

Supplementary

Trends in, projections of, and inequalities in reproductive, maternal, newborn and child health service coverage in Vietnam 2000-2030: A Bayesian analysis at national and sub-national levels

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Table of contents

Table of contents.....	2
Table S1: Description of the Included Surveys	3
Table S2: List of reproductive, maternal, newborn and child health (RMNCH) service indicators and data sources	4
Methods.....	5
1. Bayesian models	5
2. Inequality Analysis	6
2.1. Assessment of Socioeconomic status.....	6
2.2. Calculation of Relative index of inequality and Slope index of inequality	6
2.3. Calculation of Concentration index	6
2.4. Pattern of Inequality.....	6
Table S3: Model comparison using leave-one-out cross-validation for wealth index	7
Table S4: Model comparison using leave-one-out cross-validation for living area	8
Table S5: Model comparison using leave-one-out cross-validation for regional levels	9
Table S6: Sensitivity analysis of composite methods in observed data by wealth quintiles, 2000–2014.....	10
Table S7: Sensitivity analysis of composite methods in observed data by living areas, 2000–2014.....	11
Table S8: Sensitivity analysis of composite methods in observed data by regional levels, 2000–2014.....	12
Table S9: Observed coverage of RMNCH service in Vietnam by wealth quintiles, 2000–2014.....	14
Table S10: Predicted coverage of RMNCH service in Vietnam by wealth quintiles, 2015–2030.....	16
Table S11: Observed coverage of RMNCH service in Vietnam by living areas, 2000–2014	18
Table S12: Predicted coverage of RMNCH service in Vietnam by living areas, 2015–2030.....	19
Table S13: Observed coverage of RMNCH service in Vietnam by regional levels, 2000–2014.....	20
Table S14: Predicted coverage of RMNCH service in Vietnam by regional levels, 2015–2020.....	23
Table S15: Average annual percent of change in RMNCH service indicators in different periods	26
Table S16: National health inequality analyses of all RMNCH service indicators for all survey years	27
Table S17: Socioeconomic inequality in RMNCH service for all survey years stratifying by living areas	31
Table S18: Changes in inequality of RMNCH service coverage in Vietnam (2000–2014).....	33
Table S19: Changes in Socioeconomic inequality in RMNCH service, 2000-2014, stratifying by living areas	34
Table S20: Sensitivity analysis of change in trends by matching DHS recall periods.....	35
Fig. S1: Trends in and projections of coverage of composite prevention index	36
Fig. S2: Trends in and projections of coverage of composite treatment index	37
Fig. S3: Trends in and projections of coverage of at least one ANC visit.....	38
Fig. S4: Trends in and projections of coverage of at least four ANC visit.....	39
Fig. S5: Trends in and projections of coverage of Exclusive breastfeeding.....	40
Fig. S6: Trends in and projections of coverage of Family planning needs satisfied	41
Fig. S7: Trends in and projections of coverage of BCG Immunization	42
Fig. S8: Trends in and projections of coverage of DPT3 Immunization	43
Fig. S9: Trends in and projections of coverage of Polio3 Immunization	44
Fig. S10: Trends in and projections of coverage of Measles Immunization	45
Fig. S11: Trends in and projections of coverage of Full Immunization	46
Fig. S12: Trends in and projections of coverage of Improved water	47
Fig. S13: Trends in and projections of coverage of Adequate sanitation	48
Fig. S14: Trends in and projections of coverage of Institutional delivery	49
Fig. S15: Trends in and projections of coverage of Skilled birth attendance.....	50
Fig. S16: Trends in and projections of coverage of Care seeking for pneumonia.....	51
Fig. S17: Trends in and projections of coverage of ARI treatment.....	52
Fig. S18: Trends in and projections of coverage of Oral rehydration therapy	53
Fig. S19: Trends in and projections of coverage of Early initiation of breastfeeding	54
Fig. S20: RMNCH service in Vietnam in year 2014 and 2030 by regional levels.....	55
References:.....	56

Table S1: Description of the Included Surveys

Sources of data	Survey year	Sampling design	Sample households	Response Rate
Vietnam Demographic and Health Survey (VDHS)	2002	Two-stage stratified sampling	7048	99.9%
Vietnam Multiple Indicator Cluster Survey (VMICS)	2000	Two-stage stratified sampling	7628	100%
Vietnam Multiple Indicator Cluster Survey (VMICS)	2006	Two-stage stratified sampling	8355	100%
Vietnam Multiple Indicator Cluster Survey (VMICS)	2011	Two-stage stratified sampling	11614	99.8%
Vietnam Multiple Indicator Cluster Survey (VMICS)	2013-2014	Two-stage stratified sampling	9979	99.6%
Total			44624	

Note: VDHS=Vietnam Demographic and Health Survey; VMICS=Vietnam Multiple Indicator Cluster Survey; VLSS=Vietnam Living Standard Survey; VGATS=Vietnam Global Adult Tobacco Survey

Table S2: List of reproductive, maternal, newborn and child health (RMNCH) service indicators and data sources

Indicator	Definition*	Data sources
Promotion and prevention		
Improved water	The proportion of households whose main source of drinking water is an improved source.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Adequate sanitation	The proportion of households with improved toilet facilities.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Family planning needs satisfied	The proportion of currently married women aged 15-49 who do not want any more children or want to wait two or more years before having another child and are using contraception	VDHS 2002; VMICS 2011, 2013-2014
Early initiation of breastfeeding	The proportion of newborns breastfed within 1 hour of birth in a specified time period.	VDHS 2002; VMICS 2006, 2011, 2013-2014
At least one ANC visit	The proportion of women aged 15-49 years who received at least one visit from a skilled health provider during their last pregnancy.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
At least four ANC visits	The proportion of women aged 15-49 years who received at least four visits from any provider during their last pregnancy.	VDHS 2002; VMICS 2011, 2013-2014
DPT3 immunization	The proportion of children aged 12-23 months who received three doses of diphtheria, pertussis, and tetanus vaccine.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Measles immunization	The proportion of children aged 12-23 months currently vaccinated against measles.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
BCG immunization	The proportion of children aged 12-23 months who received one dose of BCG vaccine.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Polio3 immunization	The proportion of children aged 12-23 months who received three doses of polio vaccine.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Fully immunized children	The proportion of children aged 12-23 months who received three doses of DPT and Polio vaccines and one dose of BCG and measles vaccines	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Exclusive breastfeeding	The proportion of youngest children under six months of age living with the mother who are exclusively breastfed.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Treatment Indicators		
Skilled birth attendance	The proportion of mothers who had their delivery assisted by a skilled health professional.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
Institutional delivery	The proportion of women that had their birth taking place in health facility	VDHS 2002; VMICS 2006, 2011, 2013-2014
Care seeking for pneumonia	The proportion of children under 5 with suspected pneumonia who sought care from an appropriate health provider in the previous two weeks.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014
ARI treatment	The proportion of under five children who had presumed pneumonia (last episode) in the previous two weeks were treated with antibiotics	VMICS 2000, 2006, 2011, 2013-2014
Oral rehydration therapy	The proportion of under five children with diarrhea in the previous two weeks who received oral rehydration therapy (packets of oral rehydration salts, recommended home solution, or increased fluids) and continued feeding.	VDHS 2002; VMICS 2000, 2006, 2011, 2013-2014

Note: VDHS=Vietnam Demographic and Health Survey; VMICS=Vietnam Multiple Indicator Cluster Survey; ANC=Antenatal care; DPT=three doses of diphtheria, pertussis, and tetanus vaccine; BCG=Bacillus Calmette–Guérin vaccine; Polio3=three doses of polio vaccine; ARI=Acute Respiratory Infections; *All definitions and measurement adapted from the global monitoring report on universal health coverage.^{1,2}

Methods

1. Bayesian models

We defined y_i as the logit transformed value of the proportion of an indicator p_i

$$y_i = \text{logit}(p_i) = \ln\left(\frac{p_i}{1-p_i}\right); \quad i = 1, \dots, n$$

$$y_i \sim \text{Normal}(\mu_i, \sigma^2)$$

$$\mu_i = \alpha + \beta X'_i$$

Where, X' is a vector of predictors – time, wealth quintile dummies or interaction terms between time and wealth quintile.

The prior for model parameters were specified as:

$$\alpha \sim \text{Student}_3(\text{median}(y_i), 10)$$

$$\beta \sim 1 \text{ (flat)}$$

and

$$\sigma \sim \text{Student}_3(0, 10)$$

We can then extend this model to a classical mixed model with random effects by introducing random effects for the slope and intercept. To allow each region j to have a unique intercept for different means with others, we added α_j to the model. Similarly, we used a varying slope to indicate that each region is allowed to have a different trend line in our outcomes with others. To explore the differences of outcomes between regions for each year (random effect intercepts and random effect slopes). We evaluated this correlation by α region and β region as specified on the following model:

$$\mu_{ij} = \alpha + \alpha_j + (\beta + \beta_j)x_{ij}$$

$$\begin{bmatrix} \alpha_j \\ \beta_j \end{bmatrix} \sim \text{MVNormal} \left(\begin{bmatrix} 0 \\ 0 \end{bmatrix}, S \right)$$

$$S = \begin{pmatrix} \sigma_{\alpha_j}^2 & \sigma_{\alpha_j} \sigma_{\beta_j} \rho \\ \sigma_{\alpha_j} \sigma_{\beta_j} \rho & \sigma_{\beta_j}^2 \end{pmatrix}$$

In which the first two lines described the likelihood function. To ensure the prior was non-informative, we gave α and β the $\text{Normal}(0, 4)$ prior, which allows α and β to mostly lie in a large range between -10 and 10. The residual variation σ was given a Half-Cauchy before restricting the distribution to positive values.³ \mathbf{M} is the correlation matrix, and ρ is the correlation between intercepts and slopes. This matrix was set to an LKJ-Correlation prior.⁴

2. Inequality Analysis

2.1. Assessment of Socioeconomic status

We performed inequality analyses based on household socioeconomic status, which was measured by the asset-based wealth index or level of household consumption depending on the available variables in each survey.

The Demographic and health surveys (DHS) and Multiple indicator cluster surveys (MICS) already had information on asset-based wealth index for each household, which was estimated by the survey authority using principal component analysis (PCA) on available information of housing assets and access to services. The wealth index then was created by ranking the wealth score to quintiles from the lowest 20% (poorest) to the highest 20% (wealthiest).

2.2. Calculation of Relative index of inequality and Slope index of inequality

Since the separately using relative and absolute indicator may lead to different results and conclusions, it is essential to use both indicators to provide a comprehensive picture of inequalities.⁵ We adopted the slope index of inequality (SII) as an absolute term and the relative index of inequality (RII) as a relative term using regression models against households' relative rank in the cumulative distribution of wealth index.^{6,7} The SII indicates the difference in percentage points of health coverage between the wealthier and poorer households. On the other hand, the RII presents the ratio of health coverage between the top and bottom of socioeconomic status. Regarding the inequalities in the health coverage of regional levels, we sorted the regions by coverage of RMNCH services. Thus, the SII and RII of regional levels indicate the differences in absolute and relative terms of health service coverage between the highest coverage and the lowest coverage regions. Similarly, the SII and RII of urban-rural areas indicate the difference in absolute and relative terms of health service coverage between urban and rural areas.

2.3. Calculation of Concentration index

The concentration index (CnI) is twice the covariance between a health indicator and its fractional rank divided by the health indicator's mean.⁸

$$CnI = \frac{2 \text{Cov}(y_i, R_i)}{\mu} = \frac{1}{n} \sum_{i=1}^n \left[\frac{y_i}{\mu} (2R_i - 1) \right]$$

Where y is the health indicator, μ is its mean, R_i is the i^{th} individual's fractional rank in the wealth quintile distribution. The CnI can also be obtained from a simple least square regression (OLS) of transforming the variable of interest on its fractional rank. The CnI is the least-squares estimate of β in the model

$$2\sigma_R^2 \frac{y_i}{\mu} = \alpha + \beta R_i + \varepsilon$$

Where σ_R^2 is the variance of R

We estimated the CnI to determine the magnitude or extent of health inequality by regressing against the fractional rank of households' wealth index.^{8,9} The CnI ranges from -1 to 1 with a positive value indicating a higher concentration of health coverage among the richer group, and vice versa for a negative value. The closer value to 1 or -1, the higher degree of concentration. A zero value (0) of the CnI shows the unavailability of inequality in the health indicator.

2.4. Pattern of Inequality

We evaluated inequality patterns by using plots of wealth quintile-specific coverages and categorized them according to Victora et al.,¹⁰ and The World Health Report.¹¹ The top inequality patterns are usually in low-coverage countries, with the wealthiest quintile much more advanced than the rest. Linear patterns of inequality (or queuing) are observed as increasing national coverage from top patterns with similar distances between quintile groups. As the national coverage reaches a higher level, the bottom inequality patterns commonly occur, with the poorest lagging behind others.

Table S3: Model comparison using leave-one-out cross-validation for wealth index

Model	Model with interaction			Model without interaction			Difference in LOOIC	Interaction term used
	ELPD	P_LOO	LOOIC	ELPD	P_LOO	LOOIC		
At least one ANC visit	-85.3	19.5	170.6	-102.8	21.2	205.6	-35.0	Yes
At least four ANC visit	-66.2	15.5	132.5	-83.9	20.3	167.8	-35.3	Yes
Exclusive breastfeeding	-69.0	9.9	138.0	-73.3	8.6	146.5	-8.5	Yes
Early initiation of breastfeeding	-316.4	112.9	632.7	-297.5	82.6	595.1	37.6	No
Family planning needs satisfied	-67.5	8.0	135.0	-80.7	13.8	161.3	-26.4	Yes
BCG immunization	-96.4	24.2	192.8	-94.0	18.5	187.9	4.9	No
DPT3 immunization	-194.2	72.0	388.4	-178.9	48.5	357.9	30.6	No
Polio3 immunization	-342.5	153.4	685.1	-314.7	101.0	629.5	55.6	No
Measles immunization	-120.6	32.6	241.2	-114.9	21.8	229.8	11.4	No
Full immunization	-251.3	101.7	502.5	-235.1	68.9	470.3	32.3	No
Improved Water	-4745.9	1070.8	9491.7	-4851.9	925.3	9703.7	-212.0	Yes
Adequate sanitation	-8427.1	1520.8	16854.3	-9536.6	1385.6	19073.2	-2219.0	Yes
Institutional delivery	-90.5	28.0	181.0	-106.1	29.1	212.2	-31.2	Yes
Skilled birth attendance	-301.7	118.0	603.3	-300.2	95.7	600.5	2.8	No
Care seeking for pneumonia	-93.1	25.7	186.1	-85.2	15.9	170.4	15.8	No
ARI treatment	-45.1	12.1	90.3	-40.5	6.9	81.1	9.2	No
Oral rehydration therapy	-104.8	21.4	209.6	-98.6	15.0	197.2	12.4	No
Composite Prevention (meta)	-148.7	41.0	297.3	-157.4	40.7	314.8	-17.5	Yes
Composite Treatment (meta)	-117.6	32.8	235.3	-110.0	19.8	220.0	15.3	No
Composite Coverage (meta)	-319.3	126.3	638.5	-317.2	90.2	634.4	4.1	No
Composite Prevention (ari)	-132.0	31.9	264.0	-130.7	26.3	261.4	2.5	No
Composite Treatment (ari)	-98.1	20.8	196.2	-92.1	12.4	184.3	11.9	No
Composite Coverage (ari)	-278.1	105.7	556.2	-274.0	75.0	548.1	8.1	No
Composite Prevention (geo)	-124.4	26.7	248.8	-139.4	31.9	278.7	-29.9	Yes
Composite Treatment (geo)	-98.5	20.6	197.0	-93.0	12.8	186.0	11.0	No
Composite Coverage (geo)	-276.7	104.7	553.4	-271.5	75.0	543.1	10.4	No

Note: LOOIC=Leave one out Criteria Information; ELPD=Expected Log Predictive Density; P_LOO=Effective number of parameters; meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S4: Model comparison using leave-one-out cross-validation for living area

Model	Model with interaction			Model without interaction			Difference in LOOIC	Interaction term used
	ELPD	P_LOO	LOOIC	ELPD	P_LOO	LOOIC		
At least one ANC visit	-64.8	20.6	129.6	-66.2	21.9	132.4	2.9	No
At least four ANC visit	-30.8	6.3	61.6	-32.3	7.6	64.6	2.9	No
Exclusive breastfeeding	-33.3	4.7	66.6	-35.1	6.3	70.3	3.7	No
Early initiation of breastfeeding	-248.3	76.8	496.7	-255.6	85.7	511.2	14.5	No
Family planning needs satisfied	-27.3	1.5	54.6	-28.2	2.2	56.4	1.8	No
BCG immunization	-59.6	15.1	119.2	-61.4	17.2	122.8	3.6	No
DPT3 immunization	-158.3	64.2	316.7	-155.6	65.9	311.2	-5.4	Yes
Polio3 immunization	-272.1	106.8	544.2	-278.4	123.6	556.9	12.7	No
Measles immunization	-86.2	27.9	172.3	-84.2	28.2	168.3	-4.0	Yes
Full immunization	-212.9	82.4	425.8	-209.4	89.5	418.8	-7.0	Yes
Improved Water	-2924.0	533.0	5848.0	-2929.3	519.7	5858.6	10.6	No
Adequate sanitation	-7045.6	807.8	14091.2	-7054.4	878.3	14108.9	17.7	No
Institutional delivery	-51.8	15.9	103.6	-50.0	16.0	100.0	-3.6	Yes
Skilled birth attendance	-197.9	74.6	395.9	-201.6	77.4	403.2	7.3	No
Care seeking for pneumonia	-52.0	14.1	104.0	-55.6	18.2	111.2	7.2	No
ARI treatment	-21.2	4.4	42.4	-21.8	5.7	43.7	1.3	No
Oral rehydration therapy	-61.2	12.4	122.4	-63.5	14.9	126.9	4.5	No
Composite Prevention (meta)	-53.1	12.6	106.1	-51.8	13.5	103.6	-2.6	Yes
Composite Treatment (meta)	-51.8	12.1	103.7	-53.8	15.6	107.7	4.0	No
Composite Coverage (meta)	-112.0	39.5	224.0	-111.2	43.0	222.4	-1.6	Yes
Composite Prevention (ari)	-50.9	11.2	101.9	-49.5	12.1	98.9	-2.9	Yes
Composite Treatment (ari)	-42.7	8.5	85.4	-44.1	10.4	88.3	2.9	No
Composite coverage (ari)	-99.2	34.5	198.4	-95.7	33.9	191.5	-6.9	Yes
Composite Prevention (geo)	-49.7	10.3	99.3	-46.6	10.2	93.3	-6.0	Yes
Composite Treatment (geo)	-41.1	7.4	82.2	-43.7	10.3	87.5	5.3	No
Composite coverage (geo)	-98.2	33.7	196.5	-99.2	37.5	198.4	1.9	No

Note: LOOIC=Leave one out Criteria Information; ELPD=Expected Log Predictive Density; P_LOO=Effective number of parameters; meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S5: Model comparison using leave-one-out cross-validation for regional levels

Model	Model with random slope			Model without random slope			Difference in LOOIC	Random slope used
	ELPD	P_LOO	LOOIC	ELPD	P_LOO	LOOIC		
At least one ANC visit	-158.0	39.5	316.0	-169.9	35.1	339.7	-23.7	Yes
At least four ANC visit	-91.3	16.5	182.7	-92.4	14.0	184.9	-2.2	Yes
Exclusive breastfeeding	-121.2	22.5	242.4	-117.9	16.4	235.7	6.7	No
Early initiation of breastfeeding	-412.8	132.2	825.6	-404.4	97.3	808.8	16.8	No
Family planning needs satisfied	-108.3	18.6	216.6	-119.3	13.3	238.5	-21.9	Yes
BCG immunization	-125.9	23.1	251.7	-124.4	20.7	248.8	2.9	No
DPT3 immunization	-213.2	51.7	426.3	-207.2	42.2	414.5	11.9	No
Polio3 immunization	-361.2	120.8	722.5	-343.4	90.3	686.8	35.7	No
Measles immunization	-177.5	38.8	355.0	-172.1	30.7	344.1	10.9	No
Full immunization	-282.5	87.5	564.9	-271.4	65.6	542.8	22.1	No
Improved Water	-7206.5	1434.4	14412.9	-8515.9	1433.8	17031.7	-2618.8	Yes
Adequate sanitation	-6640.8	1527.0	13281.6	-7261.3	1356.9	14522.7	-1241.0	Yes
Institutional delivery	-134.1	38.3	268.1	-132.4	27.8	264.9	3.3	No
Skilled birth attendance	-309.9	98.5	619.7	-296.8	75.9	593.7	26.1	No
Care seeking for pneumonia	-135.7	38.6	271.4	-134.1	22.4	268.1	3.3	No
ARI treatment	-63.8	13.9	127.5	-64.5	9.1	129.0	-1.4	Yes
Oral rehydration therapy	-131.1	17.2	262.2	-130.5	15.0	260.9	1.2	No
Composite Prevention (meta)	-375.2	123.6	750.3	-362.5	88.8	725.0	25.3	No
Composite Treatment (meta)	-135.2	19.4	270.4	-133.1	16.4	266.1	4.3	No
Composite Coverage (meta)	-414.5	137.6	829.1	-380.8	82.1	761.5	67.5	No
Composite Prevention (ari)	-331.4	100.7	662.8	-325.7	77.1	651.5	11.3	No
Composite Treatment (ari)	-125.2	14.9	250.5	-124.5	12.6	248.9	1.6	No
Composite Coverage (ari)	-350.2	107.3	700.4	-325.4	65.3	650.8	49.6	No
Composite Prevention (geo)	-635.6	233.5	1271.2	-708.2	219.8	1416.4	-145.1	Yes
Composite Treatment (geo)	-131.9	18.9	263.7	-137.8	16.5	275.6	-11.9	Yes
Composite Coverage (geo)	-438.0	144.7	876.0	-439.2	105.4	878.4	-2.4	Yes

Note: LOOIC=Leave one out Criteria Information; ELPD=Expected Log Predictive Density; P_LOO=Effective number of parameters; meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S6: Sensitivity analysis of composite methods in observed data by wealth quintiles, 2000–2014

Indicators	Wealth Quintiles	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
Composite Prevention (meta)	Poorest	33.3 (25.0 to 42.8)	55.6 (43.3 to 67.2)	41.7 (31.7 to 52.3)	46.7 (36.7 to 56.9)	58.1 (48.5 to 67.1)
	Poorer	50.8 (38.6 to 62.9)	66.7 (54.7 to 76.8)	62.5 (60.1 to 64.8)	66.0 (52.6 to 77.3)	77.9 (67.5 to 85.7)
	Middle	61.9 (59.5 to 64.3)	75.7 (73.2 to 78.0)	70.7 (68.5 to 72.9)	67.2 (55.3 to 77.2)	83.9 (74.8 to 90.2)
	Richer	68.1 (65.6 to 70.4)	77.3 (74.9 to 79.5)	75.5 (73.4 to 77.5)	75.8 (63.8 to 84.8)	86.8 (77.4 to 92.7)
	Richest	86.6 (84.8 to 88.3)	88.3 (77.8 to 94.2)	83.8 (82.0 to 85.5)	79.7 (69.2 to 87.3)	90.0 (80.8 to 95.1)
Composite Treatment (meta)	Poorest	50.4 (41.5 to 59.3)	56.6 (43.3 to 69.0)	52.0 (44.1 to 59.8)	56.1 (48.4 to 63.5)	61.5 (54.4 to 68.1)
	Poorer	60.3 (48.4 to 71.1)	73.2 (66.1 to 79.3)	64.9 (54.8 to 73.8)	76.6 (67.8 to 83.6)	86.9 (79.8 to 91.8)
	Middle	58.5 (46.3 to 69.6)	82.6 (75.2 to 88.1)	72.8 (63.5 to 80.5)	83.3 (75.4 to 89.1)	86.4 (79.3 to 91.3)
	Richer	69.0 (56.2 to 79.4)	91.4 (84.9 to 95.3)	77.2 (68.1 to 84.3)	81.4 (73.8 to 87.2)	92.1 (86.4 to 95.5)
	Richest	81.0 (66.7 to 90.0)	95.8 (91.2 to 98.1)	86.2 (77.0 to 92.1)	81.8 (74.4 to 87.3)	93.0 (87.2 to 96.3)
Composite Coverage (meta)	Poorest	37.1 (28.5 to 46.7)	56.6 (43.3 to 69.0)	45.6 (42.9 to 48.4)	49.8 (47.2 to 52.4)	59.1 (56.4 to 61.7)
	Poorer	54.1 (41.7 to 66.0)	69.1 (66.1 to 71.9)	62.9 (60.0 to 65.7)	69.2 (66.5 to 71.8)	80.9 (78.4 to 83.2)
	Middle	61.2 (58.4 to 63.9)	77.5 (74.7 to 80.0)	71.4 (68.7 to 74.0)	72.7 (70.1 to 75.1)	82.7 (82.9 to 87.1)
	Richer	68.5 (65.7 to 71.1)	80.7 (78.2 to 83.1)	76.5 (74.0 to 78.9)	77.1 (74.8 to 79.2)	88.5 (86.6 to 90.2)
	Richest	86.1 (84.0 to 88.1)	89.6 (87.6 to 91.2)	84.7 (82.5 to 86.7)	80.8 (78.7 to 82.7)	90.6 (88.8 to 92.1)
Composite Prevention (ari)	Poorest	35.2 (26.8 to 44.7)	55.6 (43.3 to 67.2)	42.9 (32.8 to 53.5)	46.7 (36.7 to 56.9)	57.1 (47.6 to 66.2)
	Poorer	50.8 (38.6 to 62.9)	65.2 (53.1 to 75.5)	61.5 (59.1 to 63.8)	62.3 (48.8 to 74.1)	75.3 (64.6 to 83.6)
	Middle	60.7 (58.2 to 63.0)	72.7 (70.2 to 75.1)	68.0 (65.7 to 70.2)	64.2 (52.2 to 74.6)	80.5 (70.9 to 87.4)
	Richer	66.3 (63.9 to 68.7)	73.7 (71.3 to 76.1)	71.9 (69.7 to 74.0)	69.4 (57.0 to 79.4)	81.6 (71.4 to 88.7)
	Richest	80.1 (78.0 to 82.1)	81.7 (70.1 to 89.4)	79.4 (77.4 to 81.2)	74.3 (63.3 to 82.9)	82.9 (72.4 to 89.9)
Composite Treatment (ari)	Poorest	50.4 (41.5 to 59.3)	54.7 (41.5 to 67.3)	52.7 (44.7 to 60.5)	56.1 (48.4 to 63.5)	61.5 (54.4 to 68.1)
	Poorer	58.8 (47.0 to 69.7)	69.6 (62.3 to 76.1)	62.8 (52.7 to 71.9)	72.0 (62.8 to 79.6)	82.0 (74.2 to 87.8)
	Middle	58.5 (46.3 to 69.6)	78.0 (70.2 to 84.2)	71.8 (62.5 to 79.6)	77.2 (68.7 to 83.9)	80.0 (72.1 to 86.1)
	Richer	67.2 (54.4 to 77.9)	84.5 (76.8 to 90.0)	74.3 (65.0 to 81.8)	75.2 (67.1 to 81.8)	85.6 (78.8 to 90.5)
	Richest	76.2 (61.5 to 86.5)	86.8 (80.3 to 91.4)	81.2 (71.3 to 88.3)	73.7 (65.8 to 80.4)	86.7 (79.8 to 91.5)
Composite Coverage (ari)	Poorest	39.0 (30.3 to 48.6)	56.6 (43.3 to 69.0)	46.0 (43.3 to 48.7)	49.8 (47.2 to 52.4)	58.8 (56.1 to 61.4)
	Poorer	54.1 (41.7 to 66.0)	66.8 (63.8 to 69.7)	62.0 (59.1 to 64.8)	65.9 (63.1 to 68.5)	77.2 (74.6 to 79.7)
	Middle	60.1 (57.3 to 62.8)	74.2 (71.3 to 76.8)	69.2 (66.4 to 71.8)	67.8 (65.1 to 70.4)	80.0 (77.6 to 82.3)
	Richer	66.6 (63.8 to 69.3)	76.7 (73.9 to 79.2)	72.6 (69.9 to 75.1)	71.5 (69.0 to 73.8)	82.6 (80.3 to 84.6)
	Richest	79.4 (76.9 to 81.7)	83.3 (81.0 to 85.4)	79.9 (77.5 to 82.2)	74.0 (71.7 to 76.1)	84.2 (82.1 to 86.1)
Composite Prevention (geo)	Poorest	26.7 (19.1 to 35.8)	46.0 (34.3 to 58.2)	39.3 (29.5 to 50.0)	42.2 (32.5 to 52.5)	54.3 (44.8 to 63.5)
	Poorer	44.3 (32.5 to 56.7)	56.1 (44.1 to 67.4)	51.8 (49.4 to 54.2)	56.6 (43.3 to 69.0)	70.1 (59.2 to 79.2)
	Middle	52.8 (50.4 to 55.3)	65.1 (62.4 to 67.7)	62.3 (59.9 to 64.6)	56.7 (44.8 to 67.9)	74.7 (64.7 to 82.7)
	Richer	62.7 (60.2 to 65.1)	66.0 (63.4 to 68.5)	64.7 (62.3 to 66.9)	58.1 (45.7 to 69.5)	72.4 (61.4 to 81.2)
	Richest	68.3 (65.8 to 70.6)	70.0 (57.5 to 80.1)	64.3 (62.0 to 66.5)	64.9 (53.5 to 74.8)	75.7 (64.5 to 84.2)
Composite Treatment (geo)	Poorest	48.7 (39.8 to 57.7)	52.8 (39.7 to 65.6)	50.7 (42.7 to 58.6)	51.8 (44.2 to 59.3)	56.8 (49.7 to 63.6)
	Poorer	58.8 (47.0 to 69.7)	63.1 (55.6 to 70.0)	61.7 (51.6 to 70.9)	66.4 (57.0 to 74.6)	73.8 (65.3 to 80.8)
	Middle	58.5 (46.3 to 69.6)	75.8 (67.8 to 82.3)	70.9 (61.5 to 78.8)	73.7 (64.9 to 80.9)	74.4 (66.1 to 81.2)
	Richer	65.5 (52.7 to 76.4)	82.8 (74.9 to 88.6)	71.3 (61.8 to 79.2)	67.4 (59.0 to 74.9)	82.0 (74.8 to 87.5)
	Richest	76.2 (61.5 to 86.5)	84.7 (78.0 to 89.7)	80.0 (70.0 to 87.3)	67.9 (59.7 to 75.1)	83.6 (76.2 to 89.0)
Composite Coverage (geo)	Poorest	31.4 (23.3 to 40.8)	47.2 (34.4 to 60.3)	42.7 (40.0 to 45.4)	44.7 (42.1 to 47.3)	55.2 (52.6 to 57.9)
	Poorer	47.5 (35.5 to 59.8)	57.9 (54.8 to 61.0)	55.3 (52.3 to 58.2)	59.9 (57.1 to 62.7)	71.0 (68.2 to 73.7)
	Middle	54.1 (51.3 to 56.9)	67.7 (64.7 to 70.6)	65.2 (62.3 to 67.9)	61.3 (58.5 to 64.0)	74.4 (71.8 to 76.9)
	Richer	63.5 (60.6 to 66.2)	70.1 (67.1 to 72.9)	66.9 (64.1 to 69.6)	61.3 (58.6 to 63.8)	75.1 (72.6 to 77.4)
	Richest	70.2 (67.4 to 72.8)	73.7 (71.0 to 76.2)	69.4 (66.7 to 72.1)	65.6 (63.2 to 68.0)	78.3 (75.9 to 80.5)

Note: meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S7: Sensitivity analysis of composite methods in observed data by living areas, 2000–2014

Indicators	Living Area	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
Composite Prevention (meta)	Rural	48.8 (42.6 to 55.0)	67.9 (61.5 to 73.6)	59.2 (52.4 to 65.7)	59.6 (53.0 to 65.9)	74.0 (68.4 to 79.0)
	Urban	79.0 (77.1 to 80.8)	83.3 (72.0 to 90.7)	83.3 (71.3 to 91.0)	75.0 (66.8 to 81.7)	83.0 (76.3 to 88.1)
Composite Treatment (meta)	Rural	56.7 (50.9 to 62.4)	71.4 (63.0 to 78.6)	64.4 (56.8 to 71.4)	70.0 (59.9 to 78.5)	74.1 (63.9 to 82.2)
	Urban	74.1 (61.6 to 83.7)	92.5 (87.0 to 95.7)	78.9 (70.3 to 85.5)	77.9 (72.4 to 82.6)	88.8 (84.3 to 92.1)
Composite Coverage (meta)	Rural	50.8 (44.6 to 57.0)	69.0 (60.5 to 76.5)	61.3 (53.7 to 68.5)	63.3 (53.0 to 72.6)	74.1 (63.9 to 82.2)
	Urban	78.3 (76.0 to 80.3)	85.0 (82.9 to 87.0)	82.6 (80.5 to 84.6)	75.9 (74.3 to 77.5)	84.7 (83.3 to 86.1)
Composite Prevention (ari)	Rural	48.8 (42.6 to 55.0)	66.5 (60.1 to 72.4)	58.7 (51.9 to 65.2)	58.3 (51.6 to 64.6)	72.5 (66.8 to 77.6)
	Urban	75.7 (73.7 to 77.6)	78.3 (66.4 to 86.9)	77.8 (65.1 to 86.8)	71.1 (62.7 to 78.2)	79.1 (72.0 to 84.8)
Composite Treatment (ari)	Rural	57.1 (51.3 to 62.7)	69.8 (61.3 to 77.2)	64.4 (56.8 to 71.4)	68.9 (58.7 to 77.5)	72.9 (62.7 to 81.2)
	Urban	72.4 (59.8 to 82.2)	82.2 (75.2 to 87.5)	74.3 (65.4 to 81.6)	72.3 (66.4 to 77.5)	84.1 (79.2 to 88.1)
Composite Coverage (ari)	Rural	50.8 (44.6 to 57.0)	67.5 (58.9 to 75.0)	60.7 (53.1 to 67.9)	61.1 (50.8 to 70.5)	72.9 (62.7 to 81.2)
	Urban	74.7 (72.3 to 76.9)	79.7 (77.2 to 81.9)	76.5 (74.1 to 78.7)	71.3 (69.6 to 72.9)	80.5 (78.9 to 82.0)
Composite Prevention (geo)	Rural	44.3 (38.2 to 50.6)	58.0 (51.5 to 64.3)	54.4 (47.5 to 61.0)	52.8 (46.1 to 59.3)	68.7 (62.9 to 74.0)
	Urban	67.3 (65.1 to 69.4)	70.0 (57.5 to 80.1)	64.8 (51.5 to 76.2)	62.5 (53.9 to 70.4)	72.5 (65.0 to 79.0)
Composite Treatment (geo)	Rural	56.7 (50.9 to 62.4)	66.7 (58.1 to 74.3)	63.8 (56.2 to 70.8)	63.3 (53.0 to 72.6)	67.1 (56.5 to 76.1)
	Urban	69.0 (56.2 to 79.4)	78.1 (70.7 to 84.0)	72.5 (63.4 to 80.0)	66.7 (60.6 to 72.2)	79.8 (74.5 to 84.3)
Composite Coverage (geo)	Rural	47.2 (41.0 to 53.4)	60.3 (51.6 to 68.4)	57.7 (50.0 to 65.0)	55.6 (45.3 to 65.4)	68.2 (57.7 to 77.2)
	Urban	67.9 (65.4 to 70.3)	71.6 (68.9 to 74.1)	67.7 (65.2 to 70.2)	63.8 (62.0 to 65.6)	74.6 (72.8 to 76.3)

