

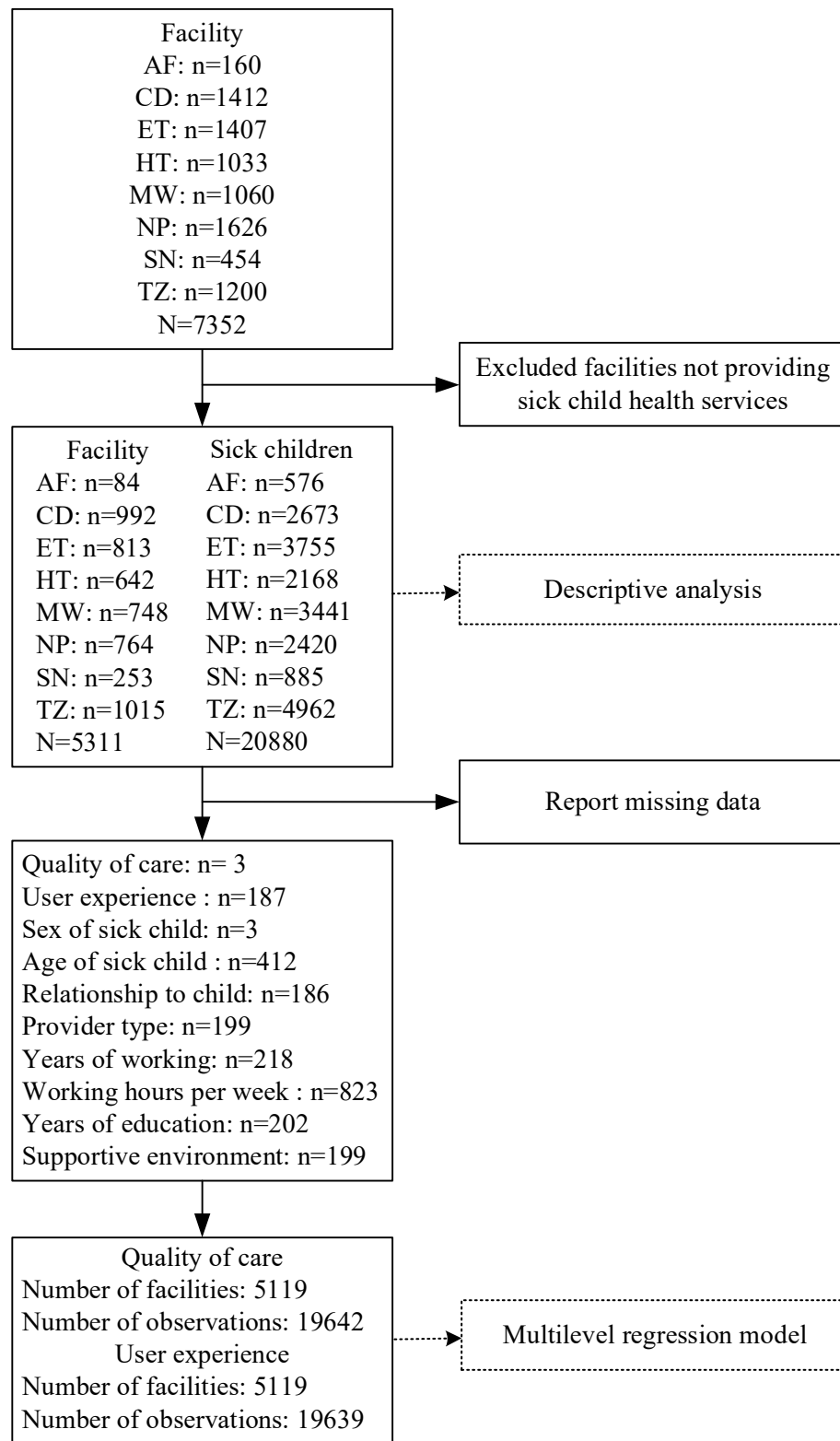
Supplementary Material

Specific service readiness for sick child health services and its relationship with quality of care and use experience in eight low-and middle-income countries

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Figure 1 The flow chart of the data cleaning process



Note: AF: Afghanistan, CD: the Democratic Republic of the Congo, ET: Ethiopia, HT: Haiti, MW: Malawi, NP: Nepal, SN: Senegal, TZ: Tanzania

Table 1 Measurements of specific service readiness in the health facility for sick child health services

Specific service readiness	Measurements
Staff and guidelines	Guidelines for integrated management of childhood illness
	Guidelines for growth monitoring
	Staff trained in integrated management of childhood illness
	Staff trained in growth monitoring
Equipment	Child and infant scale
	Length/height measuring equipment
	Thermometer
	Stethoscope
	Growth chart
Diagnostic	Haemoglobin (Hb)
	Test parasite in stool (general microscopy)
	Malaria diagnostic capacity
Medicines and commodities	Oral rehydration solution packet
	Amoxicillin (dispersible tablet 250 or 500 mg OR syrup/suspension)
	Co-trimoxazole syrup/suspension
	Paracetamol syrup/suspension
	Vitamin A capsules
	Me-/albendazole cap/tab
	Zinc sulphate tablets, dispersible tablets or syrup

