

Global MICS Programme

Note for the Record

Corrected version of Immunisation tables and associated tabulation syntaxes (TC.1.1 and TC.1.2A) for the 2023 Azerbaijan MICS

28/10/2024

After reviewing the global immunisation syntaxes following the approval of the Survey Findings Report by the Government of the Republic of Azerbaijan, the global MICS team enhanced the syntaxes for Tables TC.1.1 and TC.1.2A to better align with global standards and to provide the correct version of immunization tables. This document contains the resulting tabulations.

The following changes to the syntax are recommended:

1. **Calculation of on-time immunisation probability:** Include all children in the calculation, not just those with immunisation cards, to provide a more comprehensive measure of on-time immunisation.
2. **Modification in the approach for estimating polio immunisation coverage for the ‘OPV3 and IPV1’ combination indicator as follows:**
 - **Facility-based records:** Compute ‘OPV3 and IPV1’ coverage by confirming that records for both vaccines are from facility-based cards.
 - **Home-based records:** Compute ‘OPV3 and IPV1’ coverage by confirming that records for both vaccines are from home-based cards or that one record is from a facility-based card and the other is from a home-based card.
 - **Mother’s report:** Calculate the proportion of children with either facility-based or home-based records who were vaccinated on time (by 12 months) and apply this proportion to children reported by their mothers as having received ‘OPV3 and IPV1.’
3. **Exclusion of Measles, Mumps, and Rubella (MMR):** Exclude MMR from the calculation of the ‘Basic antigens’ estimate for children aged 12–23 months, as the vaccine is scheduled at age 12 months. Only include BCG, Polio3 and DPT3 for this age group.

Tables TC.1.1 and TC.1.2A below have been generated using the revised syntaxes with the above-mentioned changes. These modifications do not affect the estimates presented in Table TC 1.2B of the Survey Findings Report.

The proposed changes to the calculation of the ‘OPV3 and IPV1’ indicators focus on differentiating records based on their sources—facility-based and home-based—and adjusting

values accordingly. For children aged 12–23 months, facility-based records show a slight decrease of 0.3 percentage points, changing from 34.0% to 33.6%, while home-based records see a 0.3 percentage point increase, from 0.3% to 0.7%. For children aged 24–35 months, facility-based records decrease by 0.4 percentage points (31.8% to 31.4%), whereas home-based records increase by 0.4 percentage points (0.7% to 1.1%). Additionally, when calculating the proportion of children vaccinated on time using either facility-based or home-based records, children aged 12–23 months show a significant increase of 23 percentage points (14.6% to 37.6%), and children aged 24–35 months increase by 17.5 percentage points (11.1% to 28.7%).

Furthermore, the MMR vaccine is excluded from the ‘Basic antigens’ calculation for children aged 12–23 months, as per Azerbaijan's national immunization schedule, which administers MMR at 12 months or later. This adjustment results in an 8 percentage point increase in crude coverage, from 35.7% to 43.7%.

Table TC.1.1: Vaccinations in the first years of life

Percentage of children age 12-23 months and 24-35 months vaccinated against vaccine preventable childhood diseases at any time before the survey (Crude coverage) and by their first birthday, Azerbaijan, 2023