Note: meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S8: Sensitivity analysis of composite methods in observed data by regional levels, 2000–2014

Indicators	Regions	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
Composite Prevention (meta)	Northwest	35.7 (33.0 to 38.5)	54.3 (48.6 to 60.0)	40.4 (28.2 to 53.9)	51.9 (48.0 to 55.9)	59.4 (55.2 to 63.5)
	Northeast	47.5 (43.6 to 51.4)	73.1 (69.7 to 76.3)	62.6 (59.0 to 66.1)	62.4 (59.5 to 65.2)	78.7 (66.9 to 87.1)
	Red River Delta	73.8 (71.2 to 76.2)	86.2 (75.1 to 92.8)	73.0 (70.5 to 75.4)	72.7 (59.8 to 82.7)	88.5 (78.2 to 94.3)
	North Central	59.0 (56.0 to 62.0)	70.2 (67.2 to 73.1)	66.7 (63.8 to 69.6)	65.9 (62.6 to 69.2)	84.1 (81.0 to 86.7)
	South Central Coast	62.9 (60.2 to 65.5)	70.6 (67.2 to 73.9)	72.4 (69.9 to 74.8)	72.2 (68.9 to 75.3)	82.6 (79.5 to 85.4)
	Central Highlands	45.4 (42.6 to 48.3)	74.4 (68.9 to 79.3)	62.8 (60.1 to 65.4)	59.7 (47.3 to 71.0)	69.5 (58.9 to 78.4)
	Southeast	67.4 (64.0 to 70.6)	78.7 (75.7 to 81.3)	80.4 (77.6 to 83.0)	79.5 (77.4 to 81.5)	81.5 (70.4 to 89.1)
Composite Treatment (meta)	Mekong River Delta	54.6 (51.7 to 57.4)	61.8 (49.9 to 72.4)	63.5 (60.6 to 66.2)	62.8 (60.4 to 65.2)	77.4 (64.5 to 86.5)
	Northwest	50.9 (38.3 to 63.4)	30.2 (18.6 to 45.1)	58.3 (47.7 to 68.3)	51.7 (39.2 to 64.1)	50.9 (38.1 to 63.6)
	Northeast	42.1 (27.9 to 57.8)	68.8 (57.9 to 77.8)	64.9 (48.8 to 78.2)	75.9 (65.5 to 84.0)	77.4 (67.4 to 85.0)
	Red River Delta	71.7 (57.5 to 82.7)	89.8 (83.8 to 93.7)	80.6 (70.0 to 88.0)	81.2 (72.3 to 87.8)	90.8 (83.5 to 95.1)
	North Central	62.3 (48.8 to 74.1)	72.6 (62.9 to 80.6)	61.0 (48.3 to 72.4)	71.2 (58.6 to 81.2)	87.3 (76.0 to 93.7)
	South Central Coast	62.5 (49.4 to 74.0)	75.5 (66.6 to 82.5)	75.8 (63.8 to 84.8)	78.6 (64.1 to 88.3)	78.8 (66.0 to 87.8)
	Central Highlands	55.3 (44.1 to 65.9)	72.5 (57.2 to 83.9)	60.4 (50.6 to 69.4)	67.9 (59.5 to 75.3)	75.8 (68.5 to 81.9)
Composite Coverage (meta)	Southeast	65.5 (47.3 to 80.1)	87.0 (77.7 to 92.8)	81.2 (68.1 to 89.8)	87.0 (79.0 to 92.2)	90.9 (84.1 to 95.0)
	Mekong River Delta	68.1 (53.8 to 79.6)	84.2 (77.7 to 89.0)	70.8 (58.8 to 80.4)	80.5 (70.9 to 87.4)	84.7 (76.3 to 90.5)
	Northwest	39.2 (36.0 to 42.4)	48.0 (41.5 to 54.5)	47.3 (43.8 to 50.9)	51.2 (46.6 to 55.9)	55.2 (50.2 to 60.1)
	Northeast	46.5 (42.0 to 50.9)	71.8 (67.8 to 75.5)	63.3 (58.8 to 67.6)	66.2 (62.8 to 69.5)	78.5 (75.3 to 81.4)
	Red River Delta	73.5 (70.5 to 76.3)	87.2 (85.1 to 89.1)	75.9 (72.8 to 78.7)	75.8 (73.0 to 78.4)	89.1 (86.9 to 91.0)
	North Central	59.9 (56.5 to 63.3)	70.5 (67.0 to 73.7)	65.0 (61.3 to 68.5)	68.2 (64.2 to 71.9)	85.5 (81.9 to 88.4)
	South Central Coast	62.7 (59.6 to 65.7)	72.0 (68.0 to 75.6)	73.6 (70.5 to 76.4)	74.9 (71.0 to 78.4)	82.8 (79.1 to 85.9)
Composite Prevention (ari)	Central Highlands	48.2 (45.0 to 51.5)	73.7 (67.2 to 79.2)	62.2 (58.9 to 65.4)	62.5 (59.7 to 65.2)	71.7 (68.9 to 74.3)
	Southeast	66.7 (62.9 to 70.4)	80.9 (77.7 to 83.8)	81.7 (78.3 to 84.7)	81.9 (79.5 to 84.1)	84.8 (82.4 to 86.9)
	Mekong River Delta	57.8 (54.5 to 61.1)	67.8 (65.0 to 70.5)	66.4 (62.9 to 69.7)	68.4 (65.6 to 71.1)	80.1 (77.4 to 82.5)
	Northwest	36.7 (34.0 to 39.5)	54.3 (48.6 to 60.0)	40.4 (28.2 to 53.9)	50.5 (46.6 to 54.4)	58.3 (54.1 to 62.4)
	Northeast	47.5 (43.6 to 51.4)	68.1 (64.5 to 71.5)	60.5 (56.9 to 64.1)	59.7 (56.7 to 62.5)	75.4 (63.3 to 84.5)
	Red River Delta	71.5 (68.8 to 74.0)	81.0 (69.1 to 89.1)	69.9 (67.3 to 72.4)	67.3 (54.1 to 78.2)	83.6 (72.4 to 90.8)
	North Central	57.5 (54.5 to 60.5)	66.9 (63.8 to 69.9)	63.1 (60.1 to 66.0)	61.5 (58.1 to 64.8)	80.0 (76.7 to 82.9)
Composite Treatment (ari)	South Central Coast	62.5 (59.7 to 65.1)	69.4 (65.8 to 72.7)	70.4 (67.8 to 72.8)	68.5 (65.1 to 71.8)	78.8 (75.5 to 81.8)
	Central Highlands	45.8 (43.0 to 48.7)	72.6 (66.9 to 77.6)	61.5 (58.8 to 64.2)	58.1 (45.7 to 69.5)	68.3 (57.6 to 77.4)
	Southeast	66.2 (62.9 to 69.5)	75.5 (72.4 to 78.3)	75.9 (72.9 to 78.7)	74.9 (72.6 to 77.0)	78.5 (67.0 to 86.7)
	Mekong River Delta	54.3 (51.4 to 57.2)	61.8 (49.9 to 72.4)	62.8 (59.9 to 65.6)	60.6 (58.2 to 63.0)	75.5 (62.4 to 85.1)
	Northwest	52.6 (39.9 to 65.0)	34.9 (22.4 to 49.8)	58.3 (47.7 to 68.3)	56.9 (44.1 to 68.8)	41.8 (29.7 to 55.0)
	Northeast	44.7 (30.1 to 60.3)	65.0 (54.1 to 74.5)	67.6 (51.5 to 80.4)	74.7 (64.1 to 83.0)	73.8 (63.5 to 82.0)
	Red River Delta	69.6 (55.2 to 80.9)	81.0 (73.8 to 86.5)	76.4 (65.4 to 84.7)	74.0 (64.4 to 81.7)	84.7 (76.3 to 90.5)
Composite Coverage (ari)	North Central	62.3 (48.8 to 74.1)	67.4 (57.4 to 76.0)	61.0 (48.3 to 72.4)	66.1 (53.4 to 76.9)	80.0 (67.6 to 88.4)
	South Central Coast	60.7 (47.6 to 72.4)	73.6 (64.7 to 81.0)	74.2 (62.1 to 83.4)	73.8 (58.9 to 84.7)	73.1 (59.7 to 83.2)
	Central Highlands	56.6 (45.4 to 67.1)	67.5 (52.0 to 79.9)	60.4 (50.6 to 69.4)	65.6 (57.2 to 73.2)	74.5 (67.1 to 80.8)
	Southeast	62.1 (44.0 to 77.3)	74.0 (63.3 to 82.5)	75.0 (61.2 to 85.1)	80.0 (71.1 to 86.7)	83.6 (75.6 to 89.4)
	Mekong River Delta	66.0 (51.7 to 77.8)	79.1 (72.1 to 84.7)	66.2 (54.0 to 76.5)	71.3 (61.0 to 79.7)	77.6 (68.3 to 84.7)
	Northwest	40.5 (37.3 to 43.8)	48.9 (42.4 to 55.4)	47.4 (43.9 to 51.0)	52.1 (47.5 to 56.8)	52.9 (47.9 to 57.8)
	Northeast	46.5 (42.0 to 50.9)	67.4 (63.2 to 71.3)	62.7 (58.2 to 66.9)	64.3 (60.9 to 67.6)	74.6 (71.2 to 77.7)
Composite Prevention (geo)	Red River Delta	70.8 (67.7 to 73.7)	80.8 (78.3 to 83.0)	72.2 (69.1 to 75.2)	69.4 (66.4 to 72.3)	84.2 (81.6 to 86.4)
	North Central	58.5 (55.0 to 61.9)	66.9 (63.4 to 70.3)	62.2 (58.4 to 65.7)	63.0 (59.0 to 66.9)	80.2 (76.3 to 83.6)
	South Central Coast	62.3 (59.1 to 65.3)	70.3 (66.3 to 74.0)	71.6 (68.5 to 74.6)	70.3 (66.2 to 74.0)	77.2 (73.1 to 80.7)
	Central Highlands	48.7 (45.4 to 51.9)	71.2 (64.7 to 77.0)	61.3 (58.0 to 64.5)	60.8 (58.0 to 63.5)	70.0 (67.3 to 72.7)
	Southeast	65.1 (61.2 to 68.8)	75.1 (71.6 to 78.4)	75.4 (71.6 to 78.8)	76.4 (73.8 to 78.8)	79.9 (77.4 to 82.3)
	Mekong River Delta	57.4 (54.1 to 60.6)	66.2 (63.4 to 68.9)	64.2 (60.7 to 67.6)	64.0 (61.1 to 66.8)	75.6 (72.7 to 78.2)
	Northwest	32.1 (29.5 to 34.9)	52.6 (46.8 to 58.3)	38.5 (26.5 to 52.0)	47.2 (43.3 to 51.2)	55.7 (51.4 to 59.8)
Composite Treatment (geo)	Northeast	41.9 (38.1 to 45.8)	59.5 (55.8 to 63.2)	58.7 (55.0 to 62.2)	54.2 (51.2 to 57.1)	72.1 (59.8 to 81.8)
	Red River Delta	68.1 (65.4 to 70.7)	72.4 (59.8 to 82.2)	64.8 (62.1 to 67.4)	58.2 (45.0 to 70.3)	78.7 (66.9 to 87.1)
	North Central	54.1 (51.0 to 57.1)	61.6 (58.4 to 64.6)	54.6 (51.6 to 57.7)	54.0 (50.5 to 57.5)	77.2 (73.7 to 80.3)
	South Central Coast	46.5 (43.8 to 49.3)	73.2 (69.8 to 76.4)	64.2 (61.5 to 66.8)	75.7 (72.5 to 78.7)	71.7 (68.2 to 75.1)
	Central Highlands	35.9 (33.2 to 38.7)	66.5 (60.7 to 71.9)	52.7 (49.9 to 55.4)	51.6 (39.4 to 63.6)	63.4 (52.6 to 73.0)
	Southeast	75.6 (72.5 to 78.5)	64.3 (61.0 to 67.6)	86.3 (83.8 to 88.5)	63.9 (61.4 to 66.3)	66.2 (54.0 to 76.5)
	Mekong River Delta	47.7 (44.8 to 50.6)	50.0 (38.4 to 61.6)	70.7 (67.9 to 73.3)	47.0 (44.6 to 49.5)	67.9 (54.5 to 78.9)
Composite Coverage (geo)	Northwest	47.4 (35.0 to 60.1)	23.3 (13.2 to 37.7)	57.1 (46.5 to 67.2)	48.3 (35.9 to 60.8)	38.2 (26.5 to 51.4)
	Northeast	42.1 (27.9 to 57.8)	60.0 (49.0 to 70.0)	64.9 (48.8 to 78.2)	72.2 (61.4 to 80.8)	70.2 (59.8 to 79.0)
	Red River Delta	67.4 (53.0 to 79.1)	76.2 (68.7 to 82.4)	75.0 (63.9 to 83.6)	68.8 (58.9 to 77.1)	79.6 (70.6 to 86.4)
	North Central	60.4 (46.9 to 72.4)	58.9 (48.9 to 68.3)	59.3 (46.6 to 70.9)	61.0 (48.3 to 72.4)	70.9 (57.9 to 81.2)
	South Central Coast	58.9 (45.9 to 70.8)	70.9 (61.8 to 78.6)	72.6 (60.4 to 82.1)	52.4 (37.7 to 66.6)	63.5 (49.9 to 75.2)
	Central Highlands	56.6 (45.4 to 67.1)	67.5 (52.0 to 79.9)	60.4 (50.6 to 69.4)	62.6 (54.1 to 70.4)	69.9 (62.3 to 76.6)
	Southeast	55.2 (37.5 to 71.6)	57.1 (46.0 to 67.6)	64.6 (50.4 to 76.6)	74.0 (64.6 to 81.6)	75.5 (66.6 to 82.5)
Composite Treatment (meta)	Mekong River Delta	66.0 (51.7 to 77.8)	76.6 (69.4 to 82.5)	60.0 (47.9 to 71.0)	60.9 (50.4 to 71.6)	62.2 (52.4 to 71.2)
	Northwest	35.4 (32.3 to 38.6)	42.6 (36.3 to 49.2)	44.3 (40.8 to 47.8)	47.4 (42.8 to 52.1)	49.2 (44.2 to 54.2)
	Northeast	42.1 (37.7 to 46.5)	59.7 (55.4 to 63.8)	61.2 (56.7 to 65.5)	59.1 (55.7 to 62.6)	71.3 (67.8 to 74.5)

Composite Coverage (geo)	Red River Delta	68.0 (64.8 to 71.0)	73.4 (70.8 to 76.0)	68.0 (64.7 to 71.1)	61.5 (58.3 to 64.5)	79.1 (76.3 to 81.7)
	North Central	55.4 (51.9 to 58.9)	60.9 (57.3 to 64.4)	56.4 (52.6 to 60.1)	55.9 (51.8 to 60.0)	75.3 (71.2 to 79.1)
	South Central Coast	49.4 (46.3 to 52.6)	72.7 (68.8 to 76.3)	67.3 (64.0 to 70.4)	67.4 (63.2 to 71.3)	69.2 (64.8 to 73.2)
	Central Highlands	40.3 (37.1 to 43.5)	66.3 (59.6 to 72.5)	55.2 (51.9 to 58.5)	54.3 (51.5 to 57.1)	65.7 (62.8 to 68.4)
	Southeast	69.4 (65.6 to 72.9)	62.2 (58.3 to 65.9)	78.1 (74.4 to 81.3)	66.9 (64.0 to 69.7)	69.1 (66.2 to 71.8)
	Mekong River Delta	51.6 (48.3 to 54.9)	56.2 (53.3 to 59.1)	66.9 (63.4 to 70.2)	51.1 (48.1 to 54.0)	65.4 (62.3 to 68.3)

Note: meta=Meta-analysis random effects; ari=Arithmetic Means; geo=Geometric Means

Table S9: Observed coverage of RMNCH service in Vietnam by wealth quintiles, 2000–2014

Indicators	Wealth Quintiles	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
At least one ANC visit	Poorest	42.2 (35.4 to 49.4)	66.8 (61.5 to 71.7)	64.4 (58.7 to 69.8)	74.6 (69.6 to 79.0)	79.3 (74.9 to 83.2)
	Poorer	73.8 (64.5 to 81.3)	87.0 (82.6 to 90.4)	90.4 (85.2 to 94.0)	96.9 (93.7 to 98.5)	98.5 (96.1 to 99.4)
	Middle	78.8 (69.7 to 85.7)	93.4 (89.5 to 96.0)	93.8 (89.5 to 96.4)	99.2 (97.0 to 99.8)	99.6 (97.9 to 99.9)
	Richer	89.0 (80.9 to 93.9)	94.7 (90.8 to 97.0)	96.4 (92.8 to 98.3)	98.9 (96.8 to 99.6)	100.0 (98.8 to 100.0)
	Richest	98.6 (92.3 to 99.7)	98.9 (96.7 to 99.6)	98.8 (95.9 to 99.7)	99.3 (97.6 to 99.8)	99.7 (98.1 to 99.9)
At least four ANC visit	Poorest	NA	14.2 (10.8 to 18.4)	NA	20.8 (16.7 to 25.5)	31.4 (26.8 to 36.4)
	Poorer	NA	18.8 (14.8 to 23.7)	NA	46.6 (40.2 to 53.2)	65.1 (59.2 to 70.7)
	Middle	NA	25.8 (20.5 to 31.8)	NA	55.8 (49.5 to 62.0)	78.4 (73.0 to 82.9)
	Richer	NA	33.5 (27.4 to 40.1)	NA	77.6 (72.3 to 82.2)	87.9 (83.7 to 91.1)
	Richest	NA	61.1 (55.0 to 66.8)	NA	88.9 (84.8 to 91.9)	95.8 (92.8 to 97.6)
Exclusive breastfeeding	Poorest	21.9 (15.1 to 30.7)	6.3 (2.5 to 15.2)	27.4 (19.0 to 37.7)	27.8 (19.6 to 37.8)	34.3 (25.9 to 43.8)
	Poorer	16.4 (9.2 to 27.6)	10.6 (5.2 to 20.3)	7.1 (2.5 to 19.0)	15.1 (7.9 to 27.1)	18.2 (11.2 to 28.2)
	Middle	10.9 (4.7 to 23.0)	17.0 (8.9 to 30.1)	17.0 (8.9 to 30.1)	16.4 (9.4 to 27.1)	19.5 (12.6 to 29.1)
	Richer	26.1 (15.6 to 40.3)	14.6 (7.2 to 27.2)	14.6 (7.2 to 27.2)	6.5 (2.5 to 15.4)	10.5 (5.4 to 19.4)
	Richest	8.6 (3.0 to 22.4)	6.7 (2.6 to 15.9)	5.1 (1.4 to 16.9)	9.5 (4.7 to 18.3)	15.7 (9.0 to 26.0)
Early initiation of breastfeeding	Poorest	NA	53.5 (48.1 to 58.9)	19.3 (12.4 to 28.8)	67.9 (62.6 to 72.7)	45.7 (40.7 to 50.9)
	Poorer	NA	68.2 (62.6 to 73.2)	17.4 (12.5 to 23.7)	57.8 (51.3 to 64.1)	44.4 (38.5 to 50.5)
	Middle	NA	65.5 (59.1 to 71.4)	22.8 (16.9 to 29.9)	51.7 (45.4 to 57.9)	44.8 (38.9 to 50.8)
	Richer	NA	58.4 (51.6 to 64.8)	21.5 (15.9 to 28.4)	47.8 (41.9 to 53.7)	40.3 (35.0 to 45.9)
	Richest	NA	54.6 (48.5 to 60.5)	25.3 (19.3 to 32.4)	48.5 (43.0 to 54.1)	32.4 (27.3 to 38.0)
Family planning needs satisfied	Poorest	NA	79.3 (76.2 to 82.1)	NA	70.7 (68.1 to 73.2)	66.4 (63.5 to 69.1)
	Poorer	NA	76.2 (73.0 to 79.0)	NA	65.3 (62.4 to 68.1)	63.1 (59.9 to 66.1)
	Middle	NA	71.8 (68.8 to 74.7)	NA	65.2 (62.4 to 67.8)	59.8 (56.7 to 62.8)
	Richer	NA	70.4 (67.4 to 73.3)	NA	60.6 (58.0 to 63.2)	58.5 (55.7 to 61.3)
	Richest	NA	66.2 (63.1 to 69.2)	NA	63.3 (60.9 to 65.7)	64.8 (62.0 to 67.4)
BCG immunization	Poorest	77.1 (70.9 to 82.3)	83.9 (76.0 to 89.6)	60.4 (52.6 to 67.6)	83.4 (77.3 to 88.1)	83.5 (77.3 to 88.3)
	Poorer	85.3 (77.8 to 90.6)	95.2 (89.3 to 97.9)	88.1 (80.4 to 93.1)	95.0 (89.4 to 97.7)	97.8 (93.8 to 99.3)
	Middle	94.4 (87.5 to 97.6)	95.0 (87.8 to 98.0)	90.7 (83.3 to 95.0)	94.4 (89.3 to 97.1)	98.5 (94.8 to 99.6)
	Richer	91.3 (82.3 to 96.0)	97.5 (91.3 to 99.3)	94.4 (88.3 to 97.4)	97.4 (93.5 to 99.0)	99.4 (96.9 to 99.9)
	Richest	100.0 (94.4 to 100.0)	100.0 (95.9 to 100.0)	94.4 (87.6 to 97.6)	97.2 (93.6 to 98.8)	100.0 (97.6 to 100.0)
DPT3 immunization	Poorest	32.7 (26.6 to 39.4)	57.1 (47.9 to 65.9)	39.0 (31.8 to 46.7)	32.0 (25.7 to 39.2)	56.8 (49.4 to 63.9)
	Poorer	50.9 (41.9 to 59.8)	65.7 (56.2 to 74.1)	65.3 (55.7 to 73.9)	53.8 (44.8 to 62.5)	74.8 (67.0 to 81.3)
	Middle	57.3 (46.9 to 67.1)	78.8 (68.6 to 86.3)	68.0 (58.2 to 76.5)	45.8 (37.8 to 54.0)	78.5 (70.9 to 84.6)
	Richer	63.8 (52.0 to 74.1)	76.2 (65.9 to 84.2)	72.9 (63.8 to 80.4)	56.5 (48.6 to 64.1)	85.8 (79.9 to 90.2)
	Richest	80.0 (68.7 to 87.9)	91.1 (83.4 to 95.4)	86.7 (78.1 to 92.2)	68.2 (61.0 to 74.5)	84.9 (78.5 to 89.6)
Polio3 immunization	Poorest	29.8 (23.9 to 36.3)	59.8 (50.6 to 68.4)	38.4 (31.2 to 46.1)	29.8 (23.6 to 36.9)	62.5 (55.2 to 69.3)
	Poorer	48.3 (39.4 to 57.3)	67.6 (58.2 to 75.8)	62.4 (52.6 to 71.2)	52.1 (43.2 to 60.9)	89.2 (83.0 to 93.4)
	Middle	62.9 (52.5 to 72.2)	80.0 (70.0 to 87.3)	66.0 (56.1 to 74.6)	39.4 (31.8 to 47.7)	90.4 (84.2 to 94.3)
	Richer	65.2 (53.4 to 75.4)	78.8 (68.6 to 86.3)	68.2 (58.9 to 76.3)	50.0 (42.2 to 57.8)	90.9 (85.7 to 94.3)
	Richest	86.2 (75.7 to 92.5)	94.4 (87.6 to 97.6)	80.0 (70.6 to 87.0)	54.7 (47.4 to 61.9)	91.8 (86.5 to 95.2)
Measles immunization	Poorest	52.7 (45.9 to 59.4)	66.1 (56.9 to 74.2)	46.5 (39.0 to 54.3)	44.8 (37.7 to 52.0)	63.6 (56.3 to 70.4)
	Poorer	71.6 (62.8 to 79.0)	83.8 (75.6 to 89.6)	72.3 (62.9 to 80.1)	71.4 (62.7 to 78.8)	82.7 (75.6 to 88.1)
	Middle	82.0 (72.8 to 88.6)	90.0 (81.5 to 94.8)	81.4 (72.6 to 87.9)	69.7 (61.7 to 76.7)	92.6 (86.9 to 95.9)
	Richer	75.4 (64.0 to 84.0)	87.5 (78.5 to 93.1)	86.9 (79.2 to 92.0)	82.5 (75.7 to 87.7)	87.5 (81.8 to 91.6)
	Richest	92.3 (83.2 to 96.7)	96.7 (90.7 to 98.9)	90.0 (82.1 to 94.6)	86.6 (80.8 to 90.8)	86.2 (79.9 to 90.7)
Full immunization	Poorest	17.1 (12.5 to 22.8)	47.3 (38.3 to 56.5)	25.8 (19.6 to 33.1)	22.7 (17.2 to 29.3)	46.6 (39.4 to 54.0)
	Poorer	33.6 (25.7 to 42.6)	61.9 (52.4 to 70.6)	51.5 (41.9 to 61.0)	42.0 (33.5 to 51.0)	66.2 (58.0 to 73.5)
	Middle	43.8 (34.0 to 54.2)	71.2 (60.5 to 80.0)	54.6 (44.7 to 64.2)	32.4 (25.2 to 40.5)	73.3 (65.3 to 80.1)
	Richer	47.8 (36.5 to 59.4)	71.2 (60.5 to 80.0)	55.1 (45.7 to 64.2)	42.9 (35.3 to 50.8)	76.1 (69.3 to 81.8)
	Richest	69.2 (57.2 to 79.1)	88.9 (80.7 to 93.9)	72.2 (62.2 to 80.4)	49.2 (41.9 to 56.4)	76.1 (68.9 to 82.1)
Improved Water	Poorest	41.0 (40.0 to 42.1)	70.6 (69.5 to 71.8)	62.0 (60.9 to 63.0)	71.7 (70.8 to 72.6)	74.3 (73.3 to 75.2)
	Poorer	66.9 (65.8 to 67.9)	83.7 (82.7 to 84.6)	75.0 (74.0 to 76.0)	91.5 (90.9 to 92.1)	91.1 (90.4 to 91.8)
	Middle	75.2 (74.2 to 76.2)	94.0 (93.4 to 94.6)	75.7 (74.7 to 76.7)	95.2 (94.7 to 95.7)	96.1 (95.6 to 96.5)
	Richer	77.8 (76.8 to 78.8)	96.0 (95.4 to 96.4)	73.9 (72.8 to 74.9)	98.5 (98.2 to 98.7)	99.4 (99.2 to 99.6)
	Richest	92.8 (92.1 to 93.4)	99.4 (99.2 to 99.6)	88.4 (87.6 to 89.1)	99.4 (99.2 to 99.5)	100.0 (99.9 to 100.0)
Adequate sanitation	Poorest	3.0 (2.7 to 3.4)	62.0 (60.8 to 63.2)	16.8 (16.0 to 17.7)	37.6 (36.6 to 38.6)	34.8 (33.8 to 35.8)
	Poorer	17.8 (16.9 to 18.7)	72.5 (71.3 to 73.6)	41.3 (40.2 to 42.5)	65.0 (63.9 to 66.0)	79.0 (78.1 to 80.0)
	Middle	40.6 (39.4 to 41.7)	83.2 (82.3 to 84.2)	64.5 (63.3 to 65.6)	84.9 (84.1 to 85.6)	94.1 (93.6 to 94.7)
	Richer	60.2 (59.0 to 61.4)	90.4 (89.6 to 91.1)	84.5 (83.7 to 85.3)	97.5 (97.2 to 97.8)	98.7 (98.4 to 98.9)
	Richest	93.3 (92.7 to 93.9)	99.5 (99.3 to 99.6)	98.6 (98.3 to 98.8)	99.5 (99.4 to 99.7)	99.9 (99.8 to 99.9)
Institutional delivery	Poorest	NA	50.8 (45.3 to 56.2)	39.4 (33.9 to 45.2)	62.1 (56.7 to 67.2)	66.1 (61.1 to 70.8)
	Poorer	NA	78.4 (73.3 to 82.8)	79.2 (72.7 to 84.5)	95.1 (91.4 to 97.2)	96.9 (94.1 to 98.4)
	Middle	NA	86.8 (81.8 to 90.6)	85.6 (79.9 to 89.8)	98.8 (96.4 to 99.6)	99.6 (97.9 to 99.9)
	Richer	NA	93.2 (89.0 to 95.9)	96.9 (93.5 to 98.6)	98.1 (95.7 to 99.2)	100.0 (98.8 to 100.0)
	Richest	NA	99.2 (97.2 to 99.8)	99.4 (96.8 to 99.9)	99.7 (98.2 to 99.9)	100.0 (98.7 to 100.0)
Poorest	34.8 (28.3 to 41.8)	58.0 (52.5 to 63.3)	35.6 (30.2 to 41.3)	63.3 (58.0 to 68.3)	70.2 (65.4 to 74.7)	

Indicators	Wealth Quintiles	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
Skilled birth attendance	Poorer	59.2 (49.6 to 68.2)	88.2 (83.9 to 91.4)	67.4 (60.2 to 73.9)	95.5 (91.9 to 97.5)	97.3 (94.6 to 98.7)
	Middle	61.6 (51.8 to 70.6)	95.2 (91.6 to 97.3)	70.6 (63.9 to 76.6)	99.2 (97.0 to 99.8)	99.6 (97.9 to 99.9)
	Richer	89.0 (80.9 to 93.9)	97.1 (93.8 to 98.7)	83.6 (77.8 to 88.1)	99.3 (97.3 to 99.8)	100.0 (98.8 to 100.0)
	Richest	98.6 (92.3 to 99.7)	99.6 (97.9 to 99.9)	93.0 (88.2 to 96.0)	99.7 (98.2 to 99.9)	100.0 (98.7 to 100.0)
Care seeking for pneumonia	Poorest	65.8 (56.8 to 73.8)	79.7 (68.8 to 87.5)	72.0 (58.3 to 82.5)	79.5 (64.5 to 89.2)	78.3 (64.4 to 87.7)
	Poorer	61.6 (51.1 to 71.2)	85.9 (75.4 to 92.4)	62.5 (47.0 to 75.8)	82.6 (62.9 to 93.0)	95.2 (77.3 to 99.2)
	Middle	66.0 (51.7 to 77.8)	83.0 (69.9 to 91.1)	76.6 (62.8 to 86.4)	81.8 (61.5 to 92.7)	81.8 (61.5 to 92.7)
	Richer	50.0 (36.1 to 63.9)	91.4 (77.6 to 97.0)	85.7 (72.2 to 93.3)	75.0 (57.9 to 86.7)	95.5 (78.2 to 99.2)
ARI treatment	Richest	66.7 (48.8 to 80.8)	90.0 (76.9 to 96.0)	77.8 (54.8 to 91.0)	64.7 (41.3 to 82.7)	93.8 (71.7 to 98.9)
	Poorest	NA	NA	48.0 (34.8 to 61.5)	53.8 (38.6 to 68.4)	69.6 (55.2 to 80.9)
	Poorer	NA	NA	50.0 (35.2 to 64.8)	52.2 (33.0 to 70.8)	95.2 (77.3 to 99.2)
	Middle	NA	NA	53.2 (39.2 to 66.7)	68.2 (47.3 to 83.6)	86.4 (66.7 to 95.3)
Oral rehydration therapy	Richer	NA	NA	45.2 (31.2 to 60.1)	78.1 (61.2 to 89.0)	86.4 (66.7 to 95.3)
	Richest	NA	NA	61.1 (38.6 to 79.7)	70.6 (46.9 to 86.7)	93.8 (71.7 to 98.9)
	Poorest	50.9 (43.5 to 58.2)	34.0 (22.7 to 47.4)	69.1 (58.4 to 78.1)	22.5 (15.0 to 32.2)	23.1 (16.9 to 30.6)
	Poorer	57.4 (45.5 to 68.4)	26.5 (14.6 to 43.1)	55.6 (39.6 to 70.5)	33.3 (21.0 to 48.4)	25.5 (15.3 to 39.5)
Oral rehydration therapy	Middle	47.9 (34.5 to 61.7)	48.0 (30.0 to 66.5)	71.0 (53.4 to 83.9)	39.1 (26.4 to 53.5)	31.9 (20.4 to 46.2)
	Richer	63.9 (47.6 to 77.5)	57.1 (32.6 to 78.6)	58.1 (40.8 to 73.6)	24.4 (14.2 to 38.7)	45.0 (30.7 to 60.2)
	Richest	66.7 (47.8 to 81.4)	58.3 (32.0 to 80.7)	73.7 (51.2 to 88.2)	32.6 (20.5 to 47.5)	45.5 (29.8 to 62.0)

Table S10: Predicted coverage of RMNCH service in Vietnam by wealth quintiles, 2015–2030

