

**FORMULARIO DE SOLICITUD  
PROGRAMA DE INVESTIGACIONES  
FONDO INSTITUCIONAL PARA EL DESARROLLO DE LA INVESTIGACION**

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**TITULO DE LA PROPUESTA: Skin Color, Ethno-racial Classification, and Health  
Disparities in Puerto Rico**

**SI EL PROYECTO SE LLEVARA A CABO EN COLABORACION CON OTRA(S)  
INSTITUCION(ES):**

**NOMBRE(S) DE LA(S) INSTITUCION(ES)**

**Departamento de Salud Pública, Sistema de Vigilancia de Factores de Riesgo del  
Comportamiento (Behavioral Risk Factor Surveillance System - BRFSS)**

**Universidad de Puerto Rico- Recinto de Ciencias Médicas**

**NOMBRE(S) Y DEPARTAMENTO DE LOS DOCENTES COLABORADORES**

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## **Skin Color, Ethno-racial Classification, and Health Disparities in Puerto Rico**

“Race” is a socially constructed category (not a natural biological division of humankind). Racial differences cannot be measured as a fixed or immutable reality. Yet, “race” and practices of racialization bear concrete consequences in people’s everyday lives, affecting differential social treatment (i.e; racism) and socio-economic, education and health outcomes that should be examined. **This research aims to attain statistically solid information on the relationship between “race” and health disparities in Puerto Rico by using data obtained from the Behavioral Risk Factor Surveillance System (BRFSS).** The BRFSS is the largest on-going telephone health survey conducted in the US and in Puerto Rico on issues of health. It offers information on health care access, hypertension, cholesterol, chronic health conditions, tobacco and alcohol consumption, HIV / AIDS, nutrition, and physical activity among other variables (see BRFSS questionnaire in appendix 3). In Puerto Rico (PR), the BRFSS survey has been conducted uninterruptedly since 1996 with more than 6,000 participants in recent year. As such, it is a key source of information for health professionals and researchers.

However, the BRFSS survey lacks adequate information about racial inequalities and its effects on health outcomes in PR because the questionnaire uses racial categories that are determined by the US federal government and the Centers for Disease Control and Prevention (CDC), which may not be relevant for Puerto Rico or other territories. For example, the BRFSS uses the standard racial categories for demographic data collection determined by the U.S. Office of Management and Budget (OMB), asking participants in the US and in Puerto Rico whether they consider themselves *White, Black of African American, American Indian, or Alaska Native, Asian or Pacific Islander*. These standard OMB racial categories (also used in the census) have been exceedingly criticized for being inappropriate for Puerto Rico, where multiple racial terms denoting mixture, such as *trigueño, jabao or indio*, prevail (Duany, 2005; Vargas Ramos, 2005;

Gravlee, 2005c; Godreau, 2008). Furthermore, the survey asks if a Hispanic person is *Mexican, Puerto Rican, Cuban or Other*, but does not offer “Dominican” as an option, limiting the information that can be obtained about this important group in Puerto Rico. Such problems inhibit conducting statistically solid research on health disparities in Puerto Rico.

Fortunately, the BRFSS survey (unlike the US census) allows states to develop new questions that can be added to their standard questionnaire, provided that they cover the operational costs and that a Memorandum of Understanding (MOU) is signed among the interested parties. We take advantage of this opportunity to establish the basis for a long-term research plan to better assess the relationship between skin color, ethno-racial classification, social inequality, and health disparities in Puerto Rico. **Specifically, we seek to add seven new questions to the BRFSS survey that will be administered in January 2016 in order to better capture the relationship between racial appearance, discrimination, socio-economic differences, and health disparities in Puerto Rico (see appendix 1).** Among, these questions we have included a five point scale question about skin color as researchers have found this to be the most important feature people use when assigning a racial identity (Brown et al., 1998; Hall, 1994). A similar scale has been also been used with large study among Latinos (de la Garza et al., 1998). We hypothesize that by adding this and other alternative questions we will better understand the relationship between health and socio/racial inequalities in Puerto Rico, significantly improving the data obtained with the standard OMB racial/ethnic classifications.

The two main objectives of our research are:

**Objective 1:** To determine if **socio-economic differences** are more significant when comparing participants based on the skin color variable than when comparing participants using the standard OMB racial categories, after controlling for various factors including ethnic affiliation.

