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Subject: Re: Calculating Sampling Errors at the State Level  
Posted by [Bridgette-DHS](#) on Wed, 02 Jan 2019 17:12:23 GMT  
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Please see the following response from our Senior Sampling Statistician, Ruilin Ren:

The SAS PROC SURVEYMEANS can calculate sampling errors for simple indicators such as means, proportions, and ratios. But it cannot calculate complex rates such as for the TFR, CMR and MMR. ICF developed SAS codes for the sampling errors presented in appendix B, which used the PROC SURVEYMEANS for simple indicators. For TFR, CMR and MMR, a special code was developed using Jackknife. Though the PROC SURVEYFREQ can also calculate sampling errors for proportions, but it is not used in the ICF's code for sampling errors. You can specify the variance estimation method in PROC SURVEYMEANS including Bootstrap and Jackknife, but again it is for simple indicators. ICF codes did not use replicate method for simple indicators.

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