Antigen	Children age 12-23 months:					Children age 24-35 months:				
	Vaccinated at any time before the survey according to:				Vaccinated by 12 months of age	Vaccinated at any time before the survey according to:				Vaccinated by 12 months of age (OPV4, DTP R1, MMR1 by 24 months)
	Vaccination records ^A					Vaccination records ^A				
	Facility-based records	Home-based records	Mother's report	Either ^B (Crude coverage)	Vaccination records ^{A,B}	Home-based records	Mother's report	Either ^C (Crude coverage)		
Antigen										
BCG ¹	78.1	0.4	12.3	90.8	90.7	73.5	1.3	16.4	91.1	90.6
Polio^D										
At birth ^E	60.3	1.2	18.7	80.2	79.3	71.6	0.9	10.7	83.2	83.0
OPV1	63.4	0.2	14.3	77.9	75.7	62.0	0.7	13.0	75.7	70.7
OPV2	59.7	0.5	5.0	65.2	60.8	59.2	1.0	5.5	65.6	56.5
OPV3	53.7	0.4	2.8	56.9	50.4	54.9	1.3	0.8	57.0	45.6
OPV4	10.7	0.5	3.2	14.4	2.1	34.2	0.2	1.1	35.5	31.6
IPV1	37.5	0.9	16.1	54.6	50.8	33.2	1.1	11.4	45.7	38.0
IPV2	19.2	1.5	8.6	29.3	26.6	12.9	0.4	6.7	20.0	15.5
OPV3 and IPV1 ²	33.6	0.7	7.3	41.6	37.6	31.4	1.1	5.5	38.0	28.7
HepB										
HepB at birth ^F	75.1	0.1	15.0	90.2	90.2	81.2	0.7	10.5	92.4	91.9
Within 1 day	71.4	0.0	14.5	85.9	85.9	76.0	0.3	8.6	84.9	84.9
Later	3.7	0.0	0.5	4.2	4.2	5.2	0.1	1.9	7.3	6.7
DTP-HepB-Hib^G										
1	56.4	0.2	6.2	62.8	58.3	56.6	0.8	6.4	63.9	55.2
2	50.7	0.3	4.3	55.4	51.8	51.8	0.4	4.4	56.6	45.1
3 ^{3,4,5}	44.0	0.3	2.2	46.6	43.1	49.1	0.4	1.0	50.5	39.1
DTP Booster 1	9.6	0.9	0.7	11.2	1.3	34.2	0.4	0.7	35.2	30.3
Pneumococcal (Conjugate)										
1	61.0	0.0	6.8	67.9	65.8	57.9	1.2	2.9	61.9	56.6
2	54.7	0.6	0.7	56.0	51.8	52.4	0.7	1.7	54.7	46.6
3 ⁶	44.6	0.3	1.5	46.4	41.2	44.1	0.8	1.5	46.4	35.9

Table TC.1.1: Vaccinations in the first years of life

Percentage of children age 12-23 months and 24-35 months vaccinated against vaccine preventable childhood diseases at any time before the survey (Crude coverage) and by their first birthday, Azerbaijan, 2023

	Children age 12-23 months:					Children age 24-35 months:					Vaccinated by 12 months of age (OPV4, DTP R1, MMR1 by 24 months)
	Vaccinated at any time before the survey according to:					Vaccinated at any time before the survey according to:					
	Vaccination records ^A					Vaccination records ^A					
	Facility-based records	Home-based records	Mother's report	Either ^B (Crude coverage)	Vaccinated by 12 months of age	Vaccination records ^{A,B}	Home-based records	Mother's report	Either ^C (Crude coverage)		
Measles-Mumps-Rubella (MMR)^H											
1 ^{7,8}	43.3	0.8	8.4	52.5	24.9	53.9	0.5	11.5	66.0	62.0	
Fully vaccinated											
Basic antigens ^{9,I}	43.3	0.0	0.5	43.7	34.7	44.7	0.2	0.2	45.0	25.3	
All antigens (excluding OPV0 and IPV2) ^{10,J}	na	na	na	na	na	22.7	0.2	0.0	22.9	6.6	
No vaccinations	1.6	0.0	4.5	6.0	6.0	0.7	0.0	3.2	3.8	3.8	
Number of children	457	457	457	457	457	479	479	479	479	479	

¹ MICS indicator TC.1 - Tuberculosis immunization coverage

² MICS indicator TC.2 - Polio immunization coverage

³ MICS indicator TC.3 - Diphtheria, tetanus and pertussis (DTP) immunization coverage; SDG indicator 3.b.1 & 3.8.1

⁴ MICS indicator TC.4 - Hepatitis B immunization coverage

⁵ MICS indicator TC.5 - Haemophilus influenzae type B (Hib) immunization coverage

⁶ MICS indicator TC.6 - Pneumococcal (Conjugate) immunization coverage; SDG indicator 3.b.1

⁷ MICS indicator TC.8 - Rubella immunization coverage

⁸ MICS indicator TC.S1 - Measles immunization coverage; SDG indicator 3.b.1

⁹ MICS indicator TC.11a - Full immunization coverage (basic antigens)

¹⁰ MICS indicator TC.11b - Full immunization coverage (all antigens)

^A Vaccination card or other documents where the vaccinations are written down (includes health facility records and home-based records). For children with vaccination records, the immunisation coverage estimates for Azerbaijan are mainly based on health facility records.

^B MICS indicators TC.1, TC.2, TC.3, TC.4, TC.5 and TC.6 refer to children age 12-23 months.

^C MICS indicators TC.8, TC.S1, TC.11a and TC.11b refer to children age 24-35 months.