Indicators	Wealth Quintiles	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
At least one ANC visit	Poorest	80.9 (77.5 to 84.1)	86.8 (82.7 to 90.0)	94.0 (90.2 to 96.4)	100.0
	Poorer	98.6 (97.5 to 99.3)	99.5 (98.8 to 99.8)	99.9 (99.7 to 100.0)	100.0
	Middle	99.6 (99.1 to 99.9)	99.9 (99.7 to 100.0)	100.0 (99.9 to 100.0)	100.0
	Richer	99.7 (99.1 to 99.9)	99.9 (99.6 to 100.0)	100.0 (99.9 to 100.0)	100.0
	Richest	99.6 (98.8 to 99.9)	99.8 (98.5 to 100.0)	99.9 (97.8 to 100.0)	100.0
At least four ANC visit	Poorest	30.8 (26.5 to 35.3)	40.1 (32.2 to 48.4)	60.4 (44.3 to 74.3)	0.1
	Poorer	66.6 (61.4 to 71.7)	82.4 (76.5 to 87.2)	96.2 (92.9 to 98.1)	100.0
	Middle	77.5 (73.2 to 81.4)	89.7 (85.7 to 92.7)	98.2 (96.5 to 99.1)	100.0
	Richer	89.7 (86.8 to 92.2)	96.3 (94.5 to 97.6)	99.6 (99.1 to 99.8)	100.0
	Richest	95.5 (93.6 to 97.0)	98.3 (97.2 to 99.1)	99.8 (99.4 to 99.9)	100.0
Exclusive breastfeeding	Poorest	35.1 (27.2 to 43.5)	42.8 (30.5 to 56.2)	58.9 (36.8 to 78.7)	1.7
	Poorer	16.5 (10.1 to 25.0)	18.4 (9.1 to 32.6)	22.5 (7.0 to 52.2)	0.0
	Middle	19.7 (13.1 to 28.0)	22.4 (12.1 to 36.7)	28.3 (9.8 to 58.5)	0.0
	Richer	7.2 (3.7 to 12.9)	4.9 (1.8 to 11.4)	2.2 (0.4 to 9.5)	0.0
	Richest	14.1 (7.7 to 22.9)	18.7 (7.7 to 37.4)	31.3 (7.3 to 72.7)	0.7
Early initiation of breastfeeding	Poorest	48.4 (45.0 to 51.9)	44.9 (40.8 to 49.2)	38.3 (32.2 to 44.9)	0.0
	Poorer	45.1 (41.5 to 48.8)	41.7 (37.3 to 46.3)	35.3 (29.1 to 42.0)	0.0
	Middle	43.8 (40.1 to 47.4)	40.5 (36.1 to 45.0)	34.1 (28.2 to 40.7)	0.0
	Richer	39.2 (35.7 to 42.8)	36.0 (31.9 to 40.2)	30.0 (24.5 to 36.1)	0.0
	Richest	37.6 (34.3 to 41.0)	34.4 (30.5 to 38.7)	28.6 (23.2 to 34.5)	0.0
Family planning needs satisfied	Poorest	65.6 (62.9 to 68.2)	59.2 (54.7 to 63.8)	45.7 (37.1 to 54.9)	0.0
	Poorer	61.2 (58.2 to 63.8)	54.7 (49.7 to 59.1)	41.4 (32.8 to 49.9)	0.0
	Middle	59.8 (57.1 to 62.5)	54.6 (50.0 to 59.0)	43.9 (35.8 to 51.9)	0.0
	Richer	56.9 (54.4 to 59.6)	51.4 (47.3 to 55.7)	40.3 (33.2 to 48.4)	0.0
	Richest	63.7 (61.3 to 66.0)	62.8 (58.9 to 66.6)	61.1 (53.7 to 68.4)	0.0
BCG immunization	Poorest	83.9 (80.0 to 87.3)	86.9 (82.2 to 90.5)	91.4 (85.8 to 95.1)	100.0
	Poorer	95.0 (92.9 to 96.6)	96.0 (93.8 to 97.4)	97.5 (95.3 to 98.7)	100.0
	Middle	96.4 (94.7 to 97.7)	97.2 (95.5 to 98.3)	98.2 (96.6 to 99.1)	100.0
	Richer	97.7 (96.4 to 98.7)	98.2 (97.0 to 99.0)	98.9 (97.8 to 99.5)	100.0
	Richest	98.8 (97.9 to 99.4)	99.1 (98.2 to 99.6)	99.4 (98.8 to 99.8)	100.0
DPT3 immunization	Poorest	45.7 (41.2 to 50.2)	47.9 (42.1 to 53.8)	52.4 (43.3 to 61.1)	0.0
	Poorer	65.7 (60.9 to 70.1)	67.6 (61.8 to 72.9)	71.3 (63.0 to 78.5)	0.7
	Middle	67.6 (62.9 to 72.1)	69.6 (63.9 to 74.8)	73.1 (65.1 to 79.9)	2.4
	Richer	74.2 (70.1 to 77.9)	75.8 (71.0 to 80.2)	78.9 (72.2 to 84.4)	34.9
	Richest	82.3 (78.7 to 85.4)	83.6 (79.5 to 86.9)	85.9 (80.6 to 89.8)	98.3
Polio3 immunization	Poorest	48.5 (44.1 to 53.0)	52.3 (46.7 to 58.1)	59.7 (51.2 to 68.1)	0.0
	Poorer	70.2 (65.7 to 74.4)	73.3 (67.9 to 77.9)	78.8 (71.9 to 84.2)	34.2
	Middle	71.4 (67.1 to 75.5)	74.4 (69.3 to 79.0)	79.7 (73.3 to 85.0)	46.6
	Richer	75.3 (71.2 to 79.0)	78.0 (73.5 to 81.9)	82.8 (77.0 to 87.3)	83.9
	Richest	81.7 (78.2 to 84.7)	83.8 (80.0 to 87.0)	87.5 (82.8 to 91.1)	99.9
Measles immunization	Poorest	53.9 (49.2 to 58.7)	54.0 (47.6 to 60.2)	54.2 (44.0 to 63.7)	0.0
	Poorer	76.6 (72.3 to 80.8)	76.7 (71.2 to 81.5)	76.8 (68.3 to 83.5)	18.9
	Middle	82.6 (78.8 to 85.9)	82.6 (77.8 to 86.5)	82.7 (75.7 to 87.8)	79.7
	Richer	84.7 (81.2 to 87.7)	84.7 (80.5 to 88.1)	84.8 (78.7 to 89.4)	94.6
	Richest	89.3 (86.3 to 91.7)	89.3 (85.9 to 92.0)	89.3 (84.5 to 92.8)	100.0
Full immunization	Poorest	34.2 (30.0 to 38.6)	36.8 (31.4 to 42.5)	42.2 (33.7 to 51.1)	0.0
	Poorer	55.9 (50.9 to 60.6)	58.6 (52.5 to 64.4)	63.9 (55.5 to 71.9)	0.0
	Middle	58.2 (53.4 to 63.0)	60.9 (55.1 to 66.6)	66.1 (57.8 to 73.9)	0.0
	Richer	63.0 (58.7 to 67.5)	65.6 (60.4 to 70.7)	70.5 (63.1 to 77.3)	0.2
	Richest	71.6 (67.5 to 75.6)	73.9 (69.0 to 78.3)	78.0 (71.4 to 83.5)	24.3
Improved Water	Poorest	77.4 (76.7 to 78.1)	83.7 (82.9 to 84.4)	92.0 (91.3 to 92.6)	100.0
	Poorer	92.5 (92.0 to 92.9)	95.5 (95.1 to 95.9)	98.5 (98.2 to 98.7)	100.0
	Middle	95.3 (95.0 to 95.7)	97.3 (97.0 to 97.6)	99.1 (99.0 to 99.3)	100.0
	Richer	97.6 (97.3 to 97.8)	98.9 (98.7 to 99.0)	99.8 (99.7 to 99.8)	100.0
	Richest	98.9 (98.7 to 99.0)	99.4 (99.3 to 99.5)	99.8 (99.8 to 99.9)	100.0
Adequate sanitation	Poorest	38.8 (38.0 to 39.7)	45.6 (44.2 to 46.9)	59.2 (57.0 to 61.5)	0.0
	Poorer	78.0 (77.3 to 78.7)	87.1 (86.4 to 87.8)	96.1 (95.7 to 96.5)	100.0
	Middle	92.5 (92.1 to 92.9)	96.5 (96.3 to 96.8)	99.3 (99.2 to 99.4)	100.0
	Richer	98.8 (98.7 to 98.9)	99.7 (99.6 to 99.7)	100.0 (100.0 to 100.0)	100.0
	Richest	99.9 (99.9 to 99.9)	100.0 (100.0 to 100.0)	100.0 (100.0 to 100.0)	100.0
Institutional delivery	Poorest	66.2 (61.8 to 70.4)	73.4 (67.1 to 79.0)	84.7 (76.5 to 90.5)	89.1
	Poorer	96.8 (95.1 to 98.1)	98.6 (97.4 to 99.4)	99.8 (99.3 to 99.9)	100.0
	Middle	99.0 (98.0 to 99.6)	99.7 (99.1 to 99.9)	100.0 (99.8 to 100.0)	100.0
	Richer	99.6 (98.9 to 99.9)	99.9 (99.4 to 100.0)	100.0 (99.8 to 100.0)	100.0
	Richest	99.9 (99.4 to 100.0)	100.0 (99.2 to 100.0)	100.0 (98.9 to 100.0)	100.0
Skilled birth attendance	Poorest	74.7 (71.4 to 77.5)	83.9 (80.6 to 86.7)	94.3 (91.8 to 95.9)	100.0

Indicators	Wealth Quintiles	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
Care seeking for pneumonia	Poorer	94.2 (92.8 to 95.4)	96.6 (95.6 to 97.5)	98.9 (98.3 to 99.3)	100.0
	Middle	95.7 (94.5 to 96.6)	97.5 (96.7 to 98.2)	99.2 (98.8 to 99.5)	100.0
	Richer	98.1 (97.4 to 98.6)	98.9 (98.4 to 99.3)	99.7 (99.4 to 99.8)	100.0
	Richest	99.5 (99.1 to 99.7)	99.7 (99.5 to 99.8)	99.9 (99.8 to 100.0)	100.0
	Poorest	84.2 (77.4 to 89.2)	87.9 (80.1 to 92.7)	93.1 (84.8 to 96.9)	99.8
	Poorer	85.0 (78.0 to 90.1)	88.6 (80.8 to 93.4)	93.5 (85.5 to 97.2)	99.7
	Middle	86.3 (79.5 to 91.2)	89.6 (82.5 to 94.0)	94.1 (87.0 to 97.4)	100.0
	Richer	86.0 (79.3 to 90.8)	89.4 (82.4 to 93.7)	94.0 (86.9 to 97.3)	100.0
	Richest	88.1 (80.8 to 93.0)	91.0 (83.7 to 95.3)	95.0 (88.1 to 97.9)	100.0
	Poorest	76.8 (67.2 to 84.3)	89.2 (80.1 to 94.5)	98.1 (93.5 to 99.5)	100.0
	Poorer	82.8 (72.9 to 89.8)	92.3 (84.1 to 96.5)	98.7 (95.1 to 99.7)	100.0
	ARI treatment	Middle	85.2 (76.1 to 91.6)	93.5 (86.1 to 97.1)	98.9 (95.8 to 99.7)
	Richer	84.6 (76.2 to 90.9)	93.2 (86.4 to 96.9)	98.8 (95.8 to 99.7)	100.0
	Richest	88.7 (78.9 to 94.3)	95.1 (88.6 to 98.0)	99.2 (96.8 to 99.8)	100.0
	Poorest	24.9 (20.3 to 30.1)	18.3 (13.6 to 23.8)	9.1 (5.5 to 14.5)	0.0
Oral rehydration therapy	Poorer	25.6 (20.0 to 32.4)	18.8 (13.4 to 25.6)	9.4 (5.5 to 15.4)	0.0
	Middle	30.8 (24.1 to 38.1)	23.1 (16.8 to 30.6)	11.9 (7.1 to 18.8)	0.0
	Richer	32.9 (25.6 to 41.1)	24.8 (18.0 to 33.1)	13.0 (7.9 to 20.5)	0.0
	Richest	37.4 (29.1 to 46.5)	28.6 (20.6 to 38.2)	15.4 (9.2 to 24.2)	0.0

Table S11: Observed coverage of RMNCH service in Vietnam by living areas, 2000–2014

Indicators	Living Area	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
At least one ANC visit	Rural	64.4 (59.9 to 68.7)	84.3 (82.0 to 86.4)	83.2 (80.4 to 85.6)	89.5 (87.2 to 91.4)	92.0 (90.1 to 93.6)
	Urban	95.7 (89.3 to 98.3)	96.3 (93.2 to 98.0)	97.8 (94.9 to 99.1)	98.0 (96.4 to 98.9)	98.7 (97.4 to 99.4)
At least four ANC visit	Rural	NA	23.8 (21.3 to 26.5)	NA	45.3 (41.9 to 48.7)	62.0 (58.8 to 65.1)
	Urban	NA	52.4 (46.5 to 58.3)	NA	76.2 (72.4 to 79.6)	83.0 (79.6 to 85.9)
Exclusive breastfeeding	Rural	19.1 (14.7 to 24.5)	10.7 (7.3 to 15.4)	18.9 (14.2 to 24.8)	18.8 (14.2 to 24.5)	23.7 (18.9 to 29.2)
	Urban	12.8 (6.0 to 25.2)	10.0 (4.7 to 20.1)	7.4 (2.9 to 17.6)	10.9 (6.6 to 17.5)	15.7 (10.8 to 22.3)
Early initiation of breastfeeding	Rural	NA	61.5 (58.5 to 64.4)	20.3 (17.2 to 23.9)	60.5 (57.2 to 63.8)	45.2 (42.1 to 48.5)
	Urban	NA	53.2 (47.2 to 59.1)	24.2 (18.8 to 30.4)	46.9 (42.7 to 51.1)	35.7 (31.8 to 39.7)
Family planning needs satisfied	Rural	NA	73.4 (71.8 to 74.9)	NA	66.0 (64.5 to 67.5)	63.9 (62.2 to 65.6)
	Urban	NA	69.2 (66.2 to 72.0)	NA	63.2 (61.4 to 65.0)	60.4 (58.3 to 62.5)
BCG immunization	Rural	83.6 (79.9 to 86.8)	92.7 (89.5 to 94.9)	79.7 (75.7 to 83.2)	91.3 (88.4 to 93.6)	93.3 (90.7 to 95.2)
	Urban	98.0 (92.9 to 99.4)	98.0 (92.9 to 99.4)	94.8 (89.1 to 97.6)	95.8 (93.0 to 97.6)	99.0 (97.2 to 99.7)
DPT3 immunization	Rural	44.6 (40.1 to 49.3)	69.3 (64.4 to 73.8)	57.6 (53.0 to 62.2)	43.1 (38.6 to 47.6)	73.6 (69.5 to 77.3)
	Urban	75.5 (66.1 to 83.0)	84.8 (76.5 to 90.6)	84.3 (76.6 to 89.9)	62.9 (57.5 to 68.1)	79.5 (74.7 to 83.7)
Polio3 immunization	Rural	43.3 (38.8 to 47.9)	70.7 (65.8 to 75.1)	55.4 (50.7 to 59.9)	38.3 (34.0 to 42.8)	80.7 (76.9 to 84.0)
	Urban	82.7 (74.0 to 88.9)	90.9 (83.6 to 95.1)	78.3 (69.9 to 84.8)	54.3 (48.8 to 59.7)	89.9 (86.1 to 92.8)
Measles immunization	Rural	65.7 (61.2 to 70.0)	81.8 (77.5 to 85.4)	68.3 (63.8 to 72.5)	62.8 (58.3 to 67.1)	81.6 (77.8 to 84.8)
	Urban	84.7 (76.3 to 90.5)	90.9 (83.6 to 95.1)	87.0 (79.6 to 91.9)	82.1 (77.5 to 86.0)	82.5 (77.8 to 86.3)
Full immunization	Rural	28.9 (24.9 to 33.3)	63.0 (58.0 to 67.8)	43.5 (38.9 to 48.2)	31.4 (27.3 to 35.8)	66.2 (61.9 to 70.3)
	Urban	63.3 (53.4 to 72.1)	80.8 (72.0 to 87.4)	68.7 (59.7 to 76.5)	46.6 (41.2 to 52.2)	68.8 (63.5 to 73.7)
Improved Water	Rural	62.0 (61.5 to 62.6)	86.5 (86.0 to 86.9)	69.6 (69.1 to 70.2)	86.5 (86.1 to 87.0)	87.9 (87.4 to 88.3)
	Urban	91.6 (91.0 to 92.2)	97.4 (97.1 to 97.8)	90.9 (90.3 to 91.5)	97.7 (97.5 to 97.9)	97.6 (97.3 to 97.8)
Adequate sanitation	Rural	28.5 (28.0 to 29.1)	78.0 (77.5 to 78.5)	50.9 (50.3 to 51.5)	67.0 (66.4 to 67.6)	72.3 (71.7 to 72.9)
	Urban	77.1 (76.1 to 78.0)	95.3 (94.8 to 95.7)	89.8 (89.2 to 90.4)	91.7 (91.3 to 92.1)	92.0 (91.6 to 92.4)
Institutional delivery	Rural	NA	74.8 (72.1 to 77.4)	69.6 (66.4 to 72.7)	83.9 (81.3 to 86.3)	86.8 (84.5 to 88.9)
	Urban	NA	98.5 (96.2 to 99.4)	99.1 (96.8 to 99.8)	97.8 (96.2 to 98.7)	98.2 (96.7 to 99.0)
Skilled birth attendance	Rural	54.4 (49.8 to 58.9)	82.4 (80.0 to 84.6)	59.6 (56.2 to 63.0)	84.7 (82.0 to 87.0)	88.4 (86.2 to 90.3)
	Urban	95.7 (89.3 to 98.3)	98.5 (96.2 to 99.4)	91.2 (86.7 to 94.2)	98.3 (96.9 to 99.1)	98.4 (97.0 to 99.1)
Care seeking for pneumonia	Rural	62.8 (57.0 to 68.2)	84.0 (78.5 to 88.3)	75.5 (68.3 to 81.4)	81.1 (71.8 to 87.9)	84.7 (75.6 to 90.8)
	Urban	61.4 (46.6 to 74.3)	90.5 (77.9 to 96.2)	70.6 (53.8 to 83.2)	69.8 (54.9 to 81.4)	90.5 (77.9 to 96.2)
ARI treatment	Rural	NA	NA	50.3 (42.7 to 57.9)	63.3 (53.0 to 72.6)	77.6 (67.7 to 85.2)
	Urban	NA	NA	50.0 (34.1 to 65.9)	65.1 (50.2 to 77.6)	92.9 (81.0 to 97.5)
Oral rehydration therapy	Rural	53.8 (48.3 to 59.2)	38.9 (30.8 to 47.6)	66.3 (59.0 to 72.9)	28.7 (22.7 to 35.6)	25.8 (20.5 to 31.9)
	Urban	57.9 (42.2 to 72.1)	41.7 (19.3 to 68.0)	60.9 (40.8 to 77.8)	29.9 (20.8 to 40.8)	40.4 (30.9 to 50.8)

Table S12: Predicted coverage of RMNCH service in Vietnam by living areas, 2015–2030

Indicators	Living Area	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
At least one ANC visit	Rural	92.9 (91.6 to 94.1)	95.5 (94.2 to 96.6)	98.3 (97.4 to 98.9)	100.0
	Urban	98.9 (98.4 to 99.2)	99.3 (99.0 to 99.5)	99.7 (99.6 to 99.8)	100.0
At least four ANC visit	Rural	62.0 (59.5 to 64.6)	75.7 (72.7 to 78.6)	91.9 (89.6 to 93.9)	100.0
	Urban	84.8 (82.8 to 86.5)	91.4 (89.8 to 92.8)	97.5 (96.6 to 98.1)	100.0
Exclusive breastfeeding	Rural	22.7 (18.8 to 27.1)	25.8 (19.8 to 33.0)	32.8 (21.7 to 46.9)	0.0
	Urban	14.5 (10.9 to 18.7)	16.6 (11.9 to 22.6)	21.9 (13.7 to 33.2)	0.0
Early initiation of breastfeeding	Rural	46.3 (43.7 to 48.9)	43.5 (39.7 to 47.5)	38.2 (32.2 to 44.6)	0.0
	Urban	38.2 (35.3 to 41.1)	35.6 (32.0 to 39.3)	30.6 (25.3 to 36.3)	0.0
Family planning needs satisfied	Rural	63.0 (61.7 to 64.3)	58.8 (56.7 to 60.8)	49.9 (46.2 to 53.8)	0.0
	Urban	59.5 (58.0 to 61.0)	55.2 (53.0 to 57.3)	46.2 (42.6 to 50.0)	0.0
BCG immunization	Rural	91.8 (89.7 to 93.6)	93.5 (90.9 to 95.4)	95.9 (90.9 to 97.7)	100.0
	Urban	98.0 (97.0 to 98.7)	98.4 (97.4 to 99.0)	99.0 (98.1 to 99.5)	100.0
DPT3 immunization	Rural	63.2 (59.5 to 66.9)	66.7 (61.4 to 71.6)	73.0 (64.8 to 80.0)	2.3
	Urban	71.8 (67.1 to 76.3)	69.1 (60.8 to 76.6)	63.2 (46.8 to 77.3)	0.8
Polio3 immunization	Rural	62.9 (59.5 to 66.2)	66.1 (61.4 to 70.5)	72.1 (64.9 to 78.3)	0.6
	Urban	78.8 (75.8 to 81.4)	81.0 (77.6 to 84.1)	85.0 (80.4 to 88.7)	98.1
Measles immunization	Rural	74.1 (70.8 to 77.3)	75.4 (70.6 to 79.8)	77.9 (70.2 to 84.5)	28.1
	Urban	81.4 (77.1 to 84.9)	78.7 (70.6 to 84.6)	72.3 (54.1 to 84.6)	12.8
Full immunization	Rural	54.6 (50.7 to 58.3)	59.6 (54.0 to 64.8)	69.1 (60.5 to 76.5)	0.1
	Urban	58.0 (53.0 to 63.0)	54.4 (46.8 to 62.3)	47.0 (33.7 to 61.4)	0.0
Improved Water	Rural	88.4 (88.1 to 88.7)	92.0 (91.7 to 92.3)	96.4 (96.2 to 96.6)	100.0
	Urban	97.7 (97.6 to 97.8)	98.5 (98.4 to 98.6)	99.3 (99.3 to 99.4)	100.0
Adequate sanitation	Rural	73.6 (73.2 to 74.0)	80.5 (80.0 to 80.9)	90.0 (89.6 to 90.5)	100.0
	Urban	94.1 (93.9 to 94.3)	95.9 (95.8 to 96.1)	98.1 (98.0 to 98.2)	100.0
Institutional delivery	Rural	86.4 (84.5 to 88.3)	90.1 (87.9 to 92.1)	95.0 (92.7 to 96.6)	100.0
	Urban	97.9 (96.5 to 98.9)	97.5 (93.7 to 99.0)	96.4 (79.8 to 99.4)	97.4
Skilled birth attendance	Rural	86.9 (85.1 to 88.5)	91.0 (89.0 to 92.6)	95.9 (94.2 to 97.1)	100.0
	Urban	98.4 (97.9 to 98.8)	99.0 (98.6 to 99.3)	99.5 (99.3 to 99.7)	100.0
Care seeking for pneumonia	Rural	85.7 (80.5 to 89.9)	89.1 (83.1 to 93.4)	93.9 (87.4 to 97.3)	99.9
	Urban	85.0 (79.0 to 90.0)	88.6 (82.2 to 93.3)	93.6 (86.9 to 97.2)	99.9
ARI treatment	Rural	80.6 (73.3 to 86.4)	90.6 (83.0 to 95.0)	98.1 (93.9 to 99.5)	100.0
	Urban	84.2 (76.2 to 90.0)	92.6 (85.9 to 96.2)	98.5 (95.0 to 99.6)	100.0
Oral rehydration therapy	Rural	27.8 (23.3 to 32.6)	20.8 (15.7 to 26.4)	10.8 (6.5 to 16.6)	0.0
	Urban	31.7 (25.6 to 38.2)	23.9 (18.0 to 30.7)	12.6 (7.9 to 19.1)	0.0

Table S13: Observed coverage of RMNCH service in Vietnam by regional levels, 2000–2014

Indicators	Regions	Estimated coverage in percent (95% CI)				
		Year 2000	Year 2002	Year 2006	Year 2011	Year 2014
At least one ANC visit	Northwest	43.9 (33.7 to 54.7)	36.5 (26.4 to 47.9)	68.5 (61.0 to 75.2)	65.8 (57.0 to 73.7)	67.8 (58.8 to 75.7)
	Northeast	55.3 (41.2 to 68.6)	97.0 (92.6 to 98.8)	74.7 (63.8 to 83.1)	91.7 (86.6 to 95.0)	93.6 (88.8 to 96.4)
	Red River Delta	93.3 (85.3 to 97.1)	96.2 (93.1 to 97.9)	99.2 (95.8 to 99.9)	99.5 (97.1 to 99.9)	98.6 (96.1 to 99.5)
	North Central	60.7 (47.6 to 72.4)	88.9 (83.3 to 92.8)	94.4 (88.3 to 97.4)	98.4 (94.2 to 99.5)	100.0 (96.7 to 100.0)
	South Central Coast	78.5 (68.2 to 86.1)	86.0 (80.3 to 90.3)	88.9 (82.2 to 93.3)	95.3 (88.5 to 98.2)	98.2 (93.7 to 99.5)
	Central Highlands	52.6 (42.7 to 62.2)	77.9 (66.7 to 86.2)	79.3 (72.9 to 84.4)	89.3 (85.1 to 92.5)	91.9 (88.3 to 94.4)
	Southeast	93.2 (81.8 to 97.7)	92.2 (86.6 to 95.6)	98.0 (93.1 to 99.5)	99.5 (97.4 to 99.9)	99.2 (97.1 to 99.8)
	Mekong River Delta	90.0 (80.8 to 95.1)	84.8 (80.1 to 88.5)	94.7 (89.5 to 97.4)	97.3 (93.9 to 98.9)	99.5 (97.3 to 99.9)
	At least four ANC visit	Northwest	NA	5.4 (2.1 to 13.1)	NA	30.0 (22.5 to 38.7)
Northeast		NA	25.9 (19.3 to 33.9)	NA	45.6 (38.2 to 53.1)	67.8 (60.5 to 74.4)
Red River Delta		NA	47.3 (41.3 to 53.4)	NA	77.6 (71.2 to 82.9)	86.4 (81.3 to 90.3)
North Central		NA	27.5 (21.3 to 34.6)	NA	52.5 (43.7 to 61.1)	75.7 (66.9 to 82.7)
South Central Coast		NA	19.4 (14.3 to 25.6)	NA	62.4 (51.7 to 71.9)	64.9 (55.6 to 73.1)
Central Highlands		NA	23.5 (15.0 to 34.9)	NA	39.7 (34.1 to 45.6)	51.0 (45.4 to 56.5)
Southeast		NA	43.3 (35.4 to 51.5)	NA	86.5 (81.3 to 90.4)	90.2 (85.8 to 93.3)
Mekong River Delta		NA	24.1 (19.5 to 29.4)	NA	59.6 (52.4 to 66.3)	76.8 (70.6 to 82.1)
Exclusive breastfeeding		Northwest	34.0 (22.4 to 47.8)	0.0 (0.0 to 17.6)	26.9 (16.8 to 40.3)	50.0 (35.2 to 64.8)
	Northeast	11.5 (4.0 to 29.0)	14.3 (5.7 to 31.5)	55.6 (33.7 to 75.4)	25.0 (14.9 to 38.8)	29.5 (19.6 to 41.9)
	Red River Delta	30.3 (17.4 to 47.3)	13.8 (7.2 to 24.9)	21.2 (10.7 to 37.8)	14.5 (7.6 to 26.2)	23.0 (14.2 to 34.9)
	North Central	40.0 (24.6 to 57.7)	26.5 (14.6 to 43.1)	11.4 (4.5 to 26.0)	15.2 (6.7 to 30.9)	33.3 (19.8 to 50.4)
	South Central Coast	2.3 (0.4 to 11.8)	0.0 (0.0 to 10.2)	16.1 (7.1 to 32.6)	0.0 (0.0 to 14.9)	14.3 (5.7 to 31.5)
	Central Highlands	4.4 (1.2 to 14.8)	28.6 (11.7 to 54.6)	8.1 (2.8 to 21.3)	9.7 (4.5 to 19.5)	20.7 (13.4 to 30.7)
	Southeast	0.0 (0.0 to 14.3)	6.7 (1.8 to 21.3)	0.0 (0.0 to 14.3)	6.5 (2.2 to 17.5)	6.2 (2.4 to 14.8)
	Mekong River Delta	19.0 (10.0 to 33.3)	4.4 (1.5 to 12.2)	0.0 (0.0 to 11.0)	2.5 (0.4 to 12.9)	11.3 (5.3 to 22.6)
	Early initiation of breastfeeding	Northwest	NA	56.8 (45.4 to 67.4)	10.0 (4.0 to 23.1)	79.2 (71.1 to 85.5)
Northeast		NA	74.1 (66.1 to 80.7)	23.1 (14.5 to 34.6)	63.9 (56.4 to 70.8)	43.9 (36.6 to 51.4)
Red River Delta		NA	61.9 (55.9 to 67.6)	12.3 (7.7 to 19.1)	47.9 (41.0 to 55.0)	37.1 (31.0 to 43.6)
North Central		NA	70.2 (62.9 to 76.5)	0.9 (0.2 to 5.1)	65.6 (56.8 to 73.4)	46.8 (37.8 to 56.1)
South Central Coast		NA	69.9 (63.0 to 76.0)	51.8 (41.2 to 62.2)	43.5 (33.5 to 54.1)	37.8 (29.4 to 47.1)
Central Highlands		NA	51.5 (39.8 to 62.9)	26.2 (19.3 to 34.5)	55.9 (49.9 to 61.7)	46.1 (40.6 to 51.7)
Southeast		NA	46.8 (38.8 to 55.0)	37.5 (28.5 to 47.5)	41.4 (35.0 to 48.1)	34.0 (28.4 to 40.2)
Mekong River Delta		NA	47.5 (41.8 to 53.3)	12.3 (7.3 to 19.9)	52.1 (45.0 to 59.2)	43.3 (36.7 to 50.2)
Family planning needs satisfied		Northwest	NA	91.5 (86.2 to 94.8)	NA	64.5 (60.0 to 68.8)
	Northeast	NA	63.6 (59.3 to 67.8)	NA	63.2 (59.8 to 66.4)	61.5 (57.7 to 65.2)
	Red River Delta	NA	71.4 (68.6 to 74.0)	NA	63.2 (60.0 to 66.2)	61.3 (57.9 to 64.5)
	North Central	NA	76.5 (72.8 to 79.8)	NA	68.6 (64.5 to 72.5)	64.3 (59.5 to 68.8)
	South Central Coast	NA	75.7 (71.4 to 79.6)	NA	68.1 (63.7 to 72.2)	62.9 (58.1 to 67.4)
	Central Highlands	NA	61.7 (53.5 to 69.3)	NA	62.2 (59.3 to 65.1)	60.9 (57.7 to 64.0)
	Southeast	NA	70.8 (66.6 to 74.7)	NA	63.8 (60.7 to 66.8)	59.4 (56.1 to 62.5)
	Mekong River Delta	NA	73.3 (70.3 to 76.2)	NA	68.0 (65.2 to 70.7)	67.7 (64.5 to 70.6)
	BCG immunization	Northwest	72.2 (62.2 to 80.4)	80.0 (60.9 to 91.1)	43.6 (33.1 to 54.6)	80.6 (69.1 to 88.6)
Northeast		78.8 (62.2 to 89.3)	96.4 (87.9 to 99.0)	73.2 (58.1 to 84.3)	88.9 (80.7 to 93.9)	97.8 (92.3 to 99.4)
Red River Delta		94.5 (85.1 to 98.1)	100.0 (95.6 to 100.0)	89.0 (79.8 to 94.3)	97.1 (91.9 to 99.0)	97.5 (92.9 to 99.1)
North Central		91.7 (83.0 to 96.1)	91.9 (83.4 to 96.2)	90.0 (78.6 to 95.7)	97.1 (90.0 to 99.2)	100.0 (93.9 to 100.0)
South Central Coast		89.4 (81.1 to 94.3)	96.8 (89.1 to 99.1)	90.8 (81.3 to 95.7)	97.9 (88.9 to 99.6)	98.2 (90.6 to 99.7)
Central Highlands		87.7 (80.1 to 92.7)	87.0 (67.9 to 95.5)	90.8 (84.2 to 94.8)	91.2 (85.8 to 94.7)	92.3 (87.0 to 95.5)
Southeast		95.1 (83.9 to 98.7)	92.5 (82.1 to 97.0)	93.2 (83.8 to 97.3)	96.9 (92.4 to 98.8)	97.0 (92.6 to 98.8)
Mekong River Delta		83.9 (72.8 to 91.0)	92.1 (84.6 to 96.1)	91.3 (82.3 to 96.0)	93.8 (87.7 to 96.9)	97.4 (92.7 to 99.1)
DPT3 immunization		Northwest	25.6 (17.7 to 35.4)	56.0 (37.1 to 73.3)	35.9 (26.1 to 47.0)	32.3 (22.0 to 44.6)
	Northeast	45.5 (29.8 to 62.0)	58.9 (45.9 to 70.8)	56.1 (41.0 to 70.1)	36.7 (27.4 to 47.0)	67.8 (57.6 to 76.5)
	Red River Delta	78.2 (65.6 to 87.1)	86.9 (78.1 to 92.5)	74.0 (62.9 to 82.7)	54.3 (44.8 to 63.5)	88.3 (81.4 to 92.9)
	North Central	44.4 (33.5 to 55.9)	54.1 (42.8 to 64.9)	50.0 (36.6 to 63.4)	42.0 (31.1 to 53.8)	78.0 (65.9 to 86.6)
	South Central Coast	62.4 (51.7 to 71.9)	77.8 (66.1 to 86.3)	72.3 (60.4 to 81.7)	66.0 (51.7 to 77.8)	85.7 (74.3 to 92.6)
	Central Highlands	38.7 (30.0 to 48.2)	91.3 (73.2 to 97.6)	59.7 (50.7 to 68.0)	44.0 (36.5 to 51.8)	67.9 (60.3 to 74.8)
	Southeast	63.4 (48.1 to 76.4)	86.8 (75.2 to 93.5)	86.4 (75.5 to 93.0)	71.8 (63.5 to 78.8)	80.7 (73.3 to 86.5)
	Mekong River Delta	64.5 (52.1 to 75.3)	70.8 (60.6 to 79.2)	73.9 (62.5 to 82.8)	55.4 (46.1 to 64.2)	81.9 (73.9 to 87.8)
	Polio3 immunization	Northwest	25.6 (17.7 to 35.4)	60.0 (40.7 to 76.6)	34.6 (25.0 to 45.7)	32.3 (22.0 to 44.6)
Northeast		33.3 (19.8 to 50.4)	58.9 (45.9 to 70.8)	41.5 (27.8 to 56.6)	37.8 (28.5 to 48.1)	87.8 (79.4 to 93.0)
Red River Delta		67.3 (54.1 to 78.2)	91.7 (83.8 to 95.9)	64.4 (52.9 to 74.4)	33.3 (25.0 to 42.8)	95.8 (90.6 to 98.2)
North Central		43.1 (32.3 to 54.6)	58.1 (46.7 to 68.7)	50.0 (36.6 to 63.4)	37.7 (27.2 to 49.5)	86.4 (75.5 to 93.0)
South Central Coast		68.2 (57.7 to 77.2)	81.0 (69.6 to 88.8)	72.3 (60.4 to 81.7)	59.6 (45.3 to 72.4)	92.9 (83.0 to 97.2)
Southeast		42.5 (33.5 to 52.0)	95.7 (79.0 to 99.2)	57.1 (48.2 to 65.7)	44.0 (36.5 to 51.8)	76.9 (69.7 to 82.8)
		68.3 (53.0 to 80.4)	84.9 (72.9 to 92.1)	81.4 (69.6 to 89.3)	63.4 (54.8 to 71.1)	85.2 (78.2 to 90.2)

