
ETHIOPIA

Ethiopia: Health Statistics Report 2025

Coverage and inequalities of RMNCH 2011 -2022



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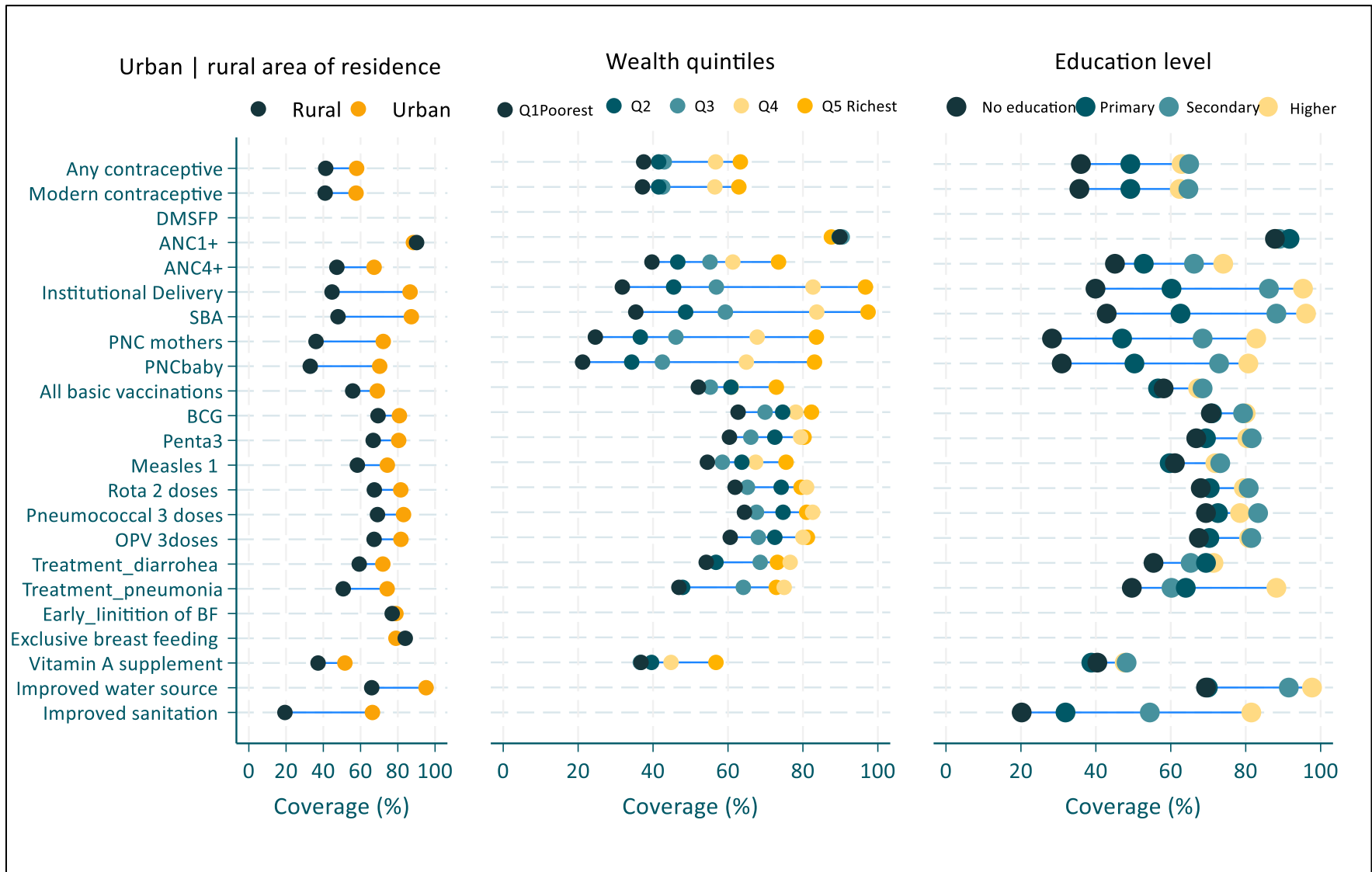
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Ethiopia: Intervention and inequality measures - National level, 2022

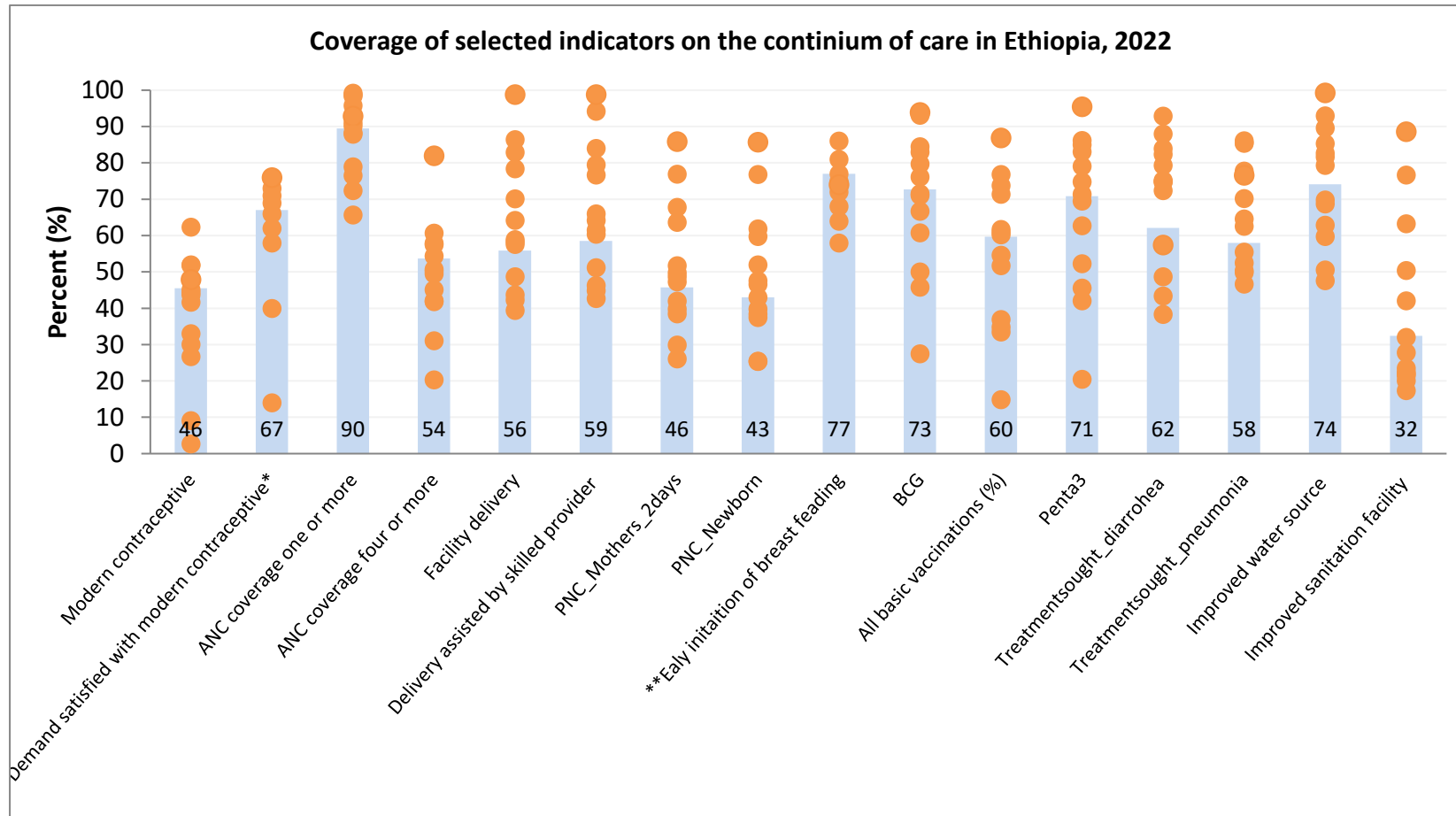


Ethiopia: Intervention and inequality measures-By residence, education, and Wealth status, 2022

Indicators	Urban	Rural	Ratio (Urban-rural)	AD*	Illiterate	Primary	Secondary	Higher	Ratio(Higher/Illiterate)	AD	Q1	Q2	Q3	Q4	Q5	Ratio Q5/Q1 ()	AD Q5Q1)	Total
Any contraceptive	58	41	1.4	16.6	36	49	65	63	1.7	26.9	38	42	43	57	63	1.7	25.8	46
Modern contraceptive	58	41	1.4	16.6	36	49	65	62	1.8	26.8	37	42	43	57	63	1.7	25.7	46
Demand for Family Planning																	0.0	
ANC1+	88	90	1.0	-1.7	88	92	89	88	1.0	0.6	90	90	91	90	88	1.0	-2.3	90
ANC4+	67	47	1.4	20.0	45	53	66	74	1.6	28.9	40	47	55	61	74	1.9	33.8	54
Institutional Delivery	87	45	1.9	41.9	40	60	86	95	2.4	55.4	32	46	57	83	97	3.0	64.9	56
SBA	87	48	1.8	39.4	43	63	88	96	2.2	53.2	35	49	59	84	97	2.8	62.0	59
Postnatal care for baby	70	33	2.1	37.3	28	47	69	83	2.9	54.5	21	34	43	65	83	3.9	61.9	43
Postnatal care for mothers	72	36	2.0	36.1	31	50	73	81	2.6	49.8	25	37	46	68	84	3.4	59.0	46
All basic vaccinations (%)	69	56	1.2	13.2	58	57	69	67	1.2	9.2	52	61	55	61	73	1.4	20.8	60
Immunization BCG	81	69	1.2	11.5	71	71	79	80	1.1	9.3	63	75	70	78	82	1.3	19.6	73
Immunization Penta3	81	67	1.2	13.7	67	69	82	80	1.2	13.6	60	73	66	79	80	1.3	19.9	71
Immunization Measles 1	74	58	1.3	16.1	61	60	73	72	1.2	10.8	55	64	59	67	76	1.4	21.0	63
Immunization Rota 2 doses	82	67	1.2	14.2	68	70	81	80	1.2	11.5	62	74	65	81	80	1.3	17.6	72
Immunization Pneumococcal 3 doses	83	69	1.2	14.0	69	73	83	79	1.1	9.1	64	75	68	83	81	1.3	16.6	73
Immunization OPV 3doses	82	67	1.2	14.4	68	70	82	81	1.2	13.4	61	73	68	80	81	1.3	20.6	72
Treatment sought diarrhoea	72	59	1.2	12.7	55	69	65	71	1.3	16.0	54	57	69	77	73	1.4	19.0	62
Treatment sought pneumonia	74	51	1.5	23.6	50	64	60	88	1.8	38.6	47	48	64	75	73	1.6	26.0	58
Early initiation of breast feeding	79	77	1.0	2.0														77
Exclusive breast feeding	79	84	0.9	-5.0														82
Vitamin A supplementation	52	37	1.4	14.4	40	39	48	48	1.2	7.3	37	40	37	45	57	1.5	20.0	41
Improved water source	95	66	1.4	29.2	69	70	92	98	1.4	28.3								74
Improved sanitation facility	66	19	3.4	47.0	20	32	54	82	4.0	61.3								32