^D Prior to 2022, the vaccination schedule in Azerbaijan included one dose of the inactivated polio vaccine (IPV). Since 2022, the vaccination schedule includes two doses of IPV. Although the third dose of IPV is not part of the national immunisation calendar and is not shown in the table, data on IPV3 was collected in order to facilitate recording records from cards because some private health facilities administer a third dose of IPV through the combined hexavalent vaccine (DTP-HepB-Hib-IPV).

^E In 2022, the Polio at birth dose started to be phased out in Azerbaijan. For children with vaccination records, any record of Polio at birth is accepted. For children relying on mother's report, Polio at birth is a dose received within the first 2 weeks after birth.

Table TC.1.1: Vaccinations in the first years of life

Percentage of children age 12-23 months and 24-35 months vaccinated against vaccine preventable childhood diseases at any time before the survey (Crude coverage) and by their first birthday, Azerbaijan, 2023

Children age 12-23 months:					Children age 24-35 months:				
Vaccinated at any time before the survey according to:					Vaccinated at any time before the survey according to:				
Vaccination records ^A					Vaccination records ^A				
Facility-based records	Home-based records	Mother's report	Either ^B (Crude coverage)	Vaccinated by 12 months of age	Vaccination records ^{A,B}	Home-based records	Mother's report	Either ^C (Crude coverage)	Vaccinated by 12 months of age (OPV4, DTP R1, MMR1 by 24 months)

^F The Hepatitis B birth dose is further disaggregated by timing of dose. For children with vaccination records, "Within 1 day" includes records of a dose given on the day of birth or the following day. For children relying on the mother's report, "Within 1 day" refers to the 24 hours following birth, as this is specifically used in the recall question. Cases with unknown timing are not shown in the disaggregate, but are included in the total, which therefore may present more cases than the sum of the disaggregate.

^G In Azerbaijan, children under age 3 years primarily receive vaccines against diphtheria, tetanus, pertussis and haemophilus influenzae type B through the combined DTP-HepB-Hib vaccine.

^H The measles vaccine is administered through the combined measles, mumps and rubella (MMR) vaccine in Azerbaijan to children age 12 months or later.

^I Basic antigens include: BCG, Polio3, DTP3 and Measles 1. In Azerbaijan, the MMR vaccine is received at age 12 months or later and is therefore excluded from "Basic antigens" for children age 12-23 months, and kept for children age 24-35 months. The value for MICS indicator TC.11a on coverage by basic antigens is therefore based on children age 24–35 months.

^J All antigens include: BCG, OPV4/IPV1, DTP Booster 1, HepB3, Hib3, PCV3, Rubella, Measles 1 and DTP revaccine 1 as per the vaccination schedule in Azerbaijan. OPV0, IPV2 and IPV3 are excluded because of either gradual phasing out (OPV0) or phasing in (IPV2), or because of limited use (IPV3 may be given as part of a hexavalent vaccine in private health facilities).

na: not applicable

Table TC.1.2A: Vaccinations by background characteristics (children age 12-23 months)

Percentage of children age 12-23 months currently vaccinated against vaccine preventable childhood diseases (Crude coverage), Azerbaijan, 2023

