Health Protection Goals include a Healthy Workplace goal to "promote and protect the health and safety of people who work by preventing workplace-related fatalities, illnesses, injuries, and personal health risks." The proposed project will provide needed information for addressing these goals in police officers, an essential worker population. The results of this data collection can elucidate the biological and psychological risk factors associated with COVID-19 as well as the necessary knowledge needed to develop specific interventions to address stress and illness among police officers.

The corona virus disease 2019 (COVID-19) is a significant health hazard. To date over 81 million individuals worldwide have been diagnosed with COVID-19, and over 1.7 million have died [1]. COVID-19 has resulted in significant increases in depression, anxiety, distress, and insomnia [2]. The economic consequences are also unprecedented, with the US economy expected to shrink by \$8 trillion dollars over the next ten years [3]. Similarly, COVID has had repercussions in the police [4-6]. How persons in authority address such disasters is a matter of concern because it not only affects the people they serve, but also themselves. Police officers need to remain healthy and ready to perform at their peak during such crises. Preliminary research shows that COVID contributes to increased physical and

psychological stress load. For police officers, this quickly changing landscape can result in very high levels of stress, which can overload an individuals' adaptive response, challenge their understanding of the world and result in mental and physical health issues [7-11]. This may be particularly true of police officers who have been charged with protecting the public, maintaining civil order, and dealing with their own personal losses. Given that efficiently performing officers are key to successful functioning of law enforcement, addressing police mental and physical health is imperative for their wellbeing as well as that of the public they serve. Nonetheless, little research has been conducted to evaluate the physical and mental health consequences of the COVID-19 pandemic on police officers. Therefore, this research effort is designed to evaluate the longitudinal mental and physical health effects of COVID-19 on approximately 200 police officers.

Previously, in collaboration with NIOSH, the University of Buffalo at New York (UB) conducted a cross-sectional research project entitled the "Buffalo Cardio-Metabolic Occupational Police Stress" (BCOPS) study. The aim of the project was to evaluate the psychological, physiological, and subclinical measures of mental and physical health in Buffalo, NY police officers. The BCOPS study itself includes a baseline examination and four follow-up examinations. For this reason, NIOSH has extensive mental and physiological health data on police officer obtained *prior to* COVID-19, including stress related surveys, blood parameters, physical measures, stress biomarkers (cortisol) and telomere length data. To meet the aims of this study NIOSH has contracted with UB. A subset of the surveys used in the BCOPS studies will be repeated for this survey. By comparing the responses of the surveys prior to COVID-19 to those obtained during this study, NIOSH can evaluate the longitudinal biological and psychological health effects of COVID-19 on the police officers.

### The project specific aims are:

**Specific Aim 1:** To evaluate the impact of COVID-19 on police officers including the longitudinal psychological and biological measures of stress pre-pandemic to those collected during COVID-19 and psychological measures of stress 6-8 months later.

Hypothesis 1: Measures associated with COVID-19 are associated with worsening psychological (e.g. depression, anxiety, PTSD) changes over time.

Hypothesis 2: Measures associated with COVID-19 are associated with worsening biologic changes (e.g. higher salivary cortisol, metabolic syndrome, inflammatory markers) over time.

Hypothesis 3: Measures associated with COVID-19 will be associated with worsening mental health observed at the follow-up exam.

**Specific Aim 2:** To examine resiliency, hardiness, and coping as it modifies/mediates mental and physical stress.

Hypothesis 1: Resiliency, hardiness, and active coping modify/mediate the associations observed in specific aim 1, hypothesis 1 and 2.

**Specific Aim 3:** To longitudinally examine the impact of stress on cellular aging (telomere length) and stress associated with the COVID-19 pandemic.

Hypothesis 1: Measures of COVID-19 will be associated with shorter telomere length.

**Specific Aim 4:** Translate and communicate study findings in peer reviewed, stakeholder, and various media outlets.

Given the high rates of mental and physical health issues in the policing population this study could lead to new knowledge about police specific occupational stressors during a pandemic and identify risk and protective factors that may be used to mitigate these stressors.

### 2. Purpose and Use of Information Collection

The purpose of the proposed research is to longitudinally measure changes in psychological stress and physical health markers of police officers during COVID-19 and mental health measures after the COVID-19 pandemic as well as police experiences during COVID-19. Therefore, NIOSH has contracted services to support the completion of this study, specifically to evaluate the impact of COVID-19 on police officers including the longitudinal mental and physical health effects of the COVID-19 pandemic on police officers. To meet NIOSH's need, UB will collect mental and physical health data on approximately 200 police officers.

This data will consist of markers of disease such as blood pressure, measurement of lipids, glucose, and insulin, measurement of body fat and salivary cortisol. Psychosocial factors detrimental to health such as perceived stress, work stress, depression, as well as protective factors (e.g. resiliency and coping) will also be examined. A complete list of the measurements that will be taken as part of this study can be found in Table 1 (Appendix B). The list of surveys that will be completed by the participants are in Appendix C.

To meet the aims of this study there will be two rounds of data collections. The first round will consist of collecting both the mental and physical health data. The second round, one year later, will consist of collecting mental health data only. All data will be cleaned and entered into a database at UB. It will then be delinked-deidentified prior to being sent to NIOSH for analyses. Data collected as part of this survey will be compared to the same mental and physical health data that was collected *prior* to COVID-19 as part of the BCOPS study. All participants will sign a consent form prior to their participation in the study (Appendix D).

This data collection is necessary for several reasons. First, it will be one of the first studies to evaluate the mental and physical health effects in police officers during a pandemic. Secondly, because NIOSH has data on this cohort of police officers collected prior to COVID-19, NIOSH is in a rare position to assess the longitudinal associations between occupational stressors, COVID-19, and their effects on the mental and physical health of police officers. A third factor is the wide variety of data that NIOSH will be collecting. Variables include subclinical cardiovascular disease markers, psychological stress, and measures of work history and sleep. The knowledge gained from this study will provide the foundation for future intervention studies designed to reduce the psychological and biological health consequences of another pandemic in law enforcement officers and potentially other emergency responders. This can lead to improvements in their well-being with a potential for a reduction in the burden of disease among officers whose jobs are essential to society.

If the questionnaires are not administered, NIOSH cannot meet the aims of this study. There is no data on the mental and physical health effects of COVID-19 on police officers, therefore there is no other data that can be used in lieu of this data collection. Therefore, police and public health officials would

lack the necessary knowledge about potential measures that may be taken to mitigate the effects of a pandemic in police officer, which could have direct consequences on the officers and the public they serve.

This data collection has been peer-reviewed, approved, and fully funded.

### 3. Use of Improved Information Technology and Burden Reduction

No automated, electron, mechanical, or other technological collection techniques will be used for this data collection. Paper questionnaires will be used in this collection and keyed into a database management system.

This study will only collect data necessary to meet the aims of this study and will only include questions that provide information not available from other sources. This will consist of psychological and biological health measures. It will also include basic demographic and medical history information (see Table 1, Appendix B).

### 4. Efforts to Identify Duplication and Use of Similar Information

Based on historical knowledge, research conducted on private industry, and university research there are no other studies that are comparable to the unique characteristics of this data collection. There are no other studies that have extensively collected psychological and biological data across multiple time points that can meet the aims of this study. There are also no other studies currently evaluating the longitudinal mental and physical effects of COVID-19 in police officers.

### 5. Impact on Small Businesses or Other Small Entities

This collection will not impact small businesses. This participants for this study are police officers.

### 6. Consequences of Collecting the Information Less Frequently

This request is for a one-time data collection at two time points. If this data collection does not take place, NIOSH will be unable to understand the psychological and biological impact of COVID-19 on police officers that could lead to new knowledge about police specific occupational stressors during a pandemic and identify risk and protective factors that may be used to mitigate these stressors.

### 7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

This request fully complies with the regulation 5 CFR 1320.5

### 8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. A 60-day Federal Register Notice was published in the *Federal Register* on **INSERT DATE, VOLUME,** NUMBER, PAGES (see Attachment 3). STATEMENT(S) ABOUT COMMENTS RECEIVED.

**B.** This project was reviewed and approved through the CDC IMS 2019 NCOV Response Worker Safety Health Task Force.

### 9. Explanation of Any Payment or Gift to Respondents

Participants will receive a monetary incentive for participating in this study.

The American police population is noted for resistance to provision of information [12, 13]. The police have been described as a highly cohesive closed society that often refuses those outside of the organization access to either information or personnel. Police officers are hesitant to divulge information to investigators for fear that it may compromise their position or safety. Sharing health and confidential information is a concern in all occupational cohorts, but particularly the police and represents a real obstacle to successful recruitment.

A monetary incentive is being given to the police officers for three reasons. First, based on the uniqueness of this population and the fifteen years of research experience UB has had with the Buffalo police while conducting the BCOPS studies, a monetary incentive is seen as essential for participation. Without this, UB asserts that they will not be able to reach the participation goal of 200 police officers. Secondly, given the amount of time the person is participating, approximately 3 hours and collecting saliva outside of clinic over the course of a day a \$150 incentive is seen as reasonable. The second round of surveys will take approximately one hour with a \$50 incentive. Lastly, these officers have participated in BCOPS studies over the last fifteen years and have received an incentive when they participate in studies conducted by UB. Although historical precedent should not dictate a monetary incentive, with this population, at this time, it is anticipated that the lack of this incentive might actually serve as a disincentive to participation.

### 10. Protection of the Privacy and Confidentiality of Information Provided by Respondents

The questionnaire responses will not be retrieved using personal identifiers. In addition, no personally identifying information (PII) will be recorded (e.g. names, social security numbers, or any other unique identifier) as a part of the dataset.

To meet the aims of this study, the officers who will be invited to participate in this study are limited to officers who previously participated in a BCOPS study. For this reason, the contractor will use previously obtain names and contact information (e.g. names, addresses) to contact those officers for the current study.

All the data received by NIOSH from the contractor will be stripped of personal identifiers, including names, social security numbers, addresses, or other data that directly identifies subjects. NIOSH will be unable to identify any individual participant and NIOSH staff will make no attempt to identify subjects. Only secure forms of electronic communication will be used to transfer information on study subjects between UB and NIOSH. The confidentiality of the information will be protected by the Privacy Act. All hard copy data will be stored in a secure locked location, with limited access by research personnel. Electronic data will be maintained on password protected computer files on site that will be accessible only to study personnel.

### 11. Institutional Review Board (IRB) and Justification for Sensitive Questions

For this study NIOSH will receive data collected by the contractor. NIOSH will not have any interaction with study participants and will only receive deidentified-delinked data from the contractor therefore,

while the population is human subjects this is non-exempt human subjects research as we will not be engaged with the participants. NIOSH will rely on the non-CDC IRB approval (Appendix E).

The questionnaires that will be administered as part of this study contain several questions that may be considered sensitive in nature, including questions regarding personal information, physical, and mental health information. Biological samples will also be collected for salivary cortisol measurement and telomere length analysis.

The list of questionnaires the participants will be asked to complete can be found in Table 1 (Appendix C). In order to meet the aims of this study, which is to evaluate the longitudinal mental and physical health effects of COVID-19 NIOSH will need to collect the same mental and physical health data that was previously collected as part of the BCOPS study.

Personal history questions include race/ethnicity questions and questions about alcohol and smoking will be asked as part of the demographic questions.

The medical history questionnaire also contains several potentially sensitive questions, because it specifically requests information about health conditions such as heart disease, diabetes, autoimmune conditions, and cancer.

Psychosocial factors detrimental to health such as work stress, depression, posttraumatic stress disorder, burnout as well as protective factors (e.g., resiliency and coping) will be examined.

The sensitive questionnaires are necessary to determine key mental and physical health issues associated with COVID-19. It is necessary for NIOSH to collect this data so that we can better understand the risk and protective factors associated with COVID-19 in order to make recommendations that might be able to mitigate stressors in police officers that lead to negative psychological and biological health outcomes, particularly related to COVID-19. The knowledge gained can guide future research on specific risks in police officers and how best to mitigate stressors like COVID-19.

The survey does not ask for respondent's social security number, sexual behavior, or religious attitudes.

All questionnaire response data will be treated in a secure manner and will not be disclosed, unless compelled by law. Aggregation of responses will ensure participants will not be identifiable.

#### 12. Estimates of Annualized Burden Hours and Costs

#### A. Annualized Burden to Respondents

No direct costs will accrue to the respondents other than their time to complete the questionnaires (round 1 and 2) and collection of biological samples (round 1 only).

The burden table lists the estimated population size of 200 police officers who will respond to 16 surveys, serological (blood) collection, and salivary cortisol at the first round. All officers who participate in the first round will be mailed the medical history questionnaire and psychosocial questionnaires 6-8 months later (second round). Biological samples will not be collected during the second round. It is possible that 10% of the participants will not present for testing during either the

first or second round of data collection. Therefore, the total burden hours for 180 officers was estimated to be 546.