*-Absolute difference Data not available, ANC1+ - Antenatal care visit one or more, NC4+ -Antenatal care visit four or more. Q1-Poorest, Q5-Richest

Coverage of selected indicators on the continuum of care in Ethiopia, 2022



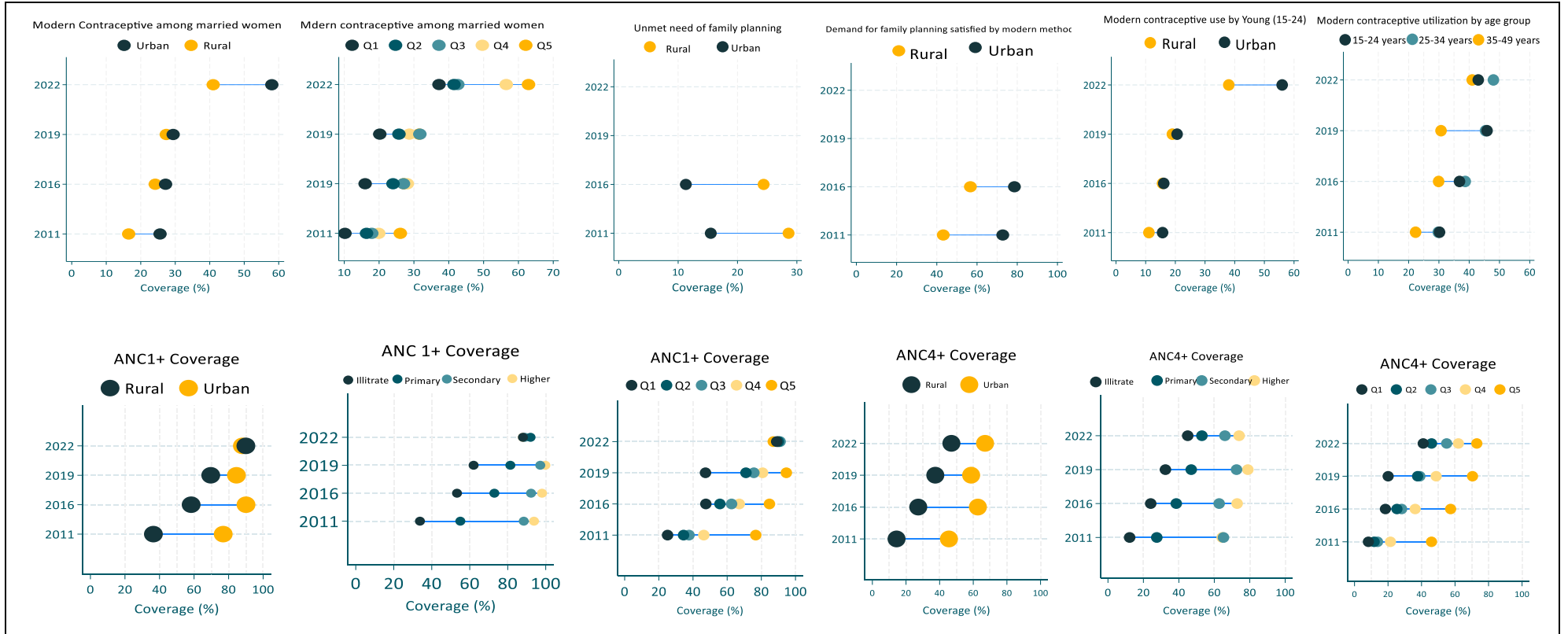
*- Demand satisfied with modern contraceptive from FP2020 Estimation, **-Early initiation of breast feeding from national survey of nutrition program strategy (2022), the light blue column bar is the national coverage, the yellow circle represents regions.

Ethiopia: Intervention and inequality measures by regions, 2022

Indicators	Any contraceptive	Modern contraceptive	DSMFP	ANC1+	ANC4+	Institutional Delivery	SBA	Postnatal care for baby	Postnatal care for mothers	Treatment Sought diarrhoea	Treatment sought pneumonia	Vitamin A suppl	Improved water source	Improved sanitation facility
Tigray	30	30		99	58	58	60	47	49	49	50	33	69	24
Afar	10	9		77	20	39	45	26	26	93	86	24	51	28
Amhara	52	52		91	51	59	62	43	47	43	50	47	79	42
Oromia	44	44		90	54	49	51	40	42	75	56	31	70	22
Somali	3	3		96	31	44	46	38	39	84	53	37	63	50
Benishangul gumuz	45	45		72	50	83	84	62	68	72	86	57	82	22
SNNPR	45	44		88	58	64	66	48	50	75	63	53	83	22
Sidama	52	52		98	45	42	43	38	40	88	78	40	60	32
SW-Ethiopia	62	62		66	42	58	64	25	30	82	70	34	48	20
Gambela	27	27		99	42	70	77	52	52	79	85	55	93	17
Harari	42	42		79	50	86	94	77	77	38	47	51	85	63
Addis Ababa	49	48		93	82	99	99	86	86	57	77	74	99	89
DireDawa	34	33		88	61	78	80	60	64	75	65	56	90	77
Total	46	46		90	54	56	59	43	46	62	58	41	74	32
Best Performer	SW-E	SW-E		Gambella/ Tigray	AA	AA	AA	AA	AA	Afar	Afar/ Benishangul gumuz	AA	AA	AA
Low performer	Somali	Somali		SW-E	Afar	Afar	Sidama	SW-E	Afar	Harari	Harari	Afar	SW	Gambella
AD(Best –Poor)	59	60		33	62	59	56	60	60	55	39	50	52	71
Ratio(Best/Poor)	21	23		2	4	3	2	3	3	2	2	3	2	5
MADM	13	13		8	11	16	16	14	14	17	14	12	14	18
MRDM	28	28		9	20	28	27	32	30	28	24	29	18	55

DSMFP-Demand satisfied for modern family planning; SW-E – South west Ethiopia, AA-Addis Ababa, MADM - Mean absolute difference to the mean, MRDM- Mean Relative difference to the mean, AD-Absolute difference

Ethiopia: Trends of RMNCH Intervention by Stratifies 2011-2022



Ethiopia: Trends of RMNCH Intervention by Stratifies 2011-2022 continued



Ethiopia: Trends of RMNCH Intervention by regions 2011-2022

	Modern contraceptive				ANC1+				ANC4+visits				Institutional delivery			
	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022
Tigray	21	35	36	30	64	90	94	94	31	57	64	58	12	57	72	58
Afar	9	12	13	9	35	51	63	63	11	21	31	20	7	15	28	39
Amhara	33	47	50	52	41	67	83	83	12	32	51	51	10	27	54	59
Oromia	25	28	39	44	39	51	71	71	19	22	41	54	8	19	41	49
Somali	4	1	3	3	25	44	30	30	7	12	11	31	8	18	23	44
Benishangul Gumuz	26	28	37	45	39	69	83	83	16	42	56	50	9	26	64	83
SNNP*	25	40	45	53	41	69	69	69	18	38	34	48	6	26	48	55
Gambela	33	35	33	27	56	72	86	86	31	43	32	42	28	45	70	70
Harari	32	29	30	42	59	76	81	81	35	35	39	50	32	50	64	86
Addis Ababa	56	50	48	48	94	97	97	97	86	89	82	82	82	97	95	99
Dire Dawa	32	29	30	33	61	87	84	84	39	66	62	61	40	56	69	78
National	27	35	41	46	43	65	74	89	19	32	43	54	10	26	48	56
Best performer	AA	AA	Amhara	Amhara	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Poor Performer	Somali	Somali	Somali	Somali	Somali	Somali	Somali	Somali	Somali	Somali	Somali	Afar	SNNP	Afar	Afar	Afar
AD(Best-Poor)	53	49	44	45	69	53	67	67	79.4	77.3	70.7	61.7	76.1	81.9	71.5	59.4
Ratio (Best/Poor)	15	36	14	18	4	2	3	3	12.3	7.6	7.37	4.04	13.3	6.6	4.1	2.5
MADM	9	10	11	14	14	14	14	15	14.3	17.1	15.4	15.1	14.2	18.5	18.7	17.7
MRDM	34	30	27	30	34	22	19	17	75.2	53.9	35.8	22.9	143.3	70.5	39.4	31.7

DSMF - Demand satisfied for modern family planning; AA - Addis Ababa, MADM - Mean absolute difference to the mean, MRDM - Mean Relative difference to the mean, AD - Absolute difference, * for SNNP is the average of SNNP, South west Ethiopia, and Sidama for the year 2022

Ethiopia: Trends of RMNCH Intervention by regions 2011-2022 continued...

	SBA				CS				Postnatal care for new-born			
	2011	2016	2019	2022	2011	2016	2019	2022	2016	2019	2022	
Tigray	13	59	73	60	2.9	2.0	6.9	6.5		13	35	47
Afar	7	16	31	45	2.0	0.7	2.7	1.7		31	56	26
Amhara	11	28	56	61	1.3	2.3	7.4	5.1		7	26	43
Oromia	9	20	44	51	0.5	0.9	4.1	5.4		11	42	40
Somali	8	20	26	46	0.7	0.4	1.1	2.5		8	28	38
Benishangul gumuz	10	29	65	84	1.3	1.0	6.2	6.3		12	13	62
SNNP*	7	29	50	58	1.2	1.9	4.6	5.1		15	45	37
Gambela	28	47	70	77	8.7	1.3	3.8	4.6		14	30	52
Harari	33	51	65	89	7.0	9.0	8.2	15.5		18	56	77
Addis Ababa	84	97	96	99	21.8	21.4	24.1	25.4		35	47	86
Dire Dawa	41	57	71	80	6.2	5.3	15.6	14.5		46	84	60
National	11	28	50	59	1.5	1.9	5.4	6.1		27	48	43
Best performer	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Poor Performer	Afar	Afar	Somali	Afar	Oromia	Somali	Somali	Afar	Amhara	B gumuz	Afar	
Ratio (Best/Poor)	11.8	5.9	3.68	2.2	21	21	23	24	7.1	6.5	3.4	
AD (Best-Poor)	76.8	80.4	69.7	53.7	44	54	22	15	39.6	71.4	60.2	
MADM	14.2	18.3	17.8	23					10.9	17.02	15.29	
MRDM	131.1	66	35.7	39.3					83.4	35.6	35.6	

SBA-Delivery assisted by skilled provider; B gumuz –Benishangul gumuz, SNNP, southern nations and nationalities people including sidama and southwest Ethiopia in the recent survey, AA-Addis Ababa, MADM - Mean absolute difference to the mean, MRDM- Mean Relative difference to the mean, AD-Absolute difference, * for SNNP is the average of SNNP, South west Ethiopia, and Sidama for the year 2022

Interventions and inequality measures

To track progress toward the Sustainable Development Goals, it's crucial to assess the coverage of health interventions across different population subgroups, as national averages can obscure significant inequalities. We identified 18 coverage indicators from the continuum of care for reproductive, maternal, neonatal, and child health (RMNCH), along with two indicators highlighting lack of care: zero-dose children and zero maternal and newborn care interventions. These indicators provide a comprehensive overview of how Ethiopia is performing in terms of coverage and inequality across regions, wealth quintiles, urban versus rural settings, and the intersection of wealth and location.