	Percentage of children age 12-23 months who received:																	Percentage with:		Number of children age 12-23 months
	BCG ¹	Polio ^A							HepB at birth ^C	DTP-HepB-Hib			PCV			Basic antigens ^D	No vaccinations	Vaccination records ^E	Vaccination records seen ^F	
		At birth ^B	OPV1	OPV2	OPV3	IPV1	IPV2	OPV3 & IPV1 ²		1	2	3 ^{3,4,5}	1	2	3 ⁶					
Total	90.8	80.2	77.9	65.2	56.9	54.6	29.3	41.6	90.2	62.8	55.4	46.6	67.9	56.0	46.4	43.7	6.0	90.1	88.6	457
Sex																				
Male	89.4	78.7	77.8	59.7	52.8	58.1	27.9	39.5	89.0	59.7	52.7	44.1	70.0	52.0	45.5	41.7	6.5	90.3	89.4	244
Female	92.5	82.0	78.0	71.5	61.7	50.5	31.0	44.0	91.6	66.3	58.5	49.4	65.5	60.5	47.5	46.1	5.5	90.0	87.7	213
Area																				
Urban	87.6	78.0	74.0	59.3	50.2	48.6	25.5	32.2	87.7	54.7	46.0	33.9	63.9	48.0	39.2	31.1	7.7	90.9	88.6	249
Rural	94.7	82.9	82.6	72.3	65.0	61.7	33.9	52.9	93.2	72.5	66.7	61.9	72.6	65.5	55.0	58.9	4.0	89.2	88.7	208
Economic region																				
Baku	(87.7)	(82.5)	(74.4)	(52.3)	(47.3)	(38.0)	(16.5)	(16.6)	(86.4)	(49.9)	(38.9)	(29.3)	(66.0)	(42.3)	(34.0)	(26.2)	(8.0)	(97.2)	(97.2)	114
Nakhchivan AR	(95.9)	(95.9)	(87.1)	(82.7)	(77.7)	(64.5)	(36.4)	(57.7)	(93.6)	(82.3)	(76.2)	(68.8)	(89.6)	(82.4)	(62.2)	(64.4)	(4.1)	(96.5)	(96.5)	17
Absheron-Khizi	(95.7)	(87.4)	(77.5)	(65.9)	(50.4)	(57.7)	(24.8)	(46.5)	(93.1)	(60.3)	(57.7)	(49.4)	(60.5)	(50.4)	(50.4)	(46.7)	(4.3)	(94.0)	(87.9)	43
Daghlig Shirvan	(93.1)	(79.5)	(72.7)	(55.5)	(37.2)	(33.4)	(21.8)	(23.8)	(89.8)	(53.7)	(43.0)	(26.0)	(52.0)	(36.9)	(33.3)	(26.0)	(4.2)	(89.5)	(89.5)	10
Ganja-Dashkasan	(91.6)	(78.8)	(80.0)	(64.0)	(62.0)	(60.1)	(36.5)	(51.4)	(90.4)	(63.3)	(55.3)	(55.3)	(68.3)	(60.2)	(55.7)	(53.7)	(4.2)	(87.5)	(84.4)	36
Karabakh	89.0	72.2	71.6	61.8	46.0	50.9	37.4	36.3	89.0	58.9	47.8	43.0	60.7	47.7	38.3	37.5	11.0	80.0	77.1	35
Gazakh-Tovuz	(74.4)	(63.7)	(74.4)	(67.8)	(67.8)	(69.2)	(10.4)	(62.6)	(89.9)	(63.9)	(63.9)	(57.4)	(71.2)	(67.8)	(63.9)	(53.9)	(6.6)	(86.4)	(86.4)	25
Guba-Khachmaz	(96.6)	(87.2)	(84.6)	(77.0)	(62.1)	(71.4)	(51.0)	(56.2)	(94.3)	(77.0)	(73.9)	(58.5)	(74.4)	(74.4)	(52.0)	(53.7)	(3.4)	(100.0)	(96.6)	34
Lankaran-Astara	(97.2)	(76.5)	(88.5)	(84.7)	(74.3)	(71.8)	(47.0)	(60.2)	(96.8)	(83.0)	(71.9)	(61.5)	(81.8)	(67.9)	(64.4)	(57.7)	(0.0)	(78.8)	(78.8)	35
Central Aran	(86.1)	(77.5)	(78.3)	(71.7)	(66.2)	(53.3)	(37.1)	(49.4)	(86.1)	(70.5)	(59.4)	(47.2)	(68.6)	(60.6)	(46.2)	(47.2)	(10.3)	(80.3)	(80.3)	36
Mil-Mughan	(95.6)	(74.2)	(81.1)	(59.1)	(54.5)	(55.1)	(23.9)	(50.0)	(86.1)	(58.6)	(55.1)	(52.7)	(52.8)	(52.7)	(43.2)	(50.6)	(2.3)	(80.1)	(75.6)	24
Shaki-Zagatala	(93.8)	(77.2)	(65.6)	(65.6)	(52.7)	(53.0)	(35.9)	(40.1)	(93.8)	(63.2)	(59.9)	(51.0)	(65.6)	(62.5)	(46.0)	(47.9)	(6.2)	(95.2)	(95.2)	27
Shirvan-Salyan	(93.3)	(86.9)	(86.9)	(71.9)	(65.3)	(66.2)	(22.0)	(53.2)	(93.3)	(64.2)	(61.0)	(46.3)	(74.3)	(58.3)	(40.8)	(46.3)	(6.7)	(90.1)	(90.1)	21

Table TC.1.2A: Vaccinations by background characteristics (children age 12-23 months)

Percentage of children age 12-23 months currently vaccinated against vaccine preventable childhood diseases (Crude coverage), Azerbaijan, 2023