Table A12.1. Estimated Annualized Burden Hours

Type of Respondents	Form Name	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden (in hours)
Police officers	Personal history	180	1	2/60	6
	Medical history	180	2	8/60	48
	Spielberger Stress Survey	180	2	7/60	42
	Center for Epidemiologic Studies Depression Scale	180	2	2/60	12
	Brief Cope	180	2	3/60	18
	Organizational Support Scale	180	2	2/60	12
	Maslach Burnout	180	2	2/60	12
	Fatigue Scale	180	2	2/60	12
	Posttraumatic Stress Disorder -5	180	2	2/60	12
	Connor-Davidson Resiliency Scale	180	2	1/60	6
	Beck Anxiety	180	2	3/60	18
	Pittsburgh Sleep Quality Index		2	2/60	12
	Beck Depression	180	2	3/60	18
	Beck Hopelessness	180	2	2/60	14
	COVID-19	180	2	3/60	17
	Civil Unrest/Public Perception/work environment	180	2	3/60	17
	Serological Sample	180	1	1	180

	collection				
	Salivary Cortisol collection	180	1	30/60	90
Total					0

### B. The annualized cost to respondents for the burden hours for the collection of information

The estimated total cost to the respondent population for the questionnaire is \$17,106.18 based on the average costs per burden hour and the burden hours as shown below. This burden will occur over two years of information collection.

Table A.12.2 Estimated Annualized Cost Burden to Respondents

Type of	Form	Total Burden (in	Hourly	Total
Respondents	Name	hours)	Wage	Respondent
			Rate*	Costs
Police officers	Personal history	6	\$31.33	** Expression is faulty **
	Medical history	48	\$31.33	** Expression is faulty **
	Spielberger Stress Survey	42	\$31.33	** Expression is faulty **
	Center for Epidemiologic Studies Depression Scale	12	\$31.33	** Expression is faulty **
	Brief Cope	18	\$31.33	** Expression is faulty **
	Organizational Support Scale	12	\$31.33	** Expression is faulty **
	Maslach Burnout	12	\$31.33	** Expression is faulty **
	Fatigue Scale	12	\$31.33	** Expression is faulty **
	Posttraumatic Stress Disorder -5	12	\$31.33	** Expression is faulty **
	Connor-Davidson Resiliency Scale	6	\$31.33	** Expression is faulty **

	Beck Anxiety	18	\$31.33	** Expression is faulty **
	Pittsburgh Sleep Quality Index	12	\$31.33	** Expression is faulty **
	Beck Depression	18	\$31.33	** Expression is faulty **
	Beck Hopelessness	14	\$31.33	** Expression is faulty **
	COVID-19	17	\$31.33	** Expression is faulty **
	Civil Unrest/Public Perception/work environment	17	\$31.33	** Expression is faulty **
	Serological Sample collection	180	\$31.33	** Expression is faulty **
	Salivary Cortisol collection	90	\$31.33	** Expression is faulty **
Total	0			0

<sup>\*</sup>Hourly wage estimates were obtained from the U.S. Bureau of Labor Statistics on December, 2020 [14]. The estimated annual salary for a Buffalo, Ny police officer is approximately \$31.33 per hour.

### 13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There are no additional cost burdens to respondents or record keepers.

### 14. Annualized Cost to the Federal Government

The annualized cost to the government is \$796,355 the first year and \$619,64 for the second year. The total cost for the entire two years is \$1,416,000. Costs include personnel charges for NIOSH personnel, contractor cost, supplies, printing costs, and travel-related costs.

Table A14.1 Estimated Annualized Cost to the Federal Government

	Year One	Year Two	Total Project Costs
NIOSH Personnel	\$66,412	\$69,732	\$0
UB Contract	\$716,205	\$549,413	\$0
Telomere Analysis	\$13,238	\$0	\$0
Travel	\$500	\$500	\$0
Total	\$0	\$0	\$0

### 15. Explanation for Program Changes or Adjustments

This is a new data collection

Table A.16.1 Project Time Schedule

Activity	Year 1 Year		Year	2				
	1	2	3	4	1	2	3	4
Staff training	Х							
Recruitment under OMB waiver	Х	Х	Х	Х	Х			
Examinations under OMB waiver		Х	Х	Х	Х			
OMB Waiver Ends/OMB approval			Х	Х	Х	Х	Х	Х
Data entry & documentation			Х	Х	Х	Х		
Data cleaning			Х	Х	Х	Х		
Mental Health Survey- mail out				Х	Х	Х	Х	
Clean and enter mental health survey					Х	Х	Х	Х
Data analysis						Х	Х	Х
Manuscript development							Х	Х
Presentations/workshops/seminars							Х	Х

Because this is COVID-19 research, it was paramount that NIOSH start this study as soon as possible, therefore we obtained an OMB waiver and data collection began as soon as the contract was in place. However, because this is a two-year project NIOSH is submitting this OMB package to continue collecting data after the waiver expires. Due to the time sensitive nature of this project there can be no gap between the time that the data collection was begun and OMB approval for continued data collection is granted. Therefore, NIOSH is submitting the OMB approval prior to the end of the OMB waiver expiring to bridge that gap and try to prevent any time delay between data collection.

Letters will be sent to officers asking them to voluntarily participate in this study (Appendix F). Recruitment will focus on officers who participated in the last BCOPS study (n=240) then extended to any officer who participated in BCOPS until 200 officers have agreed, or there are no more officers to recruit. A letter of introduction will be sent to all officers who have agreed to participate (Appendix G). If an officer hasn't responded after two letters have been sent, UB will also contact them by phone. If the officer declines to participate they will no longer be contacted. For all officers who agree to participate, UB will coordinate the scheduling of officers with the police department

and will not schedule officers more than one month in advance. Scheduling will be flexible.

At their designated appointment time, all participants will complete the paper and pencil questionnaires then complete the clinical exam, which will entail a fasting blood draw (approximately 4 tablespoons), measuring the participants' height, weight, abdominal height, waist circumference and neck circumference, and taking their blood pressure.

Cortisol saliva testing will be done outside of the clinic at the participant's residence by the participant. Participants will be provided with Salivettes (Sarstedt, USA), a commercially available collection device consisting of dental rolls and centrifuge tubes, to take with them when the leave the clinic for the collection of saliva samples. Participants will be given instructions on how to collect the samples to be taken the day after they leave the clinic- four samples in the morning when they awaken, one at lunchtime, one at dinner, and one when the go to sleep. The participant will be asked to return the saliva samples to the clinic when completed either in person or via paid postage. This ends the clinic visit. UB will advise the participant upon departing during round one that they would like to contact them again in about 6-8 months to complete the same surveys they did in the clinic.

#### **Round Two**

UB will conduct a follow-up survey approximately 6-8 months after the clinic visit. Each officer who participated in the first round and who agreed to participate in second round, will be sent the same set of psychological surveys, the medical history questionnaire, and a follow-up COVID questionnaire. The psychological surveys will be the same surveys they did during the first round, while the COVID questionnaire asks additional questions related to their experience with COVID since the clinic visit. They will not be asked to complete the personal history questionnaire the second time. This second set of questionnaires allows NIOSH to meet the study aims.

Summary statistics for demographic and lifestyle variables, variables of specific interest in each report, and relevant covariates known to be biologically important from existing literature will be generated. Regression models will be used to examine associations between risk factors and disease markers. With continuous dependent variables, change from baseline to follow-up will be modeled using the change-score (subtracting baseline from follow-up measurements) for each individual. The change-score will be the dependent variable in a general linear model where a baseline exposure variable is the independent variable. Depending on their measurement scale and the hypothesis of interest, baseline exposure variables will be included in the model either as continuous or categorical variables, leading to regression analysis or analysis of covariance (ANCOVA) models respectively.

For dichotomous outcomes (e.g., metabolic syndrome) we will compute cumulative incidence (incidence proportion) of the health outcome of interest between pre COVID to during COVID-19 and the mental health follow-up. The incidence of the health outcome will be computed after exclusion of participants who have the condition of interest at baseline (prevalent cases). This variable (presence=1/absence=0) will then be used as the dependent variable in a generalized linear model using the binomial distribution and a log link function in order to estimate the cumulative incidence as well as the incidence ratio (relative risk) associated with a categorical or continuous baseline exposure variable. Occasionally the log binomial model does not converge and fails to produce estimates. In this case, a Poisson distribution to obtain convergence along with empirical adjustment of variance estimates to correct for misspecification of the probability model will be used.

Lastly, longitudinal modeling approach for repeated measures to estimate the (1) the pattern of markers of disease overtime, (2) the effect of baseline risk factors on subclinical markers of disease, and (3) whether the pattern of markers of disease overtime depend on level of the baseline risk factor (interaction effect). PROC MIXED in the SAS System provides a very flexible modeling environment for repeated measures data. Random effects will be used to build models correlating measurements made on the same subject including subject-specific regression models and a variety of covariance and correlation structures can be specified to model the repeated measures correlation across the four time points.

Data will only be reported in aggregate. No tables will show data where the numbers are too small and could result in unintentional identification of respondents.

### 17. Reasons(s) Display of OMB Expiration Date is Inappropriate

The display of the OMB expiration date is not inappropriate.

### 18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions to the certification.

### References

- 1. [JHU], J.H.U.M. *Coronavirus Resource Center*. 2020 [cited 2020 August 20, 2020]; Available from: <a href="https://coronavirus.jhu.edu/">https://coronavirus.jhu.edu/</a>.
- 2. Rahman, J., et al., Neurological and Psychological Effects of Coronavirus (COVID-19): An Overview of the Current Era Pandemic. Cureus, 2020. **12**(6): p. e8460.
- 3. Ziv, S., Coronavirus pandemic will cost U.S. economy \$8 trillion, in Forbes. 2020.
- 4. Alexander, D.C. and N. Ekici, Survey: COVID-19's impact on LE operations, Police1, Editor. 2020, Lexipol.
- 5. Lum, C., C. Maupin, and M. Stoltz, *The impact of COVID-19 on law enforcement agencies (Wave 2)*. I.a.o.C.o.P.a.t.C.f.E.-B.C. Policy., Editor. 2020, International association of Chiefs of Police and the Center for Evidence-Based Crime Policy.
- 6. Lum, C., C. Maupin, and M. Stoltz, *The impact of COVID-19 on law enforcement agencies* (wave 1), G.M.U. International Association of Chiefs of Police and the Center for Evidence-Based Crime Policy, Editor. 2020, International Association of Chiefs of Police and the Center for Evidence-Based Crime Policy, George Mason Universit.
- 7. Juster, R.P., et al., Sex and Gender Roles in Relation to Mental Health and Allostatic Load. Psychosom Med, 2016. **78**(7): p. 788-804.
- 8. McEwen, B.S., Protective and damaging effects of stress mediators. N Engl J Med, 1998. 338(3): p. 171-9.
- 9. McEwen, B.S., *Brain on Stress: How the Social Environment Gets under the Skin.* Proceedings of the National Academy of Sciences, 2015. **109**: p. 17180-17185.
- 10. McEwen, B.S., *Neurobiological and Systemic Effects of Chronic Stress*. Chronic Stress (Thousand Oaks), 2017. **1**.
- 11. McEwen, B.S. and P.J. Gianaros, Central role of the brain in stress and adaptation: links to socioeconomic status, health, and disease. Ann N Y Acad Sci, 2010. **1186**: p. 190-222.
- 12. Violanti, J.M., et al., Social avoidance in policing: Associations with cardiovascular disease ad the role of social support. Policing: An International Journal, 2017. **41**(5): p. 539-549.
- 13. Skolnick, J.H., Sketch of the Policeman's Working Personality, in Justice without trial: Law enforcement in a democratic society. 1966, John Wiley & Sons: New York. p. 42-62.
- 14. Statistics, U.S.B.o.L. *Occupational employment and wages*, *May* 2019. 2020 July 6, 2020 [cited 2020 December 23]; Available from: <a href="https://www.bls.gov/oes/current/oes333051.htm#st">https://www.bls.gov/oes/current/oes333051.htm#st</a>).