	Mekong River Delta	66.1 (53.7 to 76.7)	71.9 (61.8 to 80.2)	78.3 (67.2 to 86.4)	45.5 (36.6 to 54.8)	87.1 (79.8 to 92.0)
	Northwest	57.8 (47.5 to 67.5)	64.0 (44.5 to 79.8)	33.3 (23.9 to 44.4)	45.2 (33.4 to 57.5)	66.0 (52.6 to 77.3)
	Northeast	66.7 (49.6 to 80.2)	92.9 (83.0 to 97.2)	61.0 (45.7 to 74.3)	64.4 (54.2 to 73.6)	86.7 (78.1 to 92.2)
Measles immunization	Red River Delta	87.3 (76.0 to 93.7)	97.6 (91.7 to 99.3)	82.2 (71.9 to 89.3)	77.1 (68.2 to 84.1)	93.3 (87.4 to 96.6)
	North Central	80.6 (70.0 to 88.0)	81.1 (70.7 to 88.4)	86.0 (73.8 to 93.0)	65.2 (53.4 to 75.4)	89.8 (79.5 to 95.3)
	South Central Coast	78.8 (69.0 to 86.2)	90.5 (80.7 to 95.6)	80.0 (68.7 to 87.9)	76.6 (62.8 to 86.4)	89.3 (78.5 to 95.0)
	Central Highlands	57.5 (48.0 to 66.5)	87.0 (67.9 to 95.5)	75.6 (67.2 to 82.5)	68.6 (61.0 to 75.3)	71.2 (63.6 to 77.7)
	Southeast	73.2 (58.1 to 84.3)	86.8 (75.2 to 93.5)	84.7 (73.5 to 91.8)	87.8 (81.1 to 92.3)	80.0 (72.5 to 85.9)
	Mekong River Delta	61.3 (48.8 to 72.4)	65.2 (54.8 to 74.3)	78.3 (67.2 to 86.4)	67.0 (57.8 to 75.0)	82.8 (74.9 to 88.6)
	Northwest	12.2 (7.0 to 20.6)	48.0 (30.0 to 66.5)	24.4 (16.2 to 34.9)	25.8 (16.6 to 37.9)	41.5 (29.3 to 54.9)
	Northeast	30.3 (17.4 to 47.3)	51.8 (39.0 to 64.3)	36.6 (23.6 to 51.9)	30.0 (21.5 to 40.1)	57.8 (47.5 to 67.5)
Full immunization	Red River Delta	54.5 (41.5 to 67.0)	84.5 (75.3 to 90.7)	54.8 (43.4 to 65.7)	28.6 (20.8 to 37.8)	80.8 (72.9 to 86.9)
	North Central	30.6 (21.1 to 42.0)	51.4 (40.2 to 62.4)	38.0 (25.9 to 51.8)	29.0 (19.6 to 40.6)	76.3 (64.0 to 85.3)
	South Central Coast	51.8 (41.3 to 62.1)	76.2 (64.4 to 85.0)	60.0 (47.9 to 71.0)	48.9 (35.3 to 62.8)	82.1 (70.2 to 90.0)
	Central Highlands	24.5 (17.3 to 33.5)	78.3 (58.1 to 90.3)	47.9 (39.1 to 56.8)	38.4 (31.2 to 46.1)	58.3 (50.5 to 65.8)
	Southeast	53.7 (38.7 to 67.9)	81.1 (68.6 to 89.4)	64.4 (51.7 to 75.4)	58.0 (49.5 to 66.1)	70.4 (62.2 to 77.4)
	Mekong River Delta	41.9 (30.5 to 54.3)	59.6 (49.2 to 69.1)	62.3 (50.5 to 72.8)	33.9 (25.8 to 43.1)	69.0 (60.1 to 76.7)
	Northwest	42.0 (40.6 to 43.4)	97.6 (96.6 to 98.3)	71.2 (69.9 to 72.4)	64.6 (62.8 to 66.3)	92.5 (91.4 to 93.5)
	Northeast	67.7 (65.9 to 69.4)	95.2 (94.4 to 95.9)	79.0 (77.5 to 80.4)	90.1 (89.3 to 90.9)	90.6 (89.7 to 91.4)
Improved Water	Red River Delta	65.1 (63.7 to 66.4)	99.2 (99.0 to 99.4)	57.0 (55.6 to 58.3)	98.8 (98.5 to 99.1)	99.4 (99.2 to 99.6)
	North Central	80.4 (79.2 to 81.5)	97.7 (97.2 to 98.1)	79.6 (78.3 to 80.7)	88.8 (87.7 to 89.8)	86.1 (84.9 to 87.3)
	South Central Coast	90.3 (89.5 to 91.1)	93.5 (92.6 to 94.3)	89.5 (88.7 to 90.3)	93.2 (92.4 to 94.0)	91.4 (90.4 to 92.3)
	Central Highlands	77.6 (76.4 to 78.7)	91.4 (89.7 to 92.8)	83.7 (82.7 to 84.7)	86.9 (86.1 to 87.6)	85.0 (84.2 to 85.8)
	Southeast	88.7 (87.6 to 89.7)	98.3 (97.9 to 98.7)	90.8 (89.8 to 91.7)	98.3 (98.0 to 98.6)	97.5 (97.1 to 97.9)
	Mekong River Delta	43.3 (41.9 to 44.7)	61.3 (60.2 to 62.4)	51.7 (50.2 to 53.1)	94.0 (93.5 to 94.5)	90.0 (89.3 to 90.7)
	Northwest	17.4 (16.3 to 18.4)	58.1 (55.5 to 60.7)	31.9 (30.6 to 33.2)	64.2 (62.4 to 65.9)	52.6 (50.6 to 54.5)
	Northeast	38.1 (36.2 to 39.9)	94.8 (94.0 to 95.5)	66.7 (65.0 to 68.4)	82.9 (81.8 to 83.9)	86.9 (85.9 to 87.9)
Adequate sanitation	Red River Delta	72.4 (71.1 to 73.6)	98.6 (98.3 to 98.9)	87.3 (86.4 to 88.2)	97.6 (97.2 to 97.9)	98.0 (97.7 to 98.4)
	North Central	46.6 (45.2 to 48.1)	83.1 (81.9 to 84.1)	68.8 (67.4 to 70.1)	82.5 (81.2 to 83.6)	90.3 (89.2 to 91.3)
	South Central Coast	40.6 (39.3 to 41.9)	65.5 (63.8 to 67.1)	63.3 (62.0 to 64.6)	86.0 (84.8 to 87.1)	86.7 (85.5 to 87.9)
	Central Highlands	27.3 (26.1 to 28.6)	74.2 (71.7 to 76.5)	51.4 (50.1 to 52.8)	69.7 (68.7 to 70.7)	71.5 (70.4 to 72.5)
	Southeast	60.6 (59.0 to 62.3)	87.5 (86.5 to 88.5)	83.7 (82.4 to 84.9)	91.2 (90.6 to 91.9)	93.4 (92.8 to 94.0)
	Mekong River Delta	18.9 (17.8 to 20.0)	69.7 (68.6 to 70.8)	34.7 (33.3 to 36.1)	50.1 (49.0 to 51.3)	58.7 (57.5 to 59.9)
	Northwest	NA	8.3 (3.9 to 17.0)	45.7 (38.2 to 53.4)	57.5 (48.6 to 66.0)	54.8 (45.7 to 63.6)
	Northeast	NA	70.1 (61.9 to 77.2)	62.7 (51.4 to 72.7)	87.6 (81.8 to 91.7)	93.6 (88.8 to 96.4)
Institutional delivery	Red River Delta	NA	96.1 (93.0 to 97.9)	99.2 (95.8 to 99.9)	99.0 (96.3 to 99.7)	99.1 (96.8 to 99.8)
	North Central	NA	73.2 (66.1 to 79.3)	72.0 (62.8 to 79.6)	92.6 (86.6 to 96.1)	97.3 (92.4 to 99.1)
	South Central Coast	NA	73.4 (66.6 to 79.2)	91.3 (85.0 to 95.1)	97.6 (91.8 to 99.4)	98.2 (93.7 to 99.5)
	Central Highlands	NA	70.1 (58.3 to 79.8)	56.4 (49.2 to 63.3)	80.1 (75.0 to 84.5)	82.5 (77.8 to 86.3)
	Southeast	NA	95.7 (91.0 to 98.0)	100.0 (96.4 to 100.0)	99.1 (96.7 to 99.7)	97.1 (94.2 to 98.6)
	Mekong River Delta	NA	89.6 (85.4 to 92.6)	97.0 (92.5 to 98.8)	98.4 (95.4 to 99.5)	99.5 (97.3 to 99.9)
	Northwest	25.6 (17.4 to 36.0)	11.1 (5.7 to 20.4)	42.0 (34.6 to 49.7)	60.0 (51.1 to 68.3)	60.0 (50.9 to 68.5)
	Northeast	29.8 (18.7 to 44.0)	85.8 (78.9 to 90.7)	61.3 (50.0 to 71.5)	87.0 (81.1 to 91.2)	94.2 (89.6 to 96.8)
	Red River Delta	86.7 (77.2 to 92.6)	100.0 (98.5 to 100.0)	86.2 (79.2 to 91.1)	99.5 (97.1 to 99.9)	99.1 (96.8 to 99.8)
Skilled birth attendance	North Central	53.6 (40.7 to 66.0)	81.0 (74.3 to 86.2)	63.6 (54.1 to 72.1)	95.1 (89.7 to 97.7)	99.1 (95.1 to 99.8)
	South Central Coast	70.9 (60.1 to 79.7)	87.0 (81.3 to 91.1)	67.5 (58.9 to 75.0)	98.8 (93.6 to 99.8)	98.2 (93.7 to 99.5)
	Central Highlands	51.5 (41.7 to 61.2)	86.6 (76.4 to 92.8)	56.9 (49.8 to 63.8)	80.9 (75.8 to 85.1)	84.1 (79.6 to 87.8)
	Southeast	93.2 (81.8 to 97.7)	99.3 (96.1 to 99.9)	81.4 (72.7 to 87.7)	99.1 (96.7 to 99.7)	98.0 (95.3 to 99.1)
	Mekong River Delta	85.7 (75.7 to 92.1)	86.7 (82.2 to 90.2)	84.2 (77.1 to 89.4)	98.4 (95.4 to 99.5)	99.5 (97.3 to 99.9)
	Northwest	63.4 (48.1 to 76.4)	73.7 (51.2 to 88.2)	69.0 (50.8 to 82.7)	66.7 (30.0 to 90.3)	16.7 (3.0 to 56.4)
	Northeast	50.0 (32.1 to 67.9)	73.5 (56.9 to 85.4)	81.8 (52.3 to 94.9)	85.7 (48.7 to 97.4)	75.0 (46.8 to 91.1)
	Red River Delta	51.4 (35.9 to 66.6)	88.7 (77.4 to 94.7)	85.7 (70.6 to 93.7)	59.3 (40.7 to 75.5)	100.0 (72.2 to 100.0)
Care seeking for pneumonia	North Central	83.3 (71.3 to 91.0)	90.3 (75.1 to 96.7)	53.1 (36.4 to 69.1)	70.6 (46.9 to 86.7)	94.1 (73.0 to 99.0)
	South Central Coast	72.4 (59.8 to 82.2)	86.1 (71.3 to 93.9)	78.9 (56.7 to 91.5)	91.7 (64.6 to 98.5)	80.0 (49.0 to 94.3)
	Central Highlands	64.0 (50.1 to 75.9)	73.3 (48.0 to 89.1)	80.5 (66.0 to 89.8)	75.8 (59.0 to 87.2)	87.5 (71.9 to 95.0)
	Southeast	25.0 (12.7 to 43.4)	88.9 (67.2 to 96.9)	90.0 (59.6 to 98.2)	89.5 (68.6 to 97.1)	100.0 (78.5 to 100.0)
	Mekong River Delta	62.5 (45.3 to 77.1)	91.8 (80.8 to 96.8)	70.0 (48.1 to 85.5)	100.0 (75.8 to 100.0)	92.3 (75.9 to 97.9)
	Northwest	NA	NA	55.2 (37.5 to 71.6)	83.3 (43.6 to 97.0)	33.3 (9.7 to 70.0)
	Northeast	NA	NA	72.7 (43.4 to 90.3)	71.4 (35.9 to 91.8)	66.7 (39.1 to 86.2)
ARI treatment	Red River Delta	NA	NA	54.3 (38.2 to 69.5)	74.1 (55.3 to 86.8)	90.0 (59.6 to 98.2)
	North Central	NA	NA	43.8 (28.2 to 60.7)	41.2 (21.6 to 64.0)	88.2 (65.7 to 96.7)
	South Central Coast	NA	NA	73.7 (51.2 to 88.2)	75.0 (46.8 to 91.1)	70.0 (39.7 to 89.2)
	Central Highlands	NA	NA	51.2 (36.5 to 65.7)	60.6 (43.7 to 75.3)	87.5 (71.9 to 95.0)
	Southeast	NA	NA	20.0 (5.7 to 51.0)	78.9 (56.7 to 91.5)	100.0 (78.5 to 100.0)

	Mekong River Delta	NA	NA	25.0 (11.2 to 46.9)	33.3 (13.8 to 60.9)	84.6 (66.5 to 93.8)
	Northwest	66.7 (52.5 to 78.3)	44.4 (18.9 to 73.3)	82.1 (67.3 to 91.0)	13.2 (5.8 to 27.3)	41.2 (26.4 to 57.8)
	Northeast	51.2 (36.5 to 65.7)	30.0 (14.5 to 51.9)	54.5 (28.0 to 78.7)	41.5 (27.8 to 56.6)	37.5 (26.0 to 50.6)
	Red River Delta	69.2 (50.0 to 83.5)	40.0 (21.9 to 61.3)	57.1 (39.1 to 73.5)	36.6 (23.6 to 51.9)	36.7 (21.9 to 54.5)
Oral rehydration therapy	North Central	47.9 (34.5 to 61.7)	23.1 (8.2 to 50.3)	70.6 (46.9 to 86.7)	31.6 (15.4 to 54.0)	23.5 (9.6 to 47.3)
	South Central Coast	41.1 (29.2 to 54.1)	47.1 (31.5 to 63.3)	59.1 (38.7 to 76.7)	5.9 (1.0 to 27.0)	20.0 (8.1 to 41.6)
	Central Highlands	55.6 (44.7 to 65.9)	44.4 (18.9 to 73.3)	58.7 (44.3 to 71.7)	31.8 (20.0 to 46.6)	31.3 (22.4 to 41.9)
	Southeast	66.7 (41.7 to 84.8)	12.5 (2.2 to 47.1)	81.2 (57.0 to 93.4)	32.3 (18.6 to 49.9)	25.0 (13.8 to 41.1)
	Mekong River Delta	51.3 (36.2 to 66.1)	48.0 (30.0 to 66.5)	57.9 (36.3 to 76.9)	26.5 (14.6 to 43.1)	11.8 (4.7 to 26.6)

Table S14: Predicted coverage of RMNCH service in Vietnam by regional levels, 2015–2020

Indicators	Regions	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
At least one ANC visit	Northwest	74.1 (67.5 to 80.1)	81.1 (72.9 to 87.6)	90.7 (81.4 to 95.7)	98.6
	Northeast	94.3 (91.2 to 96.5)	96.5 (93.2 to 98.3)	98.7 (95.9 to 99.6)	100.0
	Red River Delta	99.6 (98.8 to 99.9)	99.8 (99.2 to 100.0)	100.0 (99.7 to 100.0)	100.0
	North Central	99.5 (98.6 to 99.9)	99.9 (99.4 to 100.0)	100.0 (99.9 to 100.0)	100.0
	South Central Coast	97.8 (95.6 to 99.0)	99.0 (97.3 to 99.7)	99.8 (99.1 to 100.0)	100.0
	Central Highlands	93.6 (91.4 to 95.4)	96.9 (95.2 to 98.1)	99.3 (98.5 to 99.7)	100.0
	Southeast	99.6 (99.0 to 99.9)	99.9 (99.5 to 100.0)	100.0 (99.9 to 100.0)	100.0
	Mekong River Delta	97.8 (88.5 to 99.5)	99.0 (92.6 to 99.9)	99.8 (97.0 to 100.0)	99.7
	At least four ANC visit	Northwest	40.9 (33.5 to 48.6)	59.3 (46.3 to 70.6)	86.7 (70.2 to 94.5)
Northeast		67.2 (61.3 to 72.6)	81.5 (74.4 to 86.3)	95.3 (90.4 to 97.4)	100.0
Red River Delta		88.2 (84.8 to 91.1)	94.6 (91.9 to 96.4)	99.0 (97.9 to 99.5)	100.0
North Central		73.8 (67.7 to 79.0)	86.4 (80.5 to 90.5)	97.0 (93.9 to 98.5)	100.0
South Central Coast		71.1 (64.3 to 77.2)	85.2 (78.8 to 90.3)	96.9 (93.9 to 98.6)	100.0
Central Highlands		54.6 (49.2 to 59.5)	70.4 (61.0 to 77.1)	90.3 (79.4 to 94.9)	97.0
Southeast		92.0 (89.2 to 94.4)	96.9 (95.0 to 98.2)	99.6 (99.0 to 99.8)	100.0
Mekong River Delta		73.3 (53.8 to 86.3)	86.2 (70.4 to 94.0)	97.0 (90.5 to 99.0)	99.8
Exclusive breastfeeding		Northwest	37.5 (29.2 to 46.6)	41.0 (30.7 to 52.3)	48.4 (32.6 to 64.5)
	Northeast	29.0 (21.8 to 37.1)	32.1 (23.2 to 42.1)	38.9 (25.2 to 54.4)	0.0
	Red River Delta	22.8 (17.1 to 29.9)	25.4 (18.2 to 34.7)	31.3 (19.5 to 46.5)	0.0
	North Central	28.9 (21.0 to 37.9)	32.0 (22.4 to 43.4)	38.8 (24.1 to 54.7)	0.0
	South Central Coast	8.6 (4.6 to 14.8)	9.8 (5.1 to 17.8)	12.7 (5.9 to 25.7)	0.0
	Central Highlands	15.4 (10.7 to 21.0)	17.4 (11.5 to 24.7)	22.0 (12.9 to 34.6)	0.0
	Southeast	6.4 (3.2 to 10.9)	7.3 (3.6 to 12.8)	9.5 (4.3 to 18.7)	0.0
	Mekong River Delta	18.0 (9.9 to 33.2)	20.3 (11.0 to 37.6)	25.5 (12.6 to 47.9)	0.0
	Early initiation of breastfeeding	Northwest	50.8 (45.3 to 56.2)	47.2 (41.3 to 53.3)	40.3 (32.8 to 48.0)
Northeast		50.3 (45.9 to 54.8)	46.8 (41.5 to 51.9)	39.8 (33.1 to 47.1)	0.0
Red River Delta		39.3 (35.6 to 43.1)	36.0 (31.6 to 40.5)	29.7 (24.0 to 36.0)	0.0
North Central		44.2 (39.6 to 48.9)	40.7 (35.4 to 46.1)	34.1 (27.4 to 41.3)	0.0
South Central Coast		48.2 (43.3 to 53.0)	44.6 (39.0 to 50.3)	37.8 (30.5 to 45.4)	0.0
Central Highlands		43.6 (40.0 to 47.4)	40.2 (35.9 to 44.6)	33.6 (27.8 to 40.0)	0.0
Southeast		36.4 (32.6 to 40.2)	33.1 (28.8 to 37.6)	27.2 (21.8 to 33.2)	0.0
Mekong River Delta		43.7 (37.6 to 50.2)	40.3 (33.9 to 47.4)	33.7 (26.5 to 41.8)	0.0
Family planning needs satisfied		Northwest	59.0 (53.8 to 63.4)	45.8 (36.2 to 54.8)	22.7 (11.4 to 38.6)
	Northeast	61.8 (58.7 to 64.6)	60.7 (55.6 to 65.4)	58.4 (48.9 to 67.4)	0.0
	Red River Delta	60.2 (57.4 to 62.8)	55.6 (51.1 to 59.7)	46.0 (38.3 to 53.8)	0.0
	North Central	63.1 (59.7 to 66.8)	57.2 (51.4 to 63.1)	44.8 (34.8 to 55.7)	0.0
	South Central Coast	62.3 (58.7 to 66.0)	56.4 (50.2 to 62.3)	44.1 (33.3 to 55.6)	0.0
	Central Highlands	60.9 (58.1 to 63.9)	59.6 (53.9 to 65.3)	56.7 (44.4 to 68.7)	0.0
	Southeast	59.5 (56.6 to 62.2)	54.6 (49.7 to 59.2)	44.6 (35.4 to 53.8)	0.0
	Mekong River Delta	61.6 (57.4 to 65.0)	56.6 (49.7 to 62.1)	46.4 (32.8 to 58.3)	0.0
	BCG immunization	Northwest	79.8 (74.2 to 84.8)	84.2 (77.8 to 89.1)	90.6 (83.6 to 94.8)
Northeast		93.2 (90.3 to 95.5)	94.9 (92.1 to 96.9)	97.1 (94.6 to 98.5)	100.0
Red River Delta		97.4 (96.0 to 98.4)	98.1 (96.8 to 98.9)	98.9 (97.9 to 99.5)	100.0
North Central		96.5 (94.5 to 97.9)	97.4 (95.6 to 98.5)	98.6 (97.1 to 99.3)	100.0
South Central Coast		96.5 (94.5 to 97.9)	97.4 (95.5 to 98.6)	98.6 (97.0 to 99.3)	100.0
Central Highlands		93.8 (91.5 to 95.5)	95.3 (93.1 to 96.9)	97.4 (95.2 to 98.6)	100.0
Southeast		97.0 (95.3 to 98.2)	97.7 (96.3 to 98.7)	98.7 (97.6 to 99.4)	100.0
Mekong River Delta		94.7 (89.4 to 97.4)	96.0 (91.5 to 98.1)	97.8 (94.7 to 99.1)	100.0
DPT3 immunization		Northwest	41.5 (35.4 to 48.0)	44.6 (37.5 to 52.2)	50.9 (40.9 to 61.1)
	Northeast	57.8 (51.6 to 63.4)	60.9 (53.9 to 67.1)	66.6 (57.6 to 74.4)	0.1
	Red River Delta	79.1 (75.0 to 82.8)	81.1 (76.6 to 85.0)	84.7 (79.1 to 89.1)	95.2
	North Central	58.8 (52.5 to 64.8)	61.9 (54.7 to 68.6)	67.6 (58.1 to 75.9)	0.1
	South Central Coast	76.4 (71.2 to 81.2)	78.6 (72.9 to 83.6)	82.5 (75.9 to 87.9)	77.5
	Central Highlands	59.1 (54.5 to 63.6)	62.1 (56.5 to 67.5)	67.8 (60.0 to 75.0)	0.0
	Southeast	80.1 (76.0 to 83.7)	82.0 (77.7 to 85.8)	85.4 (80.3 to 89.6)	97.9
	Mekong River Delta	66.8 (52.4 to 78.0)	69.5 (55.5 to 80.3)	74.6 (60.4 to 85.0)	15.5
	Polio3 immunization	Northwest	45.7 (39.3 to 52.0)	50.4 (42.9 to 57.6)	59.6 (49.6 to 68.7)
Northeast		62.4 (56.7 to 67.8)	66.7 (60.4 to 72.6)	74.5 (66.8 to 80.9)	5.1
Red River Delta		76.3 (71.9 to 80.3)	79.5 (74.8 to 83.7)	85.0 (79.5 to 89.4)	96.2
North Central		62.4 (56.3 to 68.3)	66.8 (59.9 to 73.1)	74.5 (66.0 to 81.6)	6.9
South Central Coast		80.4 (75.7 to 84.7)	83.2 (78.4 to 87.5)	87.9 (82.7 to 91.9)	99.6
Central Highlands		63.8 (59.3 to 68.2)	68.0 (62.7 to 73.1)	75.6 (68.6 to 81.7)	8.9
Southeast		79.8 (75.7 to 83.6)	82.7 (78.4 to 86.4)	87.4 (82.7 to 91.1)	99.8
Mekong River Delta		68.9 (56.4 to 78.6)	72.8 (60.3 to 81.9)	79.5 (67.7 to 87.5)	45.6
Northwest		54.8 (48.2 to 61.0)	56.5 (48.6 to 63.7)	59.8 (48.9 to 69.7)	0.0

Indicators	Regions	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
Measles immunization	Northeast	77.5 (72.3 to 82.0)	78.7 (73.0 to 83.5)	80.9 (73.4 to 86.7)	59.7
	Red River Delta	88.3 (84.9 to 91.2)	89.0 (85.2 to 92.1)	90.2 (85.5 to 93.7)	100.0
	North Central	81.6 (77.0 to 86.0)	82.7 (77.5 to 87.2)	84.5 (77.8 to 89.7)	91.0
	South Central Coast	84.4 (79.8 to 88.4)	85.3 (80.2 to 89.3)	86.9 (80.4 to 91.5)	98.1
	Central Highlands	71.6 (67.2 to 75.7)	72.9 (67.7 to 77.8)	75.5 (67.7 to 82.1)	8.9
	Southeast	84.3 (80.3 to 87.6)	85.1 (80.9 to 88.7)	86.8 (81.2 to 91.0)	99.0
	Mekong River Delta	78.1 (67.3 to 85.9)	79.2 (68.3 to 86.9)	81.3 (69.5 to 89.2)	60.2
Full immunization	Northwest	32.4 (26.6 to 38.4)	35.8 (29.1 to 42.9)	43.2 (33.4 to 53.1)	0.0
	Northeast	48.2 (42.3 to 54.1)	52.1 (45.3 to 58.8)	59.6 (50.6 to 68.2)	0.0
	Red River Delta	66.2 (61.2 to 70.9)	69.6 (63.8 to 74.8)	75.7 (68.2 to 81.8)	8.9
	North Central	51.3 (44.9 to 57.4)	55.1 (47.8 to 62.3)	62.5 (53.0 to 71.3)	0.0
	South Central Coast	69.2 (63.4 to 74.5)	72.3 (65.8 to 78.1)	78.1 (70.2 to 84.3)	30.3
	Central Highlands	50.1 (45.4 to 54.7)	54.0 (48.2 to 59.5)	61.4 (53.1 to 69.0)	0.0
	Southeast	69.1 (64.4 to 73.6)	72.3 (67.1 to 77.3)	78.0 (71.2 to 83.8)	25.8
Improved Water	Mekong River Delta	55.9 (43.8 to 67.8)	59.6 (47.1 to 71.5)	66.9 (53.2 to 78.5)	1.2
	Northwest	86.1 (85.1 to 87.0)	91.8 (90.9 to 92.6)	97.3 (96.8 to 97.7)	100.0
	Northeast	91.7 (91.1 to 92.3)	94.1 (93.4 to 94.8)	97.1 (96.5 to 97.6)	100.0
	Red River Delta	96.3 (96.0 to 96.7)	98.3 (98.0 to 98.5)	99.6 (99.5 to 99.7)	100.0
	North Central	86.4 (85.4 to 87.4)	86.4 (85.0 to 87.7)	86.3 (83.8 to 88.4)	100.0
	South Central Coast	92.0 (91.2 to 92.7)	92.3 (91.3 to 93.3)	93.0 (91.4 to 94.4)	100.0
	Central Highlands	87.0 (86.4 to 87.6)	88.8 (87.9 to 89.6)	91.6 (90.5 to 92.6)	100.0
Adequate sanitation	Southeast	98.1 (97.8 to 98.3)	98.8 (98.6 to 99.0)	99.6 (99.4 to 99.7)	100.0
	Mekong River Delta	92.3 (83.3 to 96.7)	94.8 (86.3 to 98.2)	97.7 (89.1 to 99.6)	99.3
	Northwest	63.8 (62.3 to 65.3)	76.1 (74.3 to 77.8)	91.2 (89.9 to 92.4)	100.0
	Northeast	88.3 (87.5 to 89.0)	92.6 (91.9 to 93.3)	97.2 (96.8 to 97.6)	100.0
	Red River Delta	98.5 (98.3 to 98.7)	99.4 (99.2 to 99.5)	99.9 (99.9 to 99.9)	100.0
	North Central	89.8 (89.0 to 90.4)	94.1 (93.4 to 94.7)	98.2 (97.8 to 98.4)	100.0
	South Central Coast	89.9 (89.1 to 90.5)	95.1 (94.6 to 95.6)	99.0 (98.8 to 99.1)	100.0
Institutional delivery	Central Highlands	76.6 (75.9 to 77.4)	85.7 (84.9 to 86.5)	95.3 (94.7 to 95.7)	100.0
	Southeast	94.7 (94.3 to 95.1)	97.2 (96.9 to 97.5)	99.2 (99.1 to 99.4)	100.0
	Mekong River Delta	86.9 (68.4 to 95.4)	92.4 (77.8 to 97.8)	97.6 (89.0 to 99.5)	99.5
	Northwest	67.8 (62.6 to 72.7)	81.6 (76.6 to 85.8)	95.2 (92.4 to 97.0)	100.0
	Northeast	92.8 (90.7 to 94.5)	96.4 (95.0 to 97.5)	99.2 (98.6 to 99.5)	100.0
	Red River Delta	99.5 (99.1 to 99.7)	99.7 (99.5 to 99.9)	99.9 (99.9 to 100.0)	100.0
	North Central	94.5 (92.8 to 96.0)	97.3 (96.2 to 98.2)	99.4 (98.9 to 99.7)	100.0
Skilled birth attendance	South Central Coast	96.4 (95.0 to 97.4)	98.3 (97.4 to 98.8)	99.6 (99.3 to 99.8)	100.0
	Central Highlands	86.8 (84.3 to 88.9)	93.3 (91.4 to 94.8)	98.4 (97.5 to 99.0)	100.0
	Southeast	99.2 (98.7 to 99.6)	99.6 (99.4 to 99.8)	99.9 (99.8 to 100.0)	100.0
	Mekong River Delta	95.6 (84.4 to 98.8)	97.8 (91.8 to 99.4)	99.5 (97.9 to 99.9)	100.0
	Northwest	67.4 (62.6 to 72.0)	80.1 (75.6 to 84.1)	93.8 (91.1 to 95.8)	100.0
	Northeast	92.3 (90.4 to 93.9)	95.9 (94.5 to 96.9)	98.9 (98.3 to 99.3)	100.0
	Red River Delta	98.9 (98.4 to 99.3)	99.4 (99.1 to 99.6)	99.9 (99.7 to 99.9)	100.0
Care seeking for pneumonia	North Central	93.8 (92.0 to 95.2)	96.7 (95.5 to 97.6)	99.1 (98.6 to 99.4)	100.0
	South Central Coast	95.3 (93.9 to 96.5)	97.5 (96.6 to 98.3)	99.3 (98.9 to 99.6)	100.0
	Central Highlands	87.5 (85.2 to 89.5)	93.1 (91.3 to 94.6)	98.1 (97.2 to 98.7)	100.0
	Southeast	98.5 (97.8 to 99.0)	99.2 (98.8 to 99.5)	99.8 (99.6 to 99.9)	100.0
	Mekong River Delta	94.3 (83.8 to 97.9)	97.0 (90.9 to 98.9)	99.2 (97.3 to 99.7)	100.0
	Northwest	82.6 (73.2 to 88.7)	86.7 (76.9 to 92.4)	92.5 (83.0 to 96.8)	99.1
	Northeast	84.0 (75.7 to 89.5)	87.8 (79.4 to 93.1)	93.1 (85.0 to 97.1)	99.5
ARI treatment	Red River Delta	85.7 (79.4 to 90.6)	89.1 (82.3 to 93.8)	93.9 (86.8 to 97.4)	99.9
	North Central	86.9 (80.8 to 91.6)	90.1 (83.6 to 94.5)	94.5 (87.9 to 97.7)	99.9
	South Central Coast	87.6 (81.6 to 92.4)	90.6 (84.4 to 95.0)	94.8 (88.6 to 97.9)	100.0
	Central Highlands	85.0 (78.8 to 89.9)	88.6 (82.0 to 93.3)	93.6 (86.8 to 97.2)	99.8
	Southeast	84.0 (76.0 to 89.4)	87.8 (79.4 to 92.9)	93.2 (84.9 to 97.1)	99.7
	Mekong River Delta	85.5 (79.6 to 90.3)	89.0 (82.4 to 93.6)	93.8 (86.9 to 97.4)	99.9
	Northwest	76.6 (41.6 to 89.2)	86.2 (32.0 to 96.2)	95.8 (16.2 to 99.6)	78.4
Oral rehydration therapy	Northeast	79.2 (52.2 to 90.6)	87.9 (41.1 to 96.8)	96.3 (20.5 to 99.7)	79.9
	Red River Delta	85.1 (72.4 to 94.2)	93.5 (79.3 to 98.7)	98.9 (88.4 to 99.9)	99.0
	North Central	79.7 (64.1 to 89.8)	90.7 (74.1 to 97.4)	98.4 (86.1 to 99.9)	99.0
	South Central Coast	81.4 (55.4 to 92.5)	89.4 (44.1 to 97.5)	96.8 (22.5 to 99.8)	80.8
	Central Highlands	83.0 (72.1 to 90.8)	92.3 (80.4 to 97.6)	98.7 (90.9 to 99.9)	99.7
	Southeast	88.9 (77.0 to 98.2)	96.7 (87.4 to 99.9)	99.7 (96.4 to 100.0)	100.0
	Mekong River Delta	82.1 (67.5 to 90.8)	91.6 (75.5 to 97.4)	98.4 (86.5 to 99.8)	98.9
Oral rehydration therapy	Northwest	32.8 (26.2 to 40.6)	24.8 (18.4 to 32.5)	13.1 (8.0 to 20.4)	0.0
	Northeast	28.8 (22.9 to 35.3)	21.4 (15.8 to 28.2)	11.0 (6.7 to 17.3)	0.0
	Red River Delta	30.8 (24.4 to 38.0)	23.1 (17.1 to 30.5)	12.1 (7.3 to 18.8)	0.0
	North Central	26.4 (19.1 to 33.4)	19.5 (13.0 to 26.6)	9.9 (5.5 to 16.3)	0.0

Indicators	Regions	Predicted coverage in percent (95% CrI)			Probability reach target (%)
		Year 2015	Year 2020	Year 2030	
	South Central Coast	23.8 (16.9 to 30.9)	17.5 (11.4 to 24.5)	8.7 (4.7 to 14.8)	0.0
	Central Highlands	29.4 (24.3 to 35.3)	22.0 (16.7 to 28.3)	11.3 (7.1 to 17.6)	0.0
	Southeast	28.9 (22.4 to 36.2)	21.6 (15.5 to 28.5)	11.1 (6.7 to 17.5)	0.0
	Mekong River Delta	28.2 (22.4 to 33.9)	20.9 (15.2 to 27.0)	10.8 (6.4 to 16.8)	0.0

Table S15: Average annual percent of change in RMNCH service indicators in different periods

Indicators	Average Annual Rate of Change (95% CrI)		
	Period 2000-2030	Period 2000-2015	Period 2015-2030
At least one ANC visit	0.7 (0.6 to 0.8)	1.1 (1.0 to 1.3)	0.3 (0.2 to 0.3)
At least four ANC visit	2.4 (2.3 to 2.5)	3.2 (2.9 to 3.4)	1.6 (1.5 to 1.6)
Exclusive breastfeeding	0.4 (0.0 to 0.9)	0.4 (0.0 to 0.7)	0.4 (0.0 to 1.0)
Early initiation of breastfeeding	-0.7 (-0.9 to -0.4)	-0.7 (-1.0 to -0.4)	-0.6 (-0.9 to -0.4)
Family planning needs satisfied	-0.9 (-1.0 to -0.7)	-0.8 (-1.0 to -0.7)	-0.9 (-1.1 to -0.8)
BCG immunization	0.4 (0.3 to 0.5)	0.5 (0.3 to 0.7)	0.2 (0.2 to 0.3)
DPT3 immunization	0.6 (0.4 to 0.9)	0.7 (0.4 to 1.0)	0.6 (0.3 to 0.8)
Polio3 immunization	0.8 (0.6 to 1.1)	0.9 (0.6 to 1.2)	0.7 (0.5 to 0.9)
Measles immunization	0.3 (0.0 to 0.5)	0.3 (0.0 to 0.6)	0.3 (0.0 to 0.4)
Full immunization	0.8 (0.5 to 1.1)	0.8 (0.5 to 1.1)	0.8 (0.5 to 1.0)
Improved Water	0.8 (0.8 to 0.8)	1.3 (1.2 to 1.3)	0.4 (0.4 to 0.4)
Adequate sanitation	1.4 (1.4 to 1.4)	1.9 (1.9 to 2.0)	0.8 (0.8 to 0.8)
Institutional delivery	0.8 (0.7 to 0.9)	1.2 (1.0 to 1.4)	0.4 (0.4 to 0.4)
Skilled birth attendance	0.9 (0.8 to 1.0)	1.4 (1.2 to 1.6)	0.4 (0.4 to 0.5)
Care seeking for pneumonia	0.8 (0.5 to 1.0)	1.1 (0.5 to 1.5)	0.5 (0.4 to 0.6)
ARI treatment	2.4 (1.9 to 2.8)	3.8 (2.7 to 4.7)	1.1 (0.8 to 1.3)
Oral rehydration therapy	-1.5 (-1.7 to -1.2)	-1.8 (-2.2 to -1.3)	-1.1 (-1.3 to -1.0)
Composite Prevention	0.9 (0.6 to 1.1)	1.0 (0.6 to 1.4)	0.7 (0.5 to 0.9)
Composite Treatment	0.9 (0.5 to 1.2)	1.0 (0.5 to 1.6)	0.7 (0.4 to 0.8)
Composite health coverage	1.0 (0.5 to 1.3)	1.1 (0.6 to 1.7)	0.8 (0.5 to 0.9)

Table S16: National health inequality analyses of all RMNCH service indicators for all survey years