**Objective 2:** To determine if differences in **health outcomes** are more significant when comparing participants based on the skin color variable than when comparing participants using the standard OMB racial categories, after controlling for various factors including ethnic affiliation.

Two secondary long-term objectives, for future research are:

**Objective 3.** To determine if differences in self-perceived measurements of discrimination are more significant when comparing participants based on the skin color variable, than when comparing participants based on their ethnic affiliation (i.e., Cubans, Dominicans and Puerto Ricans).

**Objective 4.** To determine if there are significant differences in self-perceived measurements of discrimination when comparing dark-skinned participants of different ethnic affiliations (e.g. dark-skinned Puerto Ricans vs. dark-skinned Cubans or Dominicans).

## JUSTIFICATION

The persistence of everyday manifestations of racial discrimination in Puerto Rico has been documented in studies about language, media, family dynamics, work, literature, cultural politics, national ideologies, education, and health outcomes, among others (Duany, 2002; Godreau, 2008; Gravlee et al., 2005; Hernández, 2002; Hernández Hiraldo, 2006; Landale & Oropesa, 2005; Lloréns & Carrasquillo, 2008; Rivera Ortiz & Lind, 2001; Rivero, 2005; Santiago Valles, 1996; Seda Bonilla, 1961; Whitten and Torres, 1998; Withey, 1977; Zenón, 1974; Franco Ortiz et al., 2009; Godreau et al., 2008, among others). However, the majority of these studies are either qualitative or based on small population samples, lacking statistically sound demographic data to support their findings.

Problems associated with obtaining demographic data on race are best illustrated by the 2000 and 2010 census results, where an overwhelming majority of 80.5% Puerto Ricans (in 2000) and 74% (in 2010) self-identified as “White” only in the census. This is a striking number considering that the self-identified white population in the US 2010 census was 75% and most people would agree the U.S. population is whiter than the Puerto Rican population (Census 2010). Scholars explain that this tendency of Puerto Ricans choosing “white” is stimulated by people’s awareness of the privilege conferred to whiteness in general and to U.S. authority in the Island (Loveman, 2008; Rivera Batiz, 1999, Duany, 2002).

On the other hand, Vargas Ramos (2005) showed that using culturally appropriate racial

labels makes a significant impact. When Vargas Ramos included the local term *trigueño* in his survey, the proportion of respondents who identified as white decreased significantly to less than half of the proportion reported by the Census for this municipality (from 83.6% to 34.7% ). These results led him to conclude that the racial categories used in PR for census purposes were not valid or reliable and that locale-specific, culturally meaningful racial labels needed to be identified (for a similar study in Brazil, see Byrne and Harris 1995).

However, the problem with using locally meaningful racial categories (such as *trigueño* , *jabao* or *indio*) is that these may not be equally applicable to other Latinos who live on the Island, making results difficult to compare across populations. The challenge of statistically assessing the impact of racial discrimination also extends beyond Puerto Rico to the US, where Latinos often opt for the category of “other” in the race question. For example, nearly 42 percent of those who identified as being “Hispanic” in the “Hispanic origin 2010 census question,” (question 5) reported they were of “some other race” in the next race question (question 6) . In fact, 97% of all those who selected “some other race” in the 2010 census were Latinos (US Census 2010). Scholars explain these results by arguing that the common conceptualization of race as Black, White or Native American makes the “race” question difficult for Latinos, many of whom consider themselves to be – as do many young Americans of mixed race – a blend of European, Native American and/or African descent (Rodríguez, 2000; Brown et al 1998).