# **Appendices**

# Appendix A: Public Law 91-596

Occupational Safety and Health Act of 1970

Public Law 91-596 (Section 20[a][1])

**Public Law 91 - 596** 

91st Congress, S. 2193

**December 29, 1970** 

As amended by Public Law 101-552,

§3101, November 5, 1990

### **RESEARCH AND RELATED ACTIVITIES**

SEC. 20. Research and Related Activities

### 29 USC 669

- (a)(1) The Secretary of Health and Human Services, after consultation with the Secretary and with other appropriate Federal departments or agencies, shall conduct (directly or by grants or contracts) research, experiments, and demonstrations relating to occupational safety and health, including studies of psychological factors involved, and relating to innovative methods, techniques, and approaches for dealing with occupational safety and health problems.
  - (2) The Secretary of Health and Human Services shall from time to time consult with the Secretary in order to develop specific plans for such research, demonstrations, and experiments as are necessary to produce criteria, including criteria identifying toxic substances, enabling the Secretary to meet his responsibility for the formulation of safety and health standards under this Act; and the Secretary of Health and Human Services, on the basis of such research, demonstrations, and experiments and any other information available to him, shall develop and publish at least annually such criteria as will effectuate the purposes of this Act.
  - (3) The Secretary of Health and Human Services, on the basis of such research, demonstrations, and experiments, and any other information available to him, shall develop criteria dealing with toxic materials and harmful physical agents and substances which will describe exposure levels that are safe for various periods of employment, including but not limited to the exposure levels at which no employee will suffer impaired health or functional capacities or diminished life expectancy as a result of his work experience.
  - (4) The Secretary of Health and Human Services shall also conduct special research, experiments, and demonstrations relating to occupational safety and health as are necessary to explore new

problems, including those created by new technology in occupational safety and health, which may require ameliorative action beyond that which is otherwise provided for in the operating provisions of this Act. The Secretary of Health and Human Services shall also conduct research into the motivational and behavioral factors relating to the field of occupational safety and health.

### 84 STAT. 1611.

Toxic substances, records. Medical examinations

(5) The Secretary of Health and Human Services, in order to comply with his responsibilities under paragraph (2), and in order to develop needed information regarding potentially toxic substances or harmful physical agents, may prescribe regulations requiring employers to measure, record, and make reports on the exposure of employees to substances or physical agents which the Secretary of Health and Human Services reasonably believes may endanger the health or safety of employees. The Secretary of Health and Human Services also is authorized to establish such programs of medical examinations and tests as may be necessary for determining the incidence of occupational illnesses and the susceptibility of employees to such illnesses. Nothing in this or any other provision of this Act shall be deemed to authorize or require medical examination, immunization, or treatment for those who object thereto on religious grounds, except where such is necessary for the protection of the health or safety of others. Upon the request of any employer who is required to measure and record exposure of employees to substances or physical agents as provided under this subsection, the Secretary of Health and Human Services shall furnish full financial or other assistance to such employer for the purpose of defraying any additional expense incurred by him in carrying out the measuring and recording as provided in this subsection.

Toxic Substances Publication, December 29, 1970

(6) The Secretary of Health and Human Services shall publish within six months of enactment of this Act and thereafter as needed but at least annually a list of all known toxic substances by generic family or other useful grouping and the concentrations at which such toxicity is known to occur. He shall determine following a written request by any employer or authorized representative of employees, specifying with reasonable particularity the grounds on which the request is made, whether any substance normally found in the place of employment has potentially toxic effects in such concentrations as used or found; and shall submit such determination both to employers and affected employees as soon as possible. If the Secretary of Health and Human Services determines that any substance is potentially toxic at the concentrations in which it is used or found in a place of employment, and such substance is not covered by an occupational safety or health standard promulgated under section 6, the Secretary of Health and Human Services shall immediately submit such determination to the Secretary, together with all pertinent criteria.

### **Annual Studies**

(7) Within two years of enactment of the Act, and annually thereafter the Secretary of Health and Human Services shall conduct and publish industry wide studies of the effects of chronic or low-level exposure to industrial materials, processes, and stresses on the potential for illness, disease, or loss of functional capacity in aging adults.

### [Type here]

(b) The Secretary of Health and Human Services is authorized to make inspections and question employers and employees as provided in section 8 of this Act in order to carry out his functions and responsibilities under this section.

### Inspections

(c) The Secretary is authorized to enter into contracts, agreements, or other arrangements with appropriate public agencies or private organizations for the purpose of conducting studies relating to his responsibilities under this Act. In carrying out his responsibilities under this subsection, the Secretary shall cooperate with the Secretary of Health and Human Services in order to avoid any duplication of efforts under this section.

### **Contract Authority**

### 84 STAT. 1612

- (d) Information obtained by the Secretary and the Secretary of Health and Human Services under this section shall be disseminated by the Secretary to employers and employees and organizations thereof.
- (e) The functions of the Secretary of Health and Human Services under this Act shall, to the extent feasible, be delegated to the Director of the National Institute for Occupational Safety and Health established by section 22 of this Act.

### SEC. 22. National Institute for Occupational Safety and Health

### 29 USC 671

- (a) It is the purpose of this section to establish a National Institute for Occupational Safety and Health in the Department of Health and Human Services in order to carry out the policy set forth in section 2 of this Act and to perform the functions of the Secretary of Health and Human Services under sections 20 and 21 of this Act. 29 USC 671 Establishment.
- (b) There is hereby established in the Department of Health and Human Services a National Institute for Occupational Safety and Health. The Institute shall be headed by a Director who shall be appointed by the Secretary of Health and Human Services, and who shall serve for a term of six years unless previously removed by the Secretary of Health and Human Services.

### Director, Appointment, Term

- (c) The Institute is authorized to --
  - (1) develop and establish recommended occupational safety and health standards; and
  - (2) perform all functions of the Secretary of Health and Human Services under sections 20 and 21 of this Act.
- (d) Upon his own initiative, or upon the request of the Secretary of Health and Human Services, the Director is authorized (1) to conduct such research and experimental programs as he determines are necessary for the development of criteria for new and improved occupational safety and health

standards, and (2) after consideration of the results of such research and experimental programs make recommendations concerning new or improved occupational safety and health standards. Any occupational safety and health standard recommended pursuant to this section shall immediately be forwarded to the Secretary of Labor, and to the Secretary of Health and Human Services.

84 STAT. 1613.

- (e) In addition to any authority vested in the Institute by other provisions of this section, the Director, in carrying out the functions of the Institute, is authorized to
  - (1) prescribe such regulations as he deems necessary governing the manner in which its functions shall be carried out;
  - (2) receive money and other property donated, bequeathed, or devised, without condition or restriction other than that it be used for the purposes of the Institute and to use, sell, or otherwise dispose of such property for the purpose of carrying out its functions;
  - (3) receive (and use, sell, or otherwise dispose of, in accordance with paragraph (2)), money and other property donated, bequeathed, or devised to the Institute with a condition or restriction, including a condition that the Institute use other funds of the Institute for the purposes of the gift;
  - (4) in accordance with the civil service laws, appoint and fix the compensation of such personnel as may be necessary to carry out the provisions of this section;
  - (5) obtain the services of experts and consultants in accordance with the provisions of section 3109 of title 5, United States Code; 80 STAT. 416.
  - (6) accept and utilize the services of voluntary and noncompensated personnel and reimburse them for travel expenses, including per diem, as authorized by section 5703 of title 5, United States Code; 83 STAT. 190.
  - (7) enter into contracts, grants or other arrangements, or modifications thereof to carry out the provisions of this section, and such contracts or modifications thereof may be entered into without performance or other bonds, and without regard to section 3709 of the Revised Statutes, as amended (41 U.S.C. 5), or any other provision of law relating to competitive bidding;
  - (8) make advance, progress, and other payments which the Director deems necessary under this title without regard to the provisions of section 3324 (a) and (b) of Title 31; and
  - (9) make other necessary expenditures.
- (f)The Director shall submit to the Secretary of Health and Human Services, to the President, and to the Congress an annual report of the operations of the Institute under this Act, which shall include a detailed statement of all private and public funds received and expended by it, and such recommendations as he deems appropriate.

Annual report to HHS, President, and Congress.

- (g) Lead-based Paint Activities.
- (1) Training Grant Program.
  - (A) The Institute, in conjunction with the Administrator of the Environmental Protection Agency, may make grants for the training and education of workers and supervisors who are or may be directly engaged in lead-based paint activities.

- (B) Grants referred to in subparagraph (A) shall be awarded to nonprofit organizations (including colleges and universities, joint labor-management trust funds, States, and nonprofit government employee organizations) --
  - (i)which are engaged in the training and education of workers and supervisors who are or who may be directly engaged in lead-based paint activities (as defined in Title IV of the Toxic Substances Control Act), 15 USC 2681 et. seq.
  - (ii) which have demonstrated experience in implementing and operating health and safety training and education programs, and
  - (iii) with a demonstrated ability to reach, and involve in lead-based paint training programs, target populations of individuals who are or will be engaged in lead-based paint activities.

Grants under this subsection shall be awarded only to those organizations that fund at least 30 percent of their lead-based paint activities training programs from non-Federal sources, excluding in-kind contributions. Grants may also be made to local governments to carry out such training and education for their employees.

- (C) There are authorized to be appropriated, a minimum, \$10,000,000 to the Institute for each of the fiscal years 1994 through 1997 to make grants under this paragraph.
- (2) Evaluation of Programs. The Institute shall conduct periodic and comprehensive assessments of the efficacy of the worker and supervisor training programs developed and offered by those receiving grants under this section. The Director shall prepare reports on the results of these assessments addressed to the Administrator of the Environmental Protection Agency to include recommendations as may be appropriate for the revision of these programs. The sum of \$500,000 is authorized to be appropriated to the Institute for each of the fiscal years 1994 through 1997 to carry out this paragraph.

# **Appendix B: Table 1 Examination Components and Survey List**

### **Table 1. Examination Components and Survey List**

Personal History, Medical History

### Questionnaires

Beck Anxiety Inventory (BAI), CES-D, Beck Hopelessness Scale, Connor-Davidson Resilience Scale 10, Brief COPE, Beck Depression Inventory-II, Organizational Support, Maslach Burnout Inventory-GS; Fatigue scale; Spielberger Stress Survey

PCL-PTSD Checklist for DSM-5,

COVID specific questions/ civil unrest

### Lifestyle Factors

Pittsburgh Sleep Quality Index

### Physical Measurements

Physical Measurements (Anthropometrics, Blood Pressure, Pulse)

### Biological Measures

Pre-qualifying Blood Draw and Cortisol Form, Survey, Saliva Take Home Ouestionnaires

Telomere Length

### Screening Forms

Eligibility Screening Form

# **Appendix C: Questionnaires**

	ID Number
	I. Personal History
1.	Today's Date//
2.	Date of Birth Month Day Year
3.	Age
4.	Gender (1) Female (2) Male
5.	Ethnicity:  (1) Hispanic or Latino (2) Not Hispanic or Latino
6.	Race (select all that apply):  (1) American Indian or Alaska Native (2) Asian (3) Black or African-American (4) Native Hawaiian or other Pacific Islander (5) White
7.	Education (Check one)  (1) Less than 12 years of school. Highest grade completed (2) High school diploma (3) GED (4) Vocational certificate without high school diploma (5) Vocational certificate and high school diploma (6) Some college (7) Associate degree (8) Bachelor's degree (9) Graduate degree (MS, PhD, MD, DDS, LLB)
8.	Current marital status (Check one)  (1) Never married (2) Married (3) Widowed (4) Divorced/separated (6) Living with someone
8a.	If ever married, number of times married
9.	Were you ever in the military? $\square$ (0) No $\square$ (1) Yes If NO, go to Question 10.
	If YES: Years of military service:  Branch:  (1) Army (2) Navy

(4) A	Marine Corps Air Force Coast Guard				
Involved in	n combat/war?	(0) No	(1) Yes		
If YES	S, which war?	(1) Vietnam (2) Gulf War (3) Kosovo (4) Korea (5) Iraq (6) Other (Pl	lease specify		)
10. Number of year	ars employed as a Buf	falo police office	er		
11. Month, day an	d year started police v	vork with the Bu	ffalo Police Depai	rtment _	
12. Age started at	the Buffalo Police Dep	partment			
13. What is your c	urrent status as a poli			retired _	
	ving questions shoul ment as a Buffalo po		if active or retire	ed. If re	tired, answer as of the time o
(1) F (2) S (3) L (4) (5) [5]	or rank at retirement Police Officer Sergeant Lieutenant Captain Detective Other (Specify)				
15. What is or was (1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11)	s (if retired) your main Patrol Administration Foot or bike patrol Motorcycle duty Traffic detail Radar detail Special crimes unit Narcotics Detective Community policing Other (Specify)	police duty assi	gnment? (Check o	one)	
(1) H	s the work activity leve High work load (very b Moderate work load (n Low work load (precind	ousy, complaints noderate compla	, high crime area) aint rate, average		
(1) A (2) E	do or did you work in? A 3 C	(4) D (5) E (6) Traffic 1	L	(7) (8) (9)	Traffic 2 Traffic flex HQ Other (Specify)

18. What is your smoking status?

Personal History

Cigarettes (2) Current (0) Never (1) Former Pipes Cigars (2) Current (0) Never (1) Former (1) Former (2) Current (0) Never Electronic Cigarettes (0) Never (1) Former (2) Current 19. Do you drink alcoholic beverages? (0) No (1) Yes If yes, number of drinks per month Beer Wine