Indicators	Year	Inequality between Wealth Quintiles			Inequality between Regional Levels			Inequality between Living Areas		
		RII	SII	CnI	RII	SII	CnI	RII	SII	CnI
At least one ANC visit	2000	2.44 (2.10 to 2.83)**	68.43 (59.62 to 77.24)**	0.17 (0.14 to 0.19)**	2.25 (1.91 to 2.65)**	60.81 (50.44 to 71.17)**	0.15 (0.12 to 0.18)**	2.21 (1.88 to 2.59)**	62.48 (50.39 to 74.58)**	0.06 (0.04 to 0.08)**
	2002	1.42 (1.34 to 1.51)**	31.91 (27.09 to 36.72)**	0.07 (0.06 to 0.08)**	1.34 (1.26 to 1.43)**	26.80 (21.71 to 31.88)**	0.06 (0.05 to 0.08)**	1.30 (1.22 to 1.40)**	23.94 (17.60 to 30.27)**	0.02 (0.01 to 0.03)**
	2006	1.42 (1.33 to 1.52)**	32.17 (26.84 to 37.50)**	0.08 (0.07 to 0.09)**	1.40 (1.32 to 1.49)**	30.71 (25.66 to 35.75)**	0.07 (0.06 to 0.08)**	1.38 (1.28 to 1.49)**	29.20 (22.75 to 35.66)**	0.03 (0.02 to 0.04)**
	2011	1.21 (1.16 to 1.26)**	18.03 (14.34 to 21.72)**	0.05 (0.04 to 0.06)**	1.19 (1.15 to 1.24)**	16.99 (13.53 to 20.45)**	0.05 (0.04 to 0.05)**	1.20 (1.14 to 1.26)**	16.89 (12.08 to 21.71)**	0.02 (0.01 to 0.03)**
	2014	1.14 (1.11 to 1.18)**	13.26 (10.35 to 16.17)**	0.04 (0.03 to 0.05)**	1.13 (1.10 to 1.16)**	12.01 (9.52 to 14.50)**	0.04 (0.03 to 0.04)**	1.15 (1.10 to 1.20)**	13.47 (9.52 to 17.42)**	0.02 (0.01 to 0.02)**
At least four ANC visit	2002	7.76 (5.65 to 10.65)**	50.23 (42.42 to 58.04)**	0.30 (0.25 to 0.34)**	3.90 (2.88 to 5.28)**	38.71 (30.75 to 46.67)**	0.21 (0.17 to 0.26)**	4.85 (3.54 to 6.64)**	57.25 (44.21 to 70.29)**	0.16 (0.12 to 0.19)**
	2011	4.08 (3.50 to 4.77)**	86.99 (80.08 to 93.91)**	0.25 (0.22 to 0.27)**	3.04 (2.62 to 3.53)**	64.93 (57.11 to 72.76)**	0.18 (0.16 to 0.21)**	2.83 (2.37 to 3.38)**	61.78 (51.89 to 71.67)**	0.13 (0.11 to 0.15)**
	2014	2.52 (2.28 to 2.79)**	71.41 (65.52 to 77.31)**	0.19 (0.17 to 0.20)**	2.08 (1.87 to 2.31)**	54.52 (47.62 to 61.41)**	0.14 (0.12 to 0.15)**	1.79 (1.58 to 2.03)**	41.98 (33.14 to 50.81)**	0.07 (0.05 to 0.09)**
Exclusive breastfeeding	2000	0.60 (0.25 to 1.46)	-9.01 (-24.56 to 6.54)	-0.08 (-0.22 to 0.06)	19.45 (7.00 to 54.04)**	40.10 (30.95 to 49.25)**	0.45 (0.32 to 0.58)**	0.45 (0.09 to 2.17)	-12.68 (-34.14 to 8.78)	-0.05 (-0.14 to 0.04)
	2002	1.28 (0.39 to 4.25)	3.59 (-9.03 to 16.20)	0.04 (-0.15 to 0.23)	26.12 (6.04 to 113.01)**	22.90 (15.40 to 30.40)**	0.46 (0.28 to 0.65)**	0.87 (0.16 to 4.75)	-1.43 (-18.64 to 15.78)	-0.01 (-0.15 to 0.13)
	2006	0.22 (0.08 to 0.63)**	-23.10 (-37.85 to -8.34)**	-0.23 (-0.38 to -0.07)**	25.55 (7.89 to 82.76)**	38.31 (28.48 to 48.14)**	0.45 (0.30 to 0.60)**	0.15 (0.02 to 1.10)	-23.05 (-40.65 to -5.45)**	-0.12 (-0.23 to 0.00)**
	2011	0.19 (0.07 to 0.47)**	-22.37 (-35.11 to -9.63)**	-0.25 (-0.39 to -0.12)**	26.67 (9.41 to 75.58)**	34.77 (26.81 to 42.73)**	0.45 (0.32 to 0.58)**	0.34 (0.11 to 1.05)	-15.74 (-30.73 to -0.75)**	-0.12 (-0.23 to 0.00)**
	2014	0.27 (0.14 to 0.55)**	-22.63 (-35.82 to -9.44)**	-0.20 (-0.30 to -0.09)**	5.26 (2.63 to 10.54)**	33.97 (21.88 to 46.05)**	0.27 (0.16 to 0.37)**	0.44 (0.19 to 1.03)	-15.96 (-31.41 to -0.50)**	-0.09 (-0.18 to 0.00)**
Early initiation of breastfeeding	2002	0.98 (0.84 to 1.15)	-1.12 (-10.50 to 8.25)	-0.00 (-0.03 to 0.02)	1.77 (1.52 to 2.06)**	34.82 (25.91 to 43.73)**	0.10 (0.07 to 0.12)**	0.75 (0.59 to 0.95)**	-16.68 (-30.02 to -3.34)**	-0.02 (-0.04 to 0.00)**
	2006	1.83 (1.19 to 2.82)**	12.14 (3.40 to 20.89)**	0.10 (0.03 to 0.16)**	6.08 (3.87 to 9.56)**	36.11 (28.73 to 43.48)**	0.28 (0.21 to 0.34)**	1.54 (0.89 to 2.65)	9.33 (-3.16 to 21.83)	0.04 (-0.01 to 0.09)
	2011	0.61 (0.51 to 0.72)**	-26.18 (-35.35 to -17.01)**	-0.08 (-0.10 to -0.05)**	1.99 (1.69 to 2.35)**	37.09 (28.25 to 45.94)**	0.11 (0.08 to 0.14)**	0.60 (0.49 to 0.74)**	-27.34 (-38.08 to -16.61)**	-0.06 (-0.08 to -0.04)**
	2014	0.70 (0.56 to 0.86)**	-15.61 (-24.42 to -6.80)**	-0.06 (-0.09 to -0.03)**	1.47 (1.19 to 1.81)**	16.28 (7.56 to 24.99)**	0.06 (0.03 to 0.10)**	0.62 (0.48 to 0.81)**	-19.17 (-29.38 to -8.96)**	-0.05 (-0.08 to -0.02)**
Family planning needs satisfied	2002	0.80 (0.75 to 0.86)**	-15.77 (-20.49 to -11.06)**	-0.03 (-0.05 to -0.02)**	1.27 (1.19 to 1.35)**	17.05 (12.37 to 21.73)**	0.04 (0.03 to 0.05)**	0.89 (0.81 to 0.98)**	-8.41 (-15.03 to -1.79)**	-0.01 (-0.02 to 0.00)**
	2011	0.86 (0.81 to 0.92)**	-9.60 (-13.74 to -5.46)**	-0.02 (-0.03 to -0.01)**	1.13 (1.06 to 1.20)**	7.92 (3.82 to 12.02)**	0.02 (0.01 to 0.03)**	0.92 (0.85 to 0.99)**	-5.56 (-10.33 to -0.78)**	-0.01 (-0.02 to 0.00)**
	2014	0.94 (0.88 to 1.02)	-3.45 (-8.02 to 1.13)	-0.01 (-0.02 to 0.00)	1.15 (1.07 to 1.24)**	8.87 (4.35 to 13.39)**	0.02 (0.01 to 0.03)**	0.89 (0.82 to 0.97)**	-6.99 (-12.28 to -1.70)**	-0.01 (-0.02 to 0.00)**
BCG immunization	2000	1.42 (1.31 to 1.53)**	31.16 (24.80 to 37.51)**	0.05 (0.03 to 0.07)**	1.28 (1.16 to 1.43)**	22.19 (13.22 to 31.17)**	0.05 (0.03 to 0.07)**	1.37 (1.24 to 1.52)**	28.65 (19.79 to 37.51)**	0.02 (0.01 to 0.04)**
	2002	1.18 (1.11 to 1.25)**	15.49 (10.15 to 20.84)**	0.03 (0.02 to 0.04)**	1.17 (1.11 to 1.24)**	15.15 (9.90 to 20.39)**	0.03 (0.01 to 0.04)**	1.12 (1.03 to 1.21)**	10.63 (2.95 to 18.32)**	0.01 (-0.00 to 0.02)
	2006	1.48 (1.32 to 1.66)**	34.74 (25.61 to 43.88)**	0.09 (0.07 to 0.11)**	1.42 (1.27 to 1.60)**	31.32 (21.93 to 40.72)**	0.08 (0.06 to 0.10)**	1.41 (1.24 to 1.61)**	30.11 (19.04 to 41.19)**	0.03 (0.01 to 0.05)**

Indicators	Year	Inequality between Wealth Quintiles			Inequality between Regional Levels			Inequality between Living Areas		
		RII	SII	CnI	RII	SII	CnI	RII	SII	CnI
DPT3 immunization	2011	1.15 (1.08 to 1.22)**	12.90 (7.30 to 18.49)**	0.03 (0.02 to 0.04)**	1.14 (1.07 to 1.20)**	12.15 (6.85 to 17.44)**	0.03 (0.02 to 0.04)**	1.10 (1.02 to 1.18)**	9.01 (2.24 to 15.78)**	0.01 (0.00 to 0.02)**
	2014	1.12 (1.08 to 1.17)**	11.36 (7.76 to 14.96)**	0.03 (0.02 to 0.04)**	1.10 (1.07 to 1.14)**	9.69 (6.59 to 12.79)**	0.02 (0.01 to 0.03)**	1.13 (1.07 to 1.19)**	11.47 (6.47 to 16.47)**	0.01 (0.01 to 0.02)**
	2000	3.06 (2.30 to 4.07)**	57.07 (43.27 to 70.87)**	0.17 (0.13 to 0.22)**	3.01 (2.27 to 4.00)**	56.72 (43.48 to 69.96)**	0.18 (0.14 to 0.23)**	2.86 (2.11 to 3.89)**	61.78 (42.42 to 81.15)**	0.09 (0.06 to 0.12)**
	2002	1.77 (1.47 to 2.12)**	41.85 (28.98 to 54.73)**	0.09 (0.06 to 0.12)**	1.77 (1.49 to 2.11)**	43.49 (31.01 to 55.97)**	0.10 (0.07 to 0.13)**	1.50 (1.21 to 1.86)**	31.11 (14.13 to 48.09)**	0.04 (0.01 to 0.06)**
	2006	2.33 (1.89 to 2.87)**	56.32 (43.79 to 68.85)**	0.14 (0.11 to 0.18)**	2.13 (1.73 to 2.63)**	50.05 (37.38 to 62.72)**	0.13 (0.10 to 0.17)**	2.14 (1.71 to 2.68)**	53.43 (37.25 to 69.62)**	0.07 (0.04 to 0.09)**
	2011	2.27 (1.78 to 2.90)**	42.27 (30.42 to 54.13)**	0.13 (0.09 to 0.17)**	2.38 (1.88 to 3.03)**	43.62 (32.00 to 55.23)**	0.14 (0.10 to 0.18)**	2.14 (1.63 to 2.80)**	39.73 (25.73 to 53.73)**	0.09 (0.06 to 0.13)**
	2014	1.49 (1.30 to 1.70)**	31.82 (21.90 to 41.74)**	0.07 (0.05 to 0.10)**	1.52 (1.33 to 1.73)**	32.75 (23.06 to 42.43)**	0.07 (0.05 to 0.10)**	1.17 (1.00 to 1.37)	11.92 (-0.07 to 23.91)	0.02 (-0.00 to 0.04)
	2000	3.82 (2.90 to 5.04)**	69.01 (55.90 to 82.11)**	0.21 (0.17 to 0.25)**	2.75 (2.06 to 3.66)**	54.27 (40.90 to 67.64)**	0.18 (0.13 to 0.22)**	3.65 (2.76 to 4.82)**	78.76 (61.17 to 96.35)**	0.12 (0.09 to 0.15)**
	2002	1.78 (1.51 to 2.10)**	43.73 (31.69 to 55.76)**	0.09 (0.06 to 0.12)**	1.78 (1.53 to 2.08)**	45.39 (34.06 to 56.72)**	0.10 (0.07 to 0.13)**	1.66 (1.38 to 1.98)**	40.51 (25.86 to 55.17)**	0.05 (0.02 to 0.07)**
	2006	2.18 (1.73 to 2.74)**	49.26 (35.95 to 62.57)**	0.13 (0.10 to 0.17)**	2.31 (1.84 to 2.89)**	52.88 (40.05 to 65.71)**	0.15 (0.11 to 0.18)**	2.00 (1.55 to 2.58)**	45.82 (28.10 to 63.53)**	0.06 (0.04 to 0.09)**
Polio3 immunization	2011	1.84 (1.39 to 2.42)**	27.97 (15.84 to 40.10)**	0.10 (0.05 to 0.14)**	2.27 (1.72 to 2.98)**	34.86 (23.06 to 46.66)**	0.13 (0.08 to 0.17)**	2.01 (1.48 to 2.73)**	32.00 (17.85 to 46.16)**	0.09 (0.05 to 0.12)**
	2014	1.34 (1.21 to 1.48)**	25.84 (17.66 to 34.01)**	0.06 (0.05 to 0.08)**	1.38 (1.25 to 1.51)**	27.81 (20.09 to 35.52)**	0.06 (0.04 to 0.08)**	1.24 (1.11 to 1.39)**	18.44 (8.68 to 28.21)**	0.03 (0.01 to 0.04)**
	2000	1.94 (1.63 to 2.32)**	47.88 (35.70 to 60.07)**	0.11 (0.08 to 0.14)**	1.72 (1.43 to 2.08)**	37.88 (25.26 to 50.50)**	0.09 (0.06 to 0.12)**	1.66 (1.34 to 2.06)**	38.00 (21.24 to 54.76)**	0.04 (0.02 to 0.06)**
	2002	1.46 (1.29 to 1.64)**	32.49 (22.59 to 42.38)**	0.07 (0.05 to 0.09)**	1.50 (1.34 to 1.68)**	35.51 (26.32 to 44.70)**	0.08 (0.06 to 0.10)**	1.24 (1.06 to 1.45)**	18.23 (4.43 to 32.03)**	0.02 (0.00 to 0.03)**
	2006	1.93 (1.64 to 2.27)**	51.49 (40.36 to 62.62)**	0.13 (0.10 to 0.16)**	1.71 (1.44 to 2.02)**	42.20 (30.50 to 53.90)**	0.11 (0.08 to 0.14)**	1.62 (1.34 to 1.96)**	37.24 (22.16 to 52.31)**	0.04 (0.02 to 0.06)**
	2011	1.91 (1.64 to 2.23)**	48.35 (38.18 to 58.51)**	0.12 (0.09 to 0.14)**	1.67 (1.43 to 1.94)**	36.26 (25.75 to 46.76)**	0.08 (0.06 to 0.11)**	1.71 (1.44 to 2.04)**	38.68 (26.44 to 50.92)**	0.07 (0.04 to 0.09)**
	2014	1.28 (1.15 to 1.43)**	21.46 (12.36 to 30.57)**	0.05 (0.03 to 0.07)**	1.40 (1.26 to 1.55)**	28.18 (19.69 to 36.67)**	0.06 (0.04 to 0.08)**	1.02 (0.89 to 1.17)	1.83 (-9.15 to 12.81)	0.00 (-0.01 to 0.02)
	2000	5.69 (3.78 to 8.57)**	60.06 (46.91 to 73.21)**	0.27 (0.21 to 0.33)**	4.22 (2.81 to 6.35)**	52.23 (39.75 to 64.71)**	0.24 (0.18 to 0.30)**	4.78 (3.15 to 7.28)**	68.68 (47.82 to 89.55)**	0.14 (0.10 to 0.19)**
	2002	2.07 (1.68 to 2.56)**	49.42 (35.88 to 62.96)**	0.12 (0.08 to 0.15)**	1.97 (1.59 to 2.44)**	46.54 (32.96 to 60.13)**	0.12 (0.08 to 0.15)**	1.64 (1.28 to 2.10)**	35.53 (17.14 to 53.91)**	0.04 (0.02 to 0.07)**
	2006	2.88 (2.14 to 3.88)**	54.21 (40.63 to 67.78)**	0.17 (0.13 to 0.22)**	2.38 (1.77 to 3.20)**	45.13 (31.47 to 58.78)**	0.15 (0.10 to 0.20)**	2.49 (1.80 to 3.45)**	50.38 (31.05 to 69.70)**	0.09 (0.05 to 0.12)**
Full immunization	2011	2.25 (1.62 to 3.11)**	30.98 (19.28 to 42.68)**	0.13 (0.08 to 0.18)**	2.68 (1.94 to 3.70)**	33.71 (22.26 to 45.16)**	0.15 (0.10 to 0.20)**	2.21 (1.54 to 3.16)**	30.52 (16.60 to 44.44)**	0.10 (0.05 to 0.14)**
	2014	1.60 (1.35 to 1.90)**	33.94 (22.82 to 45.05)**	0.09 (0.06 to 0.11)**	1.70 (1.44 to 2.00)**	36.76 (25.95 to 47.57)**	0.09 (0.06 to 0.12)**	1.08 (0.89 to 1.32)	5.17 (-8.21 to 18.55)	0.01 (-0.01 to 0.03)
	2000	2.24 (2.19 to 2.29)**	58.71 (57.31 to 60.11)**	0.14 (0.14 to 0.14)**	2.18 (2.13 to 2.22)**	57.34 (55.95 to 58.73)**	0.15 (0.15 to 0.15)**	2.18 (2.13 to 2.23)**	59.16 (57.49 to 60.82)**	0.08 (0.07 to 0.08)**
	2002	1.35 (1.34 to 1.37)**	27.75 (26.85 to 28.65)**	0.06 (0.06 to 0.06)**	1.35 (1.34 to 1.37)**	28.43 (27.51 to 29.34)**	0.08 (0.08 to 0.08)**	1.27 (1.25 to 1.29)**	21.97 (20.85 to 23.10)**	0.02 (0.02 to 0.02)**
Improved Water	2000	2.24 (2.19 to 2.29)**	58.71 (57.31 to 60.11)**	0.14 (0.14 to 0.14)**	2.18 (2.13 to 2.22)**	57.34 (55.95 to 58.73)**	0.15 (0.15 to 0.15)**	2.18 (2.13 to 2.23)**	59.16 (57.49 to 60.82)**	0.08 (0.07 to 0.08)**
	2002	1.35 (1.34 to 1.37)**	27.75 (26.85 to 28.65)**	0.06 (0.06 to 0.06)**	1.35 (1.34 to 1.37)**	28.43 (27.51 to 29.34)**	0.08 (0.08 to 0.08)**	1.27 (1.25 to 1.29)**	21.97 (20.85 to 23.10)**	0.02 (0.02 to 0.02)**

Indicators	Year	Inequality between Wealth Quintiles			Inequality between Regional Levels			Inequality between Living Areas		
		RII	SII	CnI	RII	SII	CnI	RII	SII	CnI
Adequate sanitation	2006	1.45 (1.42 to 1.48)**	27.46 (25.95 to 28.96)**	0.06 (0.05 to 0.06)**	1.72 (1.68 to 1.75)**	42.81 (41.47 to 44.16)**	0.10 (0.10 to 0.11)**	1.70 (1.67 to 1.74)**	42.49 (40.87 to 44.12)**	0.05 (0.05 to 0.05)**
	2011	1.27 (1.26 to 1.28)**	22.23 (21.53 to 22.93)**	0.06 (0.05 to 0.06)**	1.22 (1.22 to 1.23)**	19.05 (18.36 to 19.74)**	0.04 (0.04 to 0.04)**	1.27 (1.26 to 1.29)**	22.35 (21.42 to 23.28)**	0.03 (0.03 to 0.03)**
	2014	1.25 (1.24 to 1.26)**	21.09 (20.41 to 21.76)**	0.05 (0.05 to 0.06)**	1.21 (1.20 to 1.22)**	17.85 (17.14 to 18.56)**	0.03 (0.03 to 0.03)**	1.23 (1.22 to 1.25)**	19.44 (18.47 to 20.40)**	0.03 (0.02 to 0.03)**
	2000	19.41 (18.48 to 20.40)**	106.71 (105.73 to 107.69)**	0.45 (0.44 to 0.45)**	5.38 (5.14 to 5.63)**	61.85 (60.32 to 63.37)**	0.26 (0.26 to 0.27)**	7.29 (6.98 to 7.62)**	97.05 (94.93 to 99.17)**	0.22 (0.21 to 0.22)**
	2002	1.70 (1.67 to 1.72)**	45.18 (44.11 to 46.24)**	0.09 (0.09 to 0.09)**	1.66 (1.64 to 1.69)**	43.40 (42.29 to 44.52)**	0.09 (0.09 to 0.09)**	1.49 (1.47 to 1.52)**	34.58 (33.15 to 36.01)**	0.04 (0.04 to 0.04)**
	2006	4.54 (4.42 to 4.66)**	100.29 (99.33 to 101.26)**	0.28 (0.28 to 0.28)**	2.84 (2.76 to 2.92)**	66.12 (64.66 to 67.58)**	0.18 (0.18 to 0.19)**	3.11 (3.03 to 3.20)**	77.80 (76.07 to 79.53)**	0.12 (0.11 to 0.12)**
	2011	2.08 (2.05 to 2.11)**	61.83 (60.89 to 62.76)**	0.16 (0.16 to 0.17)**	1.81 (1.79 to 1.84)**	49.18 (48.18 to 50.18)**	0.11 (0.11 to 0.12)**	1.87 (1.84 to 1.91)**	49.34 (47.95 to 50.73)**	0.08 (0.08 to 0.08)**
	2014	1.84 (1.82 to 1.87)**	53.97 (53.03 to 54.92)**	0.16 (0.15 to 0.16)**	1.67 (1.65 to 1.70)**	44.13 (43.13 to 45.13)**	0.10 (0.10 to 0.11)**	1.62 (1.59 to 1.65)**	39.47 (38.05 to 40.89)**	0.06 (0.06 to 0.06)**
	2002	1.83 (1.69 to 1.97)**	51.19 (45.85 to 56.53)**	0.12 (0.11 to 0.14)**	1.72 (1.59 to 1.87)**	46.52 (40.53 to 52.50)**	0.12 (0.10 to 0.13)**	1.73 (1.61 to 1.87)**	47.38 (41.34 to 53.42)**	0.05 (0.04 to 0.06)**
	2006	2.05 (1.87 to 2.25)**	60.89 (54.80 to 66.98)**	0.16 (0.15 to 0.18)**	1.94 (1.78 to 2.10)**	55.39 (49.99 to 60.78)**	0.15 (0.14 to 0.17)**	2.03 (1.84 to 2.23)**	58.96 (52.12 to 65.79)**	0.07 (0.05 to 0.08)**
Institutional delivery	2011	1.35 (1.28 to 1.42)**	28.19 (23.93 to 32.46)**	0.08 (0.07 to 0.09)**	1.31 (1.25 to 1.37)**	25.30 (21.12 to 29.48)**	0.07 (0.06 to 0.08)**	1.36 (1.27 to 1.45)**	27.73 (22.13 to 33.33)**	0.04 (0.03 to 0.05)**
	2014	1.27 (1.22 to 1.33)**	23.00 (19.44 to 26.57)**	0.07 (0.06 to 0.08)**	1.24 (1.19 to 1.29)**	20.63 (17.19 to 24.08)**	0.06 (0.05 to 0.07)**	1.28 (1.21 to 1.35)**	22.77 (17.88 to 27.65)**	0.03 (0.02 to 0.04)**
	2000	3.49 (2.90 to 4.18)**	84.24 (75.35 to 93.14)**	0.21 (0.18 to 0.24)**	3.05 (2.51 to 3.71)**	76.51 (66.19 to 86.82)**	0.22 (0.18 to 0.25)**	3.10 (2.56 to 3.74)**	82.57 (70.21 to 94.93)**	0.09 (0.07 to 0.12)**
	2002	1.50 (1.41 to 1.59)**	36.70 (31.99 to 41.41)**	0.10 (0.08 to 0.11)**	1.50 (1.42 to 1.59)**	36.64 (32.07 to 41.20)**	0.09 (0.07 to 0.10)**	1.43 (1.34 to 1.52)**	32.13 (26.65 to 37.61)**	0.03 (0.02 to 0.04)**
Skilled birth attendance	2006	2.57 (2.25 to 2.94)**	68.44 (60.53 to 76.34)**	0.17 (0.15 to 0.19)**	2.06 (1.79 to 2.37)**	50.52 (41.58 to 59.45)**	0.13 (0.10 to 0.15)**	2.34 (2.03 to 2.69)**	63.10 (53.04 to 73.17)**	0.08 (0.06 to 0.10)**
	2011	1.32 (1.26 to 1.39)**	25.93 (21.89 to 29.98)**	0.08 (0.07 to 0.09)**	1.28 (1.22 to 1.33)**	23.12 (19.35 to 26.90)**	0.07 (0.06 to 0.08)**	1.35 (1.27 to 1.44)**	27.37 (21.99 to 32.75)**	0.04 (0.03 to 0.04)**
	2014	1.23 (1.19 to 1.28)**	20.09 (16.73 to 23.46)**	0.06 (0.05 to 0.07)**	1.21 (1.16 to 1.25)**	17.91 (14.67 to 21.16)**	0.05 (0.05 to 0.06)**	1.24 (1.18 to 1.30)**	19.88 (15.27 to 24.50)**	0.03 (0.02 to 0.03)**
	2000	0.86 (0.64 to 1.17)	-9.12 (-28.00 to 9.75)	-0.02 (-0.07 to 0.02)	2.15 (1.62 to 2.85)**	49.85 (33.13 to 66.58)**	0.13 (0.08 to 0.18)**	0.96 (0.58 to 1.58)	-2.80 (-33.71 to 28.10)	-0.00 (-0.03 to 0.03)
Care seeking for pneumonia	2002	1.16 (0.97 to 1.39)	12.89 (-2.15 to 27.93)	0.02 (-0.00 to 0.05)	1.26 (1.06 to 1.50)**	20.30 (5.92 to 34.67)**	0.04 (0.01 to 0.07)**	1.16 (0.92 to 1.46)	12.88 (-7.42 to 33.18)	0.01 (-0.01 to 0.03)
	2006	1.29 (0.97 to 1.71)	19.08 (-1.99 to 40.15)	0.04 (-0.01 to 0.09)	1.57 (1.20 to 2.05)**	35.29 (15.73 to 54.84)**	0.08 (0.04 to 0.13)**	0.88 (0.55 to 1.40)	-9.74 (-43.10 to 23.62)	-0.01 (-0.04 to 0.02)
	2011	0.85 (0.61 to 1.17)	-13.23 (-38.31 to 11.85)	-0.03 (-0.08 to 0.02)	1.81 (1.46 to 2.24)**	49.04 (34.37 to 63.70)**	0.10 (0.04 to 0.15)**	0.74 (0.48 to 1.15)	-22.69 (-54.55 to 9.18)	-0.03 (-0.08 to 0.01)
	2014	1.25 (1.00 to 1.56)	19.58 (0.42 to 38.73)*	0.04 (-0.00 to 0.08)	1.40 (1.20 to 1.65)**	31.06 (18.06 to 44.06)**	0.08 (0.04 to 0.12)**	1.14 (0.87 to 1.49)	11.54 (-11.90 to 34.98)	0.01 (-0.02 to 0.05)
ARI treatment	2006	1.11 (0.68 to 1.81)	5.08 (-19.70 to 29.86)	0.02 (-0.06 to 0.10)	2.48 (1.54 to 4.00)**	47.55 (24.80 to 70.30)**	0.15 (0.07 to 0.23)**	0.99 (0.47 to 2.07)	-0.61 (-37.57 to 36.34)	-0.00 (-0.05 to 0.05)
	2011	1.61 (1.03 to 2.50)*	31.41 (3.44 to 59.39)*	0.08 (0.01 to 0.15)*	2.02 (1.32 to 3.09)**	48.78 (22.80 to 74.75)**	0.13 (0.06 to 0.20)**	1.06 (0.62 to 1.81)	3.57 (-31.19 to 38.32)	0.01 (-0.05 to 0.07)

Indicators	Year	Inequality between Wealth Quintiles			Inequality between Regional Levels			Inequality between Living Areas		
		RII	SII	CnI	RII	SII	CnI	RII	SII	CnI
Oral rehydration therapy	2014	1.35 (1.05 to 1.75)*	25.90 (4.71 to 47.09)*	0.06 (0.01 to 0.10)*	1.56 (1.30 to 1.89)**	38.98 (24.44 to 53.52)**	0.08 (0.04 to 0.12)**	1.43 (1.08 to 1.90)*	30.42 (6.83 to 54.01)*	0.04 (0.00 to 0.08)*
	2000	1.32 (0.93 to 1.86)	14.79 (-4.36 to 33.94)	0.04 (-0.01 to 0.09)	1.76 (1.26 to 2.46)**	30.55 (12.87 to 48.24)**	0.09 (0.04 to 0.15)**	1.16 (0.65 to 2.07)	8.19 (-25.07 to 41.46)	0.01 (-0.02 to 0.04)
	2002	2.31 (1.11 to 4.81)*	29.75 (0.84 to 58.66)*	0.12 (0.01 to 0.24)*	2.26 (1.07 to 4.74)*	35.10 (7.77 to 62.44)*	0.14 (0.02 to 0.26)*	1.15 (0.28 to 4.70)	5.56 (-52.77 to 63.88)	0.01 (-0.05 to 0.07)
	2006	0.93 (0.65 to 1.35)	-4.32 (-28.28 to 19.63)	-0.01 (-0.07 to 0.05)	1.74 (1.23 to 2.45)**	35.10 (12.99 to 57.20)**	0.08 (0.03 to 0.14)**	0.84 (0.42 to 1.68)	-10.83 (-53.11 to 31.45)	-0.01 (-0.04 to 0.02)
	2011	1.44 (0.74 to 2.80)	11.54 (-7.92 to 30.99)	0.06 (-0.05 to 0.17)	3.11 (1.58 to 6.11)**	36.50 (18.81 to 54.18)**	0.19 (0.08 to 0.30)**	1.08 (0.48 to 2.45)	2.29 (-21.90 to 26.49)	0.01 (-0.08 to 0.09)
	2014	2.75 (1.50 to 5.04)**	29.63 (10.98 to 48.29)**	0.15 (0.06 to 0.24)**	2.64 (1.44 to 4.85)**	31.11 (14.07 to 48.14)**	0.16 (0.06 to 0.26)**	2.46 (1.25 to 4.83)**	29.32 (5.89 to 52.74)*	0.10 (0.02 to 0.18)*

Note: ***, **, * Statistically significant results with P<0.001, P<0.01, and P<0.05, respectively; RII=Relative Index of Inequality; SII=Slope Index of Inequality; CnI=Concentrate Index of Inequality; CI=Confidence Interval;

Table S17: Socioeconomic inequality in RMNCH service for all survey years stratifying by living areas