In the tables, we include coverage estimates alongside straightforward measures of wealth inequality (absolute difference and ratio) as well as more complex measures: the slope index of inequality (SII) for absolute inequality and the concentration index (CIX) for relative inequality. The SII represents the coverage gap between the wealthiest and poorest, derived from a logistic regression model. A positive SII indicates better coverage among wealthier groups, while a negative one suggests greater coverage among the poorer segments. The CIX, similar to the Gini index, indicates where coverage is concentrated, with positive values reflecting better coverage for the rich and negative values indicating better coverage for the poor. The CIX ranges from zero (no inequality) to ± 100 (maximum concentration), but in practice, a value above 30 indicates a high level of inequality.

Short definitions of the interventions are presented below:

Data sources: Ethiopian Health and Demographic survey 2011-2019, and National Health Equity survey 2022

Demand for family planning satisfied with modern methods: Percentage of women aged 15-49 years, in union, using modern contraceptives among those who are fertile and do not want a child in the next two years, at least.

Antenatal care (at least or one four or more visits): Percentage of women aged 15-49 years who had a last birth in the last 5 years preceding the interview (the period depends on the type of survey) and with at least one or four antenatal care visits with any provider

Skilled attendant at delivery: Percentage of children whose birth was assisted by a skilled attendant (doctor, nurse, midwife, health officer, health extension worker) among all live births in the last 2/5 years (the period depends on the type of survey).

Postnatal care for mothers or babies: Percentage of women 15-49 or their babies who received postnatal care within two days of a live birth among those who had a birth in the previous two years.

Immunization services; BCG, rotavirus, DPT3, and measles: Percentage of children aged 12-23 months (depending on the country's vaccine schedule) who received these vaccines. For rotavirus, we considered children who received two or three vaccine doses (depending on the vaccine brand). For measles, those who received at least one dose, and for DPT3, those who received three vaccine doses.

Care seeking for pneumonia: Percentage of children aged 0-59 months with pneumonia symptoms in the last two weeks for whom advice or treatment was sought from a health facility or provider.).

Care seeking for Diarrhea: Percentage of children aged 0-59 months with Diarrhea in the last two weeks for whom advice or treatment was sought from a health facility or provider.

Early initiation of breast feeding: Percentage of the last-born children to women 15-49, born in the two years preceding the interview, who started to be breastfed within one hour of birth.

Exclusive breast feeding: Percentage of children under six months of age living with their mother who are exclusively breast feed

Vitamin A supplementation: Percentage of children aged 6-59 months who received vitamin A supplementation in the six months preceding the interview.

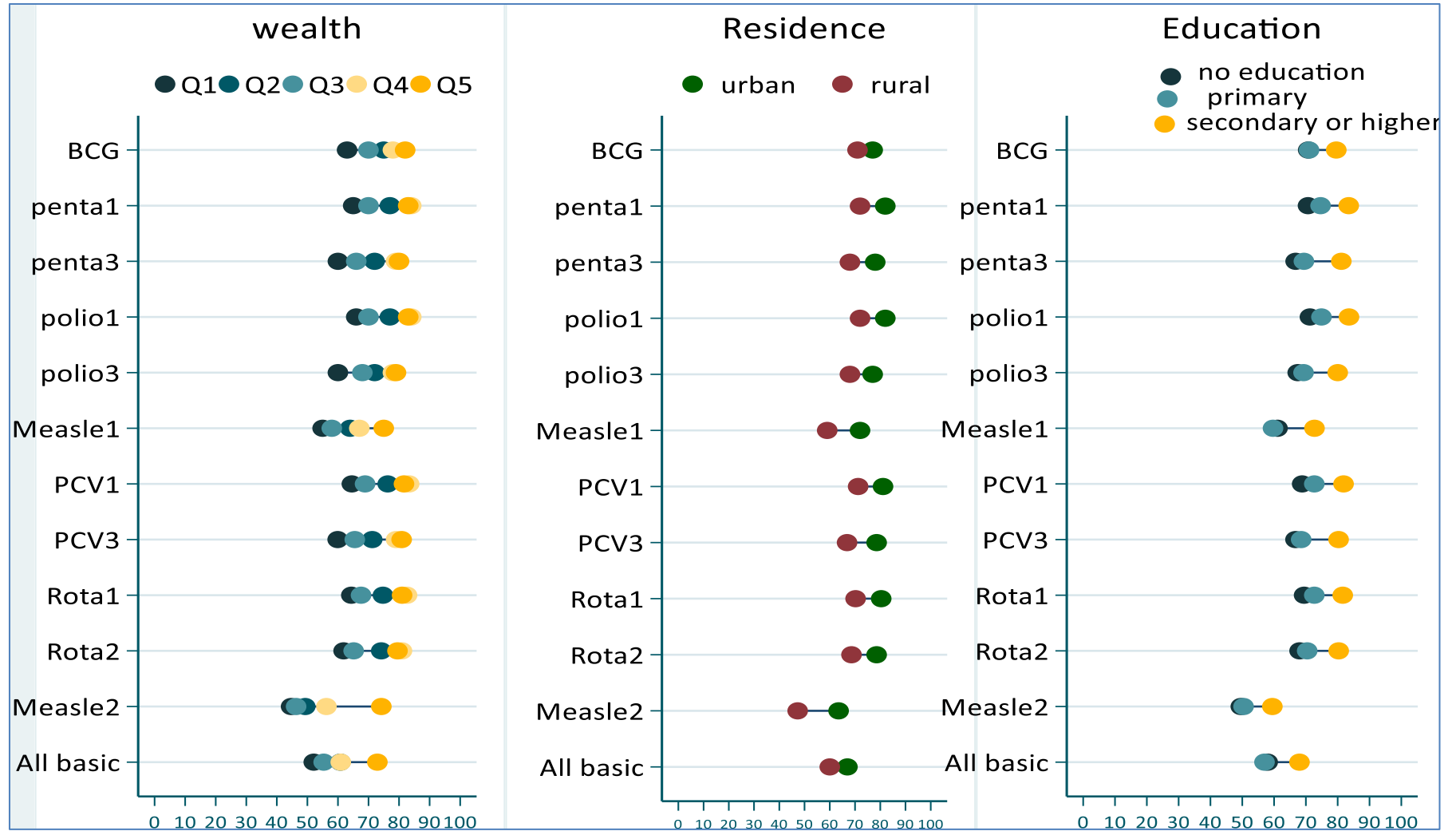
Improved drinking water source: Percentage of households with access to an improved source of drinking water (such as piped water, public tap, protected well).

Access to improved sanitation: Number of households that have access to improved sanitation facilities (Flush/pour flush to piped sewer system or septic tank or pit latrine, Ventilated improved pit (VIP) latrine or Pit latrine with slab, and composting toilet.

Stratifies: Wealth quintile, Urban/rural area of residence, education level, region.

Ethiopia: Vaccination service statistics and inequality

Vaccination coverage across socio-demographic variables among 12-23 months age children in 2022, Ethiopia



BCG: Bacillus Calmette Guerin, **PCV:** Pneumococcal Vaccine

Magnitude and disparities of vaccination indicators across socio demographic characteristics in 2022, Ethiopia

Indicators	National coverage	Q1	Q5	Difference (Q5-Q1)	CIX, 95%CI	Urban	Rural	Ratio (urban/rural)	illiterate	secondary or higher	Difference (higher-illiterate)	SII, 95%CI
BCG	73	63	82	19	0.13[0.08-0.18]	77	71	1.1	71	80	9	0.36[0.29-0.43]
penta1	75	65	83	18	0.13[0.08-0.17]	82	72	1.2	71	83	13	0.16[0.06-0.27]
penta2	73	63	81	18	0.13[0.09-0.18]	80	70	1.2	69	82	13	0.38[0.31-0.45]
penta3	71	60	80	20	0.14[0.10-0.19]	78	68	1.2	67	81	14	0.17[0.06-0.29]
polio1	75	66	83	17	0.13[0.08-0.17]	82	72	1.2	71	84	12	0.16[0.05-0.26]
polio2	73	63	80	18	0.12[0.07-0.17]	80	71	1.1	70	82	12	0.36[0.29-0.43]
polio3	71	60	79	19	0.13[0.09-0.18]	77	68	1.1	67	80	13	0.15[0.04-0.26]
measle1	63	55	75	20	0.13[0.08-0.18]	72	59	1.2	61	72	13	0.13[0.01-0.25]
PCV1	73	65	82	17	0.13[0.08-0.17]	81	71	1.2	70	82	13	0.34[0.27-0.41]
PCV2	72	62	81	19	0.14[0.09-0.18]	80	70	1.2	69	82	13	0.35[0.28-0.42]
PCV3	74	60	81	21	0.15[0.10-0.20]	79	67	1.2	67	80	14	0.37[0.30-0.44]
rota1	73	64	81	17	0.12[0.08-0.17]	80	70	1.1	69	82	12	0.36[0.29-0.43]
rota2	70	62	79	18	0.13[0.08-0.17]	79	69	1.2	68	80	12	0.37[0.30-0.44]
all basic	60	52	73	21	0.12[0.07-0.17]	67	60	1.1	58	68	10	0.35[0.28-0.43]

BCG: Bacillus Calmette Guerin, **PCV:** Pneumococcal Vaccine, **Q1:** first wealth quintile, **Q5:** Fifth wealth quintile, **CIX:** concentration index, **SII:** Slope inequality index

Magnitude and disparities of vaccination indicators across regions of Ethiopia in 2022

