

## Methodological quality assessment

**Supplementary file 1:** Methodological quality assessment of cross-sectional studies using modified Newcastle - Ottawa Scale (NOS)

First author	Criteria								
	Selection				Comparability		Outcome		Total score (10)
	Representativeness of the sample	Sample size	Non – responders	Ascertainment of exposure/risk factor	The study controls for the most important factor	The study control for any additional factor	Assessment of the outcome	Statistical test	
Balde N etal [44]	A*	B*	B*	A*	-	B*	A*	A*	7
El Saghier EO et al [22]	B*	B*	A*	A*	A*	-	A*	A*	7
Kemp T etal [38]	A*	A*	A*	A*	A*	-	A*	A*	7
Likata GMU etal [45]	A*	B*	B*	A*	-	B*	A*	A*	7
Lokrou A etal [46]	B*	B*	A*	A*	A*	-	A*	A*	7
Mutagaywa RK etal [48]	B*	A*	A*	B*	A*	A*	A*	A*	7
Olarinoye J etal [40]	A*	A*	A*	A*	A*	B*	A*	A*	7
Owiredu WK et al [18]	B*	B*	A*	A*	A*	-	A*	A*	7
Pasipanodya Ian etal [47]	A*	A*	-	A*	A*	-	A*	A*	6
Seid A et al. [42]	A*	A*	A*	B*	A*	A*	A*	A*	8
Ugwumba FO etal [41]	A*	B*	B*	A*	-	B*	A*	A*	7
Walle B	A*	A*	A*		B*	B*	A*	A*	6
Webb EM etal [39]	A*	A*	A*	A*	B*	B*	A*	A*	8

*Note: from each item account point. (Accept the study if total score  $\geq 5$ )*

**Selection:** (Maximum 5 stars)

1) Representativeness of the sample: a) Truly representative of the average in the target population. \* (all subjects or random sampling) .b) Somewhat representative of the average in the target population. \* (nonrandom sampling) .c) Selected group of users.d) No description of the sampling strategy.

2) Sample size:a) Justified and satisfactory. \*.b) Not justified.

3) Non-respondents: a) Comparability between respondents and non-respondents characteristics is established, and the response rate is satisfactory. \*.b) The response rate is unsatisfactory, or the comparability between respondents and non-respondents is unsatisfactory. c) No description of the response rate or the characteristics of the responders and the non-responders.

4) Ascertainment of the exposure (risk factor): a) validated measurement tool. \*\*.b) Non-validated measurement tool, but the tool is available or described.\* c) No description of the measurement tool.

**Comparability:** (Maximum 2 stars)

1) The subjects in different outcome groups are comparable, based on the study design or analysis. Confounding factors are controlled. a) The study controls for the most important factor (select one). \* b) The study control for any additional factor. \*

**Outcome:** (Maximum 3 stars)

1) Assessment of the outcome: a) Independent blind assessment. \*\*,b) Record linkage. \*\*,c) Self report. \*,d) No description.

2) Statistical test:a) The statistical test used to analyze the data is clearly described and appropriate, and the measurement of the association is presented, including confidence intervals and the probability level (p value). \*.b) The statistical test is not appropriate, not described or incomplete