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Supplementary file 1

Table S1: Selection of primary health facilities and health workers

LGA	Type of PHC	No. of PHCs	No. of PHC Required	No. of PHC Health Workers	Required No. of PHC Health Workers
CAL. MUNICIPAL	PHC & HEALTH POST	62	31	300	254
CAL. SOUTH	PHC & HEALTH POST	39	19	200	170
TOTAL		101	50	500	424

Required Sample size (Cal Mun) = $\underline{300 \times 424}$ = 254

$\qquad\qquad\qquad$ 500

Required Sample Size (Cal South): $\underline{200 \times 424}$=170

$\qquad\qquad\qquad$ 500

Table S2: Youth-friendly SRH Service Delivery Checklist (Health Facility and Programme Characteristics)

Variable	Frequency (n = 50)	Percentage (%)
Health Facility Characteristics		
Is the facility located near where young people, boys and girls congregate? (youth centre, school, market, playground)		
Yes	23	46
No	27	54
Are SRH services offered for free or at rates affordable for young people?		
Yes	3	6
No	47	94
Programme Characteristics		
Are referral mechanisms in place for transportation of adolescent pregnant girls with obstetric emergencies?		
Yes	45	90
No	5	10
Are there written guidelines for providing young services?		
Yes	16	32
No	34	68
Are SRH educational materials, including posters to reach young people, available in the facility?		
Yes	27	54
No	23	46
Do young people participate in the facility's operations, especially in delivering YFSRHS?		
Yes	2	4
No	48	96

Sample size determination

The sample size used for this study was calculated using Fisher's formula (1998) which is given as follows:

$n = Z^2PQ/d^2$

Where; n = desired minimum sample size

Z = The alpha level at 95% confidence limit = 1.96

P = Estimated proportion of prevalence of KAP = 54% =0.54 as cited by (Tomori, 2017)

Q = Estimated proportion of non-prevalence (1-P) = (1-0.54) = 0.46

D = Margin of error = 5% (0.05)

Substituting into the formula above we have that,

$n = (1.96)^2 \times 0.54 \times 0.46/(0.05)^2$

$n = 3.8416 \times 0.2484/0.0025$

$n = 0.95425/0.0025$

$n = 382$

To avoid bias, the sample size (n) was increased by 10% to account for the Non-Response Rate (NRR).

Estimated proportion of NRR = 10% = 0.10

Hence, NRR = Sample size/1 – Estimated NRR

= 382/1-0.1=0.9

$n = 424$