Recommendation from US-Based Epidemiologists on the Centers for Disease Control and Prevention's Data Collection on Sexual Behavior through the National Health and Nutrition Examination Survey (NHANES)

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Agency: Centers for Disease Control and Prevention, Department of Health and Human Services **Project:** Developmental/Methodologic Projects to Improve the National Health and Nutrition Examination Survey and Related Programs

Dear Dr. Jeffrey M. Zirger,

Thank you for the opportunity to comment on the Developmental/Methodologic Projects to Improve the National Health and Nutrition Examination Survey and Related Programs. The comment below is submitted on behalf of the undersigned epidemiologists, who are dedicated to research related to sexual health, including but not limited to research on HIV, STIs, sexual behavior, and more. Please note that our listed affiliations are not meant to suggest institutional endorsement or support, but instead serve as identification purposes only. The comments are the views only of the authors themselves.

As stated in the aforementioned call for public comment and recommendations, it is clear the Office of Management and Budget is committed to ensuring that the information collected through NHANES is of both quality and utility. Though we commend current efforts by NHANES to explore topics in sexual behavior, we believe that the NHANES questionnaire on sexual behavior is at odds with NHANES' role in understanding the health care needs of the aging population in the United States.

As you are aware, the NHANES sexual behavior questionnaire targets males and females aged 14 to 69 years old, yet some questions are explicitly only targeted at those aged 18 to 59 years. Specifically, all questions requesting information about sexual behaviors in the past 12 months are only targeted those aged 18 to 59 years old. NHANES collects a wealth of other health-related data, and oversamples those who are 60 and over, offering a unique opportunity to learn from this representative sample of US residents about their sexual behavior. **The omission of key sexual metrics from this data collection is a significant missed opportunity that would be easily rectified.** We limit our ability to study health's impact on sexual activity – and vice versa – in aging populations if we stop asking questions about one's sexual behavior in the last year to people older than 59 years of age.

Thus, in order for CDC to reach its goal of contributing to knowledge related to the health of aging Americans, it is imperative for the NHANES sexual behavior questionnaire to extend the target age range for sexual behavior questions related to sexual activity in the last 12 months to those older than 59 years of age.

The United States is undergoing a demographic shift towards an aging population, with the number of elderly adults growing over the coming years. Alongside changes in both life expectancy and social attitudes around sex, there is a growing population of people who will be sexually active for more years of their lives. Importantly, there are numerous ways that sexual behavior and health are connected. Sexual activity in older adults can be linked to improved quality of life, enjoyment, satisfaction, and even has the potential to lower the risk of chronic conditions. However, health can also impact sexual behavior, in such that having a health condition can impede one's ability to engage in desired activities. This is especially true for older adults as chronic conditions, vaginal dryness, menopause, erectile dysfunction, pain, depression, and other factors might interfere with sexual activity and pleasure. However, health can also impact sexual activity and pleasure.

Unfortunately, it has been reported that most older adults do not discuss sex with their healthcare provider and that older adults feel dissatisfied with healthcare services in this area. ^{10,14} Many physicians view sexual activity for older adults as a biomedical issue, instead of viewing sexuality additionally from a psychosocial perspective. ¹⁵ With the complexities of aging and illness, this presents an area where health services need improvement for older adults.

However, most research on sexual health focuses on adolescents and young-to-middle-aged adults, given the interest in reproductive ages, family planning, and risk for sexually transmitted infections and HIV.¹⁶ Moreover, troublesome myths of asexuality in older adults leads to a paucity of research focusing on the sexual behaviors of older adults, especially those 50 and over.^{5,17-20} Lack of publicly available information about sexual behaviors among older individuals limits the development of appropriate interventions to prevent acquisition of STIs, HIV, and hepatitis; it also limits our ability to examine correlates of health, healthy aging, and resilience that may include sexual behavior. Research that focuses on the sexual health of aging adults is essential, as sexual behavior data can help us monitor trends in HIV and STIs amongst this group, along with other health outcomes related to sex. Development of socio-behavioral research that may inform methods of maintaining healthy sexual lives while aging is daunted by lack of research on current behaviors in the general population.

It is paramount that healthcare providers understand the sexual behaviors of populations to properly provide information and care. Thus, obtaining accurate sexual health data for aging adults remains a priority, as older and aging adults need access to evidence-based care supported by accurate and up-to-date information that avoids ignorance or misunderstanding the sexuality of aging adults. Given that general health-focused nationally representative surveys often do not probe into sexual health or do not provide sexual health questionnaires to aging peoples, we would like to underscore that NHANES could be utilized to help fill considerable gaps in knowledge on this topic.