Personal History

Hard liquor

# II. Medical History

1. In general, v	would you say your health is:
(1)	Excellent
(2)	Very good
(3)	
(4)	Fair
(5)	Poor
2. Compared t	o your last visit to UB, how would you rate your health in general now?
(1)	Much better now than at last visit
(2)	
(3)	
(4)	Somewhat worse now than at last visit
(5)	Much worse now than at last visit
3. What was y	our weight one year ago? pounds
4. How long ha	as it been since you last saw a physician for any reason (approximately)?
(1)	Within the last 1 year
	1 to 3 years ago
	3 to 5 years ago
(4)	More than 5 years ago
5. How often of	lo you have a routine physical examination, that is, an exam by a doctor or health care professional,
not for a pai	ticular illness, but for a general checkup?
	Do not have routine physical examinations
	Less than once every five years
(3)	At least once every five years
(4)	At least once every year

Medical History

6. Have you been told by a doctor or health care professional that you have <b>high blood pressure</b> ?  (0) No  (1) Yes  (3) Don't Know
If <b>NO</b> or <b>Don't Know</b> , go to Question 7
A. If <b>YES</b> , how old were you when you were first told by a medical professional that you had high blood pressure?  years old.   (93) Don't Know
B. For women only: If <b>YES</b> , did this condition exist only when you were pregnant?  (0) No  (1) Yes  (3) Don't Know  (8) Not Applicable
C. Are you currently being treated for high blood pressure?  (0) No (1) Yes (3) Don't Know
D. If you are being treated for high blood pressure, do you currently take:  (10) Maxzide (27) Lisinopril (13) Zestril (33) Diovan (17) HCTZ (44) Diovan HCT (18) Atenolol (36) Lotrel (20) Accupril (37) Toprol, Toprol XL (21) Norvasc (47) Metoprolol (24) Verapamil (87) Other
7. Have you been told by a doctor or health care professional that you have <b>high cholesterol</b> ?  (a) No (1) Yes (3) Don't Know  If <b>NO</b> or <b>Don't Know</b> , go to Question 8
<ul> <li>A. If YES, how old were you when you were first told by a medical professional that you had high cholesterol?</li> <li> years old.</li> </ul> (93) Don't Know
B. Are you currently being treated with medication for high cholesterol?  (0) No (1) Yes (3) Don't Know
C. If you are being treated for high cholesterol, do you currently take:  (1) Lipitor (22) Vytorin  (10) Lovastatin (24) Simvastatin  (20) Crestor (87) Other

Medical History

8.	Have you been told by a doctor or health care professional that you have <b>high or elevated sugar</b> in blood o urine?
	(1) Yes (3) Don't Know
	If <b>NO</b> or <b>Don't Know</b> , go to Question 9
	A. If <b>YES</b> , how old were you when you were first told by a medical professional that you had elevated sugarin blood or urine?  years old.   (93) Don't Know
9.	Have you been told by a doctor or health care professional that you have <b>diabetes</b> ?  (0) No  (1) Yes  (3) Don't Know
	If <b>NO</b> or <b>Don't Know</b> , go to Question 10
	A. If <b>YES</b> , Was this  (1) Insulin Dependent Diabetes (Type 1) or (2) Non-Insulin Dependent Diabetes (Type 2)
	B. If <b>YES</b> , how old were you when you were first told by a medical professional that you had diabetes? years old (93) Don't Know
	C. If <b>YES</b> , what type of treatment are you taking for your diabetes?  (1) insulin injections (2) oral hypoglycemic agent (pill) (3) by dietary control (6) other
	D. If you are taking an oral hypoglycemic agent (pill), for diabetes, do you currently take:  (1) Glucotrol (2) Diabinese (4) Glucophage (17) Avandamet (10) Avandia (10) Avandia (10) Avandia
	E. For women only: <b>If YES</b> , did this condition exist only when you were pregnant?  (0) No  (1) Yes  (3) Don't Know  (8) Not Applicable

10. If you have been told by a doctor or health care professional that you have or have had any of the listed conditions, please check "Yes" and fill in the other items. Check "No" if you have never been told that you have the condition.

	Condition	<b>No</b> (0)	Yes (1)	If Yes, Age First Diagnosed
1	Angina (chest pain related to your heart)	□No	□Yes	
	If yes, was the angina confirmed by angiogram?	□No □Don't Know	□Yes	
2	Heart attack (myocardial infarction, MI)	□No	□Yes	<u> </u>
	Number of times this occurred			
3	Atrial fibrillation (special type of irregular heart beat)	□No	□Yes	
4	Irregular heart beat (arrhythmia)	□No	□Yes	
5	Diseased heart valve	□No	□Yes	
6	Rheumatic heart disease	□No	□Yes	<del></del>
7	Congestive heart failure	□No	□Yes	
8	Stroke	□No	□Yes	<del></del>
	Number of times this occurred			
9	Transient ischemic attack (T.I.A., "mini-stroke")	□No	□Yes	
	Number of times this occurred			
10	<b>Peripheral vascular disease</b> (intermittent claudication or leg pain on exercise, but not varicose veins)	□No	□Yes	
11	<b>Deep venous thrombosis</b> (blood clots in your legs, but not varicose veins)	□No	□Yes	——
12	<b>Aortic aneurysm</b> (thinning in the wall of the big artery going to the heart)	□No	□Yes	
13	Pulmonary embolus (blood clot in the lung)	□No	□Yes	
14	Childhood asthma	□No	□Yes	
15	Lung problems as a child (e.g. multiple cases of pneumonia or bronchitis) Please describe:	□No	□Yes	
16	Asthma as an adult	□No	□Yes	
18	Chronic bronchitis	□No	□Yes	
19	Emphysema	□No	□Yes	
20	Pneumonia	□No	□Yes	

	Condition	<b>No</b> (0)	Yes (1)	If Yes, Age First Diagnosed
21	Tuberculosis (TB)	□No	□Yes	
22	Pleurisy (inflammation of the lining of the lungs)	□No	□Yes	-
23	Fibrotic lung disease (Fibrosis)	□No	□Yes	
24	COPD (Chronic Obstructive Pulmonary Disease)	□No	□Yes	
25	Other chronic lung disease: (Please describe)	□No	□Yes	-
26	Gall bladder disease	□No	□Yes	-
27	Kidney or bladder stones	□No	□Yes	<del></del>
28	Kidney disease (Specify)	□No	□Yes	
29	Jaundiced	□No	□Yes	<del></del>
30	Hepatitis	□No	□Yes	
31	Liver cirrhosis	□No	□Yes	<del></del>
32	Polyps in your colon or rectum	□No	□Yes	
33	Broken bones as an adult (includes stress fractures)	□No	□Yes	
	If yes, please specify which bone and age at time of fracture:			
	Bone: Age:			
	Bone: Age:			
	Bone:Age:			
	Bone: Age:			
34	Osteoporosis (thinning bones)	□No	□Yes	
35	Osteoarthritis (degenerative joint disease)	□No	□Yes	<del></del>
36	Rheumatoid arthritis	□No	□Yes	
37	Systemic lupus erythematosus (Lupus)	□No	□Yes	<del></del>
38	Polymyalgia	□No	□Yes	
39	Sarcoidosis	□No	□Yes	<del></del>
40	Other immune disease	□No	□Yes	
41	Thyroid disease  Hyperthyroidism  Hypothyroidism  Don't Know	□No	□Yes	
42	Parathyroid disease	□No	□Yes	
43	Seizures	□No	□Yes	

	Condition	<b>No</b> (0)	Yes	If Yes, Age First Diagnosed
44	Depression	□No	□Yes	
45	Any neurologic disease	□No	□Yes	<del></del>
46	Benign breast disease (non-cancerous, includes fibrocystic breast disease, fibroids, cystic breast or mastitis)	□No	□Yes	
47	Cancer In-Situ (localized cancer that does not usually spread)  Where:	□No	□Yes	
48	Skin cancer	□No	□Yes	
49	Any other type of cancer, not skin cancer (Please describe):	□No	□Yes	
50	Are you currently undergoing treatment for cancer?  If YES, what type of treatment?  Chemotherapy  Radiation therapy  Hormone therapy  Other (Please specify)	□No □No □No □No □No	□Yes □Yes □Yes □Yes □Yes □Yes	
51	Have you had any other disease (Please describe):	□No	□Yes	

This next question deals with medical procedures which you may have had. For each item, check "Yes" if you have had the procedure, "No" if not. If you check "Yes", please write in the date of your most recent procedure.

caare,	Procedure	<b>No</b> (0)	Yes	Most Recent Year
1	EKG/ECG (electrical tracing of heart's activity)	□No	□Yes	
2	Echocardiogram (ultrasound of the heart and its chambers)	□No	□Yes	
3	Stress test (such as an exercise stress test)	□No	□Yes	
4	Doppler test (an ultrasound of blood vessels)	□No	□Yes	
5	<b>Angiogram or cardiac catheterization</b> (heart catheterization or coronary angiogram)	□No	□Yes	
6	<b>Carotid endarterectomy</b> (opening of blockage or narrowing of the arteries in your neck)	□No	□Yes	
7	Clot dissolving treatment to prevent or reduce heart attack (sometimes called TPA or streptokinase therapy)	□No	□Yes	
8	Atherectomy (sometimes referred to as "roto-rooter")	□No	□Yes	
9	<b>Angioplasty</b> of coronary arteries (opening arteries of the heart with a balloon- sometimes called PTCA)	□No	□Yes	
10	Stent inserted	□No	□Yes	
	If yes, location of stent: Coronary artery  Carotid artery	□No □No	□Yes □Yes	
11	<b>Heart bypass surgery</b> or coronary bypass surgery for blocked or clogged arteries	□No	□Yes	
12	Heart valve repair/replacement	□No	□Yes	
13	Pacemaker	□No	□Yes	<del></del>
14	Bronchoscopy (exam of your lungs with a small scope)	□No	□Yes	
15	Colonoscopy (exam of your colon with a small scope)	□No	□Yes	
16	Bone Density Test	□No	□Yes	
17	Chest x-ray	□No	□Yes	
	If yes, about how many <b>chest x-rays</b> have you had in your life:			
18	X-ray of the spine or back (to see curvature of the spine)	□No	□Yes	
	If yes, about how many <b>back x-rays</b> have you had in your life:			
19	Dental x-ray	□No	□Yes	
	If yes, about how many <b>dental x-rays</b> have you had in your life:			
20	Other x-ray/radiation treatment (not diagnostic) Reason	□No	□Yes	

ID Number	
-----------	--

- I. This section contains a list of job-related items that have been identified by police officers as stressful. Please rate each item as follows:
  - 1. In the stress rating column below, please mark from 0-100 how stressful you think this event might be for a police officer. The higher the score, the more stressful the item. Please assign a stress rating, even if you have not experienced this event.
  - 2. Mark an "X" for the number of times that you have personally experienced the item within the past month <u>and</u> during the past year.