This notion of mixture, however, does not mean that racial inequalities are inconsequential among Latinos. Color differences among Latinos (as among other groups) shape life chances as measured by income, employment, residential segregation, and health status. For instance, Haney López (2005) found that in 2000 the unemployment rate for white Hispanics was to 8% in comparison to 12.3% for black Hispanics, which exceeded the black unemployment rate of 11%. Studies of other disparities among minority groups also point to

differences where light skin color correlates to privilege and dark skin to disadvantage (Glenn, 2009; Espino and Franz, 2002; Gómez, 2000; Darity et al., 2005; Goldsmith et al., 2006; Bodenhorn, 2006; Hersch, 2006, 2008). In Puerto Rico, an overt bias in favor of whiteness and European aesthetics as opposed to blackness has been well documented in both personal and institutional practices (Alegria Ortega, 2007; Franco Ortiz, 2009; Géliga Vargas, 2007; Godreau et al., 2008; Santiago Valles, 1996; Rivero, 2005; Zenón Cruz, 1974, and others). Furthermore, race has been shown to have an impact on health outcomes, with black or darker-skinned Puerto Ricans exhibiting differential (worse) morbidity rates from light skin counterparts (Landale and Oropesa, 2005; Gravlee et al., 2005; Borrell et al., 2007; Costas et al., 1981). Yet, these studies have not been conducted using a representative sample of the adult Puerto Rican population. Moreover, surveys that use a large sample, such as the US Census Community Survey and the BRFSS poorly capture the impact of such racial distinctions among Latinos, and with even less accuracy among Puerto Ricans because they rely on the OMB racial categories. For example, 57% of Puerto Rican respondents of the BRFSS survey in 2013 identified as “white”; 36% identified as “other” and only 5% as Black (BRFSS 2013). The large percentage of informants choosing “white” only and “other” (93% combined) creates a dearth of information on Puerto Ricans with visible African Ancestry and poses a serious obstacle for enforcing civil rights protections and for assessing racial disparities in education, employment, housing, and health that disproportionately affect Latinos and Puerto Ricans of evident African ancestry.

With so many Puerto Ricans/Latinos selecting “white” or “other”, while race/color impacts their life chances so powerfully, new population survey methods are needed to track the effects of racism and color discrimination. The significance of our proposed study lies in the use of an innovative approach that addresses this question by adding seven new questions to the BRFSS survey that will be administered in 2016. Proposed questions will be pertinent to PR, but

can also be applied to other contexts in the future, including the continental US. Indeed, if our approach is successful in PR, it could help develop more effective tools for monitoring social inequalities in the future among Latinos and other mixed-race groups in the US who also feel at odds with current US OMB racial categories.

### **STATE – ADDED SURVEY QUESTIONS FOR THE BRFSS**

We propose to add a total of seven questions to the BRFSS 2016 questionnaire (please find questionnaire in appendix 1). The first five questions are directed to assess perceived discrimination and follow a similar structure to those included in the Everyday Discrimination Scale designed by Krieger et al. (2005). (e.g; ¿Alguna vez, ha sentido que lo han tratado de manera injusta? ¿Cuál piensa que fue la razón principal de esa experiencia? ). Versions of these questions have also been used in studies about health and race disparities in Latin America (Seligson et al., 2012; Perreira and Telles, 2014). Krieger emphasizes that measurements should be attentive to the social contexts where the discrimination occurs. We selected “work” and “health services” as two important social contexts for assessing exposure to discrimination (see questions 1 and 3 in appendix 1). We also included a question that specifically addresses racial discrimination, following the survey question developed by Williams et al. (1997) (¿Alguna vez ha experimentado discriminación, no se le ha permitido hacer algo, se le ha molestado o hecho sentir inferior debido a su raza o color de piel?). The sixth question about skin color follows a six-scale format that goes from very light to very dark. Although race is more complex than just skin color, researchers have found this to be the most important feature people use to assign race (Brown et al., 1998; Hall, 1994). A similar scale has been used in several surveys with complex measurements of race in the United States (see for example Jackson et al., 2004; Harris et al., 2009) and in a large study among Latinos (de la Garza et al., 1998). The last question on national origin is meant to further identify respondents who classified themselves as “other”, especially

Dominicans, since the only options provided in the standard BRFSS survey are Mexican, Puerto Rican, and Cuban. All questions were designed following BRFSS standards and protocols.

## **METHODOLOGY**

Our proposed long-term research design consists of at least three phases that support one another, over a period of over 3 years (from August 2015 to May 2018 and after). Phase I consist of a pilot study to test the proposed state added questions and implement them into the BRFSS questionnaire (August-December 2015). Phase II consists of the large island-wide phone survey conducted by the BRFSS during year 2016 (January 2016 – December 2016). Phase III consist of conducting the statistical data analysis obtained from the previous phase and publishing the results (July 2017 –May2018 and after).