Indicators	Year	Relative Index of Inequality		Slope Index of Inequality		Concentrate Index of Inequality	
		Rural	Urban	Rural	Urban	Rural	Urban
At least one ANC visit	2000	2.52 (2.06 to 3.08)**	1.26 (1.00 to 1.57)*	65.95 (53.47 to 78.44)**	21.50 (1.60 to 41.40)*	0.16 (0.13 to 0.20)**	0.03 (0.01 to 0.05)*
	2002	1.47 (1.38 to 1.56)**	1.17 (1.01 to 1.35)*	34.41 (29.82 to 38.99)**	14.65 (1.61 to 27.68)*	0.08 (0.06 to 0.09)**	0.02 (0.01 to 0.03)**
	2006	1.51 (1.41 to 1.61)**	1.03 (0.95 to 1.11)	36.60 (31.27 to 41.93)**	2.69 (-5.21 to 10.58)	0.09 (0.08 to 0.11)**	0.00 (-0.01 to 0.01)
	2011	1.28 (1.22 to 1.35)**	1.05 (1.00 to 1.10)*	23.44 (18.94 to 27.94)**	4.61 (0.20 to 9.02)*	0.07 (0.06 to 0.08)**	0.01 (0.00 to 0.01)*
	2014	1.20 (1.15 to 1.25)**	1.03 (1.00 to 1.07)	17.46 (13.76 to 21.16)**	3.31 (0.03 to 6.59)*	0.05 (0.04 to 0.06)**	0.01 (0.00 to 0.01)**
At least four ANC visit	2002	5.64 (3.79 to 8.40)**	3.86 (1.93 to 7.73)**	34.62 (25.90 to 43.34)**	56.22 (31.98 to 80.46)**	0.25 (0.19 to 0.31)**	0.12 (0.07 to 0.17)**
	2011	5.55 (4.34 to 7.12)**	1.99 (1.65 to 2.41)**	81.75 (71.76 to 91.75)**	53.54 (41.05 to 66.02)**	0.28 (0.24 to 0.31)**	0.11 (0.09 to 0.14)**
	2014	2.94 (2.55 to 3.39)**	1.78 (1.54 to 2.05)**	75.75 (67.68 to 83.81)**	49.56 (39.16 to 59.96)**	0.20 (0.18 to 0.23)**	0.11 (0.09 to 0.13)**
Exclusive breastfeeding	2000	0.84 (0.33 to 2.15)	0.29 (0.02 to 4.61)	-3.04 (-20.83 to 14.76)	-15.06 (-55.60 to 25.48)	-0.03 (-0.17 to 0.12)	-0.17 (-0.56 to 0.22)
	2002	1.69 (0.44 to 6.50)	1.10 (0.04 to 28.64)	7.49 (-6.85 to 21.82)	1.15 (-30.67 to 32.97)	0.09 (-0.13 to 0.30)	0.01 (-0.36 to 0.38)
	2006	0.28 (0.09 to 0.85)*	0.58 (0.02 to 20.58)	-20.23 (-38.52 to -1.95)*	-4.66 (-33.13 to 23.81)	-0.18 (-0.34 to -0.02)*	-0.08 (-0.57 to 0.42)
	2011	0.16 (0.05 to 0.52)**	0.82 (0.14 to 4.98)	-31.62 (-47.49 to -15.75)**	-2.13 (-22.08 to 17.82)	-0.25 (-0.40 to -0.10)**	-0.03 (-0.30 to 0.24)
	2014	0.22 (0.09 to 0.51)**	0.83 (0.22 to 3.08)	-31.38 (-48.32 to -14.44)**	-2.85 (-23.64 to 17.95)	-0.22 (-0.34 to -0.10)**	-0.03 (-0.24 to 0.18)
Early initiation of breastfeeding	2002	1.16 (0.98 to 1.37)	1.04 (0.64 to 1.71)	9.70 (-0.78 to 20.17)	2.26 (-23.62 to 28.13)	0.03 (-0.00 to 0.05)	0.00 (-0.05 to 0.06)
	2006	1.58 (0.95 to 2.63)	2.31 (0.85 to 6.22)	8.92 (-0.98 to 18.82)	19.01 (-1.53 to 39.55)	0.07 (-0.01 to 0.15)	0.10 (-0.02 to 0.22)
	2011	0.65 (0.53 to 0.79)**	1.09 (0.78 to 1.52)	-26.26 (-38.11 to -14.41)**	3.93 (-11.50 to 19.36)	-0.07 (-0.10 to -0.04)**	0.01 (-0.04 to 0.06)
	2014	0.88 (0.68 to 1.14)	0.64 (0.43 to 0.95)*	-5.69 (-17.18 to 5.79)	-17.25 (-31.68 to -2.81)*	-0.02 (-0.06 to 0.02)	-0.07 (-0.13 to -0.01)*
Family planning needs satisfied	2002	0.82 (0.76 to 0.88)**	0.78 (0.66 to 0.92)**	-14.40 (-19.75 to -9.05)**	-17.30 (-29.50 to -5.10)**	-0.03 (-0.04 to -0.02)**	-0.03 (-0.05 to -0.01)*
	2011	0.82 (0.76 to 0.89)**	0.98 (0.88 to 1.09)	-12.80 (-18.24 to -7.37)**	-1.09 (-7.85 to 5.67)	-0.03 (-0.04 to -0.02)**	-0.00 (-0.02 to 0.01)
	2014	0.95 (0.86 to 1.04)	1.15 (1.01 to 1.30)*	-3.49 (-9.40 to 2.43)	7.82 (0.25 to 15.38)*	-0.01 (-0.02 to 0.01)	0.02 (0.00 to 0.04)*
BCG immunization	2000	1.35 (1.19 to 1.54)**	1.08 (0.97 to 1.21)	25.81 (14.96 to 36.66)**	7.94 (-2.86 to 18.75)	0.05 (0.02 to 0.07)**	0.01 (-0.01 to 0.02)
	2002	1.18 (1.11 to 1.26)**	1.13 (0.95 to 1.34)	15.85 (10.20 to 21.50)**	11.78 (-4.03 to 27.59)	0.03 (0.02 to 0.05)**	0.01 (0.00 to 0.03)*
	2006	1.43 (1.26 to 1.63)**	1.10 (0.92 to 1.32)	42.31 (29.89 to 54.73)**	9.09 (-7.71 to 25.88)	0.10 (0.07 to 0.12)**	0.01 (-0.01 to 0.03)
	2011	1.18 (1.08 to 1.28)**	1.07 (0.98 to 1.17)	15.41 (7.71 to 23.11)**	6.54 (-1.79 to 14.88)	0.03 (0.02 to 0.05)**	0.01 (0.00 to 0.03)*
	2014	1.16 (1.10 to 1.22)**	1.03 (1.00 to 1.08)	14.54 (9.80 to 19.29)**	3.39 (-0.41 to 7.19)	0.04 (0.03 to 0.06)**	0.01 (-0.00 to 0.01)
DPT3 immunization	2000	2.80 (1.96 to 4.02)**	1.53 (0.98 to 2.41)	48.39 (32.26 to 64.52)**	29.39 (-2.42 to 61.20)	0.16 (0.11 to 0.22)**	0.05 (-0.01 to 0.11)
	2002	1.75 (1.40 to 2.19)**	1.48 (0.97 to 2.27)	39.25 (23.79 to 54.70)**	31.50 (-0.78 to 63.79)	0.09 (0.05 to 0.12)**	0.04 (0.00 to 0.08)
	2006	2.30 (1.75 to 3.01)**	1.20 (0.87 to 1.66)	51.46 (36.27 to 66.66)**	15.19 (-11.27 to 41.65)	0.14 (0.10 to 0.18)**	0.02 (-0.02 to 0.07)
	2011	1.76 (1.22 to 2.55)**	1.66 (1.19 to 2.31)**	25.55 (9.53 to 41.56)**	31.72 (12.18 to 51.25)**	0.09 (0.03 to 0.15)**	0.07 (0.03 to 0.12)**
Polio3 immunization	2014	1.70 (1.43 to 2.01)**	1.28 (1.04 to 1.58)*	41.04 (28.53 to 53.55)**	20.14 (3.66 to 36.62)*	0.09 (0.06 to 0.12)**	0.04 (0.01 to 0.07)**
	2000	3.47 (2.40 to 5.01)**	1.31 (0.91 to 1.87)	56.12 (40.33 to 71.91)**	20.77 (-7.59 to 49.14)	0.19 (0.14 to 0.25)**	0.03 (-0.02 to 0.08)
	2002	1.69 (1.36 to 2.10)**	1.19 (0.88 to 1.61)	37.01 (21.70 to 52.32)**	15.39 (-10.68 to 41.45)	0.08 (0.04 to 0.12)**	0.02 (-0.01 to 0.05)
	2006	2.22 (1.66 to 2.96)**	1.09 (0.75 to 1.59)	47.24 (31.65 to 62.82)**	6.68 (-22.66 to 36.02)	0.13 (0.09 to 0.18)**	0.01 (-0.04 to 0.06)
	2011	1.42 (0.94 to 2.15)	1.37 (0.93 to 2.02)	14.63 (-1.26 to 30.52)	17.22 (-3.09 to 37.53)	0.06 (-0.01 to 0.12)	0.05 (-0.01 to 0.10)
Measles immunization	2014	1.45 (1.26 to 1.66)**	1.13 (0.98 to 1.29)	31.96 (20.87 to 43.06)**	10.75 (-1.64 to 23.13)	0.08 (0.05 to 0.10)**	0.02 (0.00 to 0.04)*
	2000	1.80 (1.44 to 2.26)**	1.53 (1.08 to 2.16)*	40.93 (26.04 to 55.83)**	35.75 (9.02 to 62.47)**	0.10 (0.06 to 0.13)**	0.06 (0.02 to 0.11)**
	2002	1.53 (1.35 to 1.74)**	1.34 (0.96 to 1.86)	35.75 (25.02 to 46.48)**	25.65 (-1.72 to 53.03)	0.07 (0.04 to 0.10)**	0.03 (0.00 to 0.06)*
	2006	2.27 (1.89 to 2.72)**	1.02 (0.77 to 1.34)	61.23 (49.32 to 73.14)**	1.40 (-22.40 to 25.19)	0.15 (0.12 to 0.18)**	0.00 (-0.04 to 0.04)
	2011	2.28 (1.82 to 2.86)**	1.22 (1.00 to 1.48)	54.00 (40.02 to 67.97)**	16.26 (0.42 to 32.11)*	0.13 (0.10 to 0.17)**	0.03 (0.00 to 0.06)*
Full immunization	2014	1.37 (1.19 to 1.58)**	1.24 (1.03 to 1.51)*	27.45 (16.17 to 38.73)**	18.63 (3.07 to 34.19)*	0.07 (0.04 to 0.09)**	0.04 (0.01 to 0.07)**
	2000	4.55 (2.69 to 7.68)**	2.01 (1.08 to 3.73)*	45.31 (30.34 to 60.29)**	41.18 (6.37 to 76.00)*	0.23 (0.16 to 0.31)**	0.09 (0.01 to 0.17)*

Indicators	Year	Relative Index of Inequality		Slope Index of Inequality		Concentrate Index of Inequality	
		Rural	Urban	Rural	Urban	Rural	Urban
Improved Water	2002	2.05 (1.58 to 2.66)**	1.64 (1.00 to 2.69)*	45.54 (29.37 to 61.71)**	37.50 (2.78 to 72.22)*	0.11 (0.07 to 0.15)**	0.05 (0.01 to 0.10)*
	2006	2.97 (2.04 to 4.31)**	1.19 (0.73 to 1.95)	51.71 (36.20 to 67.22)**	11.53 (-21.35 to 44.41)	0.18 (0.12 to 0.24)**	0.02 (-0.04 to 0.09)
	2011	1.58 (0.98 to 2.56)	1.75 (1.10 to 2.77)*	15.64 (0.47 to 30.81)*	26.58 (6.55 to 46.61)**	0.07 (-0.00 to 0.15)	0.08 (0.02 to 0.15)*
	2014	1.86 (1.50 to 2.31)**	1.47 (1.10 to 1.95)**	44.00 (30.08 to 57.92)**	27.26 (8.51 to 46.02)**	0.11 (0.08 to 0.14)**	0.06 (0.02 to 0.10)**
	2000	2.11 (2.05 to 2.18)**	1.17 (1.14 to 1.21)**	49.65 (47.79 to 51.51)**	14.57 (11.98 to 17.16)**	0.13 (0.12 to 0.13)**	0.02 (0.02 to 0.03)**
	2002	1.36 (1.34 to 1.38)**	1.18 (1.15 to 1.21)**	28.12 (27.05 to 29.20)**	15.85 (13.51 to 18.18)**	0.06 (0.06 to 0.07)**	0.02 (0.02 to 0.02)**
	2006	1.16 (1.13 to 1.19)**	1.20 (1.16 to 1.24)**	10.86 (8.95 to 12.77)**	16.24 (13.58 to 18.89)**	0.03 (0.02 to 0.03)**	0.02 (0.02 to 0.03)**
	2011	1.37 (1.35 to 1.38)**	1.07 (1.07 to 1.08)**	28.71 (27.64 to 29.78)**	7.09 (6.31 to 7.87)**	0.07 (0.07 to 0.07)**	0.01 (0.01 to 0.02)**
	2014	1.33 (1.32 to 1.34)**	1.09 (1.08 to 1.10)**	26.40 (25.52 to 27.28)**	8.43 (7.61 to 9.25)**	0.06 (0.06 to 0.07)**	0.02 (0.02 to 0.02)**
Adequate sanitation	2000	22.03 (20.50 to 23.68)**	4.31 (4.00 to 4.65)**	77.46 (76.06 to 78.87)**	103.94 (100.61 to 107.26)**	0.45 (0.44 to 0.46)**	0.18 (0.17 to 0.18)**
	2002	1.66 (1.63 to 1.69)**	1.42 (1.37 to 1.48)**	40.63 (39.13 to 42.14)**	32.64 (29.51 to 35.78)**	0.08 (0.08 to 0.09)**	0.04 (0.04 to 0.04)**
	2006	5.31 (5.14 to 5.49)**	1.82 (1.74 to 1.89)**	95.71 (94.36 to 97.06)**	52.55 (49.55 to 55.54)**	0.29 (0.29 to 0.30)**	0.08 (0.08 to 0.09)**
Institutional delivery	2011	2.60 (2.55 to 2.66)**	1.38 (1.36 to 1.40)**	72.32 (71.23 to 73.42)**	30.18 (28.79 to 31.58)**	0.20 (0.19 to 0.20)**	0.07 (0.07 to 0.07)**
	2014	2.16 (2.12 to 2.20)**	1.36 (1.34 to 1.38)**	63.43 (62.27 to 64.58)**	28.97 (27.56 to 30.38)**	0.20 (0.19 to 0.20)**	0.07 (0.07 to 0.07)**
	2002	1.92 (1.75 to 2.10)**	1.07 (0.98 to 1.17)	53.41 (47.12 to 59.71)**	6.58 (-2.18 to 15.34)	0.13 (0.11 to 0.14)**	0.01 (-0.00 to 0.01)
	2006	2.32 (2.05 to 2.61)**	1.04 (0.98 to 1.10)	67.11 (59.03 to 75.18)**	4.11 (-1.51 to 9.72)	0.18 (0.16 to 0.21)**	0.01 (0.00 to 0.01)*
	2011	1.50 (1.40 to 1.60)**	1.07 (1.02 to 1.12)**	36.58 (31.26 to 41.90)**	6.58 (2.06 to 11.10)**	0.11 (0.09 to 0.12)**	0.01 (0.00 to 0.02)**
Skilled birth attendance	2014	1.37 (1.30 to 1.45)**	1.06 (1.02 to 1.11)**	29.23 (24.65 to 33.80)**	6.20 (2.45 to 9.95)**	0.09 (0.08 to 0.10)**	0.02 (0.01 to 0.02)**
	2000	3.69 (2.86 to 4.76)**	1.26 (1.00 to 1.57)*	74.45 (60.87 to 88.03)**	21.47 (1.59 to 41.36)*	0.20 (0.16 to 0.24)**	0.03 (0.01 to 0.05)*
	2002	1.55 (1.44 to 1.68)**	1.11 (1.00 to 1.23)*	36.96 (32.05 to 41.87)**	10.22 (0.45 to 19.99)*	0.11 (0.09 to 0.12)**	0.01 (0.00 to 0.02)**
	2006	2.80 (2.34 to 3.36)**	1.15 (0.97 to 1.37)	66.87 (56.68 to 77.07)**	13.00 (-2.25 to 28.24)	0.18 (0.15 to 0.21)**	0.02 (-0.00 to 0.04)
	2011	1.47 (1.37 to 1.57)**	1.05 (1.01 to 1.09)*	34.90 (29.66 to 40.13)**	4.73 (0.78 to 8.68)*	0.10 (0.09 to 0.12)**	0.01 (0.00 to 0.02)**
Care seeking for pneumonia	2014	1.31 (1.25 to 1.38)**	1.06 (1.02 to 1.10)**	25.58 (21.24 to 29.92)**	5.57 (2.01 to 9.13)**	0.08 (0.07 to 0.09)**	0.02 (0.01 to 0.02)**
	2000	0.81 (0.58 to 1.12)	1.03 (0.43 to 2.47)	-13.28 (-33.78 to 7.22)	1.71 (-51.95 to 55.37)	-0.03 (-0.08 to 0.02)	0.00 (-0.13 to 0.14)
	2002	1.15 (0.94 to 1.41)	0.98 (0.65 to 1.49)	11.77 (-5.43 to 28.96)	-1.52 (-39.52 to 36.47)	0.02 (-0.01 to 0.05)	-0.00 (-0.05 to 0.05)
	2006	1.29 (0.95 to 1.76)	NA	18.23 (-4.86 to 41.33)	NA	0.03 (-0.02 to 0.08)	NA
	2011	0.93 (0.65 to 1.34)	0.92 (0.45 to 1.86)	-5.72 (-35.11 to 23.67)	-6.54 (-55.97 to 42.89)	-0.01 (-0.07 to 0.04)	-0.02 (-0.13 to 0.10)
ARI treatment	2014	1.26 (0.93 to 1.71)	1.36 (1.00 to 1.84)*	20.68 (-4.83 to 46.20)	27.54 (2.33 to 52.74)*	0.05 (0.00 to 0.10)*	0.03 (-0.03 to 0.08)
	2006	0.87 (0.50 to 1.50)	NA	-7.11 (-34.53 to 20.32)	NA	-0.02 (-0.11 to 0.06)	NA
	2011	2.20 (1.32 to 3.68)**	1.13 (0.51 to 2.50)	51.92 (19.86 to 83.97)**	7.18 (-44.31 to 58.66)	0.12 (0.04 to 0.21)**	0.02 (-0.11 to 0.14)
	2014	1.42 (0.97 to 2.08)	1.00 (0.74 to 1.35)	28.69 (-1.01 to 58.39)	0.31 (-27.55 to 28.17)	0.06 (-0.00 to 0.12)	0.00 (-0.05 to 0.05)
Oral rehydration therapy	2000	1.34 (0.92 to 1.95)	1.85 (0.66 to 5.24)	15.96 (-4.80 to 36.72)	32.62 (-23.54 to 88.78)	0.04 (-0.01 to 0.09)	0.09 (-0.07 to 0.24)
	2002	2.27 (1.04 to 4.93)*	NA	28.05 (-2.61 to 58.70)	NA	0.11 (-0.01 to 0.23)	NA
	2006	0.90 (0.61 to 1.33)	1.96 (0.47 to 8.23)	-6.88 (-32.67 to 18.92)	39.86 (-36.47 to 116.20)	-0.01 (-0.07 to 0.04)	0.09 (-0.09 to 0.27)
	2011	2.09 (0.93 to 4.69)	0.95 (0.27 to 3.34)	23.44 (-0.13 to 47.01)	-1.22 (-38.93 to 36.50)	0.12 (-0.01 to 0.24)	-0.01 (-0.20 to 0.18)
	2014	2.63 (1.17 to 5.90)*	1.72 (0.70 to 4.23)	25.33 (2.85 to 47.81)*	21.15 (-14.54 to 56.84)	0.14 (0.02 to 0.25)*	0.09 (-0.06 to 0.23)

Note: ***, **, * Statistically significant results with P<0.001, P<0.01, and P<0.05, respectively; RII=Relative Index of Inequality; SII=Slope Index of Inequality; CNI=Concentrate Index of Inequality; CI=Confidence Interval;

Table S18: Changes in inequality of RMNCH service coverage in Vietnam (2000–2014)

Indicators	Changes in Socioeconomic Inequality			Changes in Regional Inequality			Changes in Urban-Rural Inequality		
	RII (95% CI)	SII (95% CI)	CnI (95% CI)	RII (95% CI)	SII (95% CI)	CnI (95% CI)	RII (95% CI)	SII (95% CI)	CnI (95% CI)
Prevention Indicators									
At least one ANC visit	-1.30 (-1.46 to -1.14)***	-55.17 (-63.25 to 47.09)***	-0.13 (-0.15 to 0.11)***	-1.12 (-1.28 to 0.96)***	-48.80 (-58.79 to 38.81)***	-0.11 (-0.13 to 0.09)***	-1.06 (-1.22 to 0.90)***	-49.01 (-61.41 to 36.61)***	-0.04 (-0.06 to 0.02)***
At least four ANC visit†	-5.24 (-5.57 to 4.91)***	21.18 (11.38 to 30.98)***	-0.11 (-0.15 to 0.07)***	-1.82 (-2.13 to 1.51)***	15.81 (4.72 to 26.90)**	-0.07 (-0.11 to 0.03)**	-3.06 (-3.39 to 2.73)***	-15.27 (-32.13 to 1.59)	-0.09 (-0.13 to 0.05)***
Exclusive breastfeeding	-0.33 (-1.46 to 0.80)	-13.62 (-34.46 to 7.22)	-0.12 (-0.29 to 0.05)	-14.19 (-15.42 to 12.96)*	-6.13 (-21.44 to 9.18)	-0.18 (-0.35 to 0.01)*	-0.01 (-1.82 to 1.80)	-3.28 (-29.94 to 23.38)	-0.04 (-0.18 to 0.10)
Early initiation of breastfeeding†	-0.28 (-0.55 to 0.01)*	-14.49 (-27.04 to 1.94)*	-0.06 (-0.10 to 0.02)**	-0.30 (-0.57 to 0.03)	-18.54 (-31.09 to 5.99)**	-0.04 (-0.08 to 0.00)	-0.13 (-0.48 to 0.22)	-2.49 (-19.35 to 14.37)	-0.03 (-0.06 to 0.00)*
Family planning needs satisfied†	0.14 (0.04 to 0.24)**	12.32 (6.78 to 17.86)***	0.02 (-0.01 to 0.05)	-0.12 (-0.22 to 0.02)*	-8.18 (-13.72 to 2.64)**	-0.02 (-0.05 to 0.01)	0.00 (-0.13 to 0.13)	1.42 (-6.90 to 9.74)	0.00 (-0.02 to 0.02)
BCG immunization	-0.30 (-0.39 to 0.21)***	-19.80 (-26.87 to 12.73)***	-0.02 (-0.04 to 0.00)*	-0.18 (-0.29 to 0.07)**	-12.50 (-23.05 to 1.95)*	-0.03 (-0.05 to 0.01)**	-0.24 (-0.35 to 0.13)***	-17.18 (-28.61 to 5.75)**	-0.01 (-0.03 to 0.01)
DPT3 immunization	-1.57 (-1.88 to 1.26)***	-25.25 (-42.11 to 8.39)**	-0.10 (-0.14 to 0.06)***	-1.49 (-1.81 to 1.17)***	-23.97 (-40.83 to 7.11)**	-0.11 (-0.15 to 0.07)***	-1.69 (-2.04 to 1.34)***	-49.86 (-72.72 to 27.00)***	-0.07 (-0.11 to 0.03)**
Polio3 immunization	-2.48 (-2.77 to 2.19)***	-43.17 (-58.97 to 27.37)***	-0.15 (-0.19 to 0.11)***	-1.37 (-1.68 to 1.06)***	-26.46 (-42.26 to 10.66)**	-0.12 (-0.16 to 0.08)***	-2.41 (-2.71 to 2.11)***	-60.32 (-80.50 to 40.14)***	-0.09 (-0.13 to 0.05)***
Measles immunization	-0.66 (-0.87 to 0.45)***	-26.42 (-41.73 to 11.11)***	-0.06 (-0.10 to 0.02)**	-0.32 (-0.52 to 0.12)*	-9.70 (-23.83 to 4.43)	-0.03 (-0.07 to 0.01)	-0.64 (-0.90 to 0.38)***	-36.17 (-57.37 to 14.97)***	-0.04 (-0.07 to 0.01)**
Full immunization	-4.09 (-4.54 to 3.64)***	-26.12 (-44.19 to 8.05)**	-0.18 (-0.24 to 0.12)***	-2.52 (-2.96 to 2.08)***	-15.47 (-32.10 to 1.16)	-0.15 (-0.21 to 0.09)***	-3.70 (-4.16 to 3.24)***	-63.51 (-89.07 to 37.95)***	-0.13 (-0.17 to 0.09)***
Improved Water	-0.99 (-1.01 to 0.97)***	-37.62 (-39.58 to 35.66)***	-0.09 (-0.09 to 0.09)***	-0.97 (-0.99 to 0.95)***	-39.49 (-41.45 to 37.53)***	-0.12 (-0.12 to 0.12)***	-0.95 (-0.98 to 0.92)***	-39.72 (-41.68 to 37.76)***	-0.05 (-0.05 to 0.05)***
Adequate sanitation	-17.57 (-17.63 to 17.51)***	-52.74 (-54.70 to 50.78)***	-0.29 (-0.29 to 0.29)***	-3.71 (-3.75 to 3.67)***	-17.72 (-20.49 to 14.95)***	-0.16 (-0.16 to 0.16)***	-5.67 (-5.71 to 5.63)***	-57.58 (-60.35 to 54.81)***	-0.16 (-0.16 to 0.16)***
Treatment Indicators									
Institutional delivery†	-0.56 (-0.65 to 0.47)***	-28.19 (-35.26 to 21.12)***	-0.05 (-0.07 to 0.03)***	-0.48 (-0.57 to 0.39)***	-25.89 (-32.96 to 18.82)***	-0.06 (-0.08 to 0.04)***	-0.45 (-0.55 to 0.35)***	-24.61 (-31.68 to 17.54)***	-0.02 (-0.04 to 0.00)*
Skilled birth attendance	-2.26 (-2.44 to 2.08)***	-64.15 (-74.70 to 53.60)***	-0.15 (-0.19 to 0.11)***	-1.84 (-2.04 to 1.64)***	-58.60 (-69.15 to 48.05)***	-0.17 (-0.21 to 0.13)***	-1.86 (-2.06 to 1.66)***	-62.69 (-75.09 to 50.29)***	-0.06 (-0.08 to 0.04)***
Care seeking for pneumonia	0.39 (0.01 to 0.77)	28.70 (0.98 to 56.42)*	0.06 (0.00 to 0.12)*	-0.75 (-1.07 to 0.43)**	-18.79 (-41.14 to 3.56)	-0.05 (-0.11 to 0.01)	0.18 (-0.40 to 0.76)	14.34 (-24.86 to 53.54)	0.01 (-0.03 to 0.05)
ARI treatment‡	0.24 (-0.31 to 0.79)	20.82 (-12.56 to 54.20)	0.04 (-0.05 to 0.13)	-0.92 (-1.43 to 0.41)	-8.57 (-35.80 to 18.66)	-0.07 (-0.16 to 0.02)	0.44 (-0.35 to 1.23)	31.03 (-13.02 to 75.08)	0.04 (-0.03 to 0.11)
Oral rehydration therapy	1.43 (0.73 to 2.13)*	14.84 (-12.88 to 42.56)	0.11 (-0.00 to 0.22)	0.88 (0.19 to 1.57)	0.56 (-24.39 to 25.51)	0.07 (-0.04 to 0.18)	1.30 (0.41 to 2.19)	21.13 (-19.65 to 61.91)	0.09 (0.00 to 0.18)*

***, **, * Statistically significant results with P<0.001, P<0.01, and P<0.05, respectively; † data in the year 2002 was used due to unavailable data for 2000; ‡ data in the year 2006 was used due to unavailable data for 2000; RII=Relative Index of Inequality; SII=Slope Index of Inequality; CnI=Concentrate Index of Inequality; CI=Confidence Interval; The inequality analyses of UHC indicators at national and subnational levels during 2000–2014 are presented in the Supplementary.

Table S19: Changes in Socioeconomic inequality in RMNCH service, 2000-2014, stratifying by living areas

Indicators	Changes in Socioeconomic Inequality in Rural Area			Changes in Socioeconomic Inequality in Urban Area		
	RII	SII	CnI	RII	SII	CnI
At least one ANC visit	-1.32 (-1.52 to -1.12)***	-48.49 (-60.89 to -36.09)***	-0.11 (-0.15 to -0.07)***	-0.23 (-0.45 to -0.01)	-18.19 (-38.18 to 1.80)	-0.02 (-0.04 to -0.00)*
At least four ANC visit†	-2.70 (-3.12 to -2.28)**	41.13 (30.04 to 52.22)***	-0.05 (-0.11 to 0.01)	-2.08 (-2.78 to -1.38)*	-6.66 (-32.14 to 18.82)	-0.01 (-0.07 to 0.05)
Exclusive breastfeeding	-0.62 (-1.90 to 0.66)*	-28.34 (-53.29 to -3.39)*	-0.19 (-0.37 to -0.01)*	0.54 (-2.52 to 3.60)	12.21 (-34.25 to 58.67)	0.14 (-0.31 to 0.59)
Early initiation of breastfeeding†	-0.28 (-0.59 to 0.03)	-15.39 (-30.70 to -0.08)*	-0.05 (-0.09 to -0.01)*	-0.40 (-1.03 to 0.23)	-19.51 (-48.45 to 9.43)	-0.07 (-0.15 to 0.01)
Family planning needs satisfied†	0.13 (0.00 to 0.26)*	10.91 (2.59 to 19.23)*	0.02 (-0.01 to 0.05)	0.37 (0.16 to 0.58)***	25.12 (10.99 to 39.25)***	0.05 (0.02 to 0.08)***
BCG immunization	-0.19 (-0.34 to -0.04)*	-11.27 (-23.67 to 1.13)	-0.01 (-0.04 to 0.02)	-0.05 (-0.17 to 0.07)	-4.55 (-16.95 to 7.85)	0.00 (-0.02 to 0.02)
DPT3 immunization	-1.10 (-1.49 to -0.71)*	-7.35 (-26.95 to 12.25)	-0.07 (-0.13 to -0.01)*	-0.25 (-0.75 to 0.25)	-9.25 (-44.31 to 25.81)	-0.01 (-0.08 to 0.06)
Polio3 immunization	-2.02 (-2.42 to -1.62)***	-24.16 (-43.76 to -4.56)*	-0.11 (-0.17 to -0.05)***	-0.18 (-0.56 to 0.20)	-10.02 (-39.87 to 19.83)	-0.01 (-0.07 to 0.05)
Measles immunization	-0.43 (-0.69 to -0.17)*	-13.48 (-33.08 to 6.12)	-0.03 (-0.07 to 0.01)	-0.29 (-0.69 to 0.11)	-17.12 (-48.72 to 14.48)	-0.02 (-0.06 to 0.02)
Full immunization	-2.69 (-3.26 to -2.12)**	-1.31 (-22.15 to 19.53)	-0.12 (-0.21 to -0.03)**	-0.54 (-1.23 to 0.15)	-13.92 (-54.28 to 26.44)	-0.03 (-0.12 to 0.06)
Improved Water	-0.78 (-0.82 to -0.74)***	-23.25 (-25.21 to -21.29)***	-0.07 (-0.07 to -0.07)***	-0.08 (-0.10 to -0.06)***	-6.14 (-8.10 to -4.18)***	0.00 (0.00 to 0.00)NA
Adequate sanitation	-19.87 (-19.95 to -19.79)***	-14.03 (-16.80 to -11.26)***	-0.25 (-0.25 to -0.25)***	-2.95 (-3.03 to -2.87)***	-74.97 (-79.35 to -70.59)***	-0.11 (-0.11 to -0.11)***
Institutional delivery†	-0.55 (-0.66 to -0.44)***	-24.18 (-31.25 to -17.11)***	-0.04 (-0.07 to -0.01)**	-0.01 (-0.12 to 0.10)	-0.38 (-9.15 to 8.39)	0.01 (0.01 to 0.01)***
Skilled birth attendance	-2.38 (-2.64 to -2.12)***	-48.87 (-63.14 to -34.60)***	-0.12 (-0.16 to -0.08)***	-0.20 (-0.42 to 0.02)	-15.90 (-35.89 to 4.09)	-0.01 (-0.03 to 0.01)
Care seeking for pneumonia	0.45 (0.01 to 0.89)	33.96 (1.81 to 66.11)*	0.08 (-0.00 to 0.16)	0.33 (-0.60 to 1.26)	25.83 (-32.90 to 84.56)	0.03 (-0.12 to 0.18)
Oral rehydration therapy	1.29 (0.40 to 2.18)	9.37 (-21.12 to 39.86)	0.10 (-0.03 to 0.23)	-0.13 (-1.51 to 1.25)	-11.47 (-78.37 to 55.43)	0.00 (-0.21 to 0.21)

Note: ***, **, * Statistically significant results with P<0.001, P<0.01, and P<0.05, respectively; RII=Relative Index of Inequality; SII=Slope Index of Inequality; CnI=Concentrate Index of Inequality; CI=Confidence Interval;

Table S20: Sensitivity analysis of change in trends by matching DHS recall periods

Indicators	MICS and unmatched-DHS recall period			MICS and matched-DHS recall period		
	Slope	SE	95% CrI	Slope	SE	95% CrI
At least one ANC visit	0.116	0.009	0.099 to 0.134	0.120	0.009	0.103 to 0.138
At least four ANC visit	0.140	0.007	0.126 to 0.153	0.135	0.007	0.121 to 0.148
Early initiation of breastfeeding	-0.021	0.006	-0.032 to -0.009	-0.009	0.006	-0.022 to 0.003
Skilled birth attendance	0.103	0.007	0.089 to 0.118	0.111	0.007	0.098 to 0.126
Institutional delivery	0.090	0.008	0.074 to 0.107	0.093	0.009	0.077 to 0.111

Note: CrI=Credibal Interval; SE=Estiamted Standard Error;