		Stress Rating (0-100)		Mark an "X" for the Number of Times this Event Occurred											
				ln 1	the P	ast M	onth		In the Past Year						
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+	
1	Assignment of disagreeable duties														
2	Changing from day to night shift														
3	Assignment to new or unfamiliar duties														
4	Fellow officers not doing their job														
5	Court leniency with criminals														
6	Political pressure from within the department														
7	Political pressure from outside the department														
				In	the P	ast M	onth		In the Past Year						
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+	
8	Incapacitating physical injury on the job														
9	Working a second job														
10	Strained relations with non-police friends														
11	Exposure to death of civilians														
12	Inadequate support by supervisor														
13	Inadequate support by department														
14	Court appearances on day off or day following night shift														

		Stress Rating (0-100)	Mark an "X" for the Number of Times this Event Occurred													
				In the Past Month						In the Past Year						
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+		
15	Assignment of incompatible partner															
16	Delivering a death notification															
17	Periods of inactivity and boredom															
18	Dealing with family disputes and crisis situations															
19	High-speed chases															
20	Difficulty getting along with supervisors															
21	Responding to a felony in progress															
22	Experiencing negative attitudes toward police officers															
		Stress Rating (0-100)		In t	the P	ast M	onth		In the Past Year							
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+		
23	Public criticism of police															
24	Disagreeable departmental regulations															
25	Confrontations with aggressive crowds															
26	Fellow officer killed in the line of duty															
27	Distorted or negative press accounts of police															
28	Making critical on-the-spot decisions															
29	Ineffectiveness of the judicial system															
30	Ineffectiveness of the correctional system															

		Stress Rating (0-100)		In	the Pa	ast Mo	onth		In the Past Year					
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+
31	Personal insult from citizen													
32	Insufficient manpower to adequately handle a job													
33	Lack of recognition for good work													
34	Excessive or inappropriate discipline													
35	Performing non-police tasks													
36	Demands made by family for more time													
37	Promotion or commendation													
38	Inadequate or poor quality equipment													
		Stress Rating (0-100)		In	the Pa	ast Mo	onth		In the Past Year					
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+
39	Assignment of increased responsibility													
40	Racial pressures or conflicts													
41	Lack of participation on policy- making decisions													
42	Inadequate salary													
43	Accident in a patrol car													
44	Physical attack on one's person													
45	Demands for high moral standards													
46	Situations requiring use of force													

		Stress Rating (0-100)	In the Past Month						In the Past Year						
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+	
47	Job conflict (by-the-book vs. by-the-situation)														
48	Court decisions unduly restricting police														
49	Killing someone in the line of duty														
50	Making arrests while alone														
51	Public apathy toward police														
52	Competition for advancement														
53	Poor or inadequate supervision														
		Stress Rating (0-100)		In the Past Month						In the Past Year					
			0	1	2	3-5	6-9	10+	0	1	2-5	6-10	11-24	25+	
54	Exposure to battered or dead children														
55	Plea bargaining and technical rulings leading to case dismissal														
56	Frequent changes from boring to demanding activities														
57	Exposure to adults in pain														
58	Possibility of minor physical injury on the job														
59	Put-downs and mistreatment of police officers in court														
60	Excessive paperwork														

- II. Below is a list of the ways you might have felt or behaved. Please indicate how often you have felt this way for the **PAST WEEK** by marking an "X" in the appropriate box.
  - 1 = Rarely or none of the time (less than 1 day) 2 = Some or a little of the time (1-2 days)

  - 3 = Occasionally or a moderate amount of time (3-4 days)
  - 4 = Most or all of the time (5-7 days)

	During the PAST WEEK:	<1 day (1)	1-2 days (2)	3-4 days (3)	5-7 days (4)
1	I was bothered by things that usually don't bother me.				
2	I did not feel like eating; my appetite was poor.				
3	I felt that I could not shake off the blues even with help from my family or friends.				
4	I felt that I was just as good as other people.				
5	I had trouble keeping my mind on what I was doing.				
6	I felt depressed				
7	I felt that everything I did was an effort.				
8	I felt hopeful about the future.				
9	I thought my life had been a failure.				
10	I felt fearful.				
11	My sleep was restless				
12	I was happy				
13	I talked less than usual.				
14	I felt lonely				
15	People were unfriendly				
16	I enjoyed life.				
17	I had crying spells				
18	I felt sad.				
19	I felt that people dislike me.				
20	I could not get "going".				

## **Brief Cope**

- III. Please read each item below and indicate by marking an "X" in the appropriate box, to what extent you used it to cope with stressful situations.

  1 = I have not done this at all

  - 2 = I have done this a little bit
  - 3 = I have done this a medium amount
  - 4 = I have done this a lot

		Not At All (1)	A Little Bit (2)	A Medium Amount	<b>A Lot</b> (4)
1	Turned to work or other activities to take my mind off things.				
2	Concentrated my efforts on doing something about the situation.				
3	Said to myself "this isn't real.".				
4	Used alcohol or other drugs to make myself feel better.				
5	Received emotional support from others.				
6	Gave up trying to deal with it.				
7	Took action to try to make the situation better.				
8	Refused to believe that it had happened.				
9	Said things to let my unpleasant feelings escape.				
10	Received help and advice from other people.				
11	Used alcohol or other drugs to help me get through it.				
12	Tried to see it in a different light, to make it seem more positive.				
13	Criticized myself.				
14	Tried to come up with a strategy about what to do.				
15	Received comfort and understanding from someone.				
16	Gave up the attempt to cope.				
17	Looked for something good in what was happening.				
18	Made jokes about it.				
19	Did something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping, or shopping.				
20	Accepted the reality of the fact that it had happened.				
21	Expressed my negative feelings.				
22	Tried to find comfort in my religion or spiritual beliefs.				
23	Tried to get advice or help from other people about what to do.				
24	Learned to live with it.				
25	Thought hard about what steps to take.				
26	Blamed myself for things that happened.				
27	Prayed or meditated.				
28	Made fun of the situation.				

## Organizational Support

- IV. Using the scale below as a guide, check the box beside each statement to indicate how much you agree with it.

  - 1 = strongly disagree 2 = moderately disagree 3 = slightly disagree 4 = neutral, neither agree nor disagree

  - 5 = slightly agree 6 = moderately agree
  - 7 = strongly agree

		Strongly Disagree	Moderately Disagree	Slightly disagree	Neutral, neither agree nor disagree	Slightly agree	Moderately agree	Strongly agree
1	The organization values my contribution to its well-being	(1)	(2)	(3)	(4)	(5	(6)	(7 
2	The organization strongly considers my goals and values							
3	The organization really cares about my well-being							
4	The organization is willing to help me when I need a special favor							
5	The organization shows very little concern for me							
6	The organization takes pride in my accomplishments at work							
7	My supervisor values my contribution to its well-being							
8	My supervisor strongly considers my goals and values							
9	My supervisor really cares about my well-being							
10	My supervisor is willing to help me when I need a special favor							
11	My supervisor shows very little concern for me							
12	My supervisor takes pride in my accomplishments at work							

#### Maslach Burnout

V. Below are 16 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about your job. If you never had this feeling, circle the "0" (zero). If you have had this feeling, indicate how often you feel it by circling the number that best describes how frequently you feel that way. How often:

0 = Never

1 = A few times a year or less

2 = Once a month or less

3 = A few times a month

4 = Once a week

5 = A few times a week

6 = Every day

1	I feel emotionally drained from my work	0	1	2	3	4	5	6
2	I feel used up at the end of the work day	0	1	2	3	4	5	6
3	I feel tired when I get up in the morning and have to face another day on the job	0	1	2	3	4	5	6
4	Working all day is really a strain for me	0	1	2	3	4	5	6
5	I can effectively solve the problems that arise in my work	0	1	2	3	4	5	6
6	I feel burned out from my work	0	1	2	3	4	5	6
7	I feel I am making an effective contribution to what this organization does	0	1	2	3	4	5	6
8	I have become less interested in my work since I started this job	0	1	2	3	4	5	6
9	I have become less enthusiastic about my work	0	1	2	3	4	5	6
10	In my opinion, I am good at my job	0	1	2	3	4	5	6
11	I feel exhilarated when I accomplish something at work	0	1	2	3	4	5	6
12	I have accomplished many worthwhile things in this job	0	1	2	3	4	5	6
13	I just want to do my job and not be bothered	0	1	2	3	4	5	6
14	I have become more cynical about whether my work contributes anything	0	1	2	3	4	5	6
15	I doubt the significance of my work	0	1	2	3	4	5	6
16	At my work, I feel confident that I am effective at getting things done	0	1	2	3	4	5	6

VI. Many people experience a sense of extreme or excessive tiredness during and at the end of the work day. For each question, check the box that most accurately reflects how often you experience each aspect of fatigue.

		Everyday (1)	At least once a week	At least once a month	Less than once a month	Never
inabilit	cal fatigue involves extreme physical tiredness and an y to engage in physical activity. the PAST 6 MONTHS, how often did you					•
1	Feel physically exhausted at the end of the workday?					
2	Have difficulty engaging in physical activity at the end of the workday?					
3	Feel physically worn out at the end of the workday?					
4	Want to physically shut down at the end of the workday?					
5	Feel physically drained at the end of the workday?					
6	Want to avoid anything that took too much physical energy at the end of the workday?					
to thin	I fatigue involves extreme mental tiredness and an inability k or concentrate. the PAST 6 MONTHS, how often did you					
7	Feel mentally exhausted at the end of the workday?					
8	Have difficulty thinking and concentrating at the end of the workday?					
9	Feel mentally worn out at the end of the workday?					
10	Want to mentally shut down at the end of the workday?					
11	Feel mentally drained at the end of the workday?					
12	Want to avoid anything that took too much mental energy at the end of the workday?					
inabilit	onal fatigue involves extreme emotional tiredness and an y to feel or show emotions. the PAST 6 MONTHS, how often did you					
13	Feel emotionally exhausted at the end of the workday?					
14	Have difficulty showing and dealing with emotions at the end of the workday?					
15	Feel emotionally worn out at the end of the workday?					
16	Want to emotionally shut down at the end of the workday?					
17	Feel emotionally drained at the end of the workday?					
18	Want to avoid anything that took too much emotional energy at the end of the workday?					

## PTSD Checklist for DSM-5

VII. Below is a list of problems and complaints that people sometimes have in response to stressful life experiences. Please read each one carefully, then check one of the boxes on the right to indicate how much you have been bothered by that problem in the past month.

In th	e <b>past month</b> , how much were you bothered by:	Not at All	A Little Bit (1)	Moderately (2)	Quite a Bit (3)	Extremely (4)
1	Repeated, disturbing, and unwanted memories of the stressful experience?					
2	Repeated, disturbing dreams of the stressful experience?					
3	Suddenly feeling or acting as if the stressful experience were actually happening again (as if you were actually back there reliving it)?					
4	Feeling very upset when something reminded you of the stressful experience?					
5	Having strong physical reactions when something reminded you of the stressful experience (for example, heart pounding, trouble breathing, sweating)?					
6	Avoiding memories, thoughts, or feelings related to the stressful experience?					
7	Avoiding external reminders of the stressful experience (for example, people, places, conversations, activities, objects, or situations)?					
8	Trouble remembering important parts of the stressful experience?					
9	Having strong negative beliefs about yourself, other people, or the world (for example, having thoughts such as: I am bad, there is something seriously wrong with me, no one can be trusted, the world is completely dangerous)?					
10	Blaming yourself or someone else for the stressful experience or what happened after it?					
11	Having strong negative feelings such as fear, horror, anger, guilt, or shame?					
12	Loss of interest in activities that you used to enjoy?					
13	Feeling distant or cut off from other people?					
14	Trouble experiencing positive feelings (for example, being unable to feel happiness or have loving feelings for people close to you)?					
15	Irritable behavior, angry outbursts, or acting aggressively?					
16	Taking too many risks or doing things that could cause you harm?					
17	Being "super-alert" or watchful or on guard?					

## PTSD Checklist for DSM-5

18	Feeling jumpy or easily startled?			
19	Having difficulty concentrating?			
20	Trouble falling or staying asleep?			

Interviewer \_\_\_\_\_

I. Please indicate how much you agree with the following statements as they apply to you over the last *month*. If a particular situation has not occurred recently, answer according to how you think you would have felt.

		Not true at all	Rarely true	Sometimes true	Often true	True nearly all
		(0)	(1)	(2)	(3)	the time (4)
1	I am able to adapt when changes occur.					
2	I can deal with whatever comes my way.					
3	I try to see the humorous side of things when I am faced with problems.					
4	Having to cope with stress can make me stronger.					
5	I tend to bounce back after illness, injury, or other hardships.					
6	I believe I can achieve my goals, even if there are obstacles.					
7	Under pressure, I stay focused and think clearly.					
8	I am not easily discouraged by failure.					
9	I think of myself as a strong person dealing with life's challenges and difficulties.					
10	I am able to handle unpleasant or painful feelings like sadness, fear and anger.					

II. Below is a list of common symptoms of anxiety. Please read each item in the list carefully. Indicate how much you have been bothered by each symptom during the **PAST WEEK** by marking an **"X"** in the appropriate box.