To be sure, other surveys have asked questions to older adults about their sexual behavior. Consider the National Survey of Sexual Health and Behavior (NSSHB) from the

University of Indiana, which is a multi-wave survey using a nationally representative sample of Americans. This survey has indeed demonstrated the fact that aging people do engage in sexual activity. For instance, the 2009 NSSHB data show that 53.6%, 46.2%, and 35.5% of those aged 60 to 69, 70 to 79, and 80 and up, respectively, report having penile-vaginal intercourse in the last year. ⁵

However, in our own independent research, we explored if sexual behavior in adults aged 50 and over from NHANES data would be comparable to data from a survey focused on sexual behavior, like NSSHB, and we have found differences between the data sources. When we examined data from 2009-2010, both NHANES and NSSHB show that many adults aged 50 to 59 were having sex. **However, the frequency of people reporting these sexual acts was found to be somewhat different.** This suggest that inclusion of sexual behavior reporting among adults of all ages in the NHANES methodology would be highly beneficial; reliance on a specialized survey of NSSHB may not be enough to inform development of strategies to promote health among aging Americans.

Due to NHANES and NSSHB survey differences, we focused our comparison on past year penile-vaginal sex, as that variable most closely matched between the two surveys. Only about 58% of the men aged 50 to 59 in NSSHB reported having penile-vaginal sex in the last 12 months, where about 71% of the men aged 50 to 59 in NHANES reported engaging in this activity.⁵ A similar pattern holds for women aged 50 to 59 as well, as 51% of women aged 50 to 59 in NSSHB reported having penile-vaginal sex in the last 12 months, while approximately 59% of the women aged 50 to 59 in NHANES reported engaging in this activity.⁵ Though it is impossible to infer specifically what differences, methodological or not, drive the variation in findings between NHANES and NSSHB, our study gave us confidence that NHANES – with its myriad of strengths – should use its existing infrastructure and expand its target for the sexual behavior questionnaire to include the aging population of those aged 60 and up when asking about sexual activity in the last 12 months.

In sum, we strongly recommend that NHANES remove the skip criteria in the sexual health questionnaire in order to allow older adults, specifically those aged 60 and up, to provide current information about their sexual activity in the last 12 months. We are grateful for the opportunity to present a public comment for this project. Thank you in advance for your time and consideration. If you have any questions or require additional information, please do not hesitate to contact us at k.hill@yale.edu. Please see our reference list below for pertinent literature.

Sincerely,

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References

- 1. Waite LJ. The demographic faces of the elderly. *Population and development review*. 2004;30:3-16. https://pubmed.ncbi.nlm.nih.gov/pmc/articles/PMC2614322/.
- 2. Crimmins EM. Lifespan and healthspan: Past, present, and promise. *Gerontologist*. 2015;55(6):901-911. https://pubmed.ncbi.nlm.nih.gov/pmc/articles/PMC4861644/. doi: 10.1093/geront/gnv130.
- 3. DeLamater J, Moorman SM. Sexual behavior in later life. *J Aging Health*. 2007;19(6):921-945. doi: 10.1177/0898264307308342.
- 4. Bancroft JH. Sex and aging. N Engl J Med. 2007;357(8):820-822. doi: 357/8/820 [pii].
- 5. Schick V, Herbenick D, Reece M, et al. Sexual behaviors, condom use, and sexual health of americans over 50: Implications for sexual health promotion for older adults. *J Sex Med*. 2010;7 Suppl 5:315-329. doi: 10.1111/j.1743-6109.2010.02013.x [doi].
- 6. Smith L, Yang L, Veronese N, Soysal P, Stubbs B, Jackson SE. Sexual activity is associated with greater enjoyment of life in older adults. *Sexual medicine*. 2019;7(1):11-18. https://pubmed.ncbi.nlm.nih.gov/30554952
 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6377384/. doi: 10.1016/j.esxm.2018.11.001.
- 7. Skałacka K, Gerymski R. Sexual activity and life satisfaction in older adults. *Psychogeriatrics*. 2019;19(3):195-201. doi: 10.1111/psyg.12381 [doi].