Region	BCG	Penta1	Penta3	Polio1	Polio3	Measles1	All basic	Rota1	Rota2	PCV1	PCV3
Tigray	52	62	52	64	53	52	35	58	54	55	54
Afar	28	25	21	29	18	26	15	26	24	26	20
Amhara	82	86	83	86	83	76	71	85	83	85	83
Oromia	69	71	63	68	64	54	52	67	65	68	63
Somali	64	63	46	59	46	35	34	58	52	61	46
SNNP*	63	73	71	66	64	56	60	69	66	71	68
Benishangul	87	88	86	86	85	78	77	86	85	86	86
Gambella	77	79	75	78	77	65	62	79	79	72	72
Harari	77	71	70	79	72	59	55	72	63	73	68
Addis Ababa	94	96	96	96	93	90	87	96	96	95	95
Dire-dawa	91	89	85	93	84	79	74	92	91	91	83
Sidama	71	80	79	80	79	68	61	78	78	80	79
Southwest Ethiopia	46	44	42	44	43	37	37	44	43	44	43
National	73	75	71	75	71	63	60	73	73	74	70
Best performing region	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A	A A
Lowest performing region	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar
Ratio	3	4	5	3	5	3	6	4	4	4	5
AD	66	71	75	67	75	64	72	70	72	69	75
MADM	14	13	16	14	16	15	17	15	17	15	16
RMADM	20	18	22	19	23	24	28	21	23	20	23

BCG: Bacillus Calmette Guerin, **PCV:** Pneumococcal Vaccine, **A A:** Addis Ababa, **AD:** Absolute difference, **MAD:** Mean absolute difference from the mean, **RMAD:** Relative Mean absolute difference from the mean

Magnitude of poor vaccination access indicators across socio-demographic variables among 12-33 months age children in 2022, Ethiopia

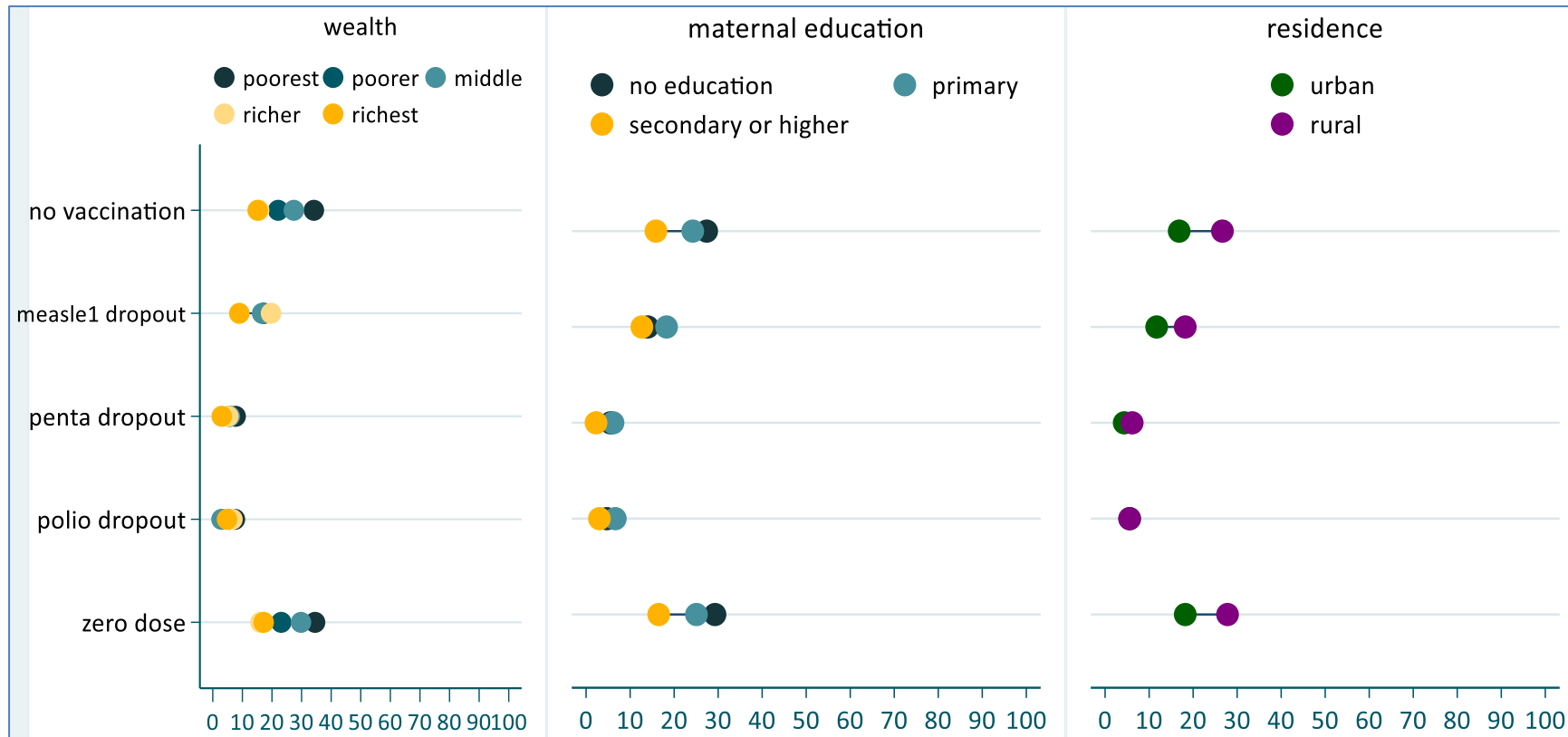


Table3: Inequalities of poor vaccination access indicators across socio-demographic variables among 12-33 months age children in 2022

Indicators	National magnitude	Q1	Q5	Difference (Q1-Q5)	CIX, 95%CI	Socio-demographic		Ratio (urban/rural)	illiterate	secondary or higher	Difference (illiterate-higher)	SII, 95CII
						urban	rural					
No vaccination	24	34	15	19		17	27	1.6	27	16	12	
Penta1-penta3 dropout	6	8	3	5	-0.03[-0.06--0.002]	4	6	1.5	6	2	4	-0.03[-0.09- 0.04]
Penta1-measle1 dropout	16	17	9	8	-0.04[-0.08- 0.01]	12	18	1.5	14	13	1	0.01[-0.01-0.11]
Polio dropout	6	7	5	2	-0.02[-0.04-0.011]	6	6	1	5	3	2	0.002[-0.10-0.10]
Zero dose	25	35	17	18	-0.13[-0.17- -0.08]	18	28	0.7	29	17	12	-0.16[-0.27- -0.06]

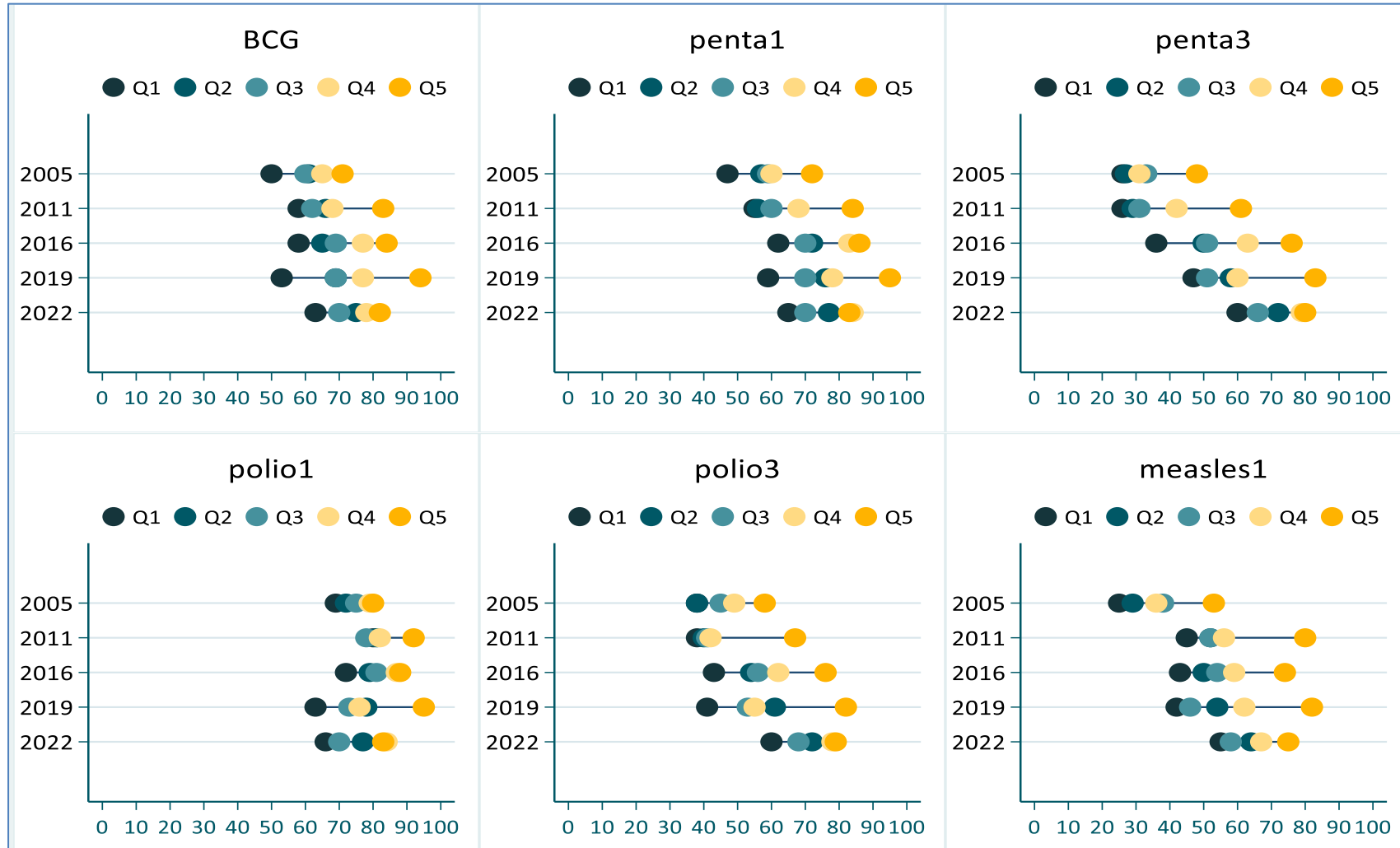
Magnitude and disparities of poor access to vaccination service indicators across regions of Ethiopia in 2022

Regions	penta1-penta3 dropout	penta1-measle1 dropout	polio dropout	zero dose	No vaccination
Tigray	16	23	16	40	32
Afar	27	23	32	65	65
Amhara	4	11	4	15	13
Oromia	8	22	7	39	31
Somali	23	43	23	48	36
SNNP	5	16	7	25	24
Benishangul gumuz	0	9	2	29	14
Gambella	7	18	1	22	20
Harari	5	25	4	33	20
Addis Ababa	0	6	3	11	4
Dire-dawa	11	15	7	25	4
Sidama	1	15	2	20	20
Southwest Ethiopia	4	15	4	56	54
National	6	16	6	25	24
Best performing region	Addis Ababa	Addis Ababa	Addis Ababa	Addis Ababa	Addis Ababa
Best performing region value	0	6	1	11	4
Worst performing region	Afar	Somali	Afar	Afar	Afar
Worst performing value	27	43	32	65	65
Absolute Difference	27	37	31	54	61
Ratio(worst/best)	N/A	7	32	6	16