	During the <b>PAST WEEK</b>	Not at all	Did not bother me much (2)	Moderately	Severely
1	Numbness or tingling				
2	Feeling hot				
3	Wobbliness in legs				
4	Unable to relax				
5	Fear of the worst happening				
6	Dizzy or lightheaded				
7	Heart pounding or racing				
8	Unsteady				
9	Terrified				
10	Nervous				
11	Feelings of choking				
12	Hands trembling				
13	Shaky				
14	Fear of losing control				
15	Difficulty breathing				
16	Fear of dying				
17	Scared				
18	Indigestion or discomfort in abdomen				
19	Faint				
20	Face flushed				
21	Sweating (not due to heat)				

III. sho	III. The following questions relate to your usual sleep habits during the <b>PAST MONTH ONLY</b> . Your answers should indicate the most accurate reply for the majority of days and nights in the <b>PAST MONTH</b> .							
1.	1. During the past month, when have you usually gone to bed?:: AMPM							
2.	2. During the past month, how long, in minutes, has it usually taken you to fall asleep? minutes							
3.	3. During the past month, when have you usually gotten up?:: AM PM							
4.	During the past month, how many humber of hours you spend in bed.		o did you get per nig	ht? (This may be o	lifferent than the			
5.	For the remaining questions, please	e check the one bes	st response. Please	answer ALL questi	ons.			
Du	uring the <b>PAST MONTH</b> , how often I	have you had troubl	e sleeping because	you				
		Not during the past month	Less than once a week	Once or twice a week	Three or more times a week			
Α	Cannot get to sleep within 30 minutes							
В	Wake up in the middle of the night or early morning							
С	Have to get up and use the bathroom							
D	Cannot breathe comfortably							
Е	Cough or snore loudly							
F	Feel too cold							
G	Feel too hot							
Н	Have bad dreams							
I	Have pain							
J	Other reasons Please describe:							

## Pittsburgh Sleep Quality Index

6.	During the past month, how would you rate your sleep quality overall?  (1) Very good (2) Fairly good (3) Fairly bad (4) Very bad
7.	During the past month, how often have you taken medicine (prescribed or "over the counter) to help you sleep?  (1) Not during the past month (2) Less than once a week (3) Once or twice a week (4) Three or more times a week
8.	During the past month, how often have you had trouble staying awake while driving, eating meals, or engaging in social activity?  (1) Not during the past month (2) Less than once a week (3) Once or twice a week (4) Three or more times a week
9.	During the past month, how much of a problem has it been for you to keep up enough enthusiasm to get things done?  (1) No problem at all (2) Only a very slight problem (3) Somewhat of a problem (4) A very big problem
10.	Do you have a bed partner or share a room?  ☐ (1) No bed partner or do not share a room ☐ (2) Partner/mate in other room ☐ (3) Partner in same room, but not in same bed ☐ (4) Partner in same bed

IV. This next section consists of 21 groups of statements. Please read each group of statements carefully, and then pick out the **one statement** in each group that best describes the way you have been feeling during the **past two weeks, including today**. Check the box with the number beside the statement you have picked. If several statements in the group seem to apply equally well, check the box with the highest number for that group. Be sure that you do not choose more than one statement for any group, including Item 16 (changes in sleeping pattern) and Item 18 (changes in appetite).

1.	Sadness  (i) I do not feel sad  (i) I feel sad much of the time  (2) I am sad all the time  (3) I am so sad or unhappy that I can't stand it
2.	Pessimism  (i) I am not discouraged about my future  (ii) I feel more discouraged about my future than I used to be (iii) I do not expect things to work out for me (iii) I feel my future is hopeless and will only get worse
3.	Past Failure  (i) I do not feel like a failure  (i) I have failed more than I should have  (2) As I look back, I see a lot of failures  (3) I feel I am a total failure as a person
4.	Loss of Pleasure  (i) I get as much pleasure as I ever did from the things I enjoy (i) I don't enjoy things as much as I used to (2) I get very little pleasure from the things I used to enjoy (3) I can't get any pleasure from the things I used to enjoy
5.	Guilty Feelings  op I don't feel particularly guilty  op I feel guilty over many things I have done or should have done op I feel quite guilty most of the time op I feel guilty all of the time

6.	Punishment Feelings  oo I don't feel I am being punished  oo I feel I may be punished  oo I expect to be punished  oo I expect to be punished  oo I feel I am being punished
7.	Self-Dislike  (i) I feel the same about myself as ever  (i) I have lost confidence in myself  (2) I am disappointed in myself  (3) I dislike myself
8.	Self-Criticalness  o) I don't criticize or blame myself more than usual o) I am more critical of myself than I used to be o) I criticize myself for all of my faults o) I blame myself for everything bad that happens
10.	Crying  (o) I don't cry any more than I used to  (1) I cry more than I used to  (2) I cry over every little thing  (3) I feel like crying, but I can't
11.	Agitation  o) I am no more restless or wound up than usual  o) I feel more restless or wound up than usual  o) I am so restless or agitated that it's hard to stay still  o) I am so restless or agitated that I have to keep moving or doing something

12.	Loss of Interest  (o) I have not lost interest in other people or activities  (1) I am less interested in other people or things than before  (2) I have lost most of my interest in other people or things  (3) It's hard to get interested in anything
13.	Indecisiveness
14.	Worthlessness  (i) I do not feel I am worthless (ii) I don't consider myself as worthwhile and useful as I used to (iii) I feel more worthless as compared to other people (iii) I feel utterly worthless
15.	Loss of Energy  (i) I have as much energy as ever  (i) I have less energy than I used to have  (2) I don't have enough energy to do very much  (3) I don't have enough energy to do anything
16.	Changes in Sleeping Pattern <i>(Choose only one answer)</i> (a) I have not experienced any change in my sleeping pattern
	(1a) I sleep somewhat more than usual (1b) I sleep somewhat less than usual
	(2a) I sleep a lot more than usual (2b) I sleep a lot less than usual
	(3a) I sleep most of the day (3b) I wake up 1-2 hours early and can't get back to sleep

17.	Irritability  (o) I am no more irritable than usual  (1) I am more irritable than usual  (2) I am much more irritable than usual  (3) I am irritable all the time
18.	Changes in Appetite <i>(Choose only one answer)</i> One in May appetite
	(1a) My appetite is somewhat less than usual (1b) My appetite is somewhat greater than usual
	(2a) My appetite is much less than before (2b) My appetite is much greater than usual
	(3a) I have no appetite at all (3b) I crave food all the time
19.	Concentration Difficulty  (o) I can concentrate as well as ever  (1) I can't concentrate as well as usual  (2) It's very hard to keep my mind on anything for very long  (3) I find I can't concentrate on anything
20.	Tiredness or Fatigue  (a) I am no more tired or fatigued than usual (b) I get more tired or fatigued more easily than usual (c) I am too tired or fatigued to do a lot of the things I used to do (c) I am too tired or fatigued to do most of the things I used to do
21.	Loss of Interest in Sex  output outpu

## **Beck Hopelessness**

V. This section consists of 20 statements. If the statement describes your attitude for the past week including today, put a circle around the "T" indicating TRUE in the column next to the statement. If the statement does not describe your attitude, put a circle around the "F" indicating FALSE in the column next to the statement. Please be sure to read each statement carefully.

		True	False
		(1)	(2)
1	I look forward to the future with hope and enthusiasm.	Т	F
2	I might as well give up because there is nothing I can do about making things better for myself.	Т	F
3	When things are going badly, I am helped by knowing that they cannot stay that way forever.	Т	F
4	I can't imagine what my life will be like in ten years.	Т	F
5	I have enough time to accomplish the things I want to do.	Т	F
6	In the future, I expect to succeed in what concerns me most.	Т	F
7	My future seems dark to me.	Т	F
8	I happen to be particularly lucky, and I expect to get more of the good things in life than the average person.	Т	F
9	I just can't get the breaks, and there's no reason I will in the future.	Т	F
10	My past experiences have prepared me well for the future.	Т	F
11	All I can see ahead of me is unpleasantness rather than pleasantness.	Т	F
12	I don't expect to get what I really want.	Т	F
13	When I look ahead to the future, I expect that I will be happier than I am now.	Т	F
14	Things just don't work out the way I want them to.	Т	F
15	I have great faith in the future.	Т	F
16	I never get what I want, so it's foolish to want anything.	Т	F
17	It's very unlikely that I will get any real satisfaction in the future.	Т	F
18	The future seems vague and uncertain to me.	Т	F
19	I can look forward to more good times than bad times.	Т	F
20	There's no use in really trying to get anything I want because I probably won't get it.	Т	F

## COVID-19

VI.	. The following questions refer to the COVID-19 pandemic and how it has affected you in your work as a police officer.					
1.	. Mark the point on the line below as to how much COVID-19 has affected your stress					
	No stressat all			stress experienced		
2.	What is your level of exposure to COVID-19 in your work as a (1) Very low (2) Low (3) High	police office	r? (4) Very hiç	gh		
3.	What sort of personal protection is provided for you by the BF Masks Face shields Tempera	D? <b>Check a</b> ature Checks		y.		
	Sanitizer Gloves Vehicle I	Disinfecting				
4.	Did you have any training on how to properly wear protection	(0) No	o [	(1) Yes		
5.	Did you have any training to help you to deal with COVID-19?	(0) No	o [	(1) Yes		
6.	Have you tested positive for COVID-19?	(0) No	o [	(1) Yes		
7.	Have you tested negative for COVID-19?	(0) No	o [	(1) Yes		
8.	Have you been tested for antibodies for COVID-19? If yes, what were the results?	(0) No	egative	(1) Yes (1) Positive		
9.	Were you ever quarantined because of COVID-19?	(0) No	D _	(1) Yes		
10.	Please answer the following questions about your experience following four point scale:  1 = Strongly Agree 2 = Agree 3 = Disagree 4 = Strongly Disagree	s during the	COVID-19 p	oandemic usir	ng the	
		Strongly Agree	Agree	Disagree (3)	Strongly Disagree (4)	
	Exposure	. ,			. ,	
4						

		Strongly Agree	Agree	Disagree (3)	Strongly Disagree
	Exposure	(1)	(2)	(3)	(4)
1	I am concerned that I will get COVID-19				
2	I am usually able to maintain a 6 foot distance while responding to calls				
3	When responding to indoor calls, I try to get individuals to step outside and maintain a 6 foot distance				
4	When contacting a member of the public with respiratory symptoms (sneezing and coughing), I make sure to maintain a 6 foot distance				
5	When I am assisting Buffalo Fire, I can maintain a safe distance				

## COVID-19

		Strongly Agree	Agree (2)	Disagree (3)	Strongly Disagree (4)
6	Someone or myself disinfects my equipment and car prior to my shift				
7	I have access to all the personal protective equipment I need for my shift				
8	I always use personal protective equipment on all my shifts				
9	I am not sure that I am wearing the 3M facemask correctly				
10	When I am wearing personal protective equipment, I still maintain a 6 foot distance				
11	I have been assaulted (physically or verbally) while trying to enforce COVID-19 mandates				
12	I have been assaulted, spat on, or coughed on by someone claiming to have COVID-19				
	Family				
13	I am worried about a family member getting sick				
14	I am worried that I may infect a family member due to my work				
15	My responsibilities at home have increased during stay at home orders for members of my family				
	Coworker Concerns				
16	My coworkers stay home when they are sick				
17	I am worried about coworkers becoming ill with COVID-19				
18	I am worried about coworkers who have already become ill with COVID-19				
	Work Environment				
19	I have been required to work extra shifts or overtime due to COVID-19				
20	My sleep and self-care have decreased due to stress related to COVID-19				
21	There have been no significant compromises or shortcuts taken by management when my safety was at stake				
22	Where I work, employees and management work together to ensure the safest possible working conditions during the COVID-19 pandemic				
23	The COVID-19 mandates are not clear, sometimes there are mixed messages and rumors				
24	I can usually follow the COVID-19 mandates				
25	COVID-19 has resulted in a surge of service demands				

## Civil Unrest

VII.The following questions refer to the recent social and civil unrest and demonstrations and how it has affected you in your work as a police officer.

1. Mark a point on the lines below as to how the recent civil unrest has <i>affected your stress</i> .			
	No stressat all	Most stress ever experienced	
2.	The recent attitudes of the public towards police during the civil unrest		
	No stressat all	Most stress ever experienced	

- 3. Please indicate the degree to which each experience has bothered you as a result of your police work during the civil unrest. Please check one box only.
  - 1 = Strongly Agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly Disagree

		Strongly Agree	Agree (2)	Disagree (3)	Strongly Disagree
	Public Perception				
1	Distorted or negative press accounts of police				
2	Public criticism of police, experiencing negative attitudes toward police officers; public apathy toward police				
3	Dealing with people who abuse the police (examples: riots, confrontations with aggressive crowds; physical attack on one's person; possibility of injury on the job; personal insults from citizens				
4	Unreasonable expectations during riots or demonstrations from those outside the department				
5	Political pressure from within the department				
6	Political pressure from outside the department				
7	Outside interference with police work during the unrest (e.g., government, public, citizens)				
	Work Environment				
8	After all that is going on these days, I am not sure that this job is worth it anymore				
9	It is frustrating to me that I cannot arrest someone who commits a "lower" crime				
10	I have no say in decisions that affect me				
11	It is difficult being responsible for others				
12	There is lack of clarity in operational guidelines				

