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Reply to “Trends in responses to DHS questions should not be interpreted as reflecting an increase in ‘anticipated stigma’ in Africa”

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To the editor

We thank Cordes and colleagues for their thoughtful comments and are grateful that their insights are elevating the science of stigma intervention and measurement more generally.¹

The main problem with the survey item that we believe elicits the construct of anticipated stigma is that survey respondents may interpret it in a way that is not consistent with the construct of anticipated stigma. On this point, we are in agreement with Cordes and colleagues. In our view, there are two likely scenarios: (1) the survey item does not measure anticipated stigma at all, but instead measures a different construct; or (2) the survey item measures anticipated stigma with error. On its face, the suggestion that the survey item is completely uninformative seems to be a less likely possibility. In the Tanzanian study cited by Cordes and colleagues,² more than half of respondents who endorsed wanting a family member’s seropositivity to remain secret expressed concerns about the family member being “neglected, isolated, and avoided.” Conversely, of those who did not, only one-fourth cited the desire to protect others in the community whereas nearly two-thirds stated that they were motivated by the desire for that family member to receive appropriate support. These data suggest that a majority of respondents interpreted the survey item in a way that is at least partially consistent with the construct of anticipated stigma. As the measure is an approximation, the nature of any potential measurement error should determine our level of concern about using it in a study of time trends. If the extent to which respondents misinterpret the survey item has systematically changed over time, we would expect bias (either upward or downward) in the estimated regression coefficient associated with the year variable. But we cannot provide a plausible scenario that could explain such a result. Instead, we believe it is more likely that the measurement error is random, in which case we would expect our estimates of the association between anticipated stigma and the year variable to be biased toward the null.

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We agree with Cordes and colleagues that survey respondents could have misinterpreted the question, “If a member of your family became sick with AIDS, would you be willing to care for her or him in your own household?” This particular survey item is probably the least informative of the three social distance outcomes. Few survey respondents actually responded in the negative (likely reflecting social desirability), so we would not have expected that misinterpretations of this question could have driven our findings based on the composite social distance outcome. To address this concern, we fitted multivariable regression models alternately specifying each of the three social distance measures as the dependent variable. We estimated statistically significant downward time trends for each of the social distance outcomes (Table). The magnitudes of the coefficient estimates imply a 4-6% reduction per year, depending on the outcome and relative to its baseline value, in desires for social distance across sub-Saharan Africa.

Finally, we agree with Cordes and colleagues that there is a pressing need for better measures of anticipated stigma in general population samples,³ as well as for more frequent integration of measures of enacted stigma into ongoing HIV cohorts so that we can better understand the experiences of PLHIV. While it is commonly thought that scaled-up HIV prevention and treatment activities may act as anti-stigma interventions in themselves, an increasing number of studies suggest that they alone will not be sufficient to eliminate the stigma of HIV.⁴⁻⁶ We hope that findings from the next generation of studies will help the field better understand the science of stigma elimination and show the way forward.^{1,7}

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Table

Adjusted regression coefficients for the association between year and social distance outcomes

Social distance measure	Adjusted <i>b</i> (95% confidence interval)
Not willing to buy vegetables from person with AIDS virus	-0.015 (-0.021 to -0.009)
Teacher with AIDS virus should not be allowed to continue teaching	-0.019 (-0.025 to -0.013)
Not willing to care for family member with AIDS virus	-0.012 (-0.018 to -0.006)

Regression coefficients adjusted for age, gender, educational attainment, marital status, household asset wealth, employment status, and HIV knowledge. Information on the household asset index used in the DHS/AIS is available at <http://www.dhsprogram.com/topics/wealth-index/Index.cfm>