	Percentage of children age 12-23 months who received:																	Percentage with:		Number of children age 12-23 months	
	BCG ¹	Polio ^A							HepB at birth ^C	DTP-HepB-Hib			PCV			Basic antigens ^D	No vaccinations	Vaccination records ^E	Vaccination records seen ^F		
		At birth ^B	OPV1	OPV2	OPV3	IPV1	IPV2	OPV3 & IPV1 ²		1	2	3 ^{3,4,5}	1	2	3 ⁶						
Mother's education																					
Primary, preschool or none	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	24
Lower secondary	88.4	68.4	72.7	66.0	57.3	56.4	28.0	48.4	89.0	63.1	53.9	48.9	63.1	54.1	47.0	48.3	5.8	82.3	82.3	79	
Upper secondary	95.5	87.2	88.2	77.1	67.6	59.9	37.9	51.1	92.9	78.0	73.6	58.4	72.6	63.7	55.5	52.6	3.4	90.7	90.0	158	
Vocational education	90.5	79.1	73.2	67.1	56.9	45.5	27.6	35.7	94.0	59.7	50.9	41.5	60.8	58.5	41.2	37.8	4.7	93.6	91.3	96	
Higher	83.5	76.5	72.4	45.2	40.3	52.3	18.6	25.2	82.1	40.1	32.2	29.0	70.7	43.0	35.1	29.0	13.0	91.2	87.5	100	
Wealth index quintile																					
Poorest	92.4	80.9	77.5	70.4	62.8	58.7	33.5	50.1	91.4	73.5	64.4	59.4	71.9	63.3	53.0	58.0	3.5	87.7	87.7	87	
Second	90.9	79.2	79.0	69.2	60.8	58.2	34.8	50.1	90.7	67.7	61.8	55.0	67.8	60.6	49.0	50.0	8.2	84.9	82.8	100	
Middle	91.4	78.3	81.5	72.3	60.2	63.8	35.4	51.1	91.4	66.9	62.0	48.6	70.1	59.8	52.2	46.6	5.7	91.4	91.4	87	
Fourth	85.5	70.9	72.7	66.6	57.5	43.5	26.4	37.5	82.0	64.0	60.3	38.6	56.8	51.3	41.2	36.6	8.3	90.9	87.8	83	
Richest	(93.2)	(89.9)	(78.3)	(49.6)	(44.8)	(48.5)	(17.5)	(21.0)	(94.3)	(44.2)	(31.6)	(32.1)	(71.6)	(45.7)	(37.4)	(28.6)	(4.6)	(95.7)	(93.4)	101	

¹ MICS indicator TC.1 - Tuberculosis immunization coverage

² MICS indicator TC.2 - Polio immunization coverage

³ MICS indicator TC.3 - Diphtheria, tetanus and pertussis (DTP) immunization coverage; SDG indicator 3.b.1 & 3.8.1

⁴ MICS indicator TC.4 - Hepatitis B immunization coverage

⁵ MICS indicator TC.5 - Haemophilus influenzae type B (Hib) immunization coverage

⁶ MICS indicator TC.6 - Pneumococcal (Conjugate) immunization coverage; SDG indicator 3.b.1

^A Prior to 2022, the vaccination schedule in Azerbaijan included one dose of the inactivated polio vaccine (IPV). Since 2022, the vaccination schedule includes two doses of IPV. Although the third dose of IPV is not part of the national immunisation calendar and is not shown in the table, data on IPV3 was collected in order to facilitate recording records from cards because some private health facilities administer a third dose of IPV through the combined hexavalent vaccine (DTP-HepB-Hib-IPV).

^B In 2022, the Polio at birth dose started to be phased out in Azerbaijan. For children with vaccination records, any record of Polio at birth is accepted. For children relying on mother's report, Polio at birth is a dose received within the first 2 weeks after birth.

^C Any record or report of a Hepatitis B birth dose is accepted regardless of timing

^D Basic antigens include: BCG, Polio3, DTP3 and Measles 1. In Azerbaijan, the MMR vaccine is received at age 12 months or later and is therefore excluded from "Basic antigens" for children age 12-23 months, and kept for children age 24-35 months. The value for MICS indicator TC.11a on coverage by basic antigens is therefore based on children age 24-35 months.

^E Vaccination card or other documents where the vaccinations are written down (includes health facility records and home-based records). For children with vaccination records, the immunisation coverage estimates for Azerbaijan are mainly based on health facility records.

^F Includes children for whom vaccination cards or other documents were observed with at least one vaccination dose recorded (Card availability)

(*) Figures that are based on fewer than 25 unweighted cases

(.) Figures that are based on 25-49 unweighted cases