### **Phase I Pilot: Testing the New Questions (August – December 2015)**

Following BRFSS protocol, we plan to pilot these questions between August and September 2015 to make sure people understand them. We will interview at least 15 individuals of different socio-economic and demographic characteristics over the phone. BRFSS personnel will provide training on how to conduct these interviews according to BRFSS standards (see support letter in appendix). We will use a convenience sample of approximately 15 individuals of different socio-demographic characteristics to test the questions and make any changes, if necessary, to improve their comprehension. During this time (August – December 2015) UPR- Cayey will also be working on developing a Memorandum of Understanding (MOU) with the BRFSS to implement the state-added questions in January 2016. The MOU will be developed in collaboration with the RCMI Program of UPR- Ciencias Médicas, as they will share part of the costs associated to the state-added questions (find support letter by Dr. Emma Fernandez Repollet in appendix #3). They will also have access to the data obtained from this study.

### **Phase II. BRFSS Survey (January – December 2016)**

The BRFSS telephone health survey, consists of a 15-to-20-minute telephone interview of a sample of approximately 4,500 households with landline telephones and 1,500 cell phones for a total sample size of 6,000. The island is segmented into eight strata, corresponding to the eight Epidemiological Regions defined by the P.R. Health Department. Samples used in the BRFSS are probability samples in which all households with telephones have a known, nonzero chance of inclusion. For 2003-09, the response rate for the PR-BRFSS has fluctuated between 81.3% and 70.2%; thus, we expect 4,200 to 4,900 subjects for this analysis. To correct for biases due to non-response and coverage, the data is weighted using age and gender characteristics representative of the Puerto Rican population. As part of our collaboration and proposed subcontract agreement with the PR-BRFSS, their office will add 7 new questions to their official survey to test our hypothesis. These state-added questions will be asked after the standard questionnaire. Before asking these questions, BRFSS will offer a brief explanation about the survey. Questions to assess perceived racial discrimination and skin color will be the same for all people interviewed. It takes BRFSS staff a full natural year (January 2016-December 2016) to complete all phone interviews and an additional six months (January – July 2017) to gather, organize and weight the data. *Data will be ready for analysis after July 2017.*

### **Phase III. Data Analysis (July 2017- June 2018)**

We will receive data-sets for all survey questions (the standard and state added) from the BRFSS by July 2017 (see support letter). The PI will rely on the statistical expertise of Co-PI José Caraballo Cueto to analyze the data. In the fall of 2017-2018, after the data-set is organized and verified, we will begin to address our two primary research objectives:

**Objective 1:** To determine if **socio-economic differences** are more significant when comparing participants based on the skin color variable; than when comparing participants using the standard OMB racial categories, after controlling for various factors including ethnic affiliation.

**Objective 2:** To determine if differences in **health outcomes** are more significant when comparing participants based on the skin color variable; than when using the standard OMB racial categories, after controlling for various factors including ethnic affiliation.

**Analysis:** To address these two objectives, we will adapt standard methods used to track race discrimination as discussed in the literature. One of the empirical models in the related literature was developed in seminal papers from Blinder (1973) and Oaxaca (1973), with further elaboration in Oaxaca and Ransom (1999). In this tradition, discrimination was approximated by the differences in the returns to income. First, we will follow this tradition by comparing the returns to income and to health by using the OMB racial categories vis-à-vis the returns obtained for the same variables when we used the skin-color variable. In the case of income, our dependent variable (our approximation to income level) will be question 8.10 of the BRFSS questionnaire where income is reported in brackets (income groups) (please find question 8.10 in appendix #7: pg.18). In the case of health, our dependent variable will be the accumulated sum of affirmative answers to questions included in Section 7 of the BRFSS questionnaire, which contain 12 questions related to diagnosed chronic conditions, including heart problems, diabetes and depression (see section 7 in appendix #7: pg.11-14). Here we will compare the propensity to have such conditions using OMB racial categories and our skin color variable.

If we better observe health or income differences by using our skin color measurement but not by using the OMB racial categories, then our categories will stand as a better approach and we will also confirm the hypothesis of the related literature regarding the sub-optimality of the OMB racial categories for Latinos. On the other hand, if income or health differences show similar results with the OMB categories and the skin color measurements, then we will discard the well-accepted hypothesis that the OMB racial categories are not appropriate for Latinos. Thus, our project is highly relevant, either by accepting the OMB racial categories or by proposing a new approach that can better quantify the effects of racial differences.