SNNP: Southern Nations nationalities and peoples

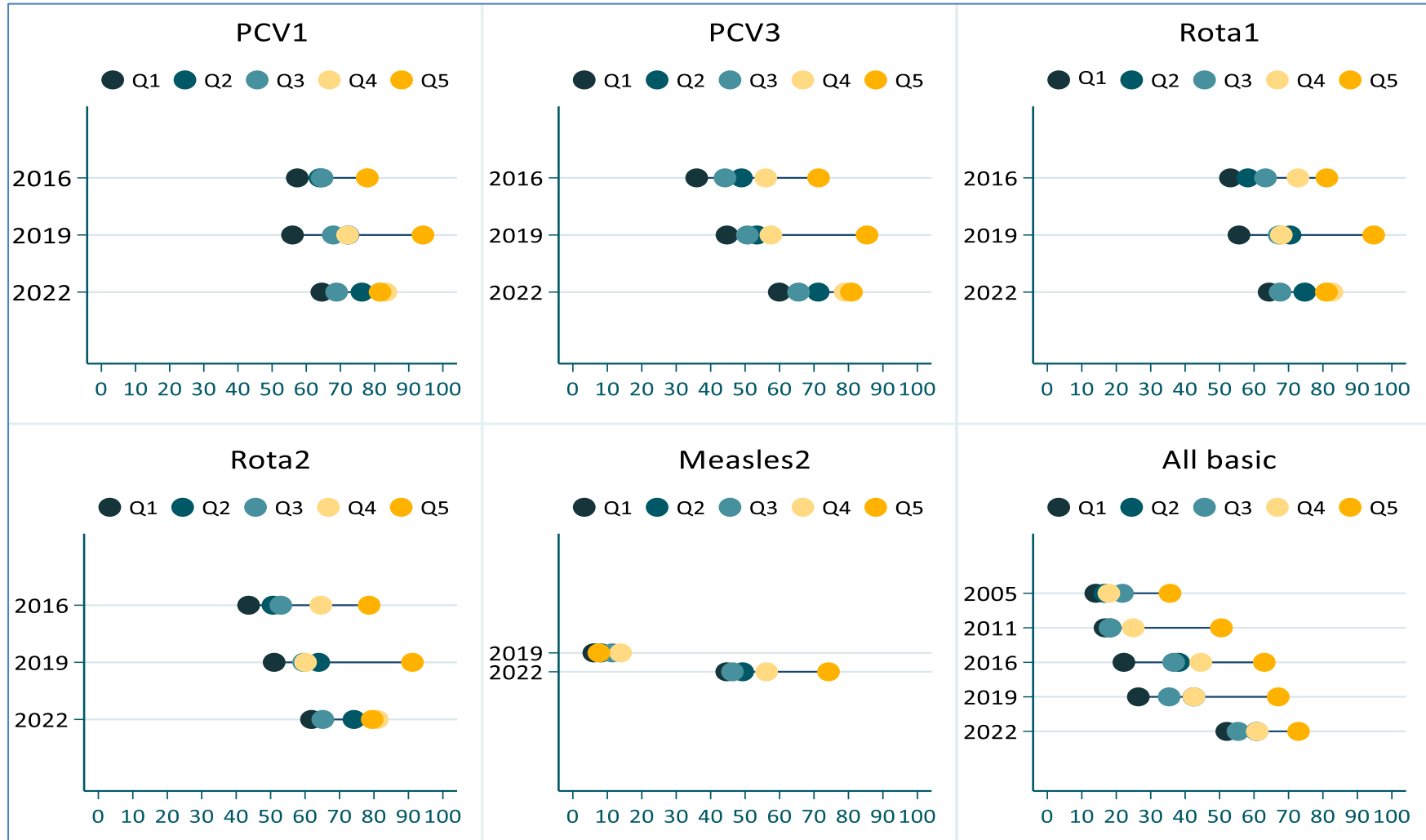
Ethiopia: Trends of Vaccination service in Ethiopia

Trend of vaccination coverage among 12-23 months aged children across wealth from 2005-2022, Ethiopia



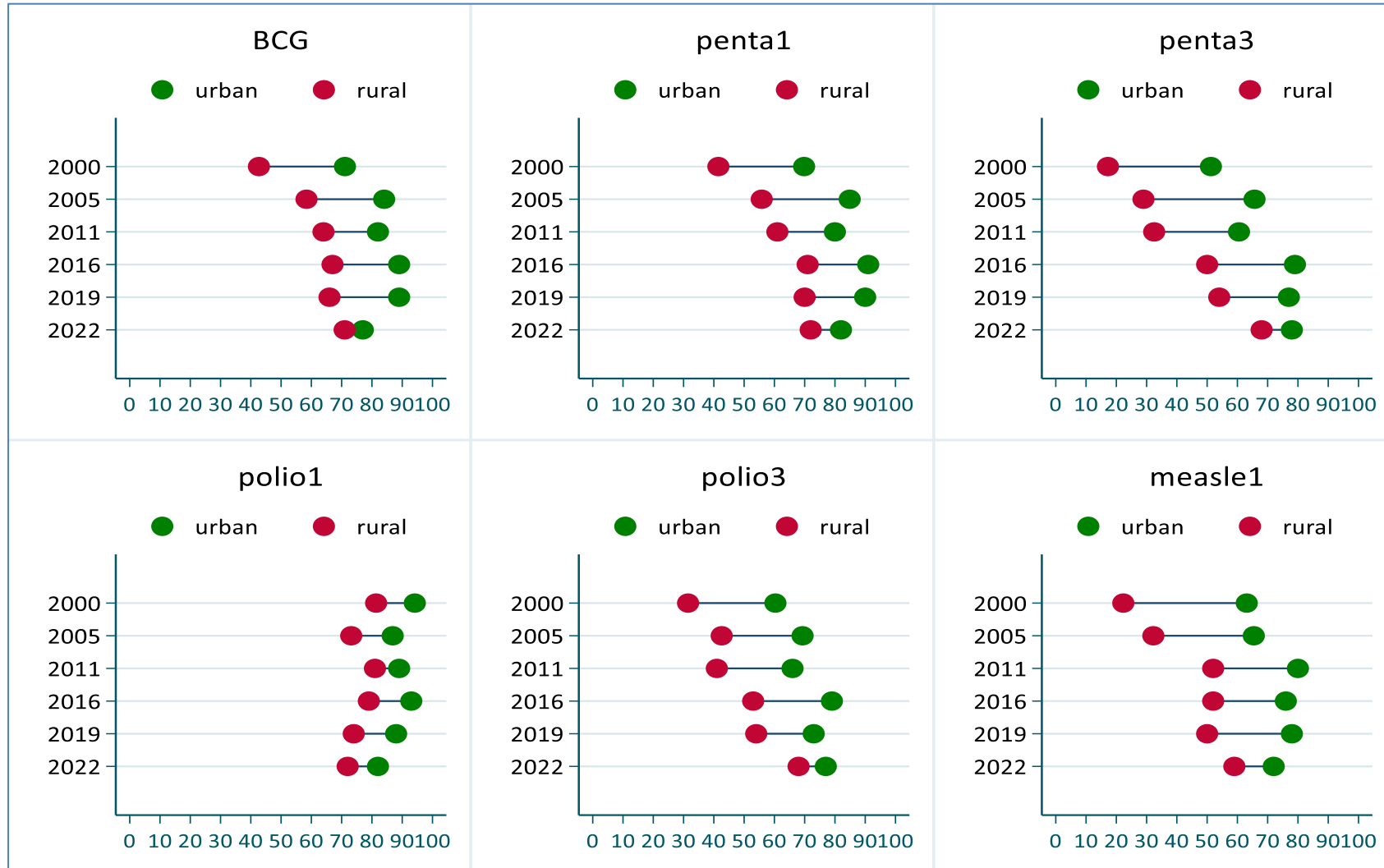
Ethiopia: Trends of Vaccination service in Ethiopia

Trend of the newly introduced vaccination coverage across wealth from 2005-2022, Ethiopia



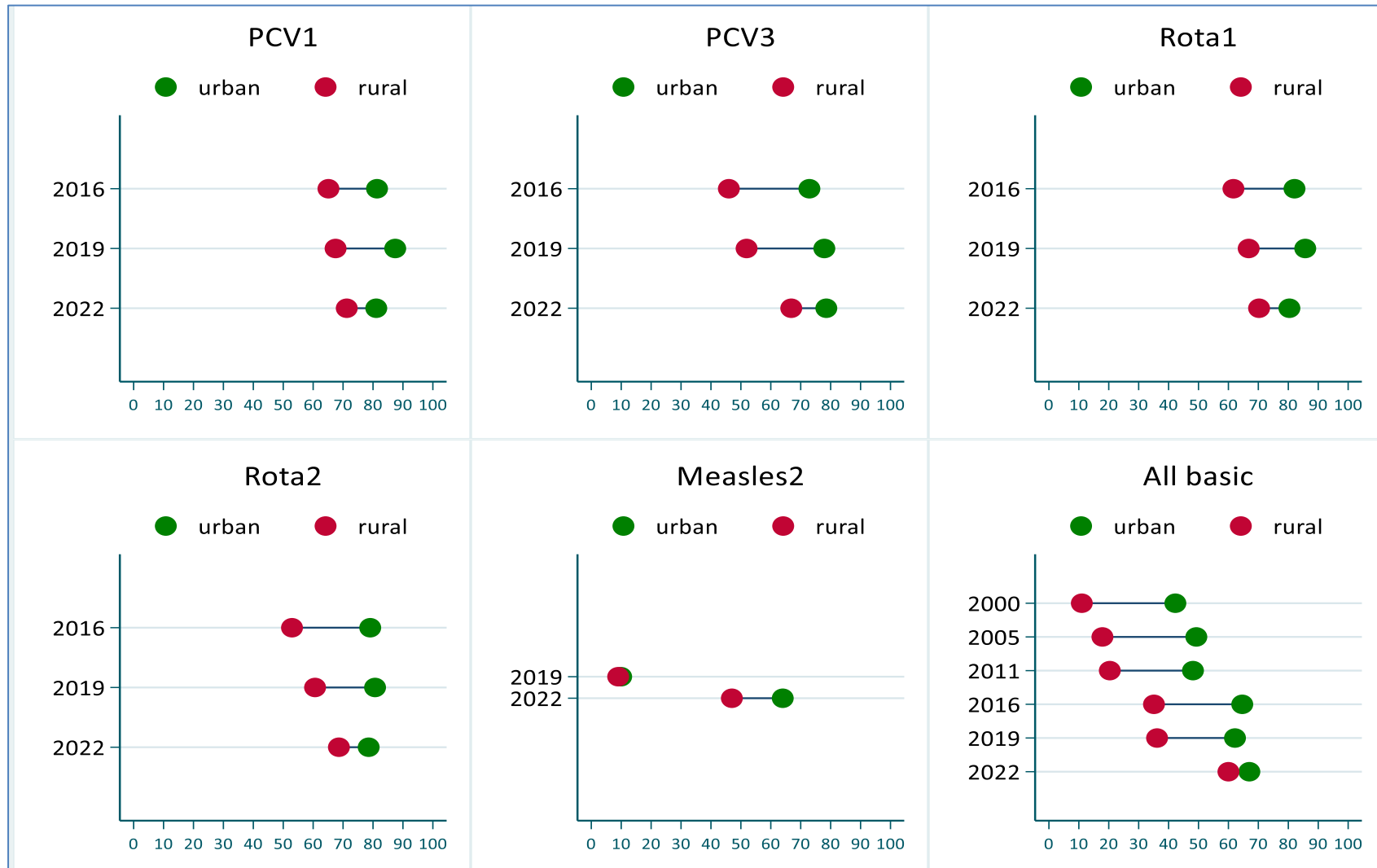
Ethiopia: Trends of Vaccination service in Ethiopia