- 8. Liu H, Waite LJ, Shen S, Wang DH. Is sex good for your health? A national study on partnered sexuality and cardiovascular risk among older men and women. *J Health Soc Behav*. 2016;57(3):276-296. https://pubmed.ncbi.nlm.nih.gov/27601406
 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5052677/. doi: 10.1177/0022146516661597.
- 9. Erens B, Mitchell KR, Gibson L, et al. Health status, sexual activity and satisfaction among older people in britain: A mixed methods study. *PloS one*. 2019;14(3):e0213835. https://pubmed.ncbi.nlm.nih.gov/30917152
 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6436725/. doi: 10.1371/journal.pone.0213835.
- 10. Lindau ST, Schumm LP, Laumann EO, Levinson W, O'Muircheartaigh CA, Waite LJ. A study of sexuality and health among older adults in the united states. *N Engl J Med*. 2007;357(8):762-774. Accessed Jul 28, 2021. doi: 10.1056/NEJMoa067423.
- 11. Merghati-Khoei E, Pirak A, Yazdkhasti M, Rezasoltani P. Sexuality and elderly with chronic diseases: A review of the existing literature. *J Res Med Sci.* 2016;21. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5348839/. Accessed Jul 28, 2021. doi: 10.4103/1735-1995.196618.
- 12. Mulligan T, Retchin SM, Chinchilli VM, Bettinger CB. The role of aging and chronic disease in sexual dysfunction. *J Am Geriatr Soc.* 1988;36(6):520-524. Accessed Jul 28, 2021. doi: 10.1111/j.1532-5415.1988.tb04022.x.
- 13. Jackson SE, Firth J, Veronese N, et al. Decline in sexuality and wellbeing in older adults: A population-based study. *J Affect Disord*. 2019;245:912-917. Accessed Jul 28, 2021. doi: 10.1016/j.jad.2018.11.091.

- 14. Bauer M, Haesler E, Fetherstonhaugh D. Let's talk about sex: Older people's views on the recognition of sexuality and sexual health in the health-care setting. *Health expectations : an international journal of public participation in health care and health policy*. 2016;19(6):1237-1250. https://onlinelibrary.wiley.com/doi/abs/10.1111/hex.12418. doi: 10.1111/hex.12418.
- 15. Gewirtz-Meydan A, Levkovich I, Mock M, Gur U, Karkabi K, Ayalon L. Sex for seniors: How physicians discuss older adult's sexuality. *Israel Journal of Health Policy Research*. 2020;9(1):8. https://doi.org/10.1186/s13584-020-00366-5. doi: 10.1186/s13584-020-00366-5.
- 16. Heidari S. Sexuality and older people: A neglected issue. *Reprod Health Matters*. 2016;24(48):1-5. https://doi.org/10.1016/j.rhm.2016.11.011. doi: 10.1016/j.rhm.2016.11.011.
- 17. Drench ME, Losee RH. Sexuality and sexual capacities of elderly people. *Rehabil Nurs*. 1996;21(3):118-123. doi: 10.1002/j.2048-7940.1996.tb01689.x [doi].
- 18. Morton L. Sexuality in the older adult. *Prim Care*. 2017;44(3):429-438. doi: S0095-4543(17)30054-4 [pii].
- 19. Pilowsky DJ, Wu L. Sexual risk behaviors and HIV risk among americans aged 50 years or older: A review. *Subst Abuse Rehabil*. 2015;6:51-60.

 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4410899/. Accessed Jul 28, 2021. doi:

20. Ricoy-Cano AJ, Obrero-Gaitán E, Caravaca-Sánchez F, Fuente-Robles YMDL. Factors conditioning sexual behavior in older adults: A systematic review of qualitative studies. *J Clin*

10.2147/SAR.S78808.

Med. 2020;9(6). https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7356633/. Accessed Jul 28, 2021. doi: 10.3390/jcm9061716.

- 21. Fredriksen-Goldsen K, Kim H. Count me in: Response to sexual orientation measures among older adults. *Res Aging*. 2015;37(5):464-480. https://pubmed.ncbi.nlm.nih.gov/25651579 https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4363045/. doi: 10.1177/0164027514542109.
- 22. Fredriksen-Goldsen K, Kim H. The science of conducting research with LGBT older adults-an introduction to aging with pride: National health, aging, and sexuality/gender study (NHAS). *Gerontologist*. 2017;57:S1-S14. https://pubmed.ncbi.nlm.nih.gov/pmc/articles/PMC5241759/. doi: 10.1093/geront/gnw212.