## Civil Unrest

		Strongly Agree	Agree	Disagree (3)	Strongly Disagree (4)
13	There is interference in my decisions by others				
14	Too much red tape to get something done				
15	Too much responsibility without authority to make decisions				
16	Departmental handling of complaints against officers is not fair				
17	Lack of honesty about my work by superiors				
18	Inappropriate rules and regulations				
19	Doing things I don't agree with in bad situations				
20	Low morale				
21	Inconsistent application of rules and policy				
22	Difficulty staying objective (not expressing my emotions)				
23	Not receiving recognition for a job well done				
24	Feelings of not being able to do anything				

l	nter	viewer	

## Questionnaire that will be Administered During the Second Round

	The following questions refer to the COVID-19 pandemic and as a police officer since you last completed this questionnaire			in your work	
1.	Mark the point on the line below as to how much COVID-19 h	as affected y	our stress		
	No stressat all			stress experienced	
2.	What was your level of exposure to COVID-19 in your work as (1) Very low (2) Low (3) High	s a police offi	cer? (4) Very hiç	gh	
3.	What sort of personal protection is still provided for you by the Masks Face shields Tempera	e BPD? <b>Che</b> o ature Checks		pply.	
	Sanitizer Gloves Vehicle I	Disinfecting			
6.	Have you tested positive for COVID-19?	(0) No	) [	](1) Yes	
7.	Have you tested negative for COVID-19?	(0) No	) [	(1) Yes	
8.	Have you been tested for antibodies for COVID-19?	D [	(1) Yes		
	If yes, what were the results?	egative	(1) Positive		
9.	Were you ever quarantined because of COVID-19?	) [	(1) Yes		
10.	Have you been vaccinated against COVID-19?	lo 🗌	(1) Yes		
	Please answer the following questions about your experience wing four-point scale:  1 = Strongly Agree 2 = Agree 3 = Disagree 4 = Strongly Disagree	s during the	COVID-19 p	oandemic usir	ng the
		Strongly Agree (1)	Agree (2)	Disagree (3)	Strongly Disagree (4)
	Exposure	(1)	(2)	(3)	(4)
1	I am still concerned that I will get COVID-19				
2	I still maintain a 6 foot distance while responding to calls				
3	When responding to indoor calls, I try to get individuals to step outside and maintain a 6 foot distance				
4	When contacting a member of the public with respiratory symptoms (sneezing and coughing), I make sure to maintain a 6 foot distance				

		Strongly Agree	Agree	Disagree (3)	Strongly Disagree
5	When I am assisting Buffalo Fire, I can maintain a safe distance				
6	When I am wearing personal protective equipment, I still maintain a 6 foot distance				
7	I have been assaulted (physically or verbally) while trying to enforce COVID-19 mandates				
8	I have been assaulted, spat on, or coughed on by someone claiming to have COVID-19				
	Family				
9	After a year I am worried about a family member getting sick				
10	I am worried that I may infect a family member due to my work				
11	My responsibilities at home have increased during stay at home orders for members of my family				
	Coworker Concerns				
12					
13	I am worried about working with coworkers who might have COVID-19				
14					
	Work Environment				
15	I have been required to work extra shifts or overtime due to COVID-19				
16	My sleep and self-care have decreased due to stress related to COVID-19				
17	There have been no significant compromises or shortcuts taken by management when my safety was at stake				
18	Where I work, employees and management work together to ensure the safest possible working conditions during the COVID-19 pandemic				
19	The COVID-19 mandates are still not clear, sometimes there are mixed messages and rumors				
20	I can usually follow the COVID-19 mandates				
21	COVID-19 still results in a surge of service demands				

VII. The following questions refer to the social and civil unrest and demonstrations that occurred earlier in the year and how it has affected you in your work as a police officer.

1.	Mark a point on the lines below as to how the civil unrest in the last year has	affected your stress.
	No stressat all	_ Most stress ever experienced
2.	The recent attitudes of the public towards police during the civil unrest	
	No stressat all	_ Most stress ever experienced

- 3. Please indicate the degree to which each experience has bothered you as a result of your police work during the civil unrest over the last year. Please check one box only.
  - 1 = Strongly Agree
  - 2 = Agree
  - 3 = Disagree
  - 4 = Strongly Disagree

		Strongly Agree	Agree	Disagree (3)	Strongly Disagree
	Public Perception				
1	Distorted or negative press accounts of police				
2	Public criticism of police, experiencing negative attitudes toward police officers; public apathy toward police				
3	Dealing with people who abuse the police (examples: riots, confrontations with aggressive crowds; physical attack on one's person; possibility of injury on the job; personal insults from citizens				
4	Unreasonable expectations during riots or demonstrations from those outside the department				
5	Political pressure from within the department				
6	Political pressure from outside the department				
7	Outside interference with police work during the unrest (e.g., government, public, citizens)				
	Work Environment				
8	After all that is going on these days, I am not sure that this job is worth it anymore				
9	It is frustrating to me that I cannot arrest someone who commits a "lower" crime				
10	I have no say in decisions that affect me				
11	It is difficult being responsible for others				
12	There is lack of clarity in operational guidelines				

		Strongly Agree	Agree (2)	Disagree (3)	Strongly Disagree (4)
13	There is interference in my decisions by others				
14	Too much red tape to get something done				
15	Too much responsibility without authority to make decisions				
16	Departmental handling of complaints against officers is not fair				
17	Lack of honesty about my work by superiors				
18	Inappropriate rules and regulations				
19	Doing things I don't agree with in bad situations				
20	Low morale				
21	Inconsistent application of rules and policy				
22	Difficulty staying objective (not expressing my emotions)				
23	Not receiving recognition for a job well done				
24	Feelings of not being able to do anything				

Interviewer	
ITTECT VICTOR	

## **Appendix D: UB Consent Form**



#### **University at Buffalo Institutional Review Board (UBIRB)**

Office of Research Compliance | Clinical and Translational Research Center Room 5018 875 Ellicott St. | Buffalo, NY 14203 UB Federalwide Assurance ID#: FWA00008824

Title of research study: A Longitudinal Examination of Mental and Physical Health among Police Associated with COVID-19

Version 1 Date: June 26, 2020

Investigator: John M. Violanti, Ph.D (SUNY at Buffalo)

**Key Information**: The following is a short summary of this study to help you decide whether or not to be a part of this study. More detailed information is listed later on in this form.

#### Why am I being invited to take part in a research study?

You are being invited to take part in this research study because you are a Buffalo, NY police officer and a participant in our previous studies on the Buffalo Police department. We are interested in learning about your experience with COVID-19 as a law enforcement officer, and your health and well-being. We will use coded de-identified health information that you gave to us in the previous study.

#### What should I know about a research study?

- Someone will explain this research study to you.
- Whether or not you take part is up to you.
- You can choose not to take part.
- You can agree to take part and later change your mind.
- Your decision will not be held against you.
- You can ask all the questions you want before you decide.

#### Why is this research being done?

This proposed research seeks to address changes in psychological stress and physical health of police officers prior to and after the continuing onset of the COVID-19 pandemic.

#### How long will the research last and what will I need to do?

We expect that you will be in this research study for approximately two hours. You will be asked to give a blood sample only during your first visit and fill out questionnaires asking about how you feel about the COVID-19 virus and how it has affected you. We will ask you to repeat part of the study in 8-12 months, but for a shorter period of time (approximately one hour) just to answer questionnaires.

More detailed information about the study procedures can be found under "What happens if I say yes, I want to be in this research?"

#### Is there any way being in this study could be bad for me?

The anticipated risks associated with your participation in this study are no greater than those ordinarily encountered in daily life or the performance of routine questions. Questions on the survey concern how

you feel about your well-being and health. You are under no obligation to answer any questions you do not want to answer. Your decision to participate in the survey or not will have no effect on your position in your agency, as your identity will be completely secured.

More detailed information about the risks of this study can be found under "Is there any way being in this study could be bad for me? (Detailed Risks)"

## Will being in this study help me in any way?

We cannot promise any benefits to you for taking part in this research, other than it will help other officers in the future. We hope that your participation in this survey and testing along with that of the other officers will clarify how today's law enforcement officers deal with stress and how it may affect your health with the hope that we can continue to help inform officers and agencies about how to best address health and stress problems, especially concerning disaster situations like COVID-19.

## What happens if I do not want to be in this research?

Participation in research is completely voluntary. You may choose not to enroll in this study. Your alternative to participating in this research study is to not participate.

**Detailed Information:** The following is more detailed information about this study in addition to the information listed above.

#### Who can I talk to?

# If you have questions, concerns, or complaints, or think the research has hurt you, talk to the research team at

Dr. John M. Violanti, Ph.D. University at Buffalo, SUNY 271 Farber Hall Buffalo, NY 14214

violanti@buffalo.edu

716-829-5481

You may also contact the research participant advocate at 716-888-4845 or researchadvocate@buffalo.edu.

This research will be reviewed and approved by an Institutional Review Board ("IRB"). An IRB is a committee that provides ethical and regulatory oversight of research that involves human subjects. You may talk to them at (716) 888-4888 or email <a href="mailto:ub-irb@buffalo.edu">ub-irb@buffalo.edu</a> if:

- You have questions about your rights as a participant in this research
- Your questions, concerns, or complaints are not being answered by the research team.
- You cannot reach the research team.
- You want to talk to someone besides the research team.
- You want to get information or provide input about this research.

#### How many people will be studied?

We expect that about 200 officers from your department who have participated at UB before will be asked to participate.

#### What happens if I say yes, I want to be in this research?

If you agree to participate in this research, we will ask you to come into our clinic at the University at Buffalo. We will ask you to fast the evening before your visit, and we will draw a blood sample the morning you arrive at the clinic. You will be asked to give a small amount of blood (approximately 4 tablespoons) as part of this study. We may ask you if we can draw an additional amount of blood (approximately 1½ tablespoons) to check the accuracy (quality control) of our measurements. The blood draw will be done by a trained phlebotomist. There are minimal risks during the process of drawing blood including: minor discomfort, bruising at the site of the blood draw, occasionally lightheadedness or fainting, and very rarely infection. Blood analysis will be used only for science. The blood samples are stored and tested with an identifying number only and your name or any other identifying information will not appear on the samples. This sample is for *research purposes only*. We will provide you with a light breakfast if you desire. We will also use information and frozen blood samples you provided us in the previous study you participated in here at UB. The frozen blood samples will be tested for various levels in your blood (cholesterol for example) both from your previous visit blood and the new blood sample we will be taking. We will retain what is left of those samples once again and freeze them for future research.

You will have your blood pressure taken while you are comfortably seated. The technician will place a cuff that is appropriate for your size on your right arm and will measure your blood pressure three times. With your forearm resting comfortably on the table, he/she will count your radial pulse for 30 seconds. There are no risks associated with measuring the blood pressure or heart rate. This procedure will take approximately 15 minutes. These measurements are for *research purposes only*. Your height, weight, abdominal height, waist circumference and neck circumference will be measured and recorded. This procedure will take approximately 10 minutes to complete. These measurements are for *research purposes only*.

You will asked to complete several surveys about how COVID-19 has affected your feelings and well-being. Nothing in the surveys is designed to diagnose or treat any health condition. You may skip any questions that you do not want to answer at any time, without any consequence. The entire visit is estimated to take two hours or less.

Cortisol is a hormone in your body that is released throughout the day and during stressful situations. A standard procedure has been developed to test cortisol levels. This procedure consists of <u>saliva testing</u>. This test is for <u>research purposes only</u>.

To test this, we will ask you to take saliva samples the day after you leave the clinic- *four in the morning when you awaken, one at lunchtime, one at dinner, and one when you go to sleep.* We will provide you with small cotton rolls to place in your mouth (similar to dental rolls) to take these samples along with instructions on how to take the samples.

After this first visit we would like to contact you again in about 6-8 months to have you fill out the same surveys you filled out during the first visit. You will not have to come into the clinic or give a blood or saliva samples for this-we will mail the surveys to you with a return stamped envelope for you to return the surveys. After completion your visits, we will provide you \$150.00 for the first visit and \$50.00 for the second time you participate.

**Note:** Female Participants:

Prior to undergoing any of the following tests, you will be given a pregnancy test. The test we are currently using is a one step hCG Test for the qualitative detection of hCG in urine. This test is to ensure

that you are not pregnant and are therefore not exposed to potential harm. If you are pregnant, you will not be able to participate in any tests.

**Procedure:** We will give you a cup to provide a urine sample. The interviewer or nurse will fill a dropper (provided) with a small sample of the urine. Four drops of the urine are added to the sample well on the tester. Results are read within 5 minutes. There are no known risks associated with this procedure. This test will not be used in any other analysis.

#### What are my responsibilities if I take part in this research?

If you take part in this research, you will be responsible to appear at the clinic at the appointed time. If you cannot come in, please advise the clinic staff one day ahead if possible. You will be responsible for fasting after 10 pm the night before your morning appointment at the clinic to provide a blood sample. You will be responsible for reading the survey questions carefully and answering the questions as honestly as possible, to the best of your ability.

#### What happens if I say yes, but I change my mind later?

You can leave the research at any time and it will not be held against you. However, we will only provide the incentive for the portion of the study you have completed. Please advise the researchers a reasonable time ahead if you decide to leave the research. Any data that has been collected up to the point of your withdrawal will still be used by the researchers in their analysis.

#### Is there any way being in this study could be bad for me? (Detailed Risks)

There are no known risks associated with these procedures other than a slight pain from a blood draw. There are many safeguards to protect your confidentiality and information and identity. Some of the questions about stress and anxiety may make you feel uncomfortable. At any time you are not comfortable answering any questions, you may skip those questions. If you feel you need help, we will refer you to a mental health professional or peer support person familiar with police work.