Trends of vaccination coverage among 12-23 months aged children across residence, Ethiopia



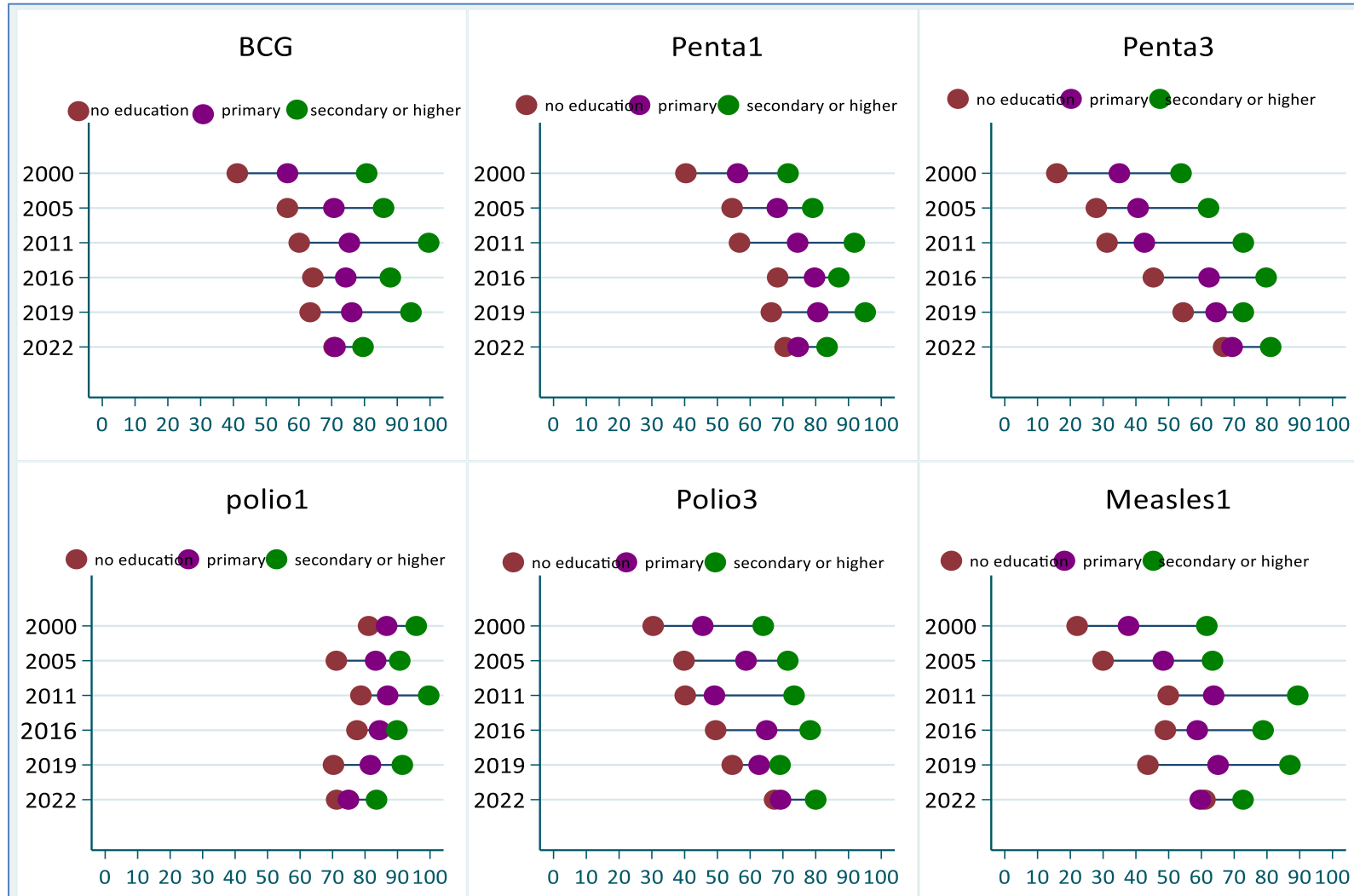
Ethiopia: Trends of Vaccination service in Ethiopia

Trends of vaccination coverage across residence, Ethiopia



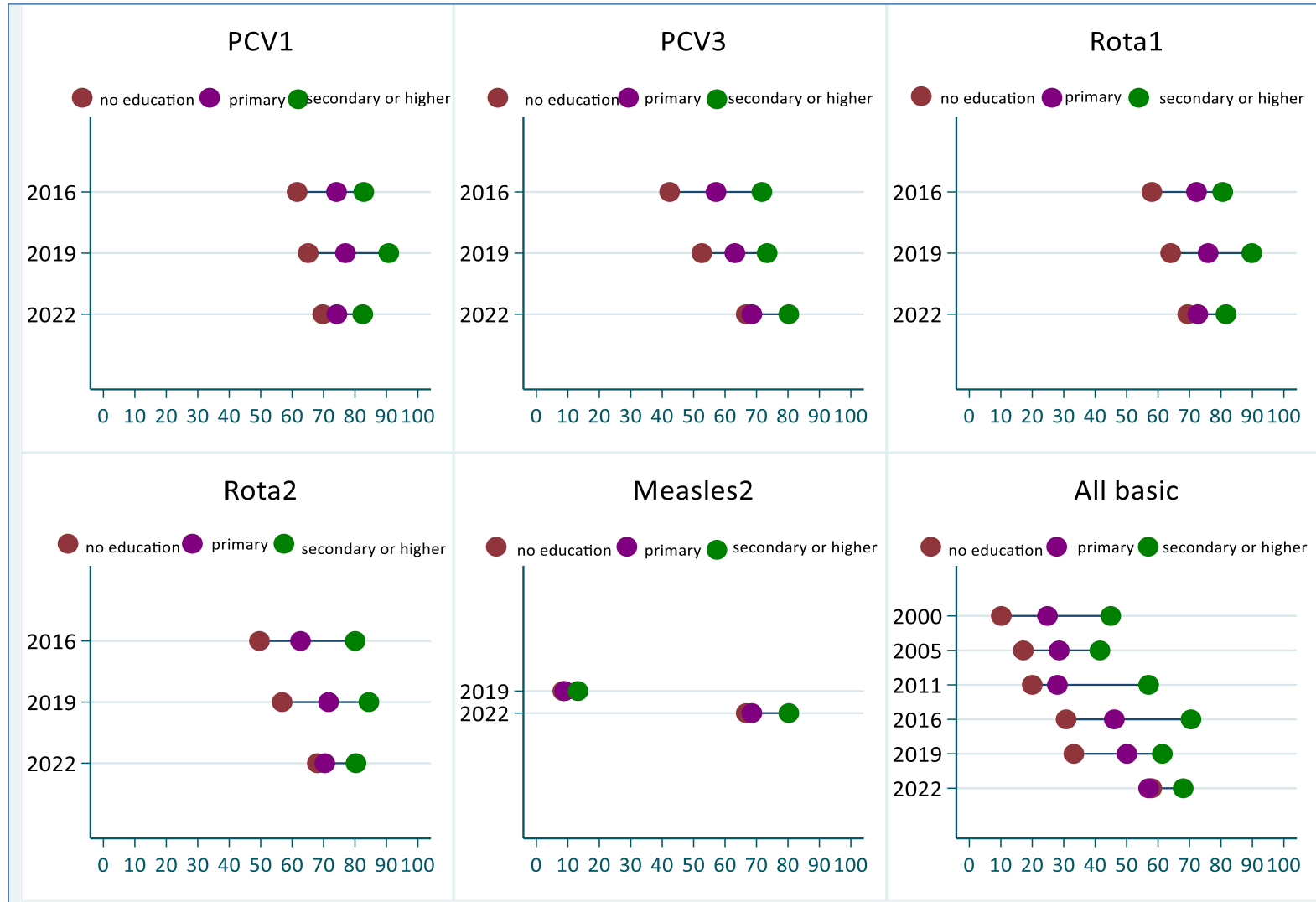
Ethiopia: Trends of Vaccination service in Ethiopia