Table 2 Measurements of the quality of care provided by health professionals in sick child health services

Quality of care	Clinical action by health workers
Measures for the main analysis - 20 items	
Systematic assessment	Provider asked / caretaker mentioned if child unable to drink or breastfeed
	Provider asked / caretaker mentioned cough or difficult breathing
	Provider asked / caretaker mentioned diarrhea
	Provider asked / caretaker mentioned fever
	Provider asked / caretaker mentioned convulsions
	Provider asked about mother's HIV status
	Provider asked / caretaker mentioned ear pain
	Provider counted respiration for 60 seconds
	Provider weighed client
	Provider plotted weight on growth chart
	Provider took temperature
	Provider checked palms / conjunctiva / mouth for pallor
	Provider checked for edema
	Provider asked if child received vitamin A within past 6 months
	Provider asked if child received any deworming medication in last 6 month
	Provider asked caretaker about vomiting
Diagnosis	Diagnosis Provider stated diagnosis to caretaker
Treatment	Provider recommended food / liquid intake
Counseling	Provider explained dosing if medication prescribed
	Provider described more than 1 danger sign requiring return to facility
Alternative measures for sensitivity analysis - 9 items	
History	Asks ≥ 1 question on infant feeding or drinking
	Asks about diarrhoea or vomiting
	Asks about fever or seizures
	Asks about cough
Examination	Measures weight
	Measures temperature
Counseling and management	States diagnosis
	Counsels about food intake
	Counsels about danger signs for return consultation

Table 3 Measurements of use experience reported by clients after visits

Please tell me whether any of these were problems for you this visit, and if so, whether they were major or minor problems for you.

Use experience	Measurements
1	Time you waited to see a provider
2	Ability to discuss problems or concerns about child's illness
3	Amount of explanation you received about the problem or treatment
4	Privacy from having others see the examination
5	Privacy from having others hear your consultation discussion
6	Availability of medicines at this facility
7	The hours of service at this facility, i.e., when they open and close
8	The number of days services are available to you
9	The cleanliness of the facility
10	How the staff treated you
11	Cost for services or treatments

Table 4 Multilevel mixed-effects Poisson regression results between specific service readiness and quality of care

	Coef.	p	95%CI	Coef.	p	95%CI	Coef.	p	95%CI	Coef.	p	95%CI
Specific service readiness	0.444***	0.000	[0.38,0.51]	0.368***	0.000	[0.30,0.43]						
Staff and guidelines							0.168***	0.000	[0.13,0.20]	0.124***	0.000	[0.09,0.16]
Equipment							0.110***	0.000	[0.07,0.16]	0.096***	0.000	[0.05,0.14]
Diagnostics							0.124***	0.000	[0.09,0.16]	0.025	0.209	[-0.01,0.06]
Medicines and commodities							-0.018	0.484	[-0.07,0.03]	0.118***	0.000	[0.07,0.17]
Sex (Ref. =Male)												
Female				0.005	0.405	[-0.01,0.02]				0.005	0.427	[-0.01,0.02]
Age of sick child (month)				-0.001***	0.000	[-0.00,-0.00]				-0.001***	0.000	[-0.00,-0.00]
Relationship to child (Ref. = Mother)												
Non-mother				-0.031***	0.000	[-0.05,-0.01]				-0.032***	0.000	[-0.05,-0.01]
Provider type (Ref. = Physician)												
Nurse				-0.052***	0.001	[-0.08,-0.02]				-0.059***	0.000	[-0.09,-0.03]
Others				-0.040*	0.045	[-0.08,-0.00]				-0.050*	0.012	[-0.09,-0.01]
Years of working				0.000	0.884	[-0.00,0.00]				0.000	0.778	[-0.00,0.00]
Working hours per week				0.000	0.349	[-0.00,0.00]				0.000	0.341	[-0.00,0.00]
Years of education				0.002	0.256	[-0.00,0.01]				0.003	0.204	[-0.00,0.01]
Supportive environment				0.059***	0.000	[0.04,0.08]				0.057***	0.000	[0.04,0.08]
Ownership (Ref. = Government)												
Private				0.075***	0.000	[0.05,0.10]				0.082***	0.000	[0.06,0.11]
Location (Ref. = Urban)												
Rural				0.068***	0.000	[0.04,0.09]				0.061***	0.000	[0.04,0.09]
Facility type (Ref. = Hospital)												
Clinic				0.025	0.069	[-0.00,0.05]				0.012	0.388	[-0.02,0.04]
Country fixed effects		Yes			Yes			Yes			Yes	

Table 5 Sensitivity analysis results between specific service readiness and quality of care and use experience

[illegible]