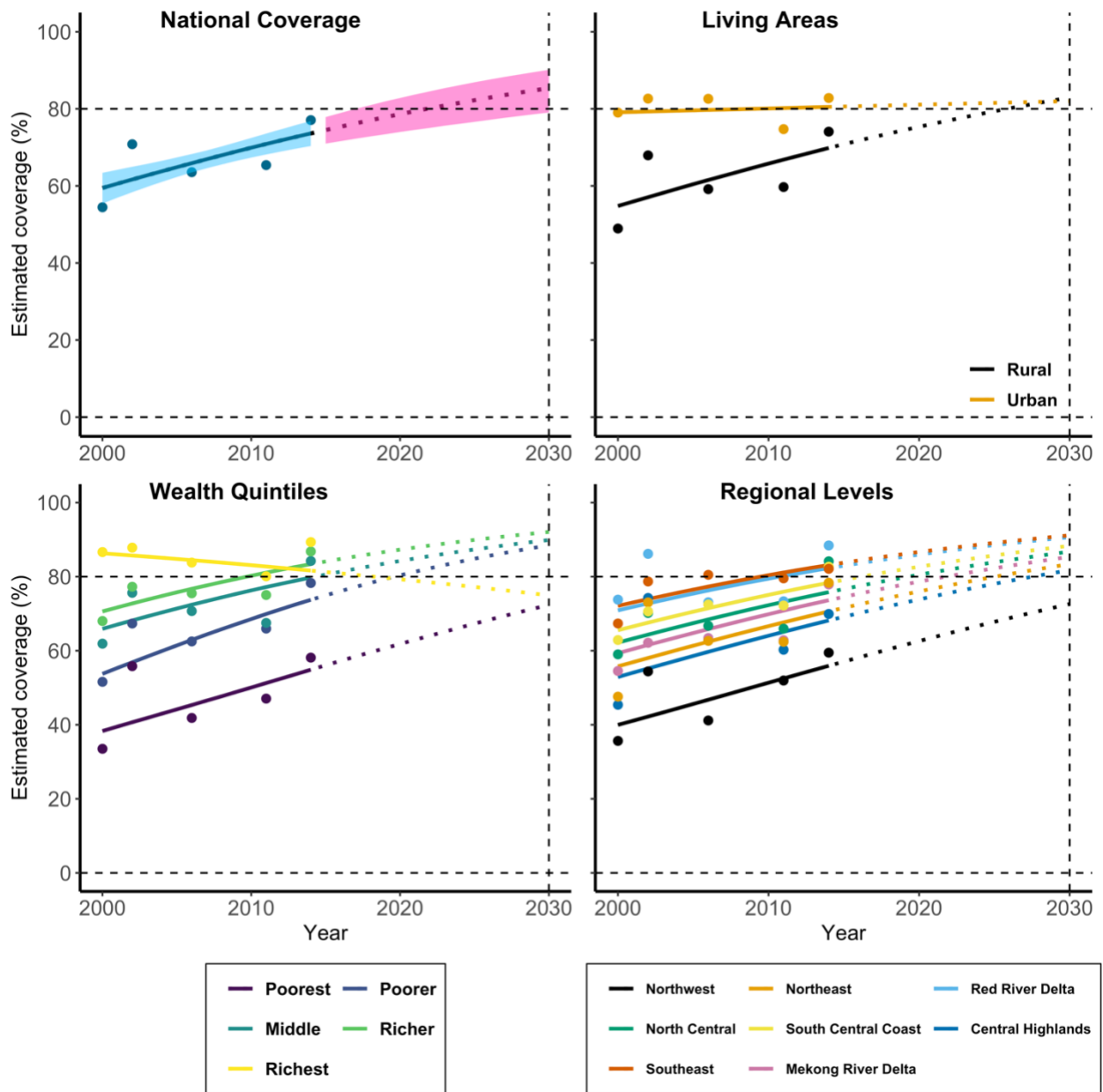


Fig. S1: Trends in and projections of coverage of composite prevention index

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

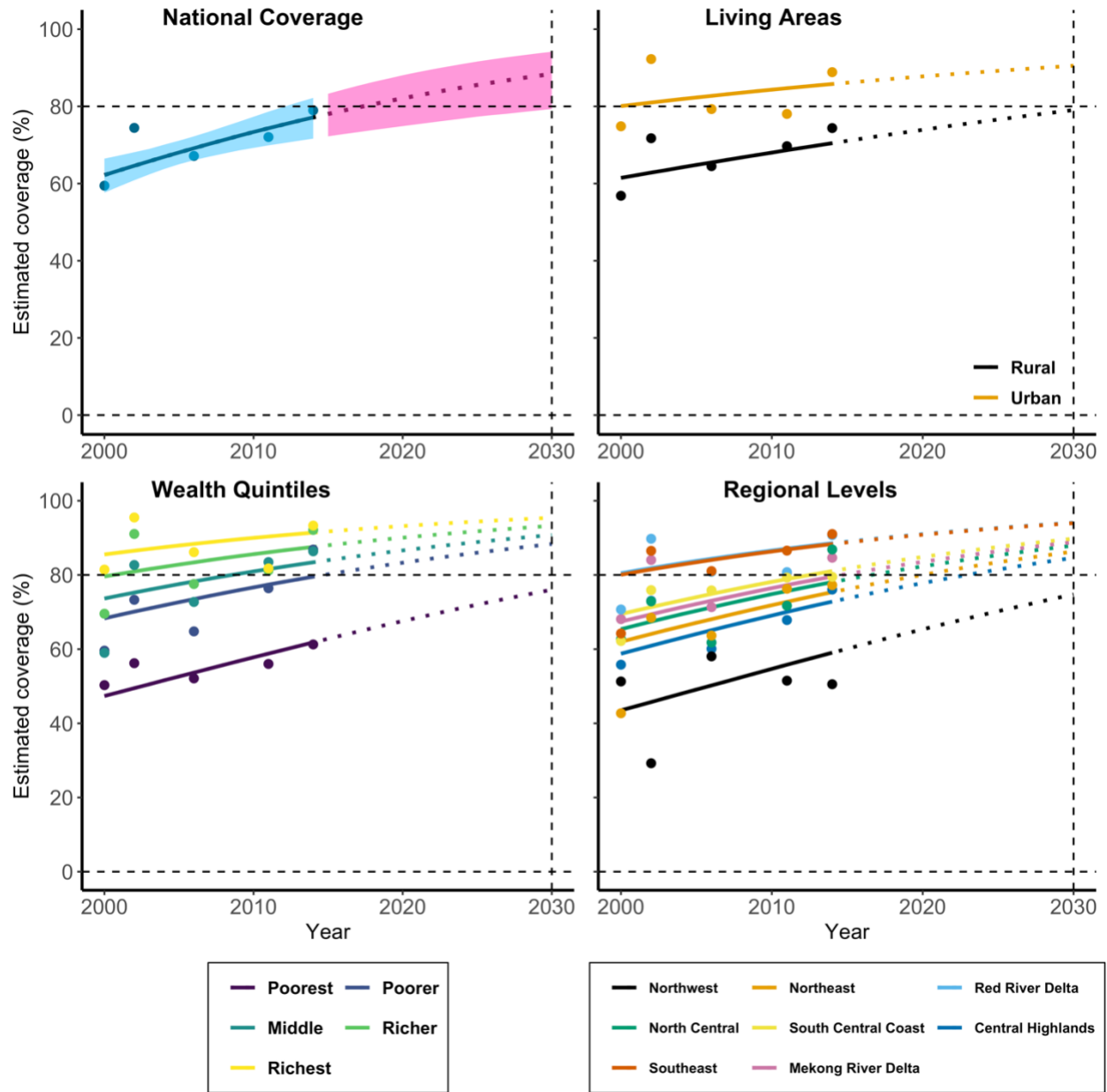


Fig. S2: Trends in and projections of coverage of composite treatment index

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

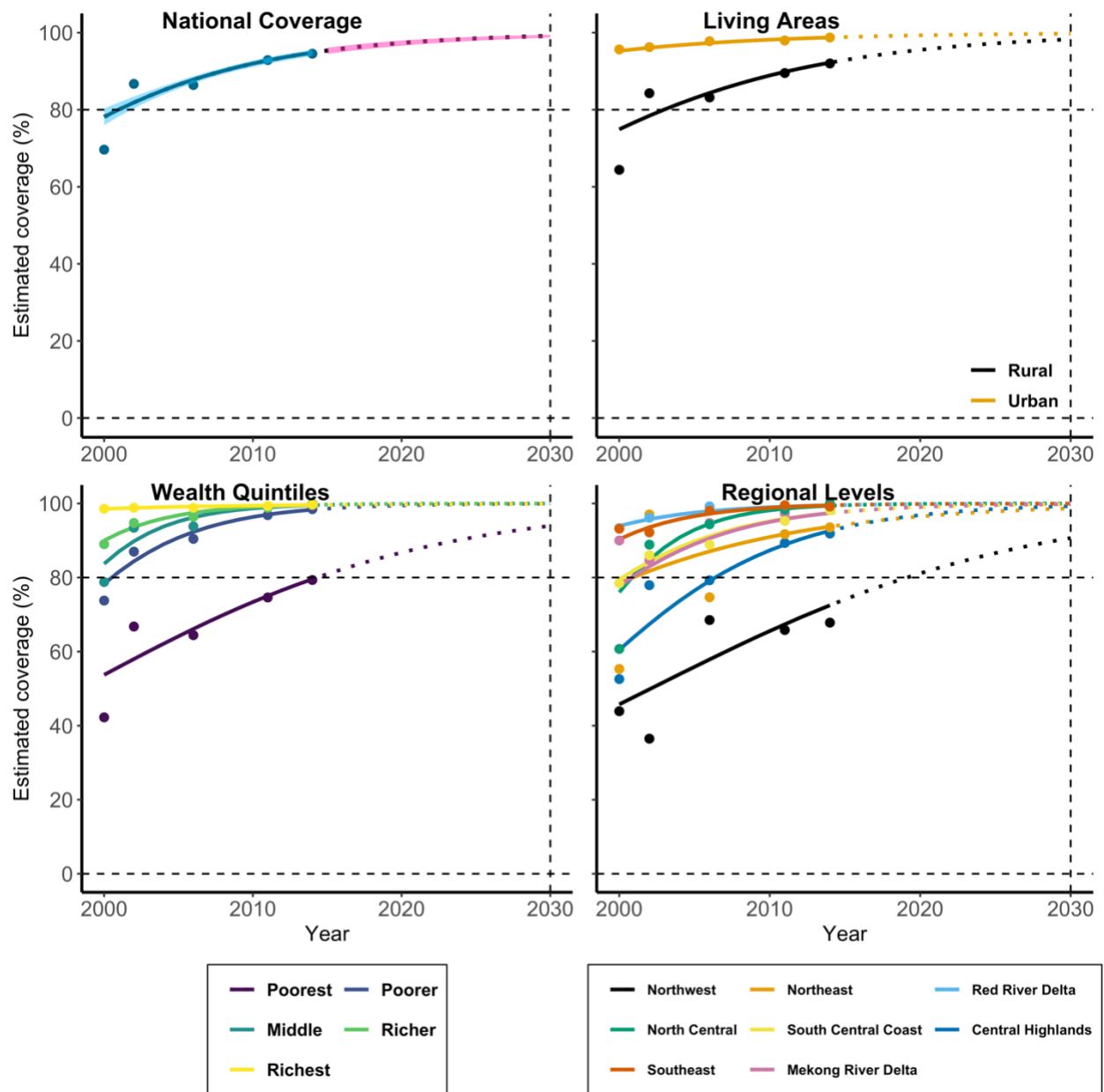


Fig. S3: Trends in and projections of coverage of at least one ANC visit

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

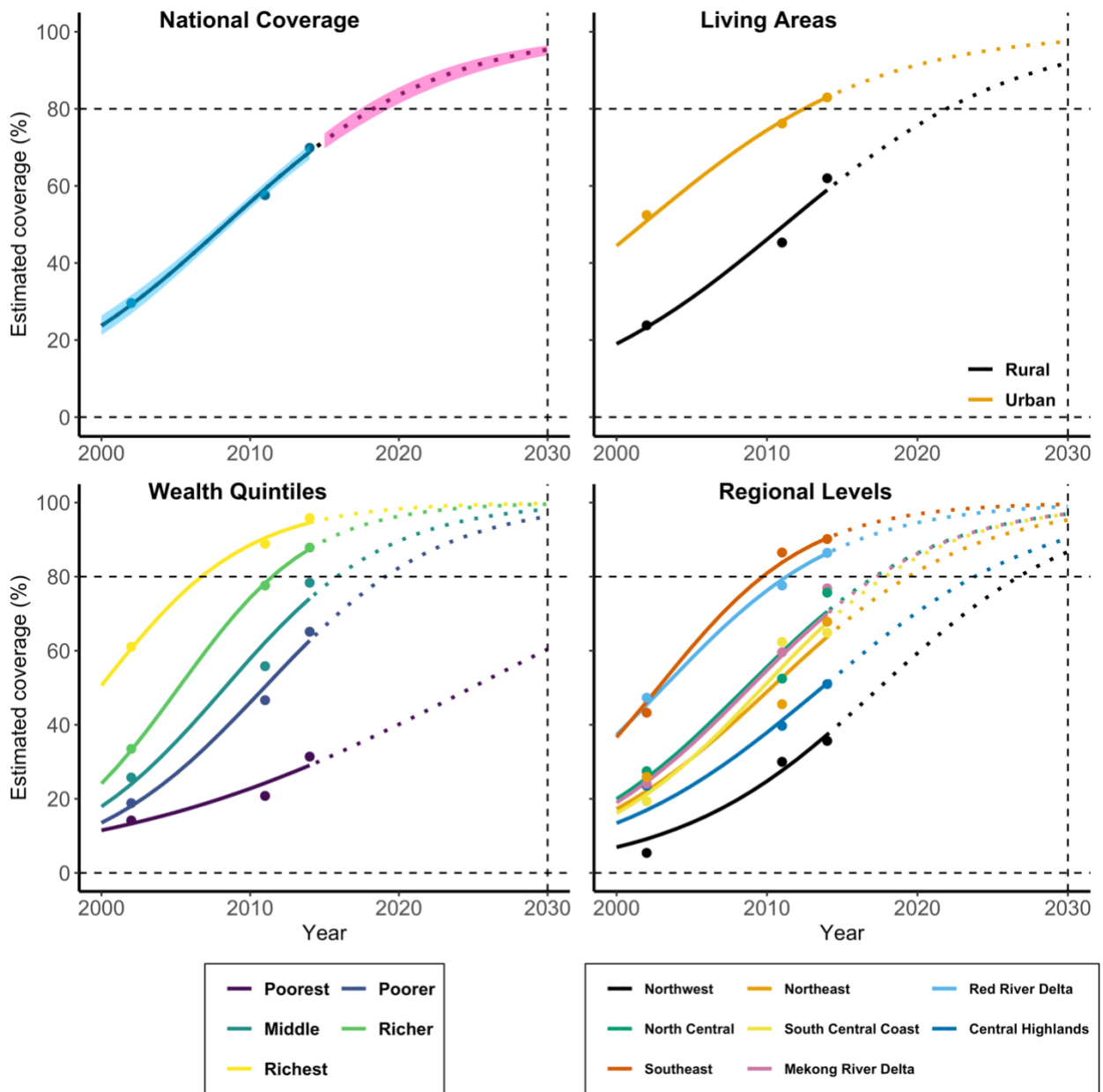


Fig. S4: Trends in and projections of coverage of at least four ANC visit

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

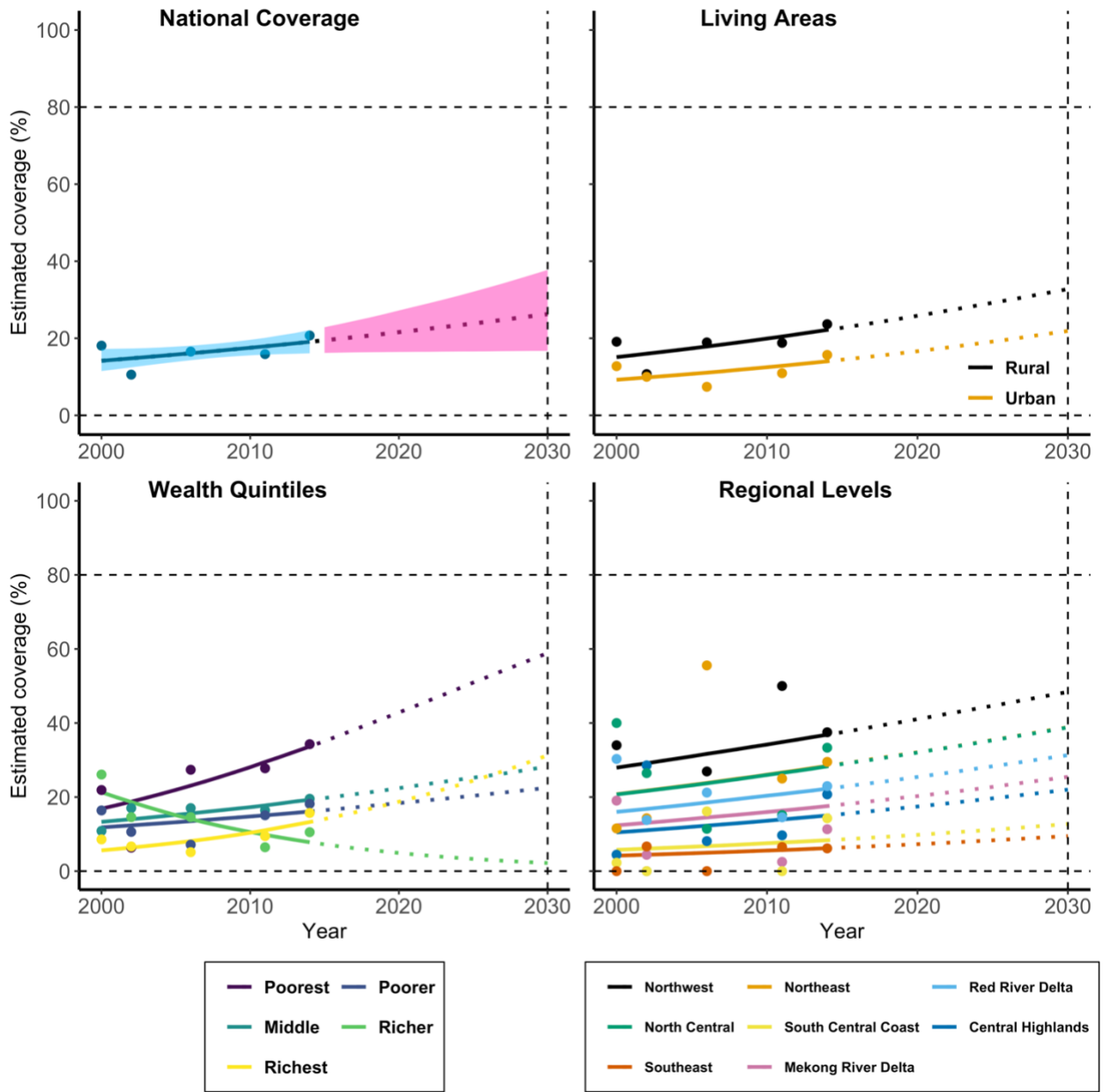


Fig. S5: Trends in and projections of coverage of Exclusive breastfeeding

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

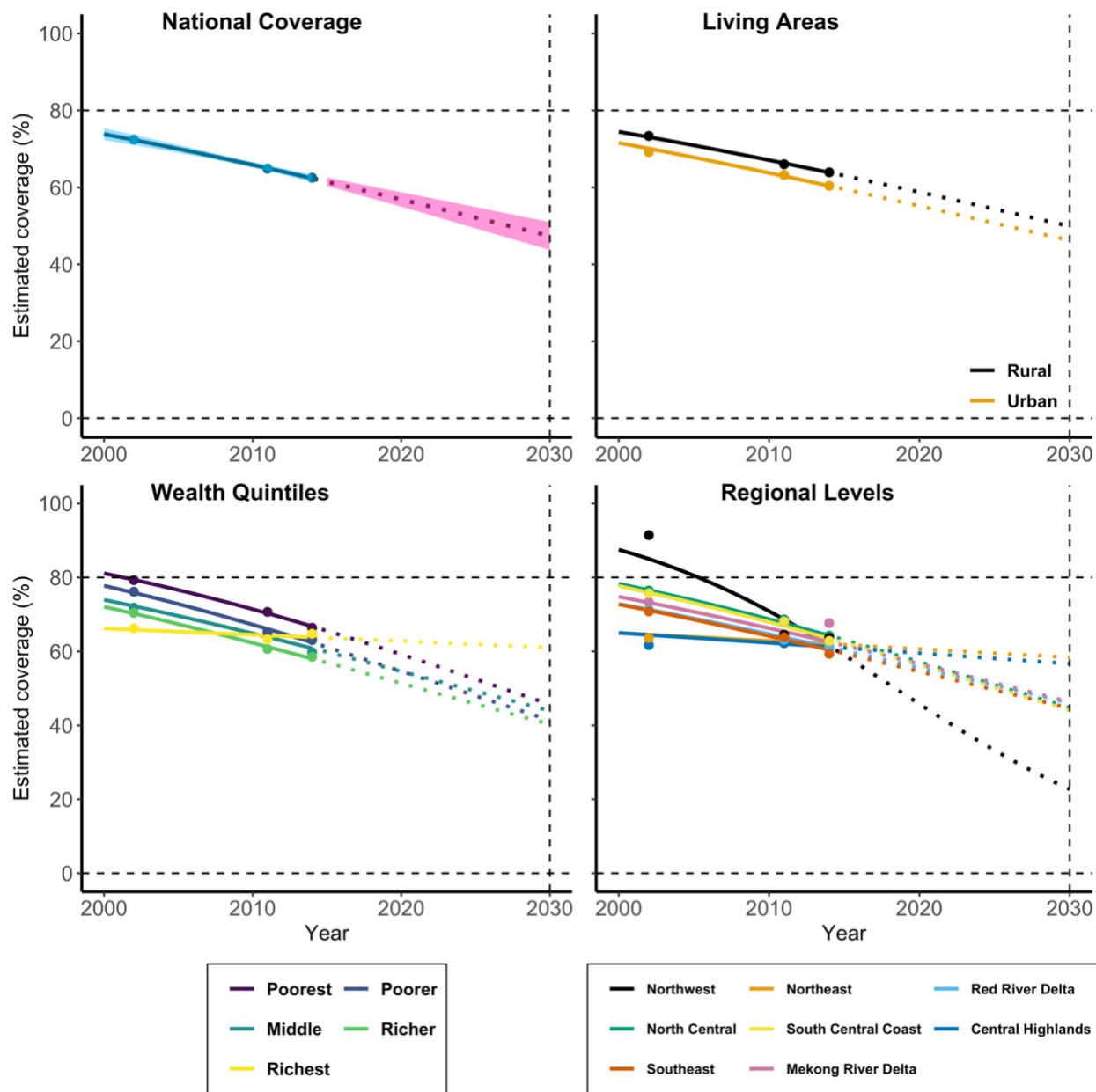


Fig. S6: Trends in and projections of coverage of Family planning needs satisfied