Trends of vaccination coverage across maternal education status in Ethiopia



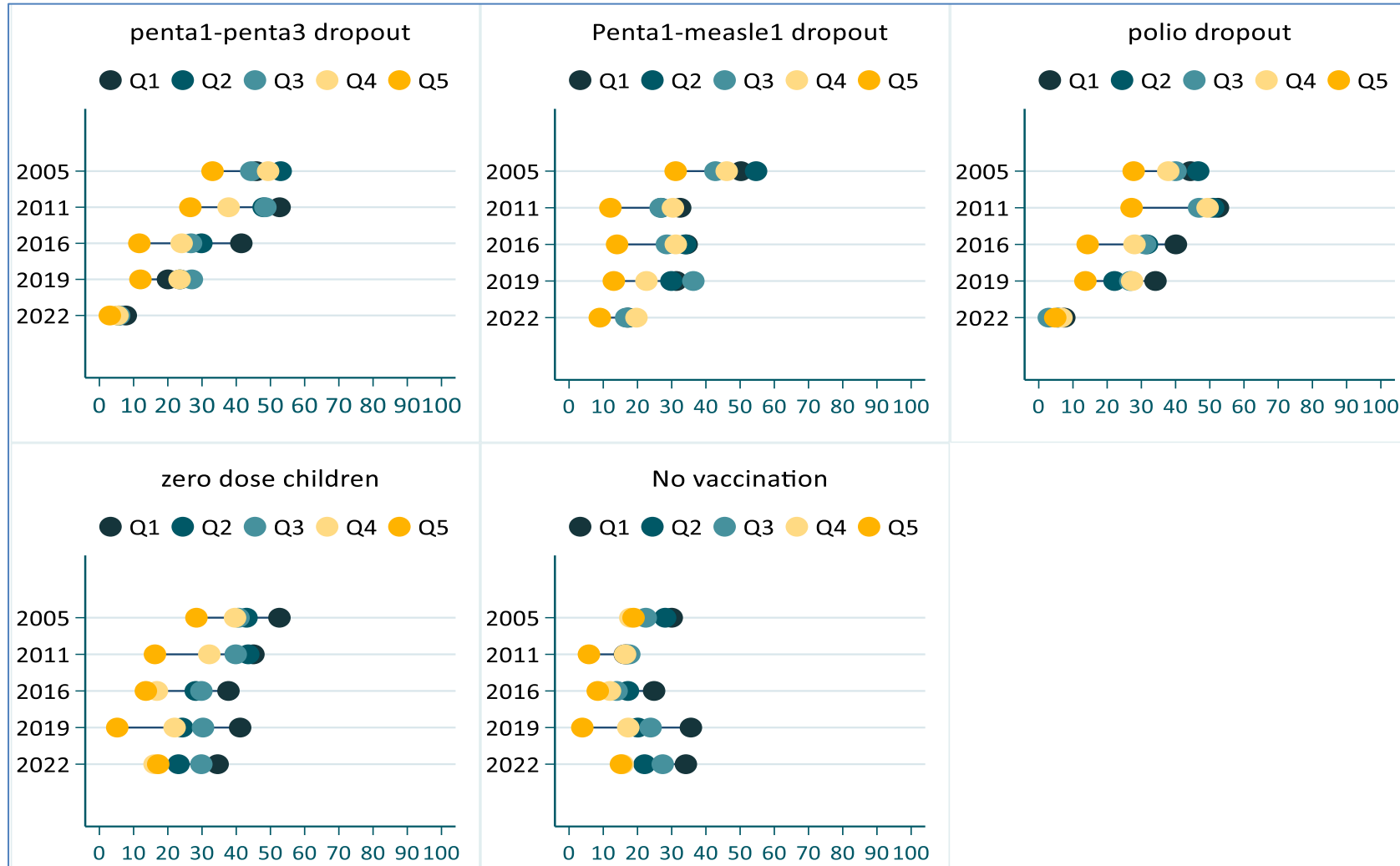
Ethiopia: Trends of Vaccination service in Ethiopia

Trends of vaccination coverage across socio-demographic variables in Ethiopia



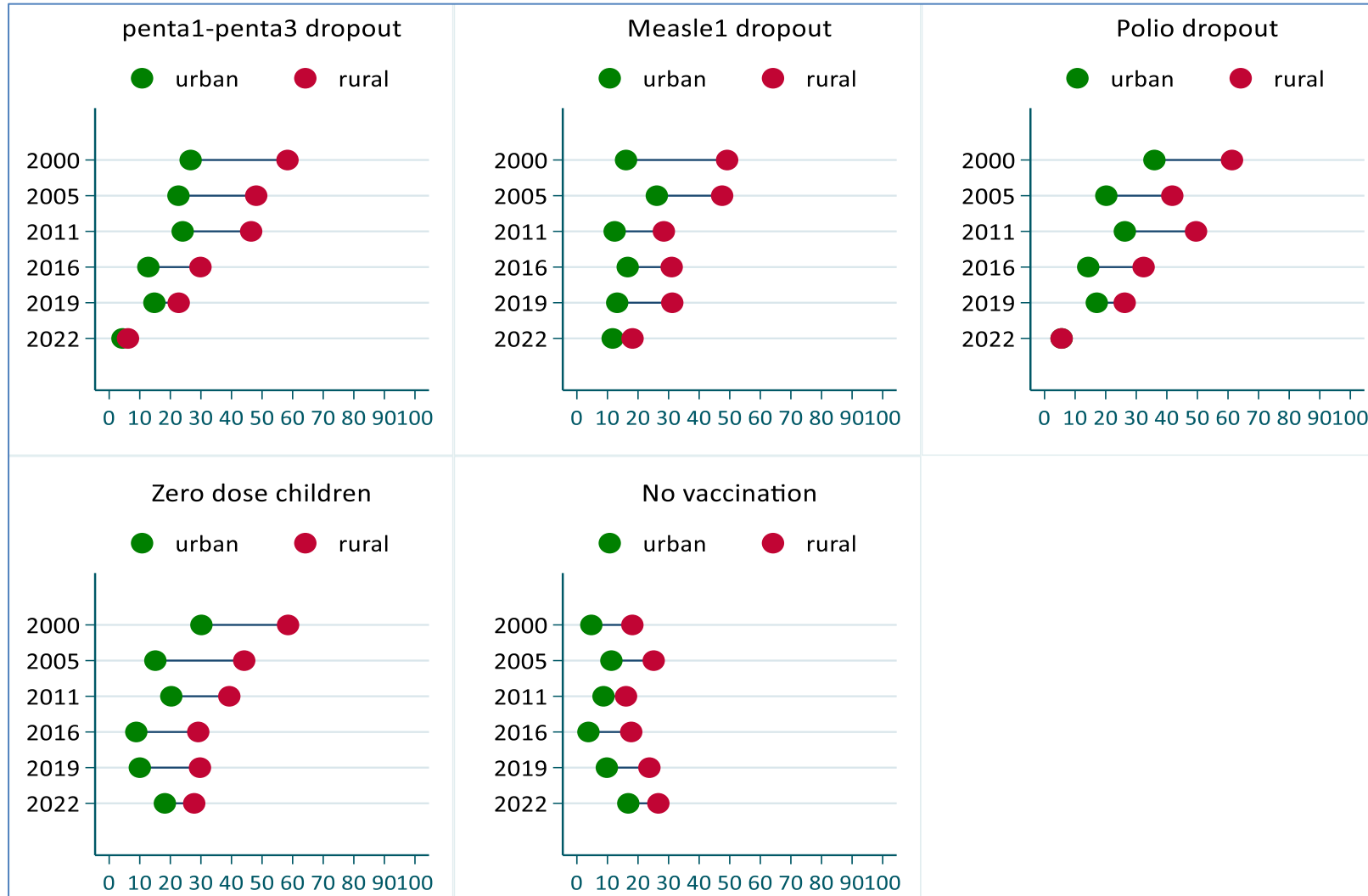
Ethiopia: Poor access to Vaccination service in Ethiopia

Trends of poor access to vaccination services across wealth in Ethiopia from 2005-2022, Ethiopia



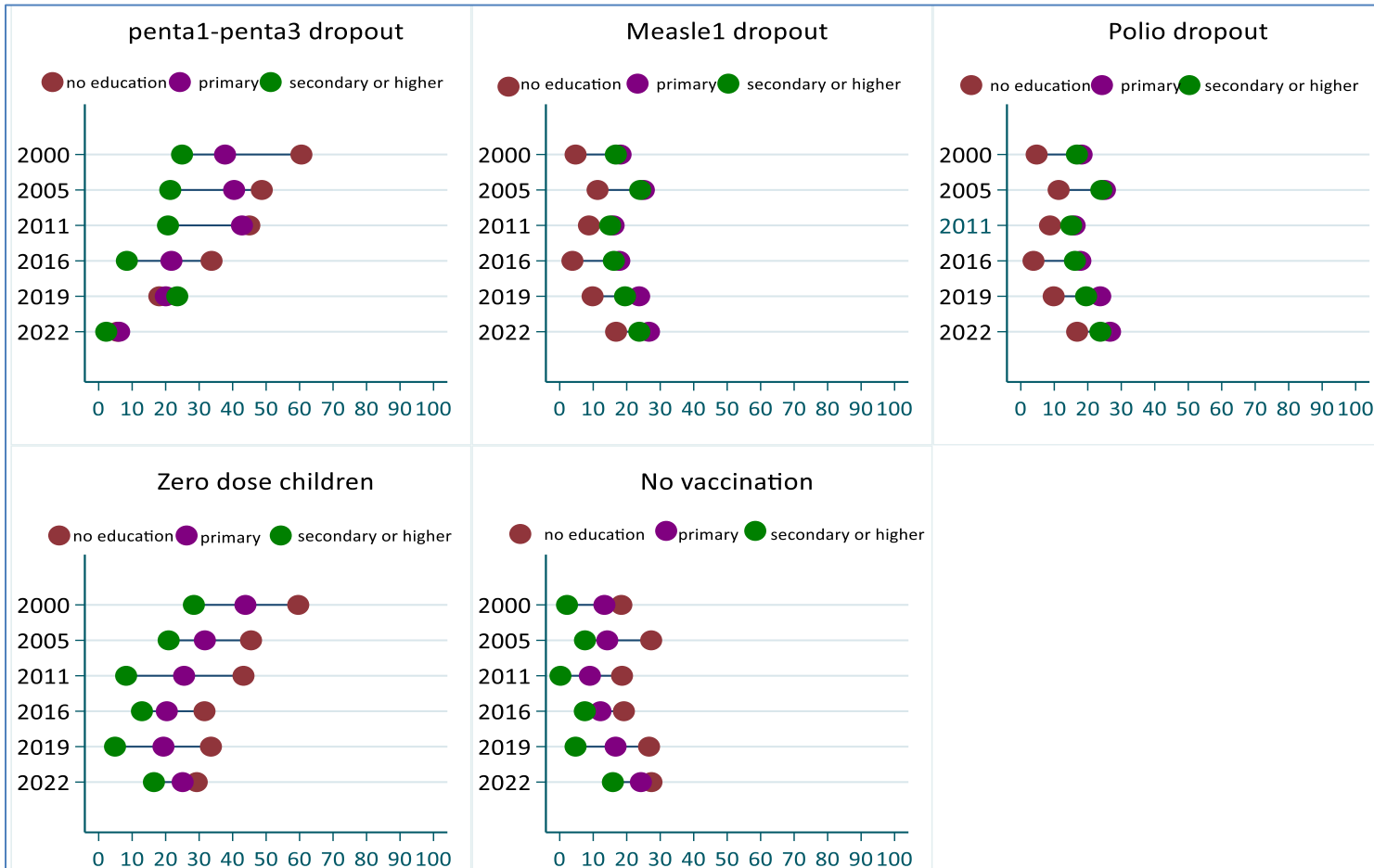
Ethiopia: Trends of Vaccination service in Ethiopia

Trends of poor access to vaccination services across residence from 2000-2022, Ethiopia



