
Subject: Confidence Interval for Median duration of abstinence

Posted by [alam.sayeef](#) on Fri, 07 Feb 2020 14:14:48 GMT

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I want to calculate the confidence interval of the median duration of postpartum abstinence. The variable is given in months (whole numbers).

Method 1: SUMMARIZE, detail

PROS - Calculation by category/strata is feasible.

CONS - the confidence interval so produced is not in decimal since data is not considered as normal.

SYNTAX

by por, sort: summarize m8, detail

OUTPUT

-> por = Urban

duration of abstinence				

Percentiles		Smallest		
1%	0	0		
5%	1	0		
10%	1	0	Obs	35,523
25%	2	0	Sum of Wgt.	35,523
50%	3		Mean	20.01053
		Largest	Std. Dev.	35.44062
75%	7	98		
90%	96	98	Variance	1256.038
95%	96	98	Skewness	1.670594
99%	96	98	Kurtosis	3.817338

-> por = Rural

duration of abstinence				

Percentiles		Smallest		
1%	0	0		
5%	1	0		
10%	1	0	Obs	116,567

25%	2	0	Sum of Wgt.	116,567
50%	3		Mean	20.76323
		Largest	Std. Dev.	36.31985
75%	7	98		
90%	96	98	Variance	1319.131
95%	96	98	Skewness	1.583656
99%	98	98	Kurtosis	3.531344

Method 2: TABSTAT

PROS - Calculation by category/strata is feasible.

CONS - the confidence interval so produced is not in decimal since data is not considered as normal.

SYNTAX

```
tabstat m8, stat(median) by(por)
```

OUTPUT

Summary for variables: m8

by categories of: por (Place of Residence)

por	p50
-----+-----	
Urban	3
Rural	3
-----+-----	
Total	3

Method 2: CENTILE

PROS - The ci produced is in the desired format due to the consideration of variable as normally distributed

CONS - Calculation by category/strata is not feasible.

SYNTAX

```
centile m8, n
```

OUTPUT

-- Normal, based on observed centiles --				
Variable	Obs	Percentile	Centile	[95% Conf. Interval]
-----+-----				
m8	152,090	50	3	2.743866 3.256134

Please let me know how to get ci in decimals (i.e. normally distributed) and also by category/strata
