
Subject: Madagascar 2021: representative at district level?

Posted by [anthony](#) on Wed, 09 Aug 2023 15:37:30 GMT

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I am interested in calculating results for households (e.g., wealth and other socio-economic characteristics, socio-demographic characteristics) and children (e.g., stunting, minimum acceptable diet) at the regional and district level for Madagascar using the 2021 DHS. I understand from general guidance that DHS are representative at the level of first administrative unit (region) and in some cases for the second administrative unit (which would be districts in Madagascar). I am trying to determine if results at the district level are representative for Madagascar.

The 2021 Madagascar DHS report mentions (translated from French) in Annex A, page 413, that "Before the draw of enumeration areas (EAs) the base file is sorted by district code, commune code and EA code within each sampling stratum and this leads, with a draw with probability proportional to the size at first degree of drawing, to an implicit stratification at district and commune level with a proportional allocation. This strengthened the representativeness of the sample drawn." I am not certain if the mention of implicit stratification at the district level is sufficient to conclude that the sample was intended to be representative at that level.

Do you have specific guidance on the representativeness of the Madagascar 2021 DHS at the district level for household and/or child level indicators of the type referenced above? Thank you in advance for any guidance.

Subject: Re: Madagascar 2021: representative at district level?

Posted by [Bridgette-DHS](#) on Tue, 15 Aug 2023 20:05:07 GMT

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Following is a response from DHS Lead Statistician, Ruilin Ren:

Unfortunately, the data from this survey are not representative at the district level. The Madagascar 2020 DHS was designed to be representative for the 22 regions, not the districts. There are in total 114 districts in Madagascar, and many of them include only 1 to 5 clusters. The reference to districts in the sample design document only means we have proportional allocation of the sample to districts to enhance the representativeness of the total sample, but this does not guarantee representative results at the district level. Moreover, there is no variable in the data file that identifies the districts.

Subject: Re: Madagascar 2021: representative at district level?

Posted by [anthony](#) on Fri, 18 Aug 2023 16:33:23 GMT

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Thank you very much for the explanation.

Subject: Re: Madagascar 2021: representative at district level?

Posted by [joegrange](#) on Wed, 06 Sep 2023 17:06:33 GMT

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Hello! I have a related question. Understanding that the Madagascar 2021 survey will not be representative at the district level, can you say whether you would expect results at the district level to be unbiased? In other words, as long as we are careful with sample limitations via standard errors, would a comparison across districts be valid?

The response in this thread seems related and encouraging but perhaps the survey methodology is different: https://userforum.dhsprogram.com/index.php?t=tree&goto=26960&&srch=representative#msg_26960

Thank you!

Subject: Re: Madagascar 2021: representative at district level?

Posted by [Bridgette-DHS](#) on Thu, 07 Sep 2023 12:30:33 GMT

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Following is a response from Senior DHS staff member, Tom Pullum:

Yes, the district-level estimates are unbiased. Caution is needed because of the high standard errors.