Ethiopia: Trends of Vaccination service in Ethiopia

Trends of poor access to vaccination services across residence from 2005-2022, Ethiopia



Trends of vaccination coverage across regions from 2011-2022, Ethiopia

	BCG				penta1				penta3				polio1				polio3			
Regions	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022
Tigray	96	88	92	52	94	92	95	62	73	81	84	52	97	92	95	64	76	79	84	53
Afar	38	44	46	28	29	47	46	25	10	20	27	21	50	69	47	29	18	36	25	18
Amhara	68	75	79	82	69	81	84	86	38	64	78	83	86	87	84	86	47	66	75	83
Oromia	57	60	70	69	50	65	73	71	27	40	53	63	77	74	77	68	36	43	54	64
Somali	46	56	40	64	41	62	44	63	25	36	26	46	60	77	52	59	28	44	27	46
B. Gumuz	69	77	86	87	73	82	89	88	42	76	77	86	85	86	90	86	46	71	75	85
SNNP*	73	76	71	63	75	77	73	66	38	59	56	64	86	82	72	66	47	64	53	64
Gambella	72	70	82	77	72	73	76	79	28	55	60	75	87	79	85	78	42	58	57	77
Harari	73	77	70	77	76	79	63	71	52	59	54	70	91	96	76	79	60	79	51	72
AA	97	95	96	94	94	97	96	96	89	96	93	96	97	97	92	96	82	97	86	93
Diredawa	87	97	95	91	90	98	95	89	75	85	74	85	96	98	95	93	79	82	69	84
National	66	69	73	73	63	73	76	75	37	53	61	71	82	81	78	75	44	56	60	71
highest coverage	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
lowest coverage	Afar	Afar	Afar	Afar	Afar	Afar	Somali	Afar	Afar	Afar	Somali	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar
Absolute difference	59	51	50	66	65	50	23	71	79	76	66	75	47	28	45	67	64	61	61	75
MAD	15	14	15	14	19	13	15	13	19	19	17	16	12	9	13	14	16	18	17	16
Relative difference	23	20	21	19	30	18	20	17	51	36	28	23	15	11	17	19	36	32	28	23

AA: Addis Ababa, B. Gumuz: Benishangul Gumuz, SNNP: Southern Nations nationalities and peoples

Trend of vaccination coverage across administrative regions from 2005-2022, Ethiopia

Regions	PCV1			PCV3			Rota1			Rota2			measle1			All basic				
	2016	2019	2022	2016	2019	2022	2016	2019	2022	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022
Tigray	91	89	55	78	78	54	84	82	58	80	78	54	83	78	81	52	59	67	73	35
Afar	38	43	26	24	17	20	33	43	26	23	34	24	27	26	27	26	10	16	20	15
Amhara	76	82	85	78	60	83	68	83	85	59	78	83	64	61	66	76	26	46	62	71
Oromia	59	73	68	53	38	63	58	72	67	50	67	65	47	42	46	54	15	26	30	52
Somali	55	41	61	23	35	46	54	46	58	41	36	52	41	47	31	35	17	20	19	34
B. Gumuz	78	83	86	75	71	86	79	85	86	77	80	85	57	59	53	63	24	47	38	60
SNNP*	67	67	65	54	49	63	64	64	64	55	54	63	66	70	71	61	23	59	66	58
Gambella	65	75	78	61	46	68	66	69	79	61	66	79	49	51	49	65	16	42	40	62
Harari	80	63	73	54	59	96	72	63	72	61	48	63	64	56	62	59	33	43	45	55
AA	94	96	95	93	91	83	94	94	96	92	94	96	93	92	91	90	80	88	83	87
Diredawa	90	89	91	68	75	72	92	86	92	85	79	91	80	85	74	79	58	75	56	74
National	67	74	74	49	60	70	64	73	73	56	67	72	56	54	59	63	24	39	44	60
Highest coverage	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Lowest coverage	Afar	Somali	Afar	Somali	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Afar	Somali	Afar
Absolut difference	56	55	69	70	74	75	61	51	70	68	60	72	66	66	64	64	71	72	65	72
MAD	14	14	15	20	17	16	14	13	15	16	16	17	16	16	16	14	16	19	18	21
Relative difference	25	19	20	41	28	23	22	18	21	29	24	24	29	30	27	22	67	49	41	35

AA., Addis Ababa, B.Gumuz: Benishangul Gumuz,, SNNP: Southern nation, nationalities and peoples region

Trend of poor access to vaccination service indicators across administrative regions from 2011-2022, Ethiopia

Regions	penta1-penta3 dropout				penta1-measle1 dropout				polio dropout				zero dose children				no vaccination			
	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022	2011	2016	2019	2022
Tigray	22	12	12	16	14	14	13	23	22	14	12	16	7	8	5	40	2	5	5	32
Afar	65	57	42	27	34	38	39	23	63	47	46	32	72	54	54	65	48	29	46	65
Amhara	44	21	8	4	22	28	16	11	45	24	10	4	33	18	16	15	11	8	15	13
Oromia	47	39	28	8	32	37	36	22	53	42	31	7	49	34	27	39	20	22	20	31
Somali	39	41	41	23	19	29	44	43	53	43	48	23	59	38	56	48	35	20	47	36
B. Gumuz	42	7	14	0	20	15	15	9	47	18	17	1	28	28	11	29	13	13	10	14
SNNP*	49	23	23	3	28	28	21	15	45	23	27	4	26	23	27	34	12	16	24	33
Gambella	62	25	21	7	45	19	27	18	53	27	33	1	30	28	24	22	8	17	14	20
Harari	32	26	15	5	23	34	21	25	34	18	33	4	26	21	37	33	8	3	21	20
AA	6	2	3	0	2	4	6	6	16	0	6	3	5	3	4	11	3	2	4	4
Dire Dawa	17	14	23	11	13	12	22	15	18	16	27	7	11	2	5	25	3	1	3	4
National	42	27	20	6	26	29	25	16	46	30	23	6	37	27	24	25	15	16	19	24
Best performer	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
Worst performer	Afar	Afar	Afar	Afar	Gambela	Afar	Somali	Somali	Afar	Afar	Somali	Afar	Afar	Afar	Somali	Afar	Afar	Afar	Somali	Afar
Absolute difference	59	55	39	27	43	34	38	37	47	47	38	26	67	52	52	54	45	28	44	61
MADM	14	13	10	7	9	10	10	7	12	13	12	7	18	12	15	13	11	11	11	13
Relative difference	33	48	50	117	35	35	40	43	26	43	52	125	49	44	63	52	73	69	58	54

A A: Addis Ababa, **B.Gumuz:** Benishangul Gumuz, **DireD.:** Dire-dawa, **MADM:** Mean Absolute Difference from the mean, **SNNP:** Southern Nations, Nationalities and Peoples

Vaccination service indicators and measures of inequalities

The trend and disparities of vaccination service indicators like coverage of vaccine antigens including BCG, three dose of pentavalent vaccine, three doses of polio vaccine, measles1 vaccine, all basic vaccination, and coverage of newly introduced vaccines consisting of three doses of pneumococcal vaccine, two doses of rotavirus vaccine and measles2 vaccine were assessed for multiple years. Similarly, indicators of poor vaccination services indicators consisting of penta1-penta3 dropout, penta1-measle1 dropout, polio dropout, zero dose children and no vaccination proportions were examined over the years.

Description of vaccination coverage indicators

BCG (Bacillus Guerin Calmette) coverage: The proportion of 12-23 months aged children who have received BCG vaccine from the total eligible children.

Pentavalent 1 vaccine coverage: The proportion of 12-23 months aged children who have received penta1 vaccine from the total eligible children

Pentavalent 3 vaccine coverage: The proportion of 12-23 months aged children who have received penta3 vaccine from the total eligible children

Polio1 vaccine coverage: The proportion of 12-23 months aged children who have received polio1 vaccine from the total eligible children

Polio3 vaccine coverage: The proportion of 12-23 months aged children who have received polio3 vaccine from the total eligible children

Measles1 vaccine coverage: The proportion of 12-23 months aged children who have received measles1 vaccine from the total eligible children

Measles2 vaccine coverage: The proportion of 24-35 months aged children who have received measles2 vaccine from the total eligible children

Pneumococcal vaccine1 (PCV1) coverage: The proportion of 12-23 months aged children who have received PCV1 vaccine from the total eligible children

Pneumococcal vaccine3 (PCV3) coverage: The proportion of 12-23 months aged children who have received PCV3 vaccine from the total eligible children

Rota1 vaccine coverage: The proportion of 12-23 months aged children who have received rota1 vaccine from the total eligible children

Rota2 vaccine coverage: The proportion of 12-23 months aged children who have received rota2 vaccine from the total eligible children

All basic vaccination coverage: The proportion of 12-23 months aged children who have received all of the following vaccine doses consisting of one dose of BCG, three doses of penta vaccine, three doses of polio vaccine(polio1,2&3) and first dose of measles vaccine among the total 12-23 months aged children.

Description of poor vaccination service indicators

Penta1-penta3 dropout: The proportion of 12-23 months aged children who have missed the third dose of penta vaccine after received the first dose of penta vaccine.

Penta1-measles dropout: the proportion of 12-23 months aged children who have missed the first dose of measles vaccine after received the first dose of penta vaccine.

Polio dropout: The proportion of 12-23 months aged children who have missed the third dose of polio vaccine after received the first dose of polio vaccine.

Zero dose children: The proportion of 12-23 months aged children who have not received the first dose of penta vaccine among the total 12-23 months aged children

No vaccination: The proportion of 12-23 months aged children who have not received at least one the following vaccine doses consisting of one dose of BCG, three doses of penta vaccine, three doses of polio vaccine (polio1,2&3) and first dose of measles vaccine among the total 12-23 months aged children.

Vaccination service stratifiers and measures of inequality

The aforementioned vaccination service indicators were disaggregated across stratifier variables including sub-national setting (region), wealth, residence, and maternal education status. Both simple and complex inequality measures were employed to depict whether there is disparities in vaccination service indicators across stratifiers. Absolute differences, ratio, mean absolute differences and relative differences are some of the simple measures of inequality employed to quantify disparities; whereas concentration index (CIX) and slope inequality index (SII) are the complex inequality measures that have used to showcase the existence of disparities in vaccination service indicators.



Ethiopian Public Health Institute



Additional information about the Ethiopian Health statistics can be obtained from the Ethiopian Public Health Institute (EPHI), Gulele Arbegnoch Street, Gulele Sub-City, Addis Ababa, Ethiopia. Telephone: +251.11.275.4647; Fax: +251.11.275.4744; Website: <http://www.ephi.gov.et>.

Information about the Countdown to 2030 can be obtained from website: <https://www.countdown2030.org/>.