The previous method can be further improved by taking full consideration of the well-known omitted variable bias. This is necessary to prevent the model from incorrectly compensating for the omitted variable by underestimating or overstating the effect of the considered factors. To avoid this situation, inclusion of control variables are needed. Thus, as a second step, we will expand the Mincer's equation (Rosen, 1992) that is widely applied in many papers (Altonji & Blank, 1999; Rivera Batiz, 1999), to include more control variables and isolate the effect of discrimination (as measured by skin color and by OMB racial categories) on health and income. Our control variables will be the standard in the related literature: age, education, work experience, and marital status, among others.

A third step will then be the application of a state-of-the-art technique called Propensity Score Matching (PSM). PSM is a nonparametric estimation where a set of characteristics is created, assuming that they are exogenous. The approach in this method is to mimic experimental studies, where the units of study are transformed so that they only differ in race or skin color (Imbens, 2004; Moffitt, 2004). In other words, for this method we will construct sets of individuals with similar characteristics and different skin color classifications, and compare their health and income status. These characteristics are the covariates (controls). One of the advantages of this model is that the PSM can handle a large number of covariates. Further robustness checks will be done with a cumulative logic regression (for more details see Agresti, 2002).

After the research team has collected and organized the BRFSS data (August – October 2016) we will prepare corresponding tables and statistical analyses related to step 1 and 2 during the academic year. We will create a brief summary of the preliminary results obtained at this stage, which can serve as the basis for future dissemination activities (see publication plans). During the second semester (Jan- March 2018) the team will continue in the elaboration of the

three steps of statistical analysis to determine whether income and health differences are better observed with the skin color measurements or not.

We predict that our results still will be conservative since there is evidence of a tendency among Puerto Ricans' to whiten themselves in these types of questionnaires (Vargas Ramos, 2005; Duany, 2002; Loveman, 2008). Nevertheless, the three steps of statistical analysis will serve as our robustness checks. If the data consistently show (in two or more steps of statistical analysis) income or health differences with our skin color measurements, then we will find empirical support that our racial measurements are optimal. Thus, by letting the data “speak” we will be able to reject or accept the OMB racial categories.

Data analysis will be conducted at the Institute of Interdisciplinary Research (IIR). Researchers and RA will use statistical software available at the Computer Research Laboratory located at the IIR (e.g., SPSS, Excel, among others). After analysis are done, the team will prepare a technical report between April and May 2018 to address both of the main objectives, with corresponding tables, statistical analyses, critical assessment and recommendations that will serve as the basis for a peer-reviewed publication (see dissemination plan).

### **FUTURE DIRECTIONS**

Findings from this research and the variety of state-added questions included in our survey can support the development of future research on the relationship between skin-color, discrimination, and health. If we determine from this research that a skin-color measurement is more effective than the OMB racial categories, we can further analyze the data obtained from the BRFSS study to pursue the following objectives related to measures of perceived discrimination.

Future research objectives can include:

**Objective 3.** To determine if differences in self-perceived measurements of discrimination are more significant when comparing participants based on the skin color variable; than when

comparing participants based on their ethnic affiliation (especially Cubans, Dominicans and Puerto Ricans)

**Objective 4.** To determine if there are significant differences in self-perceived measurements of discrimination when comparing dark-skinned participants of different ethnic affiliations (e.g., dark-skinned Puerto Ricans vs dark-skinned Cubans and dark-skinned Dominicans)

To explore these objectives we will use descriptive statistics to compare the incidence of perceived discrimination among participants. For example, to address objective 3 we will compare the share of self-perceived discrimination reported by Dominicans vis-à-vis the share reported by dark-skinned individuals *regardless of ethnic group*. This would indicate which factor is more relevant for self-perceived discrimination: ethnic affiliation or racial appearance. If tests reveal that there are significant differences among dark-skinned individuals *regardless of ethnic group* future analysis can correlate health outcomes typically associated with discrimination (hypertension, depression, substance abuse, low birth weight, etc.) to dark-skinned populations and compare those to outcomes organized by ethnic group affiliation. In other words, we can assess what happens when we correlate health outcomes typically associated with discrimination to the most salient factor (ethnic affiliation or racial appearance).

To address objective 4 we will evaluate the differences in the share of perceived discrimination among dark skin individuals of different ethnic groups to determine if dark-skinned individuals from a particular ethnic group are suffering greater discrimination. A simple hypothesis test will be conducted to reject or accept the null hypothesis that these two proportions are not different. In other words, the null hypothesis is: among the dark-skinned population, no ethnic group is suffering greater discrimination. If tests reveal that there are significant differences among dark-skinned individuals of different ethnic groups, future analysis can correlate health outcomes typically associated with discrimination to those ethnic groups among the dark-skinned population that report the highest share of perceived discrimination.

These analyses can be further developed with more qualitative and in-depth measurements using data available via the BRFSS study such as respondents' area-code. With this information we can examine the relationship between residential patterns, racial appearance and health outcomes. Potential future activities can include field - research in specific geographic areas that present out of the ordinary results. Another future research activity could also entail extending our measurement approach to the United States, especially in states that hold a large Latino Populations, to compare results with Puerto Rico. All these possibilities can be further elaborated into research proposals submitted to external funding agencies such as the NIH, NSF, The US Department of Labor or the US Census Bureau.

### **STUDENTS**

After the research team receives the data from the BRFSS in July 2017, we will hire a research assistant of the UPR at Cayey to help with the familiarization and organization of the BRFSS dataset. Datasets of this type are large and need to be organized in an understandable format before they can be imported into the statistical software. This will be a valuable practical experience for the student since s/he can learn how to work and manipulate a large data set in the statistical software (e.g., R, Stata, Excel, SPSS or Eviews). This RA can also create a manual for other users that may be interested in this data and would like to collaborate with future analysis. The RA would also help with the process of entering and obtaining accurate data from the statistical software. This student should have a minimum of a background in statistics. The researchers will work directly with this RA on a weekly basis.

### **PUBLICATION AND DISSEMINATION PLAN**

Findings from this research will yield recommendations that can help the BRFSS and other federal agencies such as the Census, the Equal Employment Opportunity Commission (EEOC), and the Department of Education since all have already encountered serious difficulties

in the implementation of federal policies that use OMB racial categories to collect demographic data in Puerto Rico. We will make special efforts to contact local representatives from these federal agencies to share preliminary findings and keep them updated as the research progresses during academic year of 2017-2018. The reach and scope of these efforts will be enhanced by the IIR's membership in the Census Information Center Network, as UPR- Cayey has the only active Census Information Center (CIC) in Puerto Rico. We also plan to publish preliminary findings at the IIR UPR-Cayey website and in our Technical Report Series *Cuadernos* before August 2018.

Student RAs will also be encouraged to write research reports and present their findings at local and U.S.-based conferences and poster sessions. Professional conferences such as SACNAS, the Applied Anthropological Society (AAS), and the National Association of Ethnic Studies (NAES) will be important venues of dissemination. Smaller conferences such as the Puerto Rican Studies Association (PRSA) Meetings will allow us to have more targeted discussions and refine our analysis. By the academic year 2018-2019 we expect to have at least 2 peer-reviewed submissions. Due to the interdisciplinary nature of this research, articles can be published in statistics, public policy or public health journals.

### **PROPOSED TIME- LINE**

<b>Period</b>	<b>Task</b>
August 2015	Pilot testing of the seven new questions.
September 2015	Analysis of pilot results and questionnaire revisions
October 2015	Signing of MOU between UPR- C and Puerto Rico BRFSS
November- December 2015	Money transfer to BRFSS
January – December 2016	Implementation of BRFSS Survey
January – June 2017	BRFSS collects and organizes data
July 2017	BRFSS delivers data sets of 2016 survey to UPR- Cayey
August - October 2017	Organizing BRFSS Data-Sets
November - December 2017	Start analysis of research objectives (steps 1 and 2)
January 2018- March 2018	Analysis of research objectives (step 3) & Grant submission
April – May 2018	Writing up results & Technical Reports / Grant submission
Summer and Academic year 2018-2019	Peer-review publications / Future Research Directions/ Grant submission

## BUDGET

We are requesting a total of \$9,000 from the FIDI Program for the 2015-2016 academic year. This is to cover the cost of three (3) of the proposed seven (7) state- added BRFSS questions.

TABLE 1		
Items	Cost	Funding Source
<b>1. 3 BRFSS questions</b>	<b>9,000</b>	<b>FIDI 2015</b>
2. 3 BRFSS questions	9,000	CCRHD UPR- RCM
3. 1 BRFSS question	3,000	III
4. Research Assistant. 10hr. / week for 2 semesters	2,950	FIDI 2017

The total estimated cost for this long- term project is \$ 23,950 (see table 1), which is to be divided among three different funding sources (see table). **Investigators are requesting \$9,000 from the FIDI Program to defray cost associated to adding three questions to the BRFSS 2016 survey.** The remaining costs (for the four additional questions) will be covered by the Institute of Interdisciplinary Research (\$3,000) and by the Center for Collaborative Research in Health Disparities of the Medical Science Campus (\$9, 000).

1. The cost for the first 3 state-added questions are calculated according to BRFSS standard rate of 3,000 per question, for a total of 9,000.
2. The Center for Collaborative Research in Health Disparities of the Medical Science Campus has agreed to contribute \$9, 000 to cover the costs associated to adding three additional questions to the BRFSS Surrey. Funds will be allocated to the IIR accounts pending approval of this proposal by the FIDI program (see support letter from Dr. Emma Fernández-Repollet included).
3. The Institute of Interdisciplinary Research ( Instituto) will contribute 3,000 to defray costs associated to the BRFSS Surrey and the state-added questions (see support letter from Vionex Marti in appendix 4).
4. Funds necessary to contract a Research Assistant (RA) will not be needed until August 2017. If this proposal is funded, researchers will submit a future follow-up proposal to the FIDI Program in 2017 to hire a RA who can dedicate 10 hrs per week for two semesters to the project. If no funds are allocated through FIDI in 2017, the researchers will identify other means to finance this budget item.

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## **APPENDIX 1: Proposed BRFSS State-Added Questions.**

En esta sección le preguntaremos sobre cómo usted siente que es tratado en Puerto Rico.

### **1. ¿Alguna vez, ha sentido que en su trabajo lo han tratado de manera injusta?**

1. Muchas veces o frecuentemente
2. A veces
3. Pocas veces
4. Nunca

Si la persona contesta pocas 1,2, o 3. preguntar

### **2. ¿Cuál piensa que fue la razón principal de esa experiencia?**

1. Su ascendencia u origen nacional
2. Su sexo
3. Su apariencia racial o color de piel
4. Su edad
5. Su religión
6. Su altura o peso
7. Su preferencia sexual
8. Su educación o nivel de ingresos
9. Un impedimento físico
10. Su partido o afiliación política
11. Otra razón

### **3. ¿Alguna vez ha sentido que al solicitar asistencia médica lo han tratado de manera injusta?**

1. Muchas veces o Frecuentemente
2. A veces
3. Pocas veces
4. Nunca

Si la persona contesta pocas 1,2, o 3.. preguntar

### **4. ¿Cuál piensas que fue la razón principal de esta experiencia?**

1. Su ascendencia u origen nacional
2. Su sexo
3. Su apariencia racial o color de piel
4. Su edad
5. Su religión
6. Su altura o peso
7. Su preferencia sexual
8. Su educación o nivel de ingresos
9. Un impedimento o incapacidad física
10. Su partido o afiliación política
11. Otra razón

### **5. ¿Alguna vez ha experimentado discriminación , no se le ha permitido hacer algo, se le ha molestado o hecho sentir inferior debido a su raza o color de piel?**

1. Muchas veces o frecuentemente
2. A veces
3. Pocas veces
4. Nunca

**6. ¿ Cómo describiría usted su color de piel, utilizando una escala del 1 al 6 donde 1 es la tonalidad más clara y 6 la tonalidad más oscura de piel?:**

1. \_\_\_\_ 2. \_\_\_\_ 3. \_\_\_\_ 4. \_\_\_\_ 5. \_\_\_\_ 6. \_\_\_\_

**7. ¿Es usted...?**

1. Puertorriqueño
2. Cubano
3. Dominicano
4. Mexicano
5. Colombiano
6. Otro