#### What happens to the information collected for the research?

We will limit your information to only those persons working on the study. You will be assigned an ID number to protect your identity. Any reports or study publications resulting from this study will only provide statistics and no identifying information. In addition, we also do not ask any personally identifying questions in the survey. The survey data collected will be stored electronically utilizing a Box cloud "sensitive storage" area, which is an encrypted platform. Access to the data will be restricted to members of the research team only. Once the data has been analyzed and the study has been completed, the data will be retained for use after your second visit and a possible follow-up study over time. Blood samples will be stored in a university biological storing laboratory freezer and are identified only by coding. Your identifying information is not labeled on the samples. Efforts will be made to limit the use and disclosure of your personal information, including research study and medical or education records, to people who have a need to review this information. Organizations that may inspect and copy your information include the University of Buffalo Institutional Review Board (IRB) and representatives of this organization. This may be done to ensure that your data is secure. Private, identifiable information will be kept confidential and will only be used for research and statistical purposes. In the *unlikely* event the identity your identity cannot be

maintained, we will explicitly notify you. We will explicitly inform you what information will be disclosed under what circumstances, and to whom; and any risks that might result from this disclosure will explicitly provide written consent prior to participating in the research.

Your frozen blood samples collected from a past study for which you gave consent will be utilized as part of this study. These samples are in a university biological storing laboratory freezer and are identified only by coding. Your identifying information is not labeled on the samples.

#### Can I be removed from the research without my OK?

Not applicable/No

#### What else do I need to know?

N/A

### Who is paying for this research?

The National Institute for Occupational Safety and Health (NIOSH).

## What medical costs am I responsible for paying?

You and your private or public health insurance company will not be charged for any of the tests or procedures done for this study.

#### Who will pay for my medical care if participating in this research harms me?

It is important that you tell your study doctor if you feel that taking part in this study has injured you or caused you to become ill. You will receive medical treatment if you are injured or become ill as a result of this study. Your doctor will explain the treatment options to you and tell you where you can get treatment. The University at Buffalo makes no commitment to provide free medical care or payment for any unfavorable outcomes that result from your participation in this research. Medical services will be billed at the usual charge and will be your responsibility or that of your third-party payer but you are not precluded from seeking to collect compensation for injury related to malpractice, fault, or blame on the part of those involved in the research. By accepting medical care or accepting payment for medical expenses, you are not waiving any of your legal rights.

#### Will I receive anything for my participation in this research?

For your participation, we will provide you with \$150.00 for completion of the first visit in the clinic. We will provide you with \$50.00 for the second time you participate at a later date.

#### What are my alternatives to participating in this research study?

The alternative is not to participate.

#### What will I be told about clinically relevant research results?

Most tests done on samples in research studies are only for research and have no clear meaning for health care. If the researchers return test results to you, it may be because they think you could have a health risk and want to recommend that the test should be re-done by a certified clinical laboratory to check the results. If this happens, then you may want to get a second test from a certified clinical

laboratory, consult your own doctor, or get professional genetic counseling. You may have to pay for those additional services yourself.

## F. What are your rights after signing this authorization?

All of the above has been explained to me and all of my current questions have been answered. I understand that I am encouraged to ask questions about any aspects of this research study, and that future questions will be answered by the researchers listed on the front page of this form. By signing this form, I understand that I do not waive any of my legal rights including the right to seek compensation for injury related to negligence or misconduct of those involved in the research. By signing this form, I agree to participate in this research study. A copy of this consent form will be given to me. I have read and understand what procedures are to be performed and what is expected of me as a result of my voluntary participation in this study.

I consent to partic	cipate in the following p	procedures for this research pr	oject as outlined:
Procedure #1	 Pt's Initials	Saliva Samples (Cortisol to	esting)
Procedure #2	Pt's Initials  Pt's Initials	Blood Samples	
Procedure #3	Pt's Initials Pt's Initials	Blood Pressure and Heart l	Rate
Procedure #4	Pt's Initials	Body Measurements	
Procedure #5	Pt's Initials	Completion of Questionna	ires
Your signature of not waiving any		cluding the right to seek comp	ch. By signing this form you are sensation for injury related to
	Signature of subje	oct	Date
	Printed name of sub	ject	
Sig	nature of person obtaini	ng consent	Date
Printe	ed name of person obtai	ning consent	

#### **DNA** samples

Researchers may look at inherited factors which are related to diseases by examining DNA from the stored samples. Be advised that the National Institute of Occupational Safety and Health who sponsors this study has a federal certificate of confidentiality in force and any data collected during this study cannot be used for any purpose other than for research. By signing this form, you are giving consent for any future studies of DNA. The blood samples will remain the property of the Department of Epidemiology and Environmental Health at the University at Buffalo, and may be shared with other researchers. Confidentiality will be strictly maintained. All names will be removed from samples. Results of studies may be reported only as statistics in medical journals or at meetings. Individuals in the study will not be identified in any way. By signing this form, you understand that at any point in the future and for any reason, you may choose to have your blood samples withdrawn from the Biological Specimen Bank and destroyed.

## **Signature Block for Capable Adult**

o-graduite 2:00m for Supusit raunt					
Your signature documents your permission to take part in this research. By signing this form you are not waiving any of your legal rights, including the right to seek compensation for injury related to negligence or misconduct of those involved in the research.					
I consent that samples of my DNA will be indefinitely stored for fut influence disease. <i>I will not be identified in any way and this data w other than research</i> .	5				
Signature of subject	Date				
Printed name of subject					
Signature of person obtaining consent	Date				
Printed name of person obtaining consent					

## **Appendix E: UB IRB Approval**



University at Buffalo Institutional Review Board (UBIRB)
Office of Research Compliance | Clinical and Translational Research Center Room 5018 875 Ellicott St. | Buffalo, NY 14203

#### UB Federalwide Assurance ID#: FWA00008824 APPROVAL OF SUBMISSION

September 10, 2020

Dear JOHN VIOLANTI:

On 9/10/2020, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	A Longitudinal Examination of Mental and Physical
	Health among Police Associated with COVID-19
Investigator:	JOHN VIOLANTI
IRB ID:	STUDY00004678
Funding:	Name: , Grant Office ID: pending, Funding Source ID: pending contract
Grant ID:	pending;
IND, IDE, or HDE:	•
Documents Reviewed:	BCOPS6 Visit Instructions.20200624.docx, Category:
	Other:
	BCOPS6 Saliva Instructions.20200623.docx, Category: Other;
	BCOPS6 Quest-Set 2.20200624.docx, Category:
	Surveys/Questionnaires;
	BCOPS6 Saliva Qx.20200623.docx, Category: Other;
	BCOPS6 Saliva General Instuctions.20200623 .docx,
	Category: Other;
	COVER- COVID study Set 3.20200624.doex, Category:
	Other;
	COVER- COVID study Set 1.20200624.docx, Category: Other:
	CHR parking directions 20140521.pub, Category: Other;
	• questionnaires, Category: Surveys/Questionnaires;
	BCOPS6 Eligibility Screening.20200624.docx, Category:
	Other:
	study proposal, Category: Other;
	BCOPS6 Blood draw eligibility.20200623.docx,
	Category: Other;
	BCOPS6 Physical Measurements.20200624.docx,
	Category: Other;
	COVER- COVID study Set 2.20200624.docx, Category:
	Other;
	consent, Category: Consent Form;
	COVID screen form, Category: Other;



#### University at Buffalo Institutional Review Board (UBIRB)

Office of Research Compliance | Clinical and Translational Research Center Room 5018 875 Ellicott St. | Buffalo, NY 14203

TIR	Federa	lwide	Assurance	TD#-	FW/A	00008824	
UD	reuera	iwiae.	Assurance	ID#.	I WA	.00000024	

	Udated 82020 Intro letter to COVID study.20200624.pdf,
	Category: Recruitment Materials;
	<ul> <li>UPDATE COVID IRB protocol 91020 .docx, Category:</li> </ul>
	IRB Protocol;
	Updated 82020 Invitation letter from JV.20200618.pdf,
	Category: Recruitment Materials;
	Updated 82020 Invitation letter from JV.20200618.pdf,
	Category: Recruitment Materials;
	Updated COVID RECEIPT 62520.docx, Category:
	Other;
Personnel Changes:	n/a

The IRB approved the study from 9/10/2020 to 9/9/2021 inclusive. The initial study materials for the project referenced above were reviewed and approved by the SUNY University at Buffalo IRB (UBIRB) by Non-Committee Review. The IRB has determined that the study is no greater than minimal risk. Before 9/9/2021 or within 30 days of study closure, whichever is earlier, you are to submit a continuing review application with required explanations. In order to avoid a lapse in IRB approval, it is recommended that you submit your continuing review at least 30 days for an expedited study and at least 45-60 days for a full board study, prior to the approval end date of the study. You can submit a continuing review application by navigating to the active study in Click IRB and selecting 'Create Modification / CR'. Studies cannot be conducted beyond the expiration date without re-approval by the UBIRB.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103), which can be found by navigating to the IRB Library within the IRB system.

UBIRB approval is given with the understanding that the most recently approved procedures will be followed and the most recently approved consent documents will be used. If modifications are needed, those changes may not be initiated until such modifications have been submitted to the UBIRB for review and have been granted approval.

As principal investigator for this study involving human participants, you have responsibilities to the SUNY University at Buffalo IRB (UBIRB) as follows:

- Ensuring that no subjects are enrolled prior to the IRB approval date.
- Ensuring that the study is not conducted beyond the expiration date without reapproval by the UBIRB.
- 3. Ensuring that the UBIRB is notified of:



#### University at Buffalo Institutional Review Board (UBIRB)

Office of Research Compliance | Clinical and Translational Research Center Room 5018 875 Ellicott St. | Buffalo, NY 14203

UB Federalwide Assurance ID#: FWA00008824

- All reportable information in accordance with the New Information SOP (HRP-024).
- Project closure/completion by submitting a Continuing Review/Modification submission.
- Ensuring that the protocol is followed as approved by UBIRB unless a protocol amendment is prospectively approved.
- Ensuring that changes in research procedures, recruitment or consent processes
  are not initiated without prior UBIRB review and approval, except where
  necessary to eliminate apparent immediate hazards to subjects.
- Ensuring that the study is conducted in compliance with all UBIRB decisions, conditions, and requirements.
- Bearing responsibility for all actions of the staff and sub-investigators with regard to the protocol.
- Bearing responsibility for securing any other required approvals before research begins.

If you have any questions, please contact the UBIRB at 716-888-4888 or <u>ub-irb@buffalo.edu</u>. Please include the project title and number in all correspondence with the UBIRB.

## **Appendix F: Letter of Invitation**

Date
Dear Officer:
As a previous participating member of the Buffalo police stress and health study, we would once again like to welcome you to come to the University at Buffalo. We will be conducting a study on the effects of COVID-19 on your stress and health.
During our previous study, we appreciated the help and cooperation you provided. It spoke well to the professionalism and graciousness of all Buffalo police officers. We learned some valuable scientific information about the effects of police stress on health. Our hope is that your participation in this study will contribute ever more to the health and well being of all police officers.
To schedule your visit, you can call:
At UB: Rosa Bordonaro 716-829-5603
We are looking forward to your next visit!
Sincerely,
John M. Violanti, Ph.D.
NYSP, Retired

## **Appendix G: Letter of Introduction**

#### Dear Officer:

Thank you for agreeing to participate in the Center for Health Research's nationally based study of the health of police officers. As a former police officer, I understand many of the experiences that you have at work, and thus appreciate the time you have committed to this study. Both the Buffalo Police PBA and administration have approved the study, and I anticipate the findings will benefit police officers now and in the future.

Enclosed you will find preliminary information/forms to prepare you for the clinic visit. Below, the relevance and importance of each set of enclosures is explained. Please read the comments below carefully as you prepare for your visit.

#### **Enclosures:**

In order to adhere to high standards of safety we have enclosed a form that must be filled out and sent back to us immediately. This form is titled "Eligibility Screening Form." The form provides us with information regarding your current health status and helps us determine your eligibility for participation in various components of the study. Again, it is important that you immediately complete and send this form back. We have provided a self-addressed, stamped envelope.

A study consent form is enclosed. This form provides you with information on health procedures you will undergo as part of the study. Please read the form, but do not sign it. This form will be reviewed with you and we will sign it together on the day of your visit.

The final set of enclosures includes specific instructions to prepare you for your visit to the clinic. Please read these instructions <u>at least the day before</u> your visit. There are several things you must do/abstain from doing the evening before your visit.

Do not hesitate to contact the Police Health Study (Rosa or Mary) at 829-5603 if you have questions regarding the enclosures or the Police Health Study. Thanks again for your help. I am certain that your experience at the UB clinic will be a positive and friendly one.

John M. Violanti, Ph.D.
NYSP Retired

Sincerely,