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

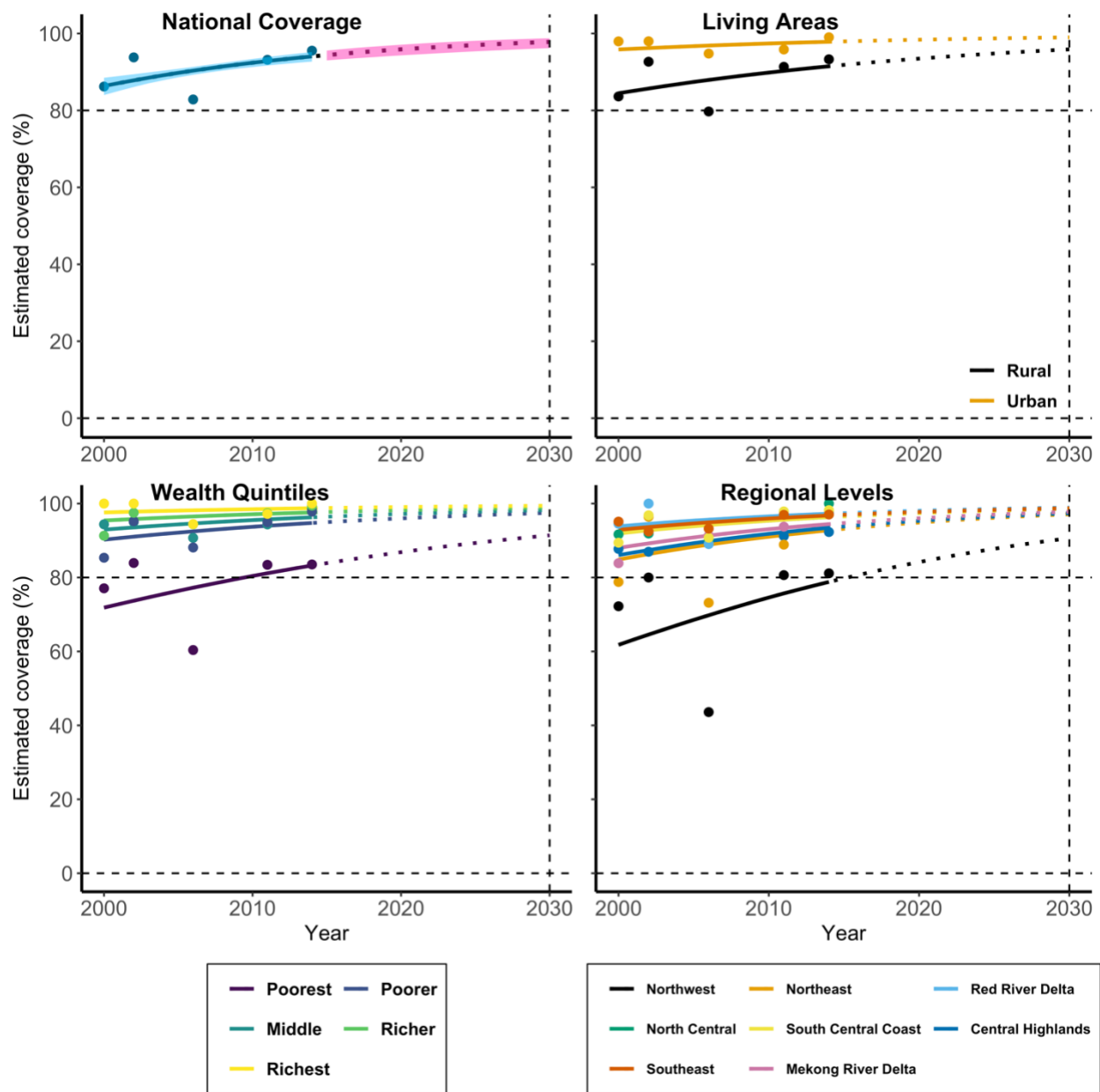


Fig. S7: Trends in and projections of coverage of BCG Immunization

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

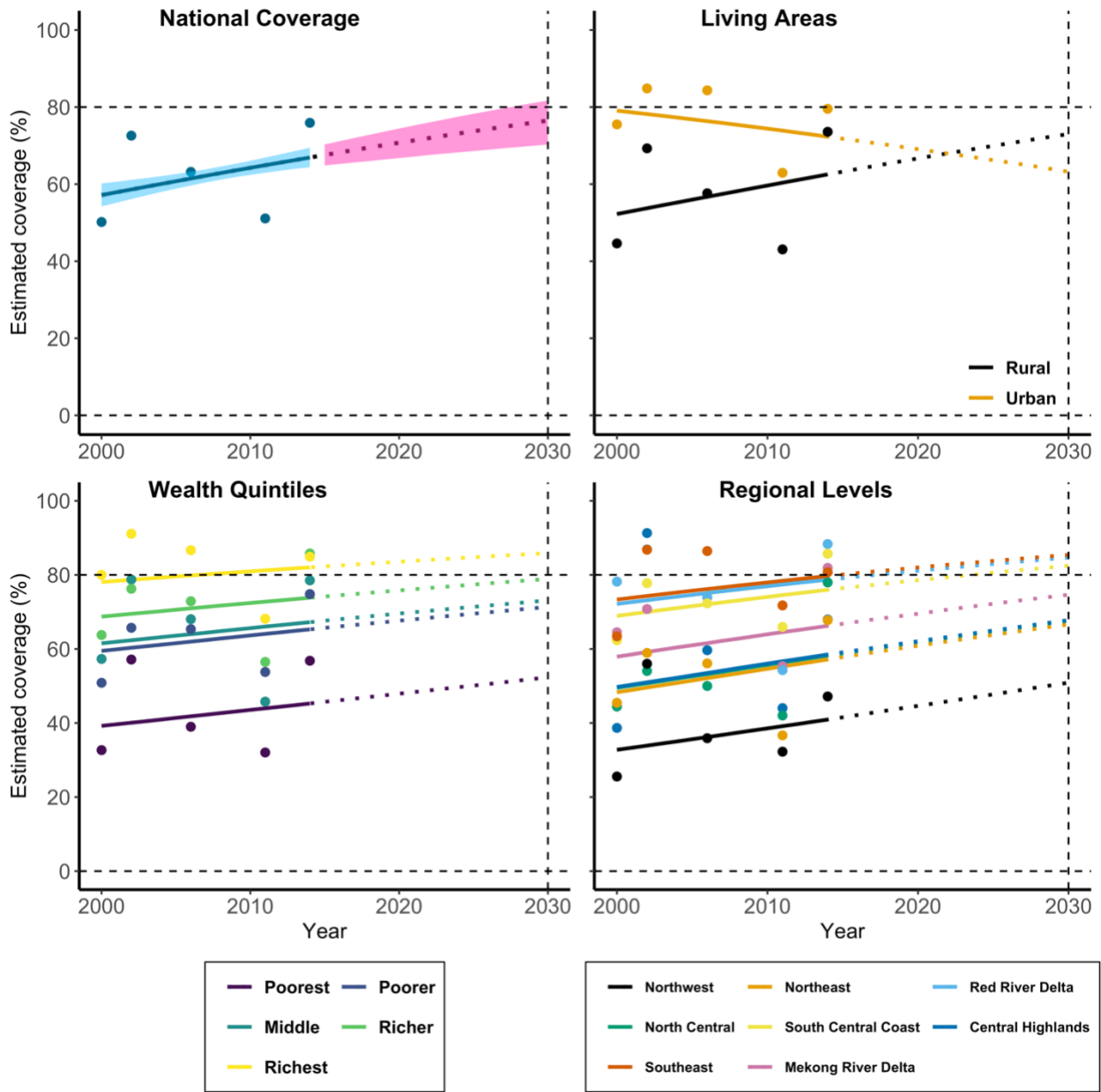


Fig. S8: Trends in and projections of coverage of DPT3 Immunization

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

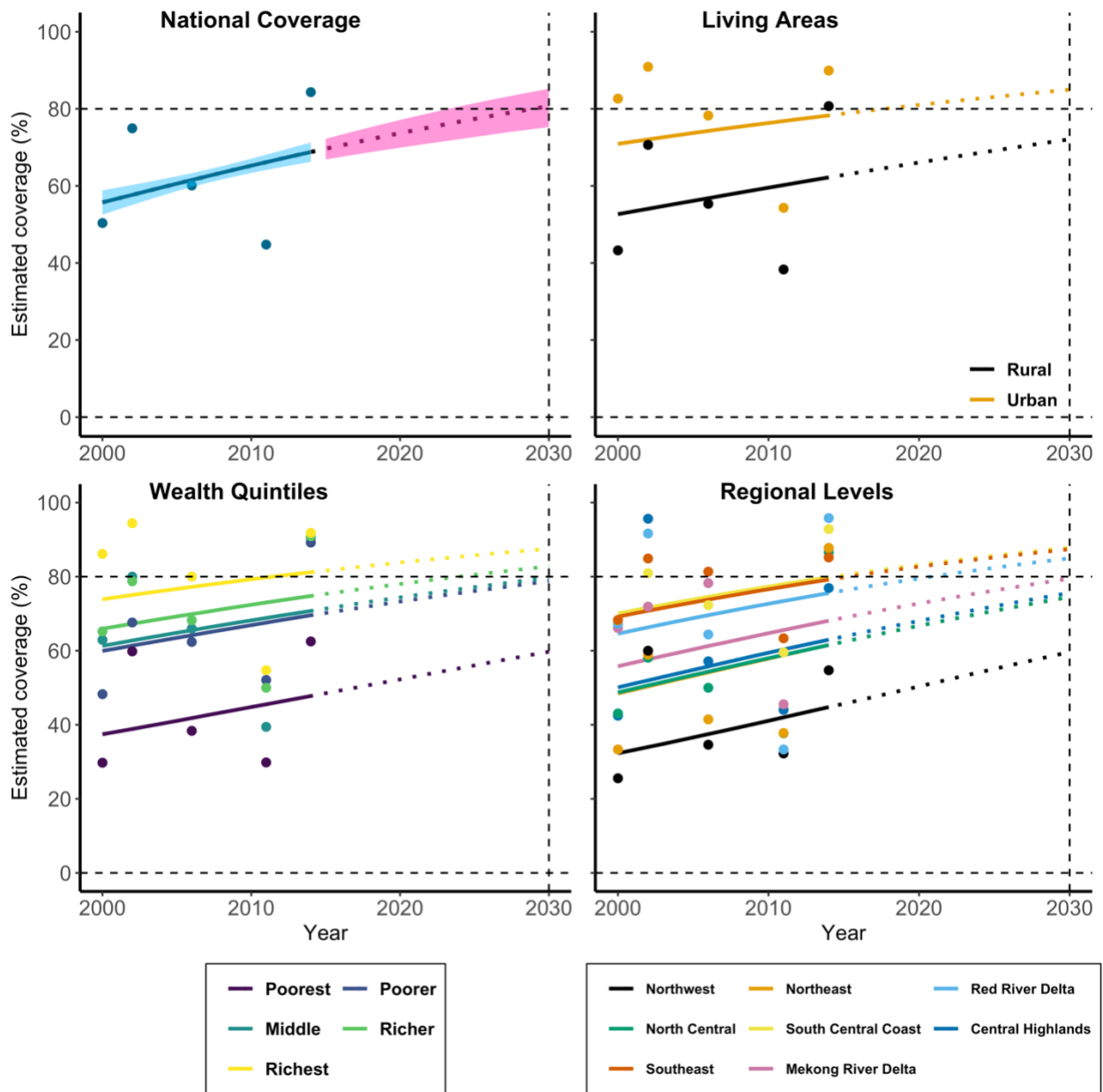


Fig. S9: Trends in and projections of coverage of Polio3 Immunization

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

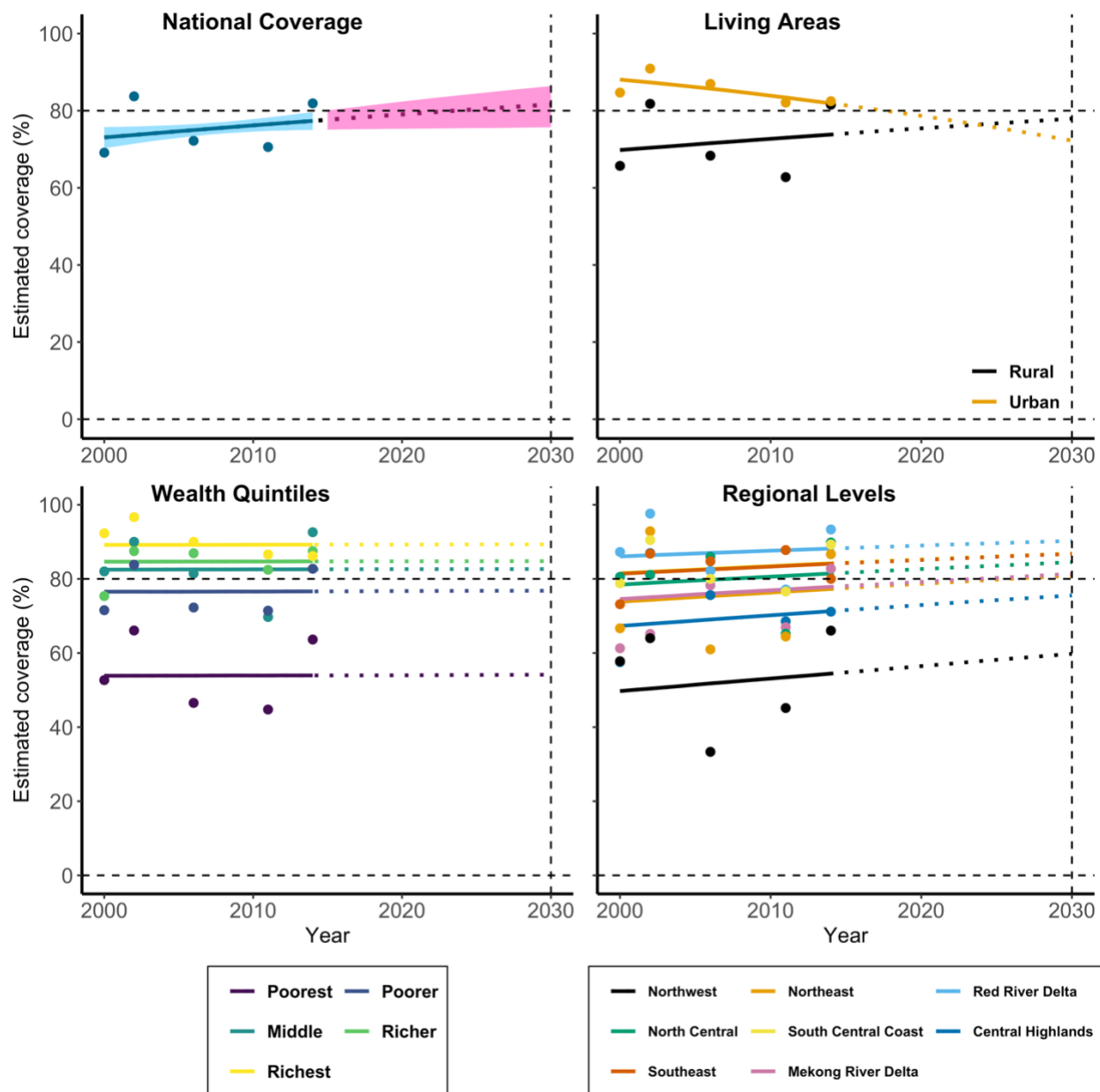


Fig. S10: Trends in and projections of coverage of Measles Immunization

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

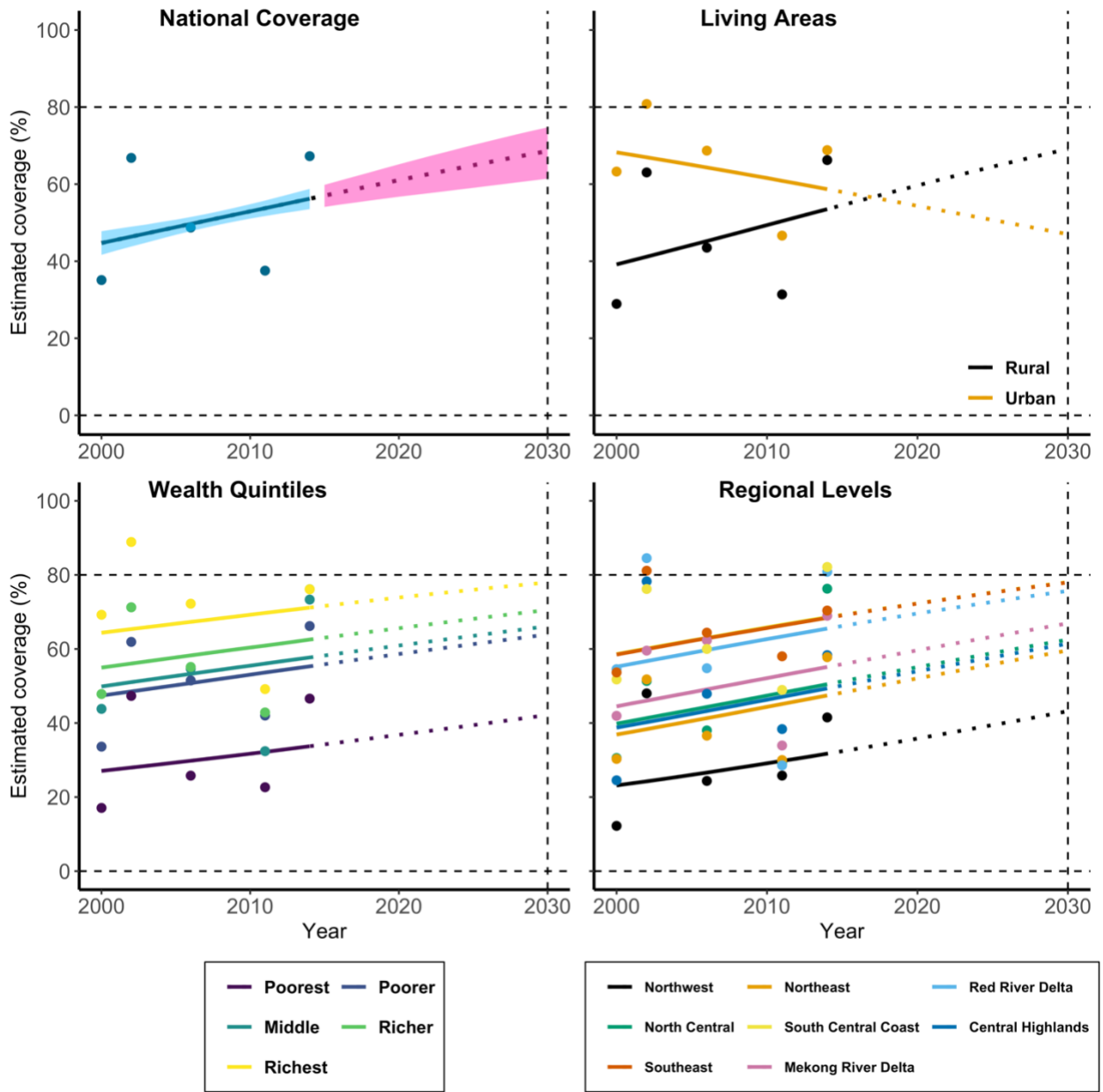


Fig. S11: Trends in and projections of coverage of Full Immunization

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

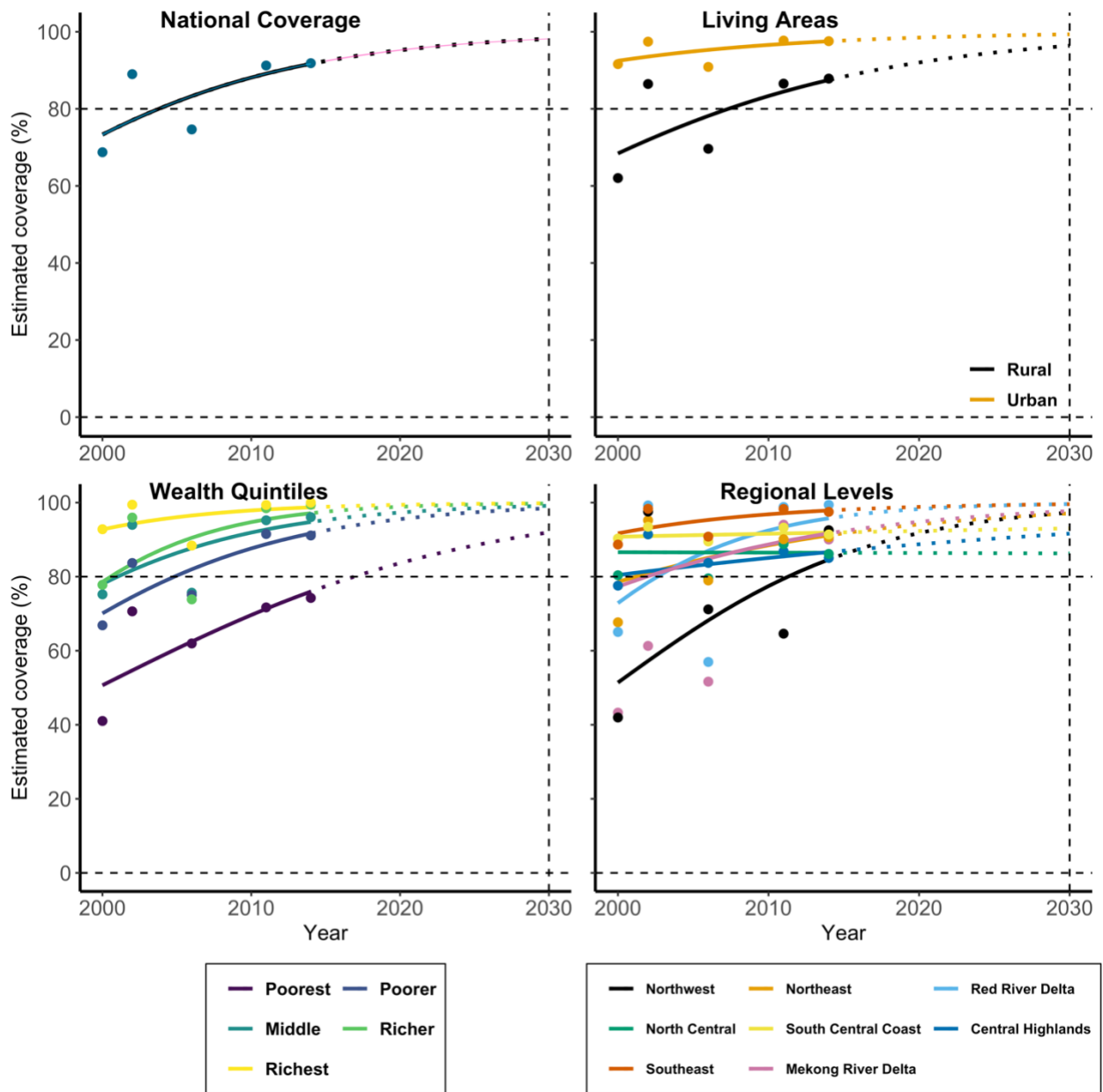


Fig. S12: Trends in and projections of coverage of Improved water

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

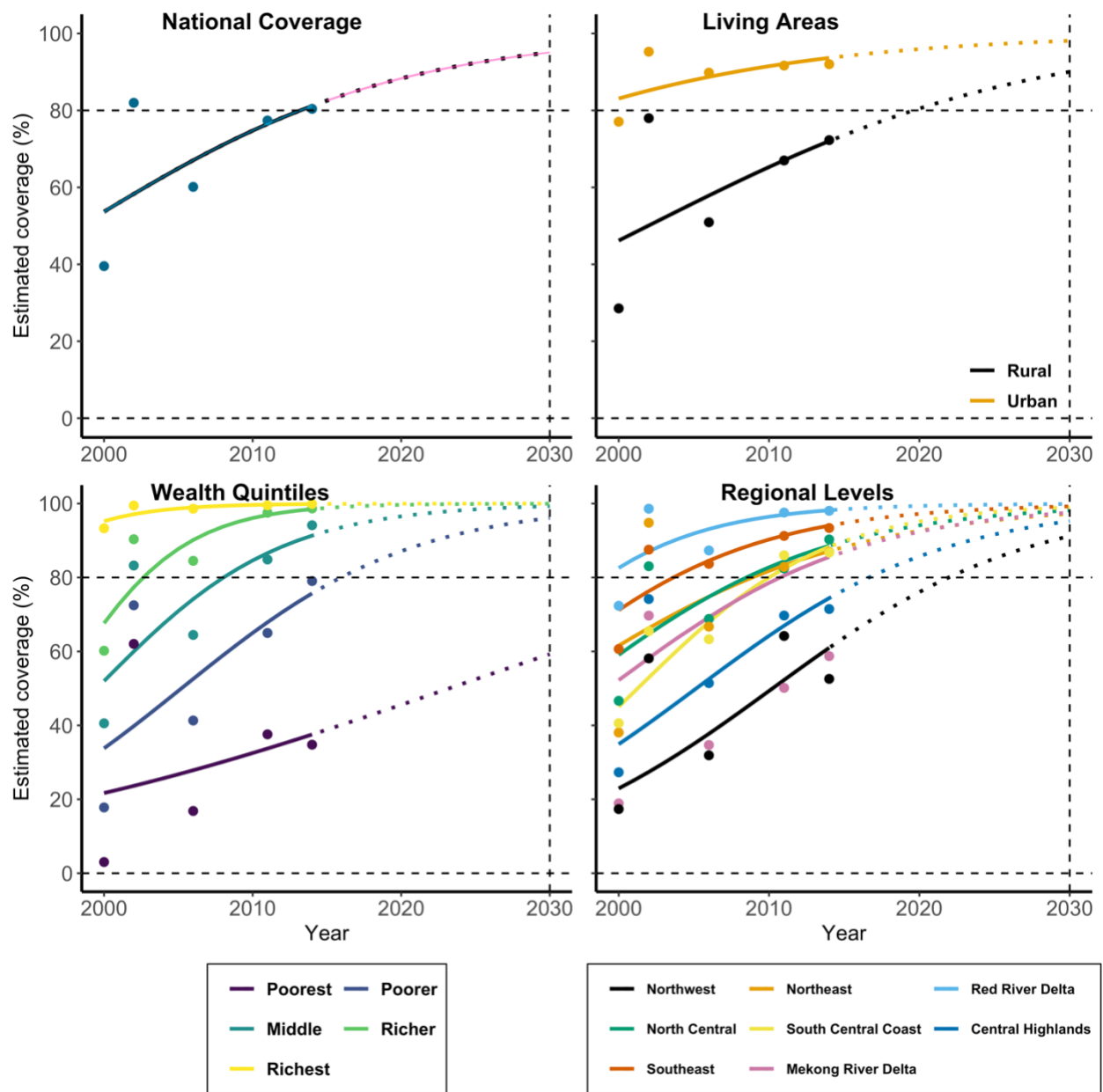


Fig. S13: Trends in and projections of coverage of Adequate sanitation

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

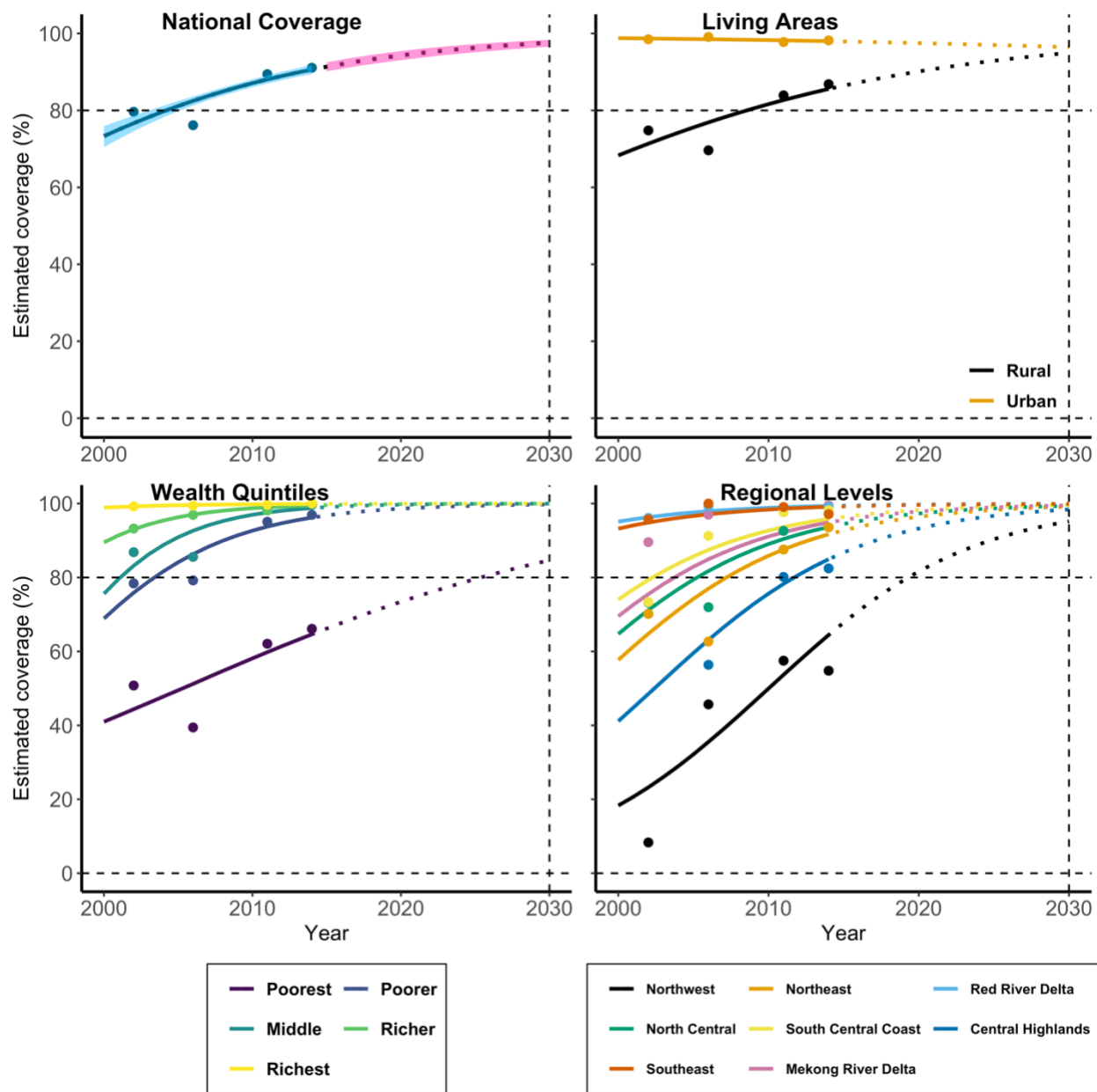


Fig. S14: Trends in and projections of coverage of Institutional delivery

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

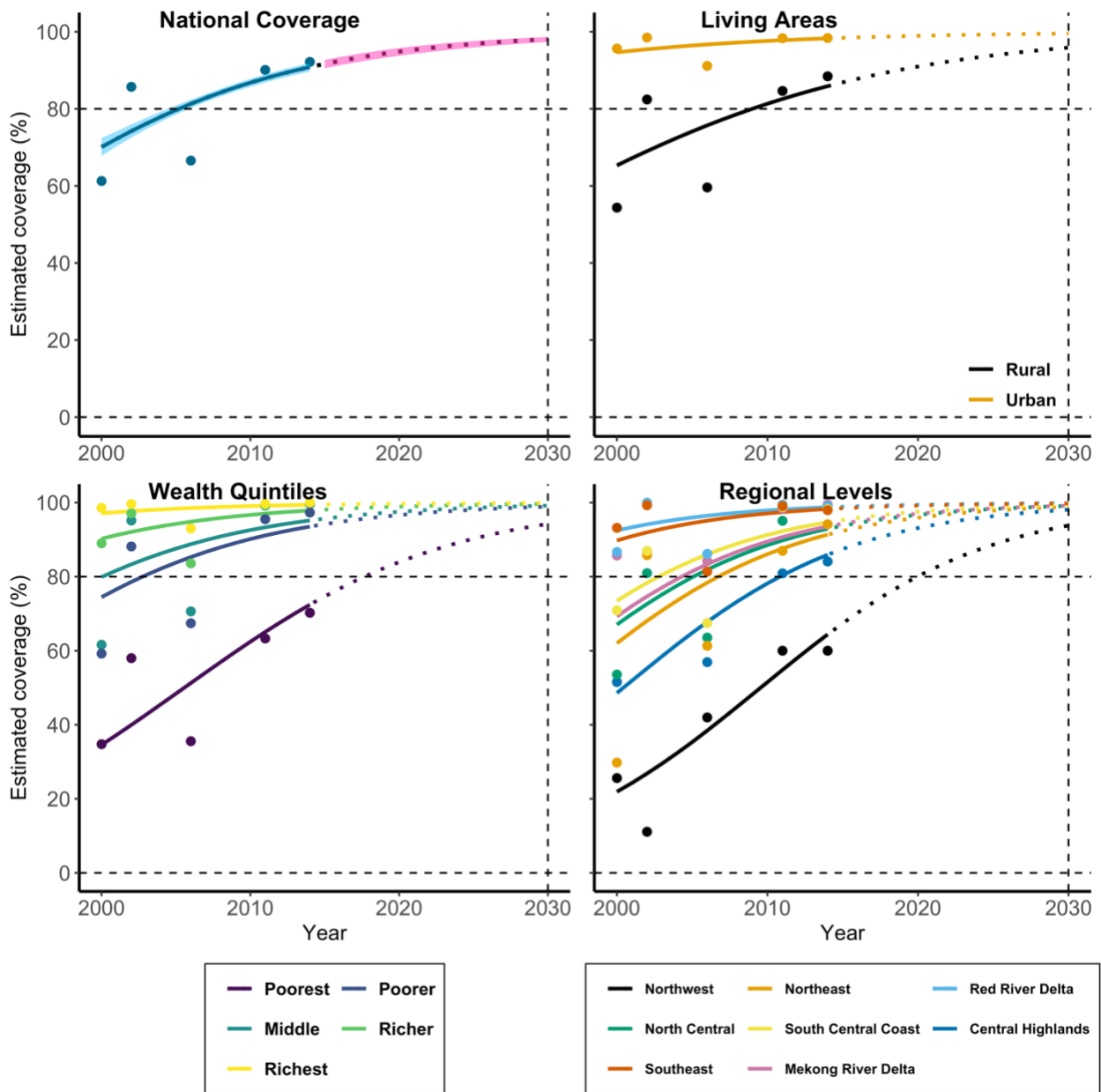


Fig. S15: Trends in and projections of coverage of Skilled birth attendance

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

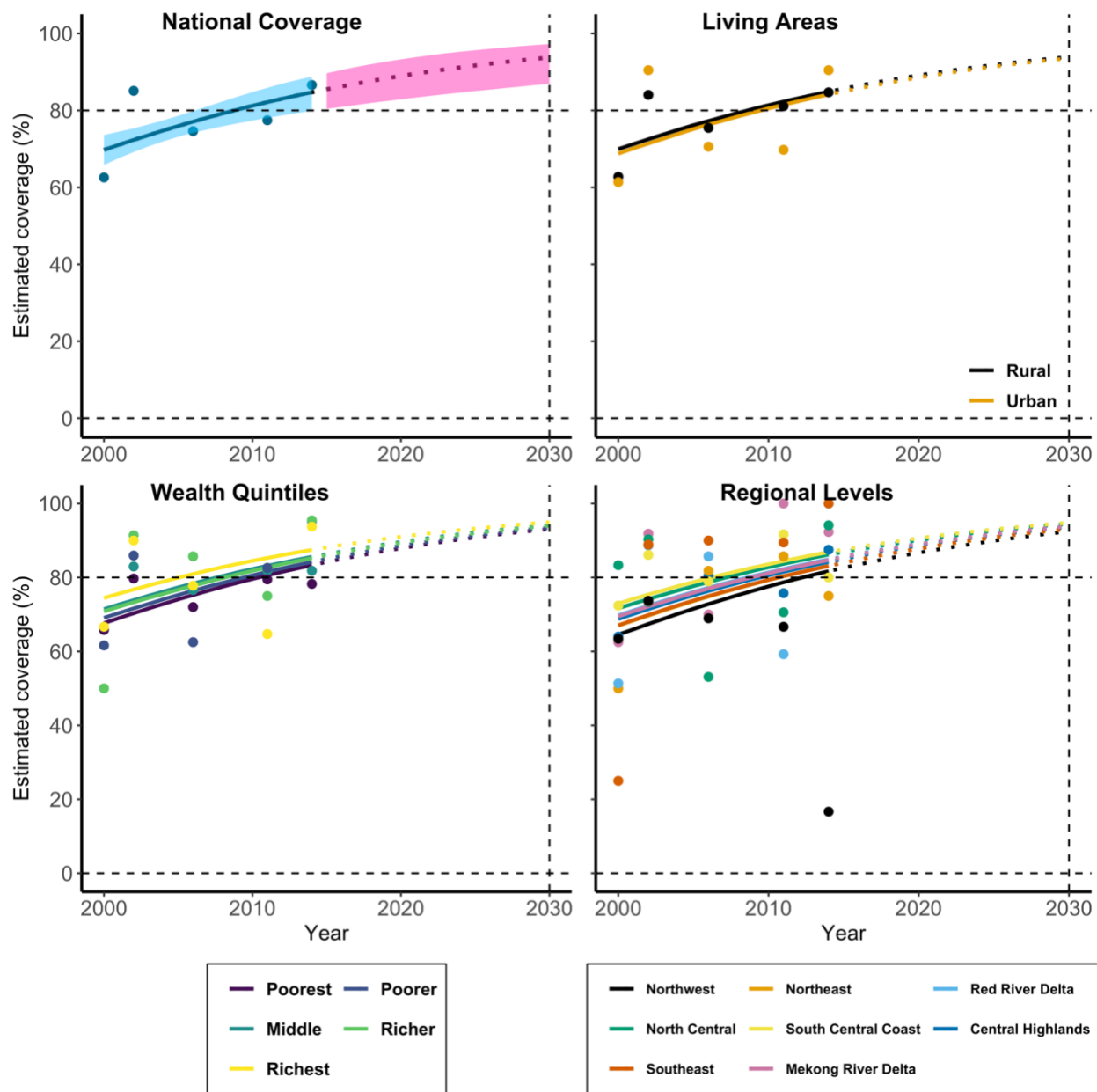


Fig. S16: Trends in and projections of coverage of Care seeking for pneumonia

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

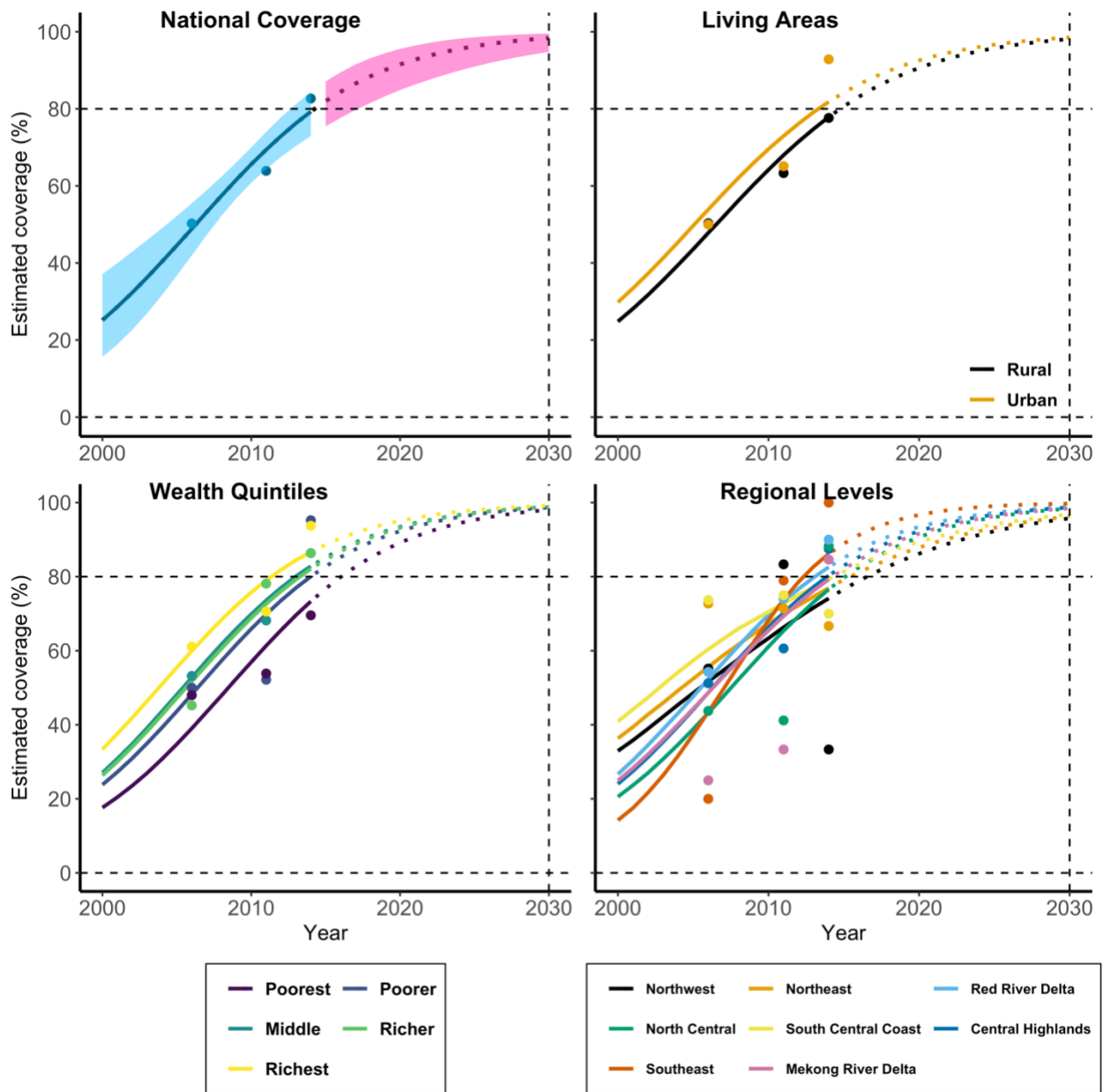


Fig. S17: Trends in and projections of coverage of ARI treatment

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

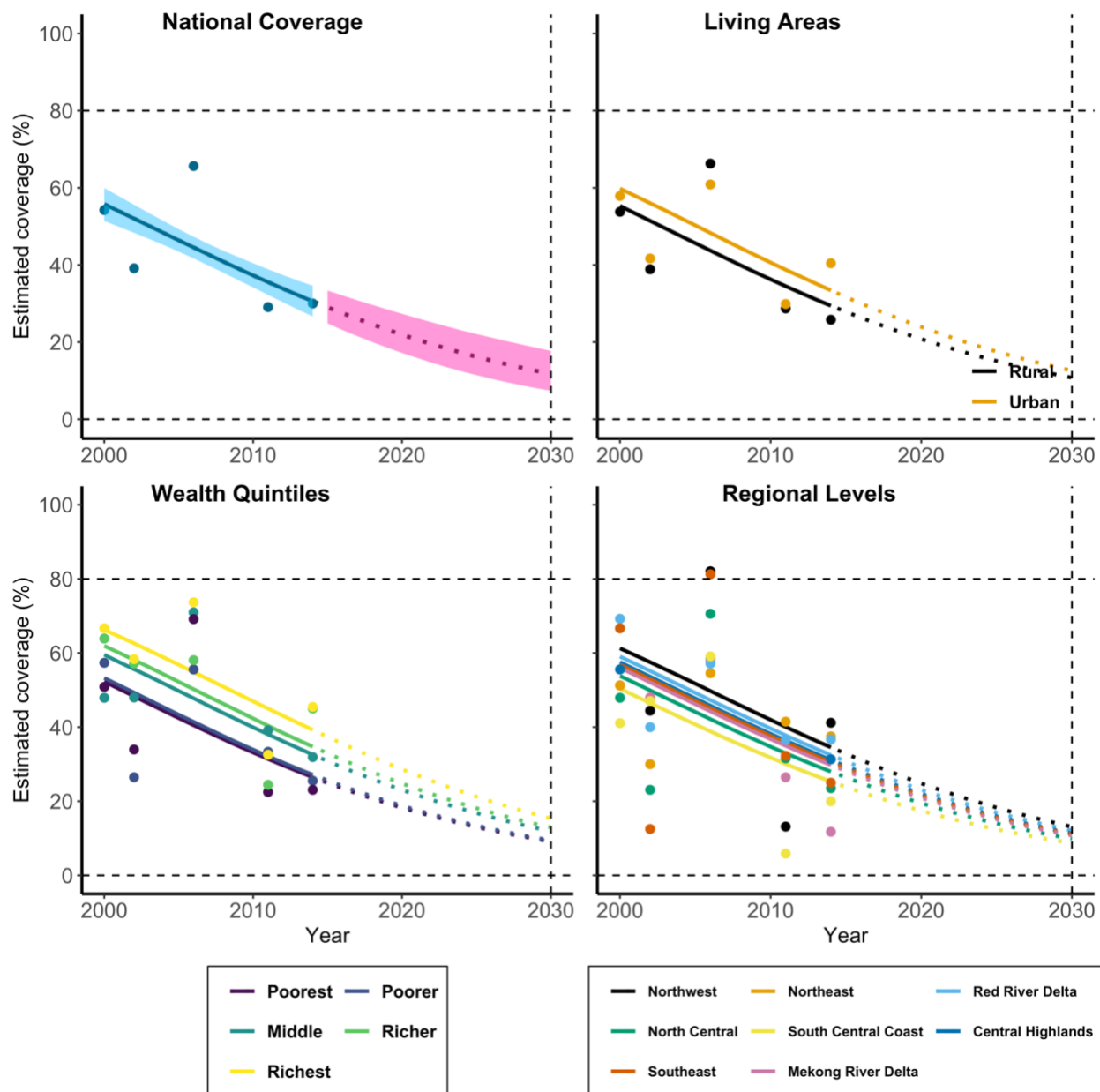


Fig. S18: Trends in and projections of coverage of Oral rehydration therapy

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

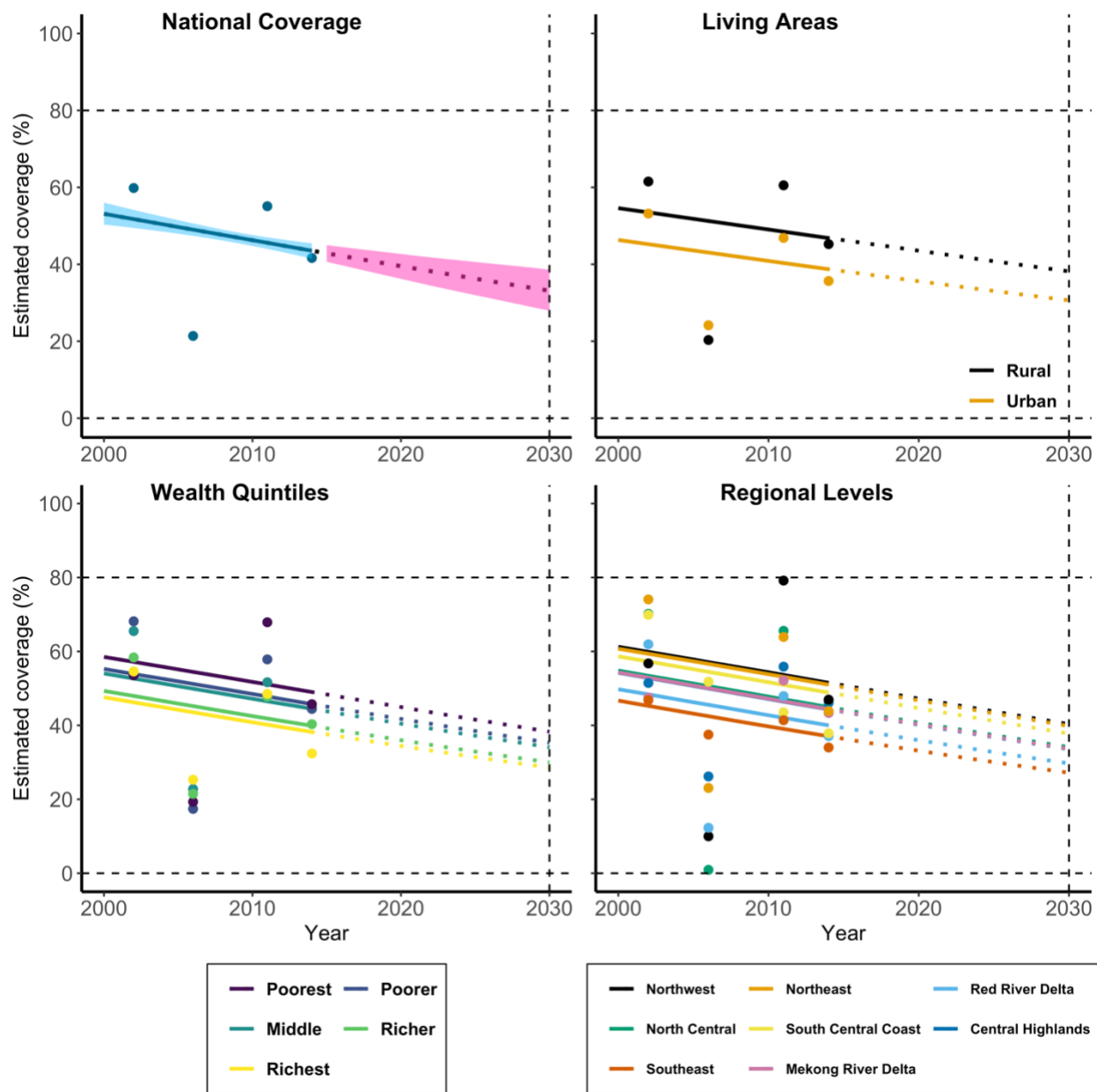


Fig. S19: Trends in and projections of coverage of Early initiation of breastfeeding

Notes: The coloured dots are the observed coverages; The solid lines are the estimated trends to 2014; The dashed lines are the projected trends in future from 2014; The shaded areas are the 95% Credible Intervals; the horizontal dotted lines present the UHC target of 80%.

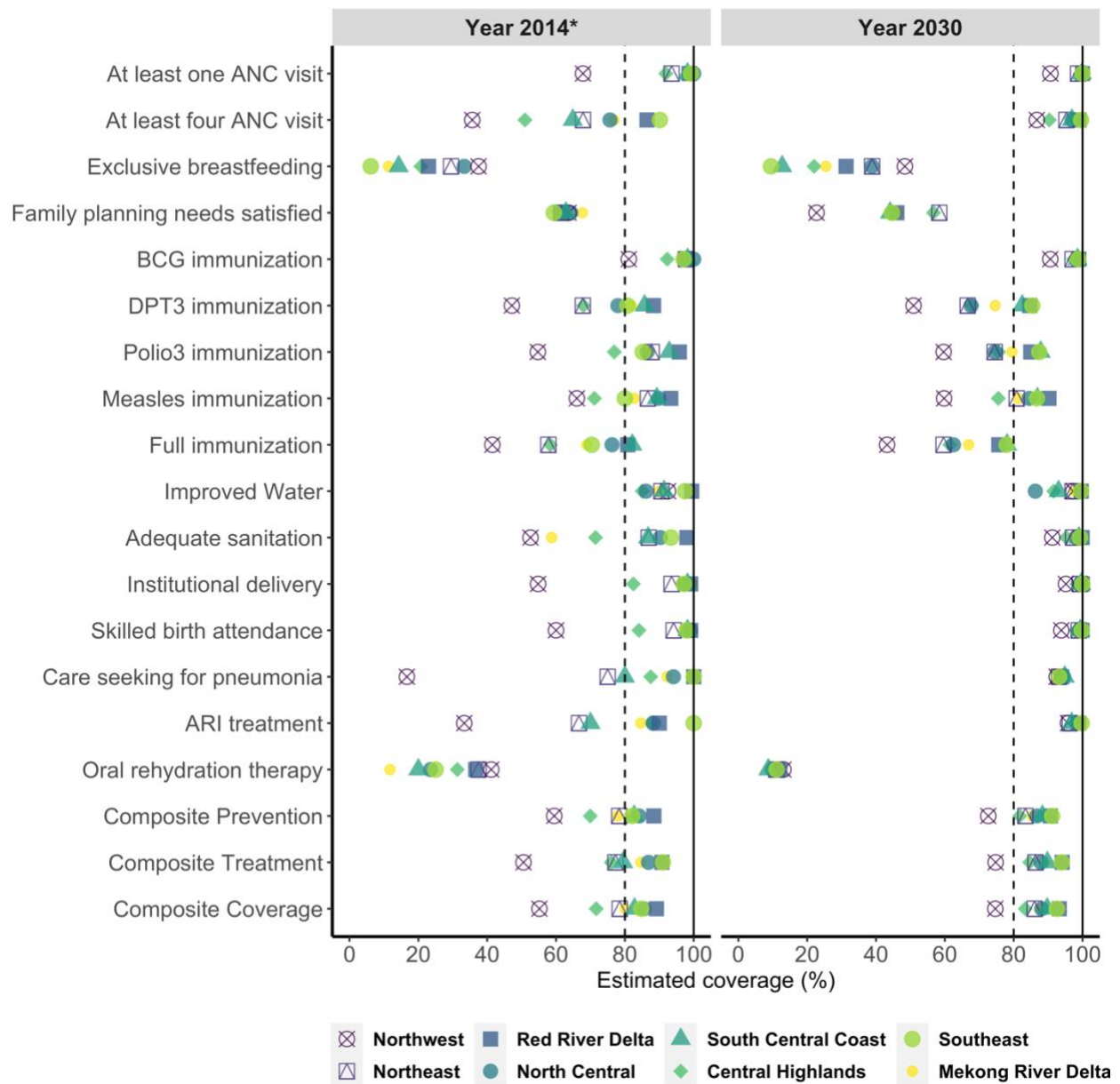


Fig. S20: RMNCH service in Vietnam in year 2014 and 2030 by regional levels

The coloured shapes are the estimated and projected values for wealth quintile levels; the horizontal axis shows coverage scales from 0 – 100%; the horizontal dotted lines present the UHC target of 80% coverage; * Observed coverages;

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