Supplement: Developmental work to assess emerging content

The National Health Interview Survey (NHIS) uses nonsubstantive change requests for OMB to approve annual changes to the survey that involve content that have been previously asked on the survey or enhance existing content. The nonsubstantive change request can also include emerging content for developmental purposes (that is, content being tested for possible inclusion in future years). For the 2023 NHIS, this includes content on discrimination and difficulty paying housing related bills. This supplement describes the background and developmental activities related to this content.

Discrimination

In April 2021, the CDC Director declared that "racism is a serious public health threat that directly affects the well-being of millions of Americans." Discrimination is one form of racism that contributes to health disparities across racial and ethnic groups. When experiences of discrimination are chronic, ongoing, or frequent experiences, ruminative or anticipatory stress around experiencing discrimination has been shown to activate a biological stress response. Meta-analyses and systematic reviews have shown consistent associations between discrimination and the stress-related biomarkers of inflammatory response (Cuevas et al. 2020; Lawrence et al. 2022), and consistent associations between discrimination and a wide range of self-reported physical and mental health outcomes (Paradies 2006; Williams et al. 2019; Williams and Mohammed 2009). Furthermore, there is a dose-response relationship between reporting more experiences with discrimination and health outcomes (Lewis et al. 2011; Michaels et al. 2019; Williams, Lawrence and Davis 2019). Furthermore, chronic everyday discrimination is a stronger predictor of negative health outcomes than acute experiences of discrimination.

The NCHS Board of Scientific Counselors tasked a workgroup to make considerations and assessment of measures of discrimination for NCHS surveys. The workgroup concluded that including discrimination measures on NCHS surveys was an achievable goal that would make a variety of contributions. Discrimination measures are not currently included on a regular basis on any national representative benchmark study, thus, collecting nationally representative data on discrimination is an important role for NCHS to play in research and surveillance.

The workgroup's findings were formally recommended by the Board at the BSC meeting on October 24, 2022. Based on those findings, the BSC recommended that NCHS include measures of discrimination in the NHIS and other NCHS surveys, based on question evaluation and testing, amount of time available in each survey, and review of the literature. Inclusion of measures of discrimination on NHIS will allow researchers and the public health community to evaluate how discrimination is related to a broad range of health outcomes in national samples and for subgroups of interest.

In addition, discrimination, including interpersonal racism, shapes individuals' experiences of everyday life, leading to a state of anticipatory stress and vigilance during social interactions (Goosby, Cheadle and Mitchell 2018; Lewis, Cogburn and Williams 2015). The BSC also recommended that NCHS include measures of anticipatory stress and heightened vigilance in the NHIS and other NCHS surveys, based on question evaluation and testing, amount of time available in each survey, and review of the literature. Inclusion of these measures will allow researchers to understand the process by which experiences of racism and discrimination more generally manifest in physiological effects (Goosby, Cheadle and Mitchell 2018). Additionally, vigilance may lead some subgroups to perceive experiences as discrimination more often than others, leading to different levels of reports of experiences of

discrimination (and possibly variation in psychometric properties of discrimination scales) (Gaston and Jackson 2021).

As a result of these recommendations, the 2023 NHIS is proposing to include survey questions from the Everyday Discrimination Scale (EDS; Williams et al., 1997) and Heightened Vigilance Scale (HVS) on an experimental basis to conduct some of the developmental work recommended by the BSC for question evaluation and testing. These measures were developed over 25 years ago and have been widely used for research and surveillance (e.g., American Psychological Association, 2016). But to our knowledge, they have not been used or validated (e.g., with psychometric analyses) in a probability-based interviewer-administered survey with adults of all ages.

The BSC workgroup posed methodological considerations for NCHS surveys when asking discrimination related questions. Some of the recommendations were to conduct more research to better understand whether existing measures of discrimination reflect experiences of unfair treatment for individuals who have varying combinations of social identities or better understand how different subgroups understand the survey questions. Concurrent with the 2023 NHIS data collection, the NCHS Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER) will also conduct cognitive interviewers with a diverse group of respondents using qualitative methods to understand and describe how different groups answer the items in the EDS and HVS.

Other research questions posed by the workgroup were related to how the mode of survey administration affects how respondents answer discrimination-related survey questions. These research questions are best answered with quantitative survey data. Studies have shown that there are differences in perceptions of discrimination towards different social groups across self-administered and interviewer-administered modes of administration (Hou and Schimmele 2022; Keeter et al., 2015). Research on race-of-interviewer effects has shown that Black respondents may be less willing to share their true racial beliefs and experienced with White interviewers (Krysan & Couper, 2003; Williams, 2016). As an interviewer-administered survey, these findings suggest some important areas of methodological research with discrimination questions on the NHIS.

Experimental inclusion of the EDS and HVS questions on the 2023 NHIS will allow for some of the following research questions to be addressed from the survey data:

- 1. Do respondents find the questions sensitive and refuse to answer the questions at a high rate?
- 2. Do interviewers find the questions sensitive and not read the questions?
- 3. Do the interviewers effect the answers given by respondents?
 - a. To what extent are responses clustered by interviewer?
 - b. Does the race of the interviewer affect the respondents' willingness to report discrimination?
- 4. What are the psychometric properties of the questions on an interviewer administered survey like the NHIS?

The goal for the 2023 NHIS is to address as many of these research questions as possible to understand how the EDS and HVS questions work on an interviewer administered survey like the NHIS. This research will inform decisions to include discrimination measures like the EDS and HVS on future administrations of the NHIS.

Difficulty paying housing related bills

Social determinants of health (SDOH) are conditions in the places where people live, learn, work, and play that affect a wide range of health and quality-of life-risks and outcomes. Economic stability is a key area in the Healthy People 2030 place-based framework for SDOH (Centers for Disease Control and Preventation). The NHIS includes measures of SDOH such as poverty, employment, and food security that address economic stability. Housing insecurity is an additional measure of economic stability that is important for the SDOH framework. There is a long-term research program being conducted by the Department of Housing and Urban Development to develop a measure of housing insecurity for federal surveys (Bucholz, 2018).

While a validated measure of housing insecurity is being developed for federal surveys, the 2023 NHIS is including a question on difficulty paying mortgage, rent, or utility bills. This question has been fielded as part of the 2017 and 2022 BRFSS optional social determinants of health module and a similar item is fielded on the US Census Bureau Household Pulse Survey. This question is not a full measure of housing insecurity, but rather measures one aspect of housing-related economic instability. The 2023 NHIS will be used to assess the association between difficulty paying mortgage, rent, or utility bills and various